SIEMENS

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

The worldwide standard for home and building control

KNX®

Answers for infrastructure and cities.
Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

"We are the trusted technology partner for energy-efficient, safe and secure buildings and infrastructure."

GAMMA
Building control

Product Catalog 2014

SIEMENS

GAMMA
Building control

Future-proof electrical installations based on KNX®

Product Catalog 2014

Refer to the HIT online catalog for current updates of this catalog: www.siemens.com/hit

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GAMMA *instabus* KNX

Future-proof building control for energy-efficient and comfortable rooms

Dear Customers and Partners,

Energy efficiency is a constant topic of discussion in business, politics and society. Some European countries have already decided to phase out nuclear energy, while others have placed the transition to the new energy policy high on their political agendas. But switching to renewable energy alone will not protect our climate. We must also begin to use existing resources more responsibly and energy more efficiently. Only then can we slow down the rate of climate change and preserve the planet for future generations. At the same time, it is important to maintain productivity and quality of life.

With innovative and environmentally friendly technologies, Siemens Ltd has been promoting environmental protection and the conscientious use of energy in buildings and rooms. All products and systems are designed for maximum comfort and minimum energy consumption.

GAMMA building control ensures optimum and energy-efficient control of energy resources in rooms. This includes the new flush-mounted Symaro™ sensors, which increase efficiency and room comfort thanks to their accurate measuring technology. A pleasant room temperature, glare-free lighting that maximizes the use of daylight, and on-demand ventilation do not have to be incompatible with energy-efficient room automation. Control functions are handled by new innovative control units that can be easily integrated into the environment. Easy operation, high-quality design and preprogrammed scenes help room occupants select a comfortable atmosphere in the room.

Benefit from our comprehensive range of innovative products, systems and tried-and-tested applications to enhance energy efficiency and comfort in rooms and to protect the environment.

Best regards,

Can old buildings be just as energy-efficient as new ones?

Intelligent and energy-efficient building technologies from Siemens reduce emissions and costs, in any building.

Setting a course for energy efficiency and comfort

Intelligent technologies for sustainable buildings

Industrial nations today are facing an enormous challenge: increasing energy efficiency and lowering CO_2 emissions without sacrificing comfort and quality of life. The answer is to use resources responsibly and switch to renewable energy sources.

Efficient energy use can slow down the rate of climate change and preserve our planet for future generations. Siemens believes it has a special responsibility in this context. Smart products and systems play a crucial role in saving energy around the world and using existing resources as efficiently as possible – without sacrificing comfort.

Future-proof KNX-based electrical installations

GAMMA building control plays a crucial role in making buildings and rooms more efficient. Energy and operating costs can be sustainably reduced by automatically controlling and regulating lighting, shading and the room climate.

For building operators, this means lower maintenance costs without sacrificing user comfort.

Thanks to the use of the internationally recognized KNX communication standard for home and building control, additional functions can be added easily and flexibly – without having to lay new lines.

Highlights

Maximum comfort with reduced energy consumption

Interdisciplinary building and room automation lowers maintenance costs

Investment protection and flexibility, thanks to the open KNX communication standard

The worldwide standard for home and building control

New developments

KNX-capable flush-mounted Symaro sensors

The communicating flush-mounted sensors measure multiple measured values and have an LED display for air quality status.

Page 12/XX

Room controller UP 204 Contouch

Control all disciplines in the room with a multi-function device in four new colors.

Page 1/XX

Room operator unit UP 227

The versatile room operator unit UP 227 controls and switches all room functions such as heating, ventilation, air conditioning, lighting and shading and electrical equipment.

Page 1/XX

KNX-based room thermostats

The flush-mounted RDF600KN is suitable for heating and cooling applications with fan coil systems and heat pumps.

Page 1/XX, 7/XX

Universal dimmer

Stage effective light scenes with the universal dimmer main modules and add-ons.

Page 5/XX

KNX/DALI Twin gateway

The KNX/DALI Twin gateway ensures maximum flexibility by controlling the lighting with both KNX- and DALI-capable sensors.

Page 5/XX, 11/XX

Multi-function room units QMX3..

The QMX3.. multi-function room units with control functions for the individual require-ments of all disciplines in the room.

Page 1/XX, 7/XX, 12/XX

The worldwide
standard
for home
and building
control

KNX®

6

GAMMA *instabus* – available in all DELTA product ranges

Increased safety and comfort with maximum efficiency – enabled by the building control on the basis of the global KNX standard – and compatible with all DELTA programs.

DELTA miro color

Titanium white

Aluminum metallic

DELTA style
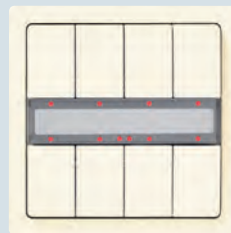
Titanium white

Platinum metallic

DELTA line

Titanium white

Aluminum metallic

DELTA miro Artist, Design Tom's Drag

Titanium white

Aluminum metallic

DELTA miro glass

Crystal green/aluminum metallic

White/titanium white

Black/aluminum metallic

Orient/titanium white
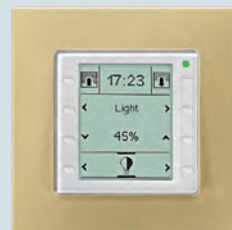
Arena/titanium white

DELTA miro aluminum

Natural/aluminum metallic

Titanium/titanium white

Graphite/titanium white

Yellow oxide/titanium white

Related products	Contents
Mall Internet information and ordering platform: www.siemens.com/industrymall	All automation, drive and installation products, including the products in the HVAC and GAMMA portfolios.
HVAC products and building automation and control systems	Standard controllers, software and communications control units, room automation, home automation systems, sensors, valves and actuators, damper actuators, variable speed drives, counters and consumption data acquisition.
Technical documentation for GAMMA products www.siemens.com/gamma-td	Here you will find all technical information about KNX products from Siemens, from product databases for ETS, descriptions of the individual application programs, technical product information, operating and installation manuals, bid texts and CE certificates.
HIT – HVAC Integrated Tool www.siemens.com/hit	This tool provides more than 300 preconfigured, standard HVAC configurations classified according to energy saving potential.
EPC – Energy Performance Classification Tool Contact your local Siemens representative for more information.	The EPC tool helps users determine the actual state of an existing building automation system and rates it according to one of four efficiency classes (A through D). Another function of the EPC tool is to help users determine the profitability of modernization measures and to quickly prepare customized documentation.
DIN-Bauportal www.din-bauportal.com/siemens	This tool lets you compile product descriptions and specifications and download them in various formats – online and STLB-Bau-compliant.
Training for ETS and KNX www.siemens.com/gamma	We offer a wide selection of courses for qualified training and future-proof specialization: KNX basic and advanced courses, KNX/DALI diagnosis/troubleshooting, KNXnet/IP fundamentals, KNX trainer seminar, course for migrating from ETS2/3 to ETS4.

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Order number index

Order No.	Page	DT	PG	Order No.	Page	DT	PG
Numerics				5TG1112-2	1-46	A	1 unit
4AC2402	1-35	B	1 unit	5TG1113-0	1-45	A	1 unit
5TC1230	16-15	A	1 unit	5TG1113-1	1-45	A	1 unit
5TC1231	16-16	A	1 unit	5TG1113-2	1-46	A	1 unit
5TC1232	16-12	A	1 unit	5TG1114-0	1-45	A	1 unit
5TC1233	19-8	B	1 unit	5TG1114-1	1-45	A	1 unit
5TC1301	19-7	A	1 unit	5TG1114-2	1-46	A	1 unit
5TC1303	19-7	A	1 unit	5TG1115-0	1-45	A	1 unit
5TC1321	19-7	A	1 unit	5TG1115-1	1-45	A	1 unit
5TC1323	19-7	B	1 unit	5TG1115-2	1-46	A	1 unit
5TC1500	19-11	A	1 unit	5TG1121-0	1-50	X	1 unit
5TC1501	19-11	A	1 unit	5TG1121-1	1-50	X	1 unit
5TC1502	19-12	A	1 unit	5TG1121-2	1-51	A	1 unit
5TC1503	19-9	A	1 unit	5TG1121-3	1-51	X	1 unit
5TC1504	19-9	A	1 unit	5TG1122-0	1-50	A	1 unit
5TC1505	19-10	A	1 unit	5TG1122-1	1-50	A	1 unit
5TC1506	19-10	A	1 unit	5TG1122-2	1-51	A	1 unit
5TC1507	19-9	A	1 unit	5TG1122-3	1-51	A	1 unit
5TC1508	19-9	A	1 unit	5TG1123-0	1-50	A	1 unit
5TC1510	19-10	A	1 unit	5TG1123-1	1-50	X	1 unit
5TC1511	19-10	A	1 unit	5TG1123-2	1-51	A	1 unit
5TC1537	19-9	A	1 unit	5TG1123-3	1-51	X	1 unit
5TC1537-1	19-9	A	1 unit	5TG1124-0	1-50	A	1 unit
5TC1542	19-9	X	1 unit	5TG1124-1	1-50	A	1 unit
5TC1542-1	19-9	A	1 unit	5TG1124-2	1-51	X	1 unit
5TC1546	19-10	B	1 unit	5TG1124-3	1-51	A	1 unit
5TC1546-1	19-10	A	1 unit	5TG1125-0	1-50	A	1 unit
5TC1551	19-10	A	1 unit	5TG1125-1	1-50	X	1 unit
5TC1551-1	19-10	A	1 unit	5TG1125-2	1-51	A	1 unit
5TC7210	19-13	A	1 unit	5TG1125-3	1-51	X	1 unit
5TC7211	19-13	A	1 unit	5TG1131-0	1-44	X	1 unit
5TC7212	19-13	A	1 unit	5TG1132-0	1-44	C	1 unit
5TC7213	19-13	A	1 unit	5TG1133-0	1-44	B	1 unit
5TC7214	19-13	A	1 unit	5TG1134-0	1-44	A	1 unit
5TC7215	19-13	A	1 unit	5TG1201	1-47	A	1 unit
5TC7900	12-8	A	1 unit	5TG1201-1	1-47	X	1 unit
5TC7901	12-8	A	1 unit	5TG1201-2	1-48	A	1 unit
5TC7902	12-9	A	1 unit	5TG1201-3	1-48	X	1 unit
5TC8300-0	18-3	A	1 unit	5TG1201-4	1-49	A	1 unit
5TC9200	19-15	A	1 unit	5TG1202	1-47	A	1 unit
5TC9201	19-15	A	1 unit	5TG1202-1	1-47	A	1 unit
5TC9202	19-16	A	1 unit	5TG1202-2	1-48	X	1 unit
5TC9203	19-16	A	1 unit	5TG1202-3	1-48	A	1 unit
5TC9221	19-17	A	1 unit	5TG1202-4	1-49	X	1 unit
5TC9223	19-17	A	1 unit	5TG1203	1-47	A	1 unit
5TC9224	19-18	A	1 unit	5TG1203-1	1-47	X	1 unit
5TC9225	19-18	A	1 unit	5TG1203-2	1-48	A	1 unit
5TC9250	19-17	A	1 unit	5TG1203-3	1-48	X	1 unit
5TC9252	19-17	A	1 unit	5TG1203-4	1-49	A	1 unit
5TC9254	19-18	A	1 unit	5TG1204	1-47	A	1 unit
5TC9255	19-18	A	1 unit	5TG1204-1	1-47	A	1 unit
5TC9256	19-17	A	1 unit	5TG1204-2	1-48	X	1 unit
5TC9256-1	19-17	A	1 unit	5TG1204-3	1-48	A	1 unit
5TC9261	19-18	A	1 unit	5TG1204-4	1-49	X	1 unit
5TG1111-0	1-45	A	1 unit	5TG1205	1-47	A	1 unit
5TG1111-1	1-45	A	1 unit	5TG1205-1	1-47	X	1 unit
5TG1111-2	1-46	A	1 unit	5TG1205-2	1-48	A	1 unit
5TG1112-0	1-45	A	1 unit	5TG1205-3	1-48	X	1 unit
5TG1112-1	1-45	A	1 unit	5TG1205-4	1-49	A	1 unit

NEW PRODUCTS

Order number index

Order No.	Page	DT	PG	Order No.	Page	DT	PG
5TG1250	16-10	A	1 unit	5TG2584-2	1-42	A	1 unit
5TG1321	1-52	A	1 unit	5TG2585-0	1-39	A	1 unit
5TG1321-1	1-53	X	1 unit	5TG2861	1-56	A	1 unit
5TG1322	1-52	A	1 unit	5TG2862	1-56	A	1 unit
5TG1322-1	1-53	A	1 unit	5TG2863	1-56	A	1 unit
5TG1323	1-52	A	1 unit	5TG2901	1-56	A	1 unit
5TG1323-1	1-53	A	1 unit	5TG2902	1-56	A	1 unit
5TG1324	1-52	A	1 unit	5TG2903	1-56	A	1 unit
5TG1324-1	1-53	A	1 unit	5TG4324	1-15	A	1 set
5TG1325	1-52	A	1 unit	5TG7318	3-7	A	1 unit
5TG1325-1	1-53	A	1 unit	5WG1110-2AB03	14-9	A	1 unit
5TG1328	1-53	A	1 unit	5WG1110-2AB11	14-9	A	1 unit
5TG1328-1	1-53	A	1 unit	5WG1110-2CB03	14-10	B	1 unit
5TG1330	16-10	A	1 unit	5WG1114-2AB02	14-9	A	1 unit
5TG1361	1-52	A	1 unit	5WG1115-3AB01	1-16	X	1 unit
5TG1362	1-52	A	1 unit	5WG1115-3AB11	1-16	X	1 unit
5TG1363	1-52	A	1 unit	5WG1115-3AB21	1-16	A	1 unit
5TG1364	1-52	A	1 unit	5WG1115-3AB31	1-17	A	1 unit
5TG1365	1-52	A	1 unit	5WG1116-2AB01	1-14	A	1 unit
5TG1368	1-53	A	1 unit	5WG1116-2AB11	1-14	A	1 unit
5TG2551-0	1-39	A	1 unit	5WG1116-2AB21	1-14	A	1 unit
5TG2551-1	1-41	A	1 unit	5WG1116-2AB31	1-15	A	1 unit
5TG2551-3	1-40	A	1 unit	5WG1117-2AB12	14-9	X	1 unit
5TG2551-4	1-43	A	1 unit	5WG1118-4AB01	10-3	A	1 unit
5TG2551-6	1-40	A	1 unit	5WG1120-1AB02	14-12	A	1 unit
5TG2551-7	1-43	A	1 unit	5WG1125-1AB02	14-12	A	1 unit
5TG2552-0	1-39	A	1 unit	5WG1125-1AB12	14-12	X	1 unit
5TG2552-1	1-41	A	1 unit	5WG1125-1AB22	14-12	A	1 unit
5TG2552-2	1-41	A	1 unit	5WG1140-1AB03	14-13	A	1 unit
5TG2552-3	1-40	A	1 unit	5WG1140-1AB13	14-13	A	1 unit
5TG2552-4	1-43	A	1 unit	5WG1141-1AB02	5-20	A	1 unit
5TG2552-5	1-43	A	1 unit	5WG1141-1AB31	5-18	A	1 unit
5TG2552-6	1-40	A	1 unit	5WG1141-2AB51	5-19	A	1 unit
5TG2552-7	1-43	A	1 unit	5WG1141-2AB71	5-19	B	1 unit
5TG2552-8	1-43	A	1 unit	5WG1146-1AB02	11-9	A	1 unit
5TG2553-0	1-39	A	1 unit	5WG1146-2EB11	11-15	A	1 unit
5TG2553-1	1-41	A	1 unit	5WG1148-1AB11	11-15	A	1 unit
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5TG2553-3	1-40	A	1 unit	5WG1151-1AB01	1-60	A	1 unit
5TG2553-6	1-40	A	1 unit	5WG1190-8AB01	14-17	A	1 unit
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5TG2554-1	1-41	A	1 unit	5WG1190-8AB03	14-19	A	1 unit
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5TG2554-6	1-40	A	1 unit	5WG1190-8AB12	14-18	B	1 unit
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5TG2555-3	1-40	A	1 unit	5WG1190-8AB14	14-20	B	1 unit
5TG2555-6	1-40	A	1 unit	5WG1190-8AB21	14-17	B	1 unit
5TG2558	16-10	A	1 unit	5WG1190-8AB22	14-18	B	1 unit
5TG2581-0	1-39	A	1 unit	5WG1190-8AB23	14-19	B	1 unit
5TG2581-1	1-42	A	1 unit	5WG1190-8AB24	14-20	B	1 unit
5TG2582-0	1-39	A	1 unit	5WG1190-8AB31	14-17	B	1 unit
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5TG2582-2	1-42	A	1 unit	5WG1190-8AB33	14-19	B	1 unit
5TG2583-0	1-39	A	1 unit	5WG1190-8AB34	14-20	B	1 unit
5TG2583-1	1-42	A	1 unit	5WG1190-8AB41	14-17	B	1 unit
5TG2583-2	1-42	A	1 unit	5WG1190-8AB42	14-18	B	1 unit
5TG2584-0	1-39	A	1 unit	5WG1190-8AB43	14-19	A	1 unit
5TG2584-1	1-42	A	1 unit	5WG1190-8AB44	14-20	B	1 unit

NEW PRODUCTS

Order number index

Order No.	Page	DT	PG	Order No.	Page	DT	PG
5WG1190-8AB51	14-17	B	1 unit	5WG1257-3AB22	6-14	B	1 unit
5WG1190-8AB52	14-18	B	1 unit	5WG1257-3AB32	6-14	B	1 unit
5WG1190-8AB53	14-19	B	1 unit	5WG1257-3AB42	12-12	B	1 unit
5WG1190-8AB54	14-20	B	1 unit	5WG1258-1AB02	7-7	B	1 unit
5WG1190-8AD01	14-16	B	1 unit	5WG1258-2DB11	5-23	X	1 unit
5WG1192-8AA01	14-16	X	1 unit	5WG1258-2EB21	5-23	B	1 unit
5WG1193-8AB01	14-16	A	1 unit	5WG1258-2HB11	12-5	A	1 unit
5WG1196-2AB01	14-10	D	1 unit	5WG1258-2HB12	12-5	B	1 unit
5WG1204-2AB11	1-34	X	1 unit	5WG1258-2HB31	12-5	C	1 unit
5WG1204-2AB21	1-34	A	1 unit	5WG1258-2HB32	12-5	B	1 unit
5WG1204-2AB31	1-34	A	1 unit	5WG1258-7EB01	12-7	A	1 unit
5WG1204-2AB51	1-34	A	1 unit	5WG1260-1AB01	3-5	X	1 unit
5WG1204-8AB01	1-35	A	1 unit	5WG1260-4AB23	3-6	A	1 unit
5WG1220-2AB21	3-7	A	1 unit	5WG1261-1AB01	3-5	X	1 unit
5WG1220-2DB31	3-7	X	1 unit	5WG1261-1CB01	3-5	B	1 unit
5WG1221-2AB11	16-8	X	1 unit	5WG1262-1EB01	3-5	A	1 unit
5WG1221-2AB31	16-8	B	1 unit	5WG1262-1EB11	3-5	A	1 unit
5WG1221-2DB12	1-11	X	1 unit	5WG1263-1EB01	3-5	A	1 unit
5WG1221-2DB13	1-11	X	1 unit	5WG1263-1EB11	3-5	A	1 unit
5WG1221-2DB32	1-11	A	1 unit	5WG1264-1EB11	3-5	A	1 unit
5WG1221-2DB33	1-11	X	1 unit	5WG1272-2AB11	9-4	D	1 unit
5WG1222-2AB11	16-8	B	1 unit	5WG1285-2AB11	16-10	A	1 unit
5WG1222-2AB31	16-8	A	1 unit	5WG1285-2AB41	16-10	A	1 unit
5WG1222-2DB12	1-11	A	1 unit	5WG1285-2DB12	1-12	A	1 unit
5WG1222-2DB13	1-11	X	1 unit	5WG1285-2DB13	1-12	X	1 unit
5WG1222-2DB32	1-11	A	1 unit	5WG1285-2DB42	1-12	A	1 unit
5WG1222-2DB33	1-11	X	1 unit	5WG1285-2DB43	1-12	A	1 unit
5WG1223-2DB12	1-11	A	1 unit	5WG1286-2AB11	16-10	A	1 unit
5WG1223-2DB13	1-11	X	1 unit	5WG1286-2AB41	16-10	A	1 unit
5WG1223-2DB15	1-11	A	1 unit	5WG1286-2DB12	1-12	X	1 unit
5WG1223-2DB32	1-11	X	1 unit	5WG1286-2DB13	1-12	A	1 unit
5WG1223-2DB33	1-11	A	1 unit	5WG1286-2DB42	1-12	X	1 unit
5WG1223-2DB35	1-11	X	1 unit	5WG1286-2DB43	1-12	A	1 unit
5WG1227-2AB11	1-36	A	1 unit	5WG1287-2AB14	1-12	A	1 unit
5WG1237-2EB11	1-18	A	1 unit	5WG1287-2AB44	1-12	B	1 unit
5WG1237-2EB31	1-18	A	1 unit	5WG1287-2DB12	1-12	X	1 unit
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5WG1237-2FB31	1-18	A	1 unit	5WG1287-2DB15	1-13	X	1 unit
5WG1237-2KB11	1-20	A	1 unit	5WG1287-2DB42	1-12	A	1 unit
5WG1237-2KB31	1-20	A	1 unit	5WG1287-2DB43	1-12	X	1 unit
5WG1240-8CB11	1-55	C	1 unit	5WG1287-2DB45	1-13	A	1 unit
5WG1251-3AB11	12-8	A	1 unit	5WG1290-7AB11	7-26	B	1 unit
5WG1251-3AB21	12-8	A	1 unit	5WG1290-7AB81	7-26	B	1 unit
5WG1254-2EB11	1-19	A	1 unit	5WG1294-8AB01	14-10	X	1 unit
5WG1254-2EB41	1-19	B	1 unit	5WG1301-1AB01	13-7	A	1 unit
5WG1254-2FB11	7-10	A	1 unit	5WG1302-1AB01	13-6	A	1 unit
5WG1254-2FB41	7-10	B	1 unit	5WG1305-1AB01	13-5	A	1 unit
5WG1254-2KB13	1-21	A	1 unit	5WG1341-1AB01	13-6	B	1 unit
5WG1254-2KB43	1-21	A	1 unit	5WG1342-1AB01	5-26	X	1 unit
5WG1254-3EY02	12-11	A	1 unit	5WG1345-1AB01	9-3	B	1 unit
5WG1255-4AB11	5-25	C	1 unit	5WG1347-1AB02	13-5	A	1 unit
5WG1255-4AB12	5-25	C	1 unit	5WG1350-1AB01	13-5	A	1 unit
5WG1255-4AB13	5-25	B	1 unit	5WG1350-1EB01	11-10	A	1 unit
5WG1255-7AB01	12-10	B	1 unit	5WG1360-1AB01	8-3	A	1 unit
5WG1255-7AB11	12-6	A	1 unit	5WG1371-5EY01	13-8	A	1 unit
5WG1257-2AB13	12-5	B	1 unit	5WG1372-5EY01	13-9	B	1 unit
5WG1257-2AB14	12-5	B	1 unit	5WG1372-5EY02	13-9	A	1 unit
5WG1257-2AB41	12-5	B	1 unit	5WG1390-3EY01	13-9	A	1 unit
5WG1257-2AB42	12-5	B	1 unit	5WG1420-3AB13	1-32	B	1 unit

NEW PRODUCTS

Order number index

NEW PRODUCTS

Order number index

Order No.	Page	DT	PG	Order No.	Page	DT	PG
5WG4222-3AB31	17-4	A	1 unit	BPZ:QFA1001	12-27	A	1 unit
5WG4222-3AB32	17-4	A	1 unit	BPZ:QFA2000	12-26	A	1 unit
6BK1700-0BA00-0AA2	11-20	C	1 unit	BPZ:QFA2060	12-26	A	1 unit
6ED1050-1AA00-0AE8	13-14	A	1 unit	BPZ:QFA2060D	12-26	A	1 unit
6ED1050-1AA00-0BE8	13-14	A	1 unit	BPZ:QLS60	12-31	A	1 unit
6ED1052-1FB00-0BA6	13-10	A	1 unit	BPZ:QPA2000	12-30	A	1 unit
6ED1052-1FB00-0BA7	13-10	A	1 unit	BPZ:QPA2002	12-30	A	1 unit
6ED1052-1MD00-0BA6	13-10	A	1 unit	BPZ:QPA2060	12-30	A	1 unit
6ED1052-1MD00-0BA7	13-10	A	1 unit	BPZ:QPA2062	12-30	A	1 unit
6ED1055-1FB00-0BA1	13-11	A	1 unit	BPZ:QPA2062D	12-30	A	1 unit
6ED1055-1MA00-0BA0	13-11	X	1 unit	BPZ:RRV912	16-26	A	1 unit
6ED1055-1MB00-0BA1	13-11	X	1 unit	BPZ:RRV918	16-27	A	1 unit
6ED1055-1MD00-0BA1	13-12	A	1 unit	BPZ:RRV934	16-28	A	1 unit
6ED1055-1MM00-0BA1	13-12	A	1 unit	BPZ:RXB21.1/FC-10	7-24	A	1 unit
6ED1056-1DA00-0BA0	13-14	A	1 unit	BPZ:RXB21.1/FC-11	7-25	A	1 unit
6ED1056-6XA00-0BA0	13-14	A	1 unit	BPZ:RXB22.1/FC-12	7-25	A	1 unit
6ED1056-7DA00-0BA0	13-14	A	1 unit	BPZ:RXB24.1/CC-02	7-25	A	1 unit
6ED1057-1AA00-0BA0	13-14	A	1 unit	BPZ:RXZ20.1	7-26	A	1 unit
6ED1057-1AA01-0BA0	13-14	A	1 unit	BPZ:SSA955	16-30	A	1 unit
6ED1058-0BA02-0YA1	13-14	C	1 unit				
6EP1321-1SH03	13-12	A	1 unit	**S**			
6EP1322-1SH03	13-13	A	1 unit	S55174-A100	7-30	A	1 unit
6EP1331-1SH03	13-13	B	1 unit	S55174-A101	7-30	A	1 unit
6EP1332-1SH43	13-13	X	1 unit	S55174-A103	7-30	A	1 unit
6EP1332-1SH52	13-14	A	1 unit	S55174-A106	7-30	A	1 unit
6XV1850-2GH20	13-14	A	1 unit	S55371-C100	16-29	A	1 unit
7KT1531	15-3	B	1 unit	S55499-D134	7-27	C	1 unit
7KT1533	15-3	C	1 unit	S55499-D135	7-27	A	1 unit
7KT1540	15-4	C	1 unit	S55621-H103	16-31	A	1 unit
7KT1542	15-4	C	1 unit	S55621-H104	16-31	A	1 unit
7KT1543	15-4	B	1 unit	S55621-H105-C901	16-30	A	1 unit
7KT1545	15-4	C	1 unit	S55621-H110	16-21	A	1 unit
7KT1546	15-4	B	1 unit	S55621-H111	16-22	A	1 unit
7KT1548	15-4	C	1 unit	S55621-H112	16-23	A	1 unit
7KT1900	15-3	B	1 unit	S55623-H104	17-5	A	1 unit
				S55623-H105	17-5	A	1 unit
B				S55623-H106	17-6	A	1 unit
BPZ:AV51	7-30	A	1 unit	S55623-H107	17-6	A	1 unit
BPZ:AV52	7-30	A	1 unit	S55624-H103	12-16	A	1 unit
BPZ:AV54	7-30	A	1 unit	S55624-H104	12-16	A	1 unit
BPZ:AV55	7-30	A	1 unit	S55624-H105	1-29	A	1 unit
BPZ:AV57	7-30	A	1 unit	S55624-H106	1-30	A	1 unit
BPZ:AV58	7-30	A	1 unit	S55624-H107	1-28	A	1 unit
BPZ:AV59	7-30	A	1 unit	S55624-H108	1-29	A	1 unit
BPZ:AV60	7-30	A	1 unit	S55720-S134	12-21	A	1 unit
BPZ:AV61	7-30	A	1 unit	S55720-S136	12-22	A	1 unit
BPZ:ERF910	16-29	A	1 unit	S55720-S137	12-15	A	1 unit
BPZ:OZW772.01	16-24	A	1 unit	S55720-S140	12-17	A	1 unit
BPZ:QAA2012	12-23	A	1 unit	S55720-S141	12-17	A	1 unit
BPZ:QAA2061	12-23	A	1 unit	S55720-S142	12-22	A	1 unit
BPZ:QAA2061D	12-23	A	1 unit	S55720-S143	12-22	A	1 unit
BPZ:QAA910	16-24	A	1 unit	S55720-S144	12-22	A	1 unit
BPZ:QAC2012	12-24	A	1 unit	S55720-S145	12-22	A	1 unit
BPZ:QAC3161	12-24	A	1 unit	S55720-S146	12-28	A	1 unit
BPZ:QAC910	16-25	A	1 unit	S55720-S147	12-29	A	1 unit
BPZ:QAD2012	12-23	A	1 unit	S55720-S148	12-29	A	1 unit
BPZ:QAW910	16-23	A	1 unit	S55720-S149	12-28	A	1 unit
BPZ:QAX84.1/PPS2	7-26	A	1 unit	S55720-S150	12-29	A	1 unit
BPZ:QFA1000	12-26	A	1 unit	S55720-S151	12-29	A	1 unit

Order number index

Order No.	Page	DT	PG	Order No.	Page	DT	PG
S55720-S152	12-28	A	1 unit				
S55720-S153	12-29	A	1 unit				
S55720-S154	12-29	A	1 unit				
S55720-S155	12-28	A	1 unit				
S55720-S156	12-29	A	1 unit				
S55720-S157	12-29	A	1 unit				
S55720-S160	1-54	A	1 unit				
S55720-S161	1-37	A	1 unit				
S55720-S162	1-37	A	1 unit				
S55720-S163	1-37	A	1 unit				
S55720-S164	1-37	A	1 unit				
S55720-S203	12-15	A	1 unit				
S55720-S204	12-15	A	1 unit				
S55720-S205	12-15	C	1 unit				
S55720-S206	12-15	C	1 unit				
S55720-S207	12-19	A	1 unit				
S55720-S208	12-19	A	1 unit				
S55720-S209	12-19	C	1 unit				
S55720-S210	12-19	C	1 unit				
S55720-S219	12-19	A	1 unit				
S55770-T104	1-22	A	1 unit				
S55770-T105	1-22	D	1 unit				
S55770-T106	1-24	A	1 unit				
S55770-T137	1-24	A	1 unit				
S55770-T163	1-25	A	1 unit				
S55770-T165	1-27	A	1 unit				
S55770-T293	1-23	A	1 unit				
S55770-T297	1-26	A	1 unit				
S55842-Z101	11-19	A	1 unit				

NEW PRODUCTS

1

Display and Operation Units
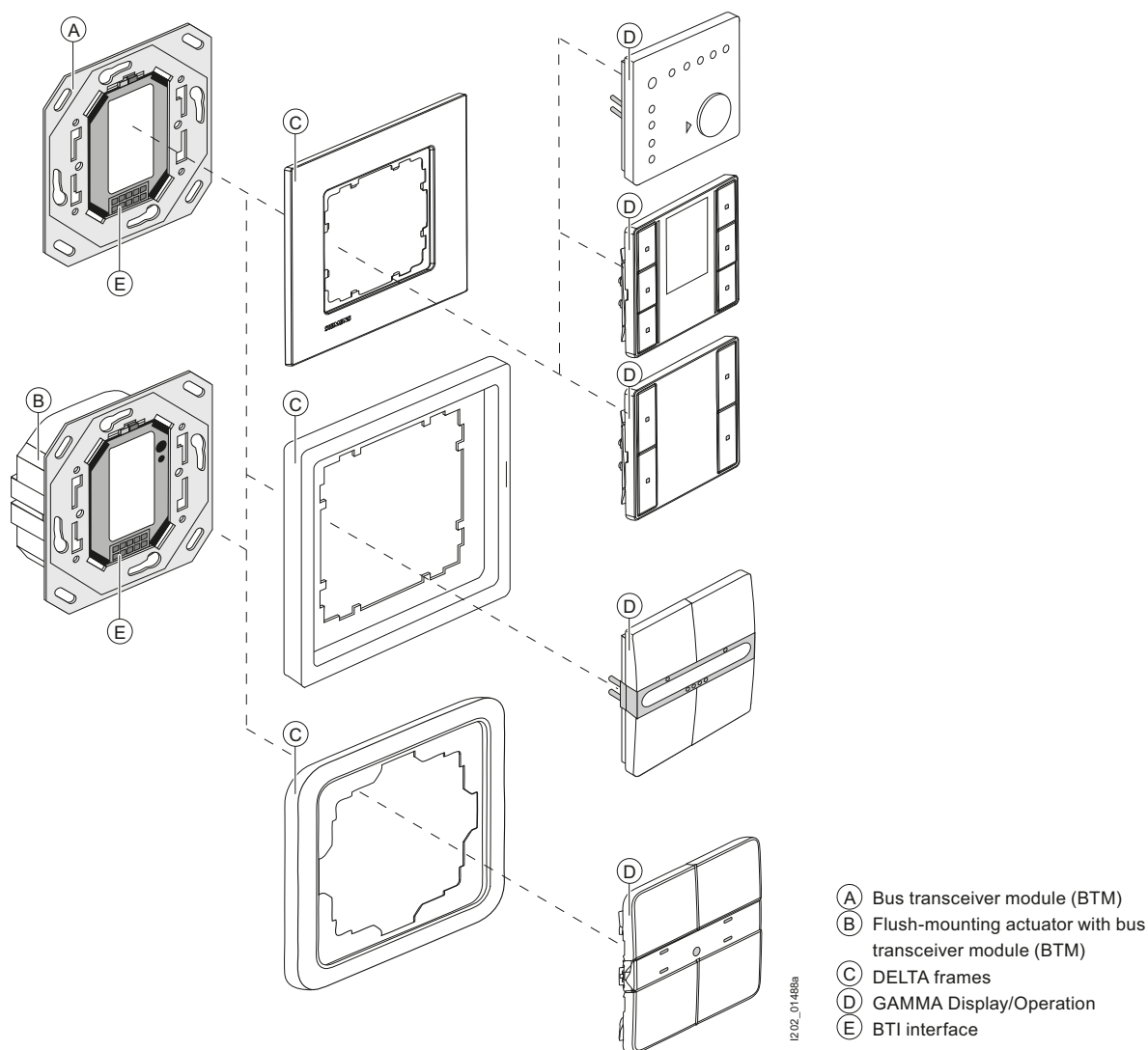**Overview and selection guides**
Pushbuttons bus transceiver module (BTM)

Modular bus transceiver module and flush-mounting actuator

A key feature of the GAMMA _instabus_ is its uniform bus transceiver module. The bus transceiver module (BTM) can be used as a stand-alone unit, as well as a combined version in various devices of the flush-mounting actuator range.
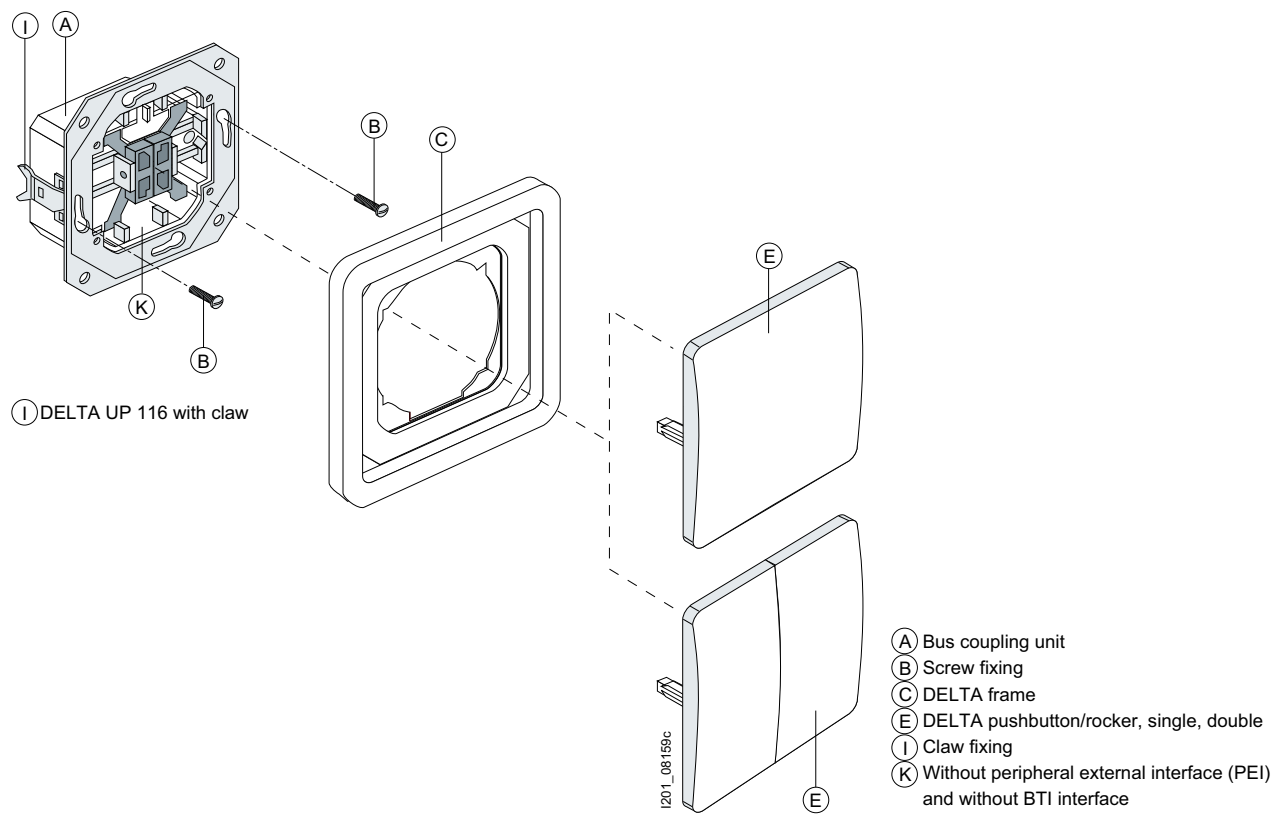
Implementation of the BTI interface (Bus Transceiver Interface) with the bus transceiver module (BTM) ensures maximum flexibility and an impressive range of functions. Bus coupling units (BTM) and flush-mounting actuators with integrated bus transceiver modules (BTM) enable the use of GAMMA display/operator interfaces, such as pushbuttons, text displays, room temperature controllers and operation units in a wide range of designs. Thus, all GAMMA instabus operator interfaces with BTI interface in the design lines i-system and DELTA style/profil can be combined with either a bus transceiver module (BTM) or a flush-mounting actuator with bus transceiver module (BTM).

This reduces planning work and facilitates installation and commissioning. The application programs of the flush-mounting actuators are identical to those of the functionally equivalent devices from the modular room control range. This means that all devices have the same standard application program - regardless of mounting type - whether flush-mounting, with or without mounting frame - or whether designed for installation in the room control box and automation module box.

Ⓐ Bus transceiver module (BTM)
Ⓑ Flush-mounting actuator with bus transceiver module (BTM)
Ⓒ DELTA frames
Ⓓ GAMMA Display/Operation
Ⓔ BTI interface

1

Display and Operation Units
Overview and selection guides
Pushbuttons for DELTA bus coupling units

Operator interfaces with DELTA bus coupling unit

Ⓘ DELTA UP 116 with claw

Ⓐ Bus coupling unit
Ⓑ Screw fixing
Ⓒ DELTA frame
Ⓔ DELTA pushbutton/rocker, single, double
Ⓘ Claw fixing
Ⓚ Without peripheral external interface (PEI)
    and without BTI interface

I201_08159c

1

Display and Operation Units
Overview and selection guides
Pushbuttons with IR receiver decoder

Overview IR products

IR products are available for the remote control of room functions. Compared to radio solutions, IR is particularly interesting because

- there are applications in which radio-based remote control is not permitted (e. g. hospitals)
- the frequencies used are not allowed in all countri

Application

- Remote control of room functions: Lighting, sun protection, room climate, scenes, etc.
- Mounting on "movable" walls
- Use in hospitals where radio solutions are often prohibited
- Additional room functions which can be operated only by remote control (e. g. by service personnel, doctors, teachers, etc.)

◻ KNX

IR hand-held transmitter

IR receiver decoder

Actuators

I202_01293

IR wall-mounted transmitter

Wall Switch with IR receiver decoder
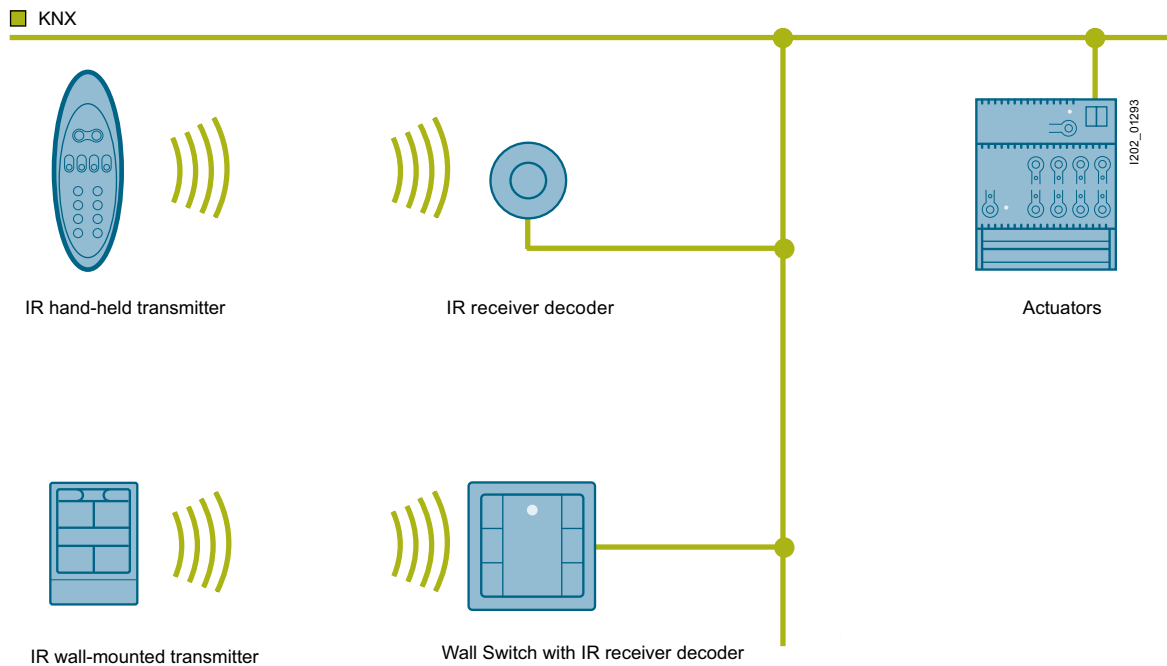
System overview of IR products

Overview ComBridge Studio Evolution

IPAS is one of the leading providers of web-based visualization. With ComBridge Studio Suite, the HTML-based visualization software, IPAS was already able to offer solutions for individual large-scale projects, such as airports, shopping centers, administration buildings and distributed locations.

All this experience flowed into the latest development of ComBridge Studio Evolution, which now permits extremely high quantities of data, or hundreds of KNXnet/IP interfaces in a project with several hundred users to be realized. As well as the representation of statuses and the operation of functions, ComBridge Studio Evolution offers optimum support for the configuration of complex functions, such as scenes, yearly programs, graphical logics and much, much more. Based on Adobe Flash, it now couldn't be easier to insert design-oriented elements and functions in visualizations, so that mapping the actual situation is child's play.

ComBridge Studio Evolution also now enables the representation of even complex database analyses in an individual and attractive design. A particular highlight of ComBridge Studio Evolution is the Smart Metering module This module analyses consumption data that are stored in the database. Based on current consumption data, the Smart Metering module calculates the probable weekly, monthly and yearly consumption, so that users are always informed as to what costs are generated by their energy consumption in a given period. It is also possible to graphically compare different periods and evaluate them. The consumption data can be evaluated directly from KNX counters, such as Siemens energy counters (see Chapter Counters).

Another huge advantage is that it is operating system-independent ComBridge Studio Evolution is configured directly on the ComBridge Studio Evolution server. The application tool is a standard browser in connection with Adobe Flash Player. Adobe Flash Player can be downloaded free from the Internet.

For further information:
www.ipas-products.com
Order address::
IPAS GmbH
Hölscherstrasse 27
47167 Duisburg, Germany
Telephone: +49 203 37867-0
Fax: +49 203 37867-10
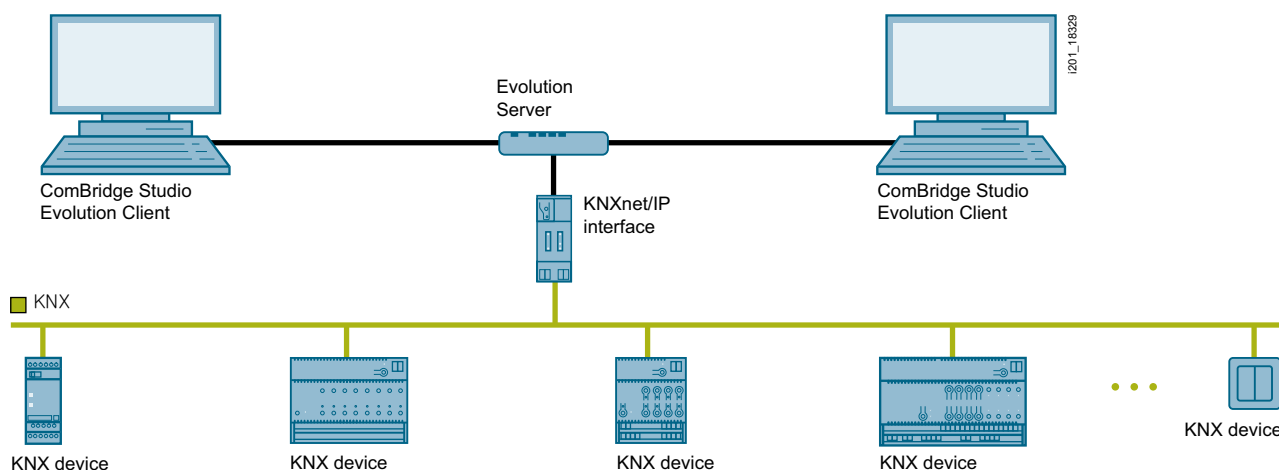
Display and Operation Units
Technical specifications
### Pushbuttons bus transceiver module (BTM)

Design	i-system								DELTA style							
Type	UP 221/.2	UP 221/.3	UP 222/.2	UP 222/.3	UP 223/.2	UP 223/.3	UP 223/.4	UP 223/.5	UP 285/.2	UP 285/.3	UP 286/.2	UP 286/.3	UP 287/.2	UP 287/.3	UP 287/.4	UP 287/.5
Application program[1]	909301															
Enclosure data																
Dimensions																
• Width [mm]	55								68							
• Height [mm]	55								68							
• Depth [mm]	11								14							
Display/control elements																
Individual pushbuttons	2	2	4	4	6	6	6	6	2	2	4	4	8	8	8	8
Pushbutton pairs	1	1	2	2	3	3	3	3	1	1	2	2	4	4	4	4
Operation (v: vertical, h: horizontal)	h	h	h	h	h	h	h	h	v	v	v	v	v	v	v	v
LED per pushbutton pair for status indication		2		2		2	2	2		2		2		2	2	2
LED for orientation light (ON/OFF configurable/dimmable)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
IR activity display configurable via LED								■								■
LED brightness configurable and controllable via object	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bus connection																
For plugging onto a bus transceiver module (BTM) or a flush-mounting actuator with bus transceiver module (BTM)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Inputs																
IR receiver decoder								■								■
IR channels in blocks of 64								16								16
Integrated room temperature sensor							■								■	
Input functions																
Switching																
Switching ON/OFF/OVER	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Pushbutton function (bell function)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dimming																
Dimming with stop telegram (4-bit) Short button press, ON/OFF Long button press, BRIGHTER/DARKER	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
One-pushbutton dimming	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Value transmission																
8 bit/percent/16 bit	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Brightness value	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Temperature value	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Positively driven operation	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Time-delayed transmission of a second telegram, depending on main function	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Button deactivation	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Shutter/blind																
Shutter/blind control short button press, slat OPEN/CLOSED or STOP, long button press, UP/DOWN	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
One-pushbutton sun protection	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Scene																
Integrated 8-bit scene control (channels)							8	8							8	8
Assignments per channel							8	8							8	8
Store and call up scene, 8-bit	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Store and call up scene, 1-bit	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Short or long button press (store/call up scene), configurable	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Status																
LED on/off/flashing depending on the value (1 bit/8 bit/16 bit)		■		■		■	■	■		■		■		■	■	■
Pushbutton operation display configurable via LED		■		■		■	■	■		■		■		■	■	■

[1] For current application programs, see www.siemens.com/gamma-td.

Type	UP 116/01	UP 116/11	UP 116/21	UP 116/31
Application program[1]	211001	221001	210F01	220F01
Enclosure data				
For installation in flush-mounting switch and socket boxes with Ø = 60 mm	■	■	■	■
Dimensions				
• Width [mm]	71	71	71	71
• Height [mm]	71	71	71	71
• Depth [mm]	32	32	32	32
Mounting type				
Claw fixing	■	■	■	■
Screw fixing	■	■	■	■
Display/control elements				
LED per pushbutton pair for status indication or configurable as orientation light	1	1	1	1
Mounting of rockers from the DELTA product ranges	■	■	■	■
Rocker button, intermediate position (pushbutton with 2 operating points)	1	2		
Rocker button, pushbutton position (pushbutton with 1 operating point)			1	2
Bus connection				
Integrated bus coupling units	■	■	■	■
General functions				
Max. number of group addresses	4	8	3	4
Max. number of assignments	4	8	3	5
Input functions				
Switching				
Switching ON/OFF	■	■	■	■
Switching OVER	■	■	■	■
Dimming				
Dimming with stop telegram (4-bit) Short button press, ON/OFF Long button press, BRIGHTER/DARKER	■	■		■
Dimming with cyclic transmission (4-bit) Short button press, ON/OFF Long button press, BRIGHTER/DARKER	■	■		■
Shutter/blind				
Shutter/blind control Short button press, slat OPEN/CLOSED or STOP Long button press, UP/DOWN	■	■		■
Scene				
Store and call up scene, 1-bit in conjunction with scene module	1	2		
Short or long button press (store/call up scene), configurable	■	■		
Status				
Display of any status objects (1-bit)	■			
Display of pushbutton objects	■		■	■

[1] For current application programs, see www.siemens.com/gamma-td.

Display and Operation Units
Technical specifications
Surface-mounting pushbuttons, IP44

Type	AP 115/01	AP 115/11	AP 115/21	AP 115/31
Application program[1]	211001	221001	210F01	220F01
Enclosure data				
Surface-mounting enclosures	■	■	■	■
Degree of protection	IP44	IP44	IP44	IP44
Dimensions				
• Width [mm]	66	66	66	66
• Height [mm]	75	75	75	75
• Depth [mm]	52	52	52	52
Display/control elements				
LED per pushbutton pair for status indication or configurable as orientation light	1		1	
Rocker button, intermediate position (pushbutton with 2 operating points)	1	2		
Rocker button, pushbutton position (pushbutton with 1 operating point)			1	2
Bus connection				
Integrated bus coupling units	■	■	■	■
General functions				
Max. number of group addresses	4	8	3	4
Max. number of assignments	4	8	3	5
Input functions				
Switching				
Switching ON/OFF	■	■	■	■
Switching OVER	■	■	■	■
Dimming				
Dimming with stop telegram (4-bit) Short button press, ON/OFF Long button press, BRIGHTER/DARKER	■	■		■
Dimming with cyclic transmission (4-bit) Short button press, ON/OFF Long button press, BRIGHTER/DARKER	■	■		■
Shutter/blind				
Shutter/blind control Short button press, slat OPEN/CLOSED or STOP Long button press, UP/DOWN	■	■		■
Scene				
Store and call up scene, 1-bit in conjunction with scene module	1	2		
Short or long button press (store/call up scene), configurable	■	■		
Status				
Display of any status objects (1-bit)	■			
Display of pushbutton objects	■		■	■

[1] For current application programs, see www.siemens.com/gamma-td

Design	i-system	DELTA style
Type	**UP 223/..5**	**UP 287/..5**
Application program[1]	909301	
Enclosure data		
Dimensions		
• Width [mm]	55	68
• Height [mm]	55	68
• Depth [mm]	11	14
Display/control elements		
Individual pushbuttons	6	8
Pushbutton pairs	3	4
Operation (v: vertical, h: horizontal)	h	v
LED per pushbutton pair for status indication	2	2
LED for orientation light (ON/OFF configurable/dimmable)	■	
IR activity display configurable via orientation LED	■	■
LED brightness configurable and controllable via object	■	■
Bus connection		
For plugging onto a bus transceiver module (BTM) or a flush-mounting actuator with bus transceiver module (BTM)	■	■
Inputs		
IR receiver decoder	■	■
IR channels in blocks of 64	16	16
Input functions		
Switching		
Switching ON/OFF/OVER	■	■
Pushbutton function (bell function)	■	■
Dimming		
Dimming with stop telegram (4-bit) Short button press, ON/OFF Long button press, BRIGHTER/DARKER	■	■
One-pushbutton dimming	■	■
Value transmission		
8 bit/percent/16 bit	■	■
Brightness value	■	■
Temperature value	■	■
Positively driven operation	■	■
Time-delayed transmission of a second telegram, depending on main function	■	■
Button deactivation	■	■
Shutter/blind		
Shutter/blind control short button press, slat OPEN/CLOSED or STOP, long button press, UP/DOWN	■	■
One-pushbutton sun protection	■	■
Scene		
Integrated 8-bit scene control (channels)	8	8
Assignments per channel	8	8
Store and call up scene, 8-bit	■	■
Store and call up scene, 1-bit	■	■
Short or long button press (store/call up scene), configurable	■	■
Status		
LED on/off/flashing depending on the value (1 bit/8 bit/16 bit)	■	■
Pushbutton operation display configurable via LED	■	■

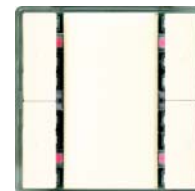[1] For current application programs, see www.siemens.com/gamma-td

Pushbutton, i-system   UP 22..

Dimensions (W x H x D)	55 x 55 x 11 mm

Range overview UP 22..

Product Title	Stock No.	Product No.
Pushbutton, single, without status LED, titanium white	5WG1221-2DB12	**UP 221/12**
Pushbutton, single, with status LED, titanium white	5WG1221-2DB13	**UP 221/13**
Pushbutton, single, without status LED, aluminum metallic	5WG1221-2DB32	**UP 221/32**
Pushbutton, single, with status LED, aluminum metallic	5WG1221-2DB33	**UP 221/33**
Pushbutton, double, without status LED, titanium white	5WG1222-2DB12	**UP 222/12**
Pushbutton, double, with status LED, titanium white	5WG1222-2DB13	**UP 222/13**
Pushbutton, double, without status LED, aluminum metallic	5WG1222-2DB32	**UP 222/32**
Pushbutton, double, with status LED, aluminum metallic	5WG1222-2DB33	**UP 222/33**
Pushbutton, triple, without status LED, titanium white	5WG1223-2DB12	**UP 223/12**
Pushbutton, triple, without status LED, aluminum metallic	5WG1223-2DB32	**UP 223/32**
Pushbutton, triple, with status LED, aluminum metallic	5WG1223-2DB33	**UP 223/33**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Pushbutton with scene controller and IR receiver decoder, i-system   UP 223/..5

Dimensions (W x H x D)	55 x 55 x 11 mm

Range overview UP 223/..5

Product Title	Stock No.	Product No.
Pushbutton, triple, with status LED, with scene controller, with IR receiver decoder, titanium white	5WG1223-2DB15	**UP 223/15**
Pushbutton, triple, with status LED, with scene controller, with IR receiver decoder, aluminum metallic	5WG1223-2DB35	**UP 223/35**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Buttons
Pushbuttons bus transceiver module (BTM)

UP 28..

Pushbutton, DELTA style

Dimensions (W x H x D)   68 x 68 x 14 mm
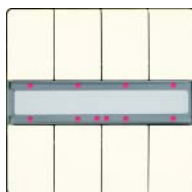
Range overview UP 28..

Product Title	Stock No.	Product No.
Pushbutton, single, without status LED, titanium white	5WG1285-2DB12	**UP 285/12**
Pushbutton, single, with status LED, titanium white	5WG1285-2DB13	**UP 285/13**
Pushbutton, single, without status LED, platinum metallic	5WG1285-2DB42	**UP 285/42**
Pushbutton, single, with status LED, platinum metallic	5WG1285-2DB43	**UP 285/43**
Pushbutton, double, without status LED, titanium white	5WG1286-2DB12	**UP 286/12**
Pushbutton, double, with status LED, titanium white	5WG1286-2DB13	**UP 286/13**
Pushbutton, double, without status LED, platinum metallic	5WG1286-2DB42	**UP 286/42**
Pushbutton, double, with status LED, platinum metallic	5WG1286-2DB43	**UP 286/43**
Pushbutton, quadruple, without status LED, titanium white	5WG1287-2DB12	**UP 287/12**
Pushbutton, quadruple, with status LED, titanium white	5WG1287-2DB13	**UP 287/13**
Pushbutton, quadruple, without status LED, platinum metallic	5WG1287-2DB42	**UP 287/42**
Pushbutton, quadruple, with status LED, platinum metallic	5WG1287-2DB43	**UP 287/43**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

UP 287/..4

Pushbutton with scene controller and room temperature sensor, DELTA style

Dimensions (W x H x D)   68 x 68 x 14 mm

Range overview UP 287/..4

Product Title	Stock No.	Product No.
Wall switch, quadruple, with status LED, neutral, DELTA style, titanium white	5WG1287-2AB14	**UP 287/14**
Wall switch, quadruple, with status LED, neutral, DELTA style, platinum metallic	5WG1287-2AB44	**UP 287/44**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Pushbutton with scene controller and IR receiver decoder, DELTA style   **UP 287/..5**

Dimensions (W x H x D)   68 x 68 x 14 mm

Range overview UP 287/..5

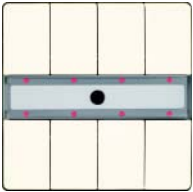| Product Title	Stock No.	Product No.
Pushbutton, quadruple, with status LED, with scene controller, with IR receiver decoder, titanium white	5WG1287-2DB15	**UP 287/15**
Pushbutton, quadruple, with status LED, with scene controller, with IR receiver decoder, platinum metallic	5WG1287-2DB45	**UP 287/45**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Buttons
Pushbuttons for DELTA bus coupling units

UP 116..	**DELTA Bus coupling unit**

- For installation in flush-mounting switch and socket boxes with diameter = 60 mm, for Screw fixing and prepared for Claw fixing
- LED per pushbutton pair for status indication or configurable as orientation light
- Mounting of rockers from the DELTA product ranges
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D) 71 x 71 x 32 mm

UP 116/01 **DELTA bus coupling unit, single, intermediate position, with 2 LEDs**

- One Rocker button, intermediate position (pushbutton with 2 operating points)
- The following functions can be assigned per operating point as required:
- Switching on/off/over
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or stop Long button press, up/down
- Store and call up scene, 1-bit in conjunction with scene module
- Short or long button press (store/call up scene), configurable
- Display of any status objects (1-bit)
- Display of pushbutton objects

The required single or multiple rocker (with or without window) must be ordered separately.

	Stock No.	Product No.
	5WG1116-2AB01	**UP 116/01**

UP 116/21 **DELTA bus coupling unit, single, pushbutton position, with 2 LEDs**

- One Rocker button, pushbutton position (pushbutton with 1 operating point)
- Optional assigned functions Switching on/off/over
- Display of pushbutton objects

The required single or multiple rocker (with or without window) must be ordered separately.

	Stock No.	Product No.
	5WG1116-2AB21	**UP 116/21**

UP 116/11 **DELTA bus coupling unit, double, intermediate position, with 2 LEDs**

- Two Rocker button, intermediate position (pushbutton with 2 operating points)
- The following functions can be assigned per operating point as required:
- Switching on/off/over
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or stop Long button press, up/down
- Store and call up scene, 1-bit in conjunction with scene module
- Short or long button press (store/call up scene), configurable

The required single or multiple rocker (with or without window) must be ordered separately.

	Stock No.	Product No.
	5WG1116-2AB11	**UP 116/11**

DELTA bus coupling unit, double, pushbutton position, with 2 LEDs   **UP 116/31**

- Two Rocker button, pushbutton position (pushbutton with 1 operating point)
- The following functions can be assigned per operating point as required:
- Switching on/off/over
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or stop Long button press, up/down
- Display of pushbutton objects

The required single or multiple rocker (with or without window) must be ordered separately.

	Stock No.	Product No.
	5WG1116-2AB31	**UP 116/31**

Accessories for UP 116..

Product Title	Stock No.	Product No.
Sealing sets for rockers, IP44, for single or double rockers	5TG4324	**5TG4324**

One set contains four insert seals

Buttons
Surface-mounting pushbuttons, IP44

AP 115..	**Surface-mounting pushbuttons IP44**

- Surface-mounting enclosures, Degree of protection IP44
- Switching on/off/over
- Integrated bus coupling units

Dimensions (W x H x D)   66 x 75 x 52 mm

AP 115/01	**Surface-mounting pushbuttons IP44**

- LED for status indication or configurable as orientation light
- Single, pushbutton position
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or stop Long button press, up/down
- Store and call up scene, 1-bit in conjunction with scene module

	Stock No.	Product No.
	5WG1115-3AB01	**AP 115/01**

AP 115/11	**Surface-mounting pushbuttons IP44**

- Double, middle position
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or STOP Long button press, up/down
- Store and call up 2 scene, 1-bit in conjunction with scene module

	Stock No.	Product No.
	5WG1115-3AB11	**AP 115/11**

AP 115/21	**Pushbutton, single, pushbutton position, 1 LED, IP 44, gray**

- LED for status indication or configurable as orientation light
- Single, pushbutton position

	Stock No.	Product No.
	5WG1115-3AB21	**AP 115/21**

Pushbutton, double, pushbutton position, IP 44, gray

AP 115/31

- Double, middle position
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or STOP Long button press, up/down

	Stock No.	Product No.
	5WG1115-3AB31	**AP 115/31**

UP 237E	**Fan-coil unit controllers for offices, i-system**

- For the display and operation of the room temperature control using a REG 540 fan-coil unit controller
- 5 yellow LEDs for the display of manually set fan speed step or automatic speed input
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging into a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)
- Pushbutton for switching the room operating mode between comfort and energy-saving mode and for setting the required fan speed step or the automatic input of the speed step by the fan-coil unit controller
- Rotary button for setting the room temperature setpoint value within a user-defined range
- 3 green LEDs for the display of the current room operating mode (comfort, energy-saving or protection mode)
- Design: i-system

Dimensions (W x H x D)   55 x 55 x 16 mm

Range overview UP 237E

Product Title	Stock No.	Product No.
Fan-coil unit operator panel office, titanium white	5WG1237-2EB11	**UP 237E11**
Fan-coil unit operator panel office, aluminum metallic	5WG1237-2EB31	**UP 237E31**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

UP 237F	**Fan-coil unit controllers for hotels, i-system**

- For the display and operation of the room temperature control using a REG 540 fan-coil unit controller
- 5 yellow LEDs for the display of manually set fan speed step or automatic speed input
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging onto a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)
- Pushbutton for setting the required fan speed step or for automatic entry of the speed step by the fan-coil unit controller
- Rotary button for setting the room temperature setpoint value within the range of 16...26 °C
- 2 green LEDs for indicating whether the room is being heated or cooled
- Design: i-system

Dimensions (W x H x D)   55 x 55 x 16 mm

Range overview UP 237F

Product Title	Stock No.	Product No.
Fan-coil unit operator panel hotel, titanium white	5WG1237-2FB11	**UP 237F11**
Fan-coil unit operator panel hotel, aluminum metallic	5WG1237-2FB31	**UP 237F31**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Fan-coil unit controllers for offices, DELTA style

UP 254E

- For the display and operation of the room temperature control using a REG 540 fan-coil unit controller
- 5 yellow LEDs for the display of manually set fan speed step or automatic speed input
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging into a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)
- Pushbutton for switching the room operating mode between comfort and energy-saving mode and for setting the required fan speed step or the automatic input of the speed step by the fan-coil unit controller
- Rotary button for setting the room temperature setpoint value within a user-defined range
- 3 green LEDs for the display of the current room operating mode (comfort, energy-saving or protection mode)

Dimensions (W x H x D)   68 x 68 x 16 mm

Range overview UP 254E

Product Title	Stock No.	Product No.
Fan-coil unit operator panel office, titanium white/metallic silver	5WG1254-2EB11	**UP 254E11**
Fan-coil unit operator panel office, platinum metallic	5WG1254-2EB41	**UP 254E41**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Fan-coil unit controllers for hotels, DELTA style

UP 254F

- For the display and operation of the room temperature control using a REG 540 fan-coil unit controller
- 5 yellow LEDs for the display of manually set fan speed step or automatic speed inpu
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging onto a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)
- Pushbutton for setting the required fan speed step or for automatic entry of the speed step by the fan-coil unit controller
- Rotary button for setting the room temperature setpoint value within the range of 16...26 °C
- 2 green LEDs for indicating whether the room is being heated or cooled

Dimensions (W x H x D)   68 x 68 x 16 mm

Range overview UP 254F

Product Title	Stock No.	Product No.
Fan-coil unit operator panel hotel, titanium white	5WG1237-2FB11	**UP 237F11**
Fan-coil unit operator panel hotel, aluminum metallic	5WG1237-2FB31	**UP 237F31**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Room temperature controllers
i-system

UP 237K..
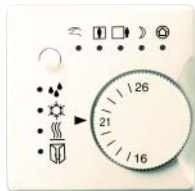
Temperature controller, i-system

- Integrated room temperature sensors
- Control can be set as a two-point control and/or continuous-action control (P or PI algorithm), for heating only, for cooling only, or for heating and cooling mode
- Operating modes that can be switched via KNX: comfort mode, pre-comfort mode, energy-saving mode and frost or heat protection mode
- Presence pushbutton to locally switch between comfort and pre-comfort mode or comfort and energy-saving mode and to extend comfort mode after operating energy-saving or protection mode
- Pushbutton for switching over between manual and automatic mode
- The room temperature setpoint value for comfort mode can be set via an interchangeable rotary button (+/-) on the controller and via the KNX
- Basic setpoint of the room temperature for comfort mode which can be set via the KNX
- Setpoint value for comfort mode in °C which can be set via an interchangeable rotary button on the controller
- Adjustable dead zone between the heating setpoint and the cooling setpoint for comfort mode
- Two-level heating or cooling
- Output of the control variable(s) either as an on/off switch command or as a positioning command in the range of 0...100 %
- 5 LEDs to display manual mode and the current operating modes
- 4 LEDs to display heating/cooling valve open, dew point alarm and open window
- For plugging onto a bus transceiver module (BTM) or a flush-mounting actuator with bus transceiver module (BTM)

Dimensions (W x H x D)   55 x 55 x 16 mm

Range overview UP 237K..

| Product Title	Stock No.	Product No.
Temperature controller, titanium white	5WG1237-2KB11	**UP 237K11**
Temperature controller, aluminum metallic	5WG1237-2KB31	**UP 237K31**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Temperature controller, DELTA style

UP 254K

- Integrated room temperature sensors
- Control can be set as a two-point control and/or continuous-action control (P or PI algorithm), for heating only, for cooling only, or for heating and cooling mode
- Operating modes that can be switched via KNX: comfort mode, pre-comfort mode, energy-saving mode and frost or heat protection mode
- Presence pushbutton to locally switch between comfort and pre-comfort mode or comfort and energy-saving mode and to extend comfort mode after operating energy-saving or protection mode
- Pushbutton for switching over between manual and automatic mode
- The room temperature setpoint value for comfort mode can be set via an interchangeable rotary button (+/-) on the controller and via the KNX
- Basic setpoint of the room temperature for comfort mode which can be set via the KNX
- Setpoint value for comfort mode in °C which can be set via an interchangeable rotary button on the controller
- Adjustable dead zone between the heating setpoint and the cooling setpoint for comfort mode
- Two-level heating or cooling
- Output of the control variable(s) either as an on/off switch command or as a positioning command in the range of 0...100 %
- 5 LEDs to display manual mode and the current operating modes
- 4 LEDs to display heating/cooling valve open, dew point alarm and open window
- For plugging onto a bus transceiver module (BTM) or a flush-mounting actuator with bus transceiver module (BTM)

Dimensions (W x H x D)   68 x 68 x 16 mm

Range overview UP 254K

Product Title	Stock No.	Product No.
Temperature controller, titanium white/metallic silver	5WG1254-2KB13	**UP 254K13**
Temperature controller, platinmetallic	5WG1254-2KB43	**UP 254K43**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Room temperature controllers
Design-independent

RDF..KNX Semi Flush Mount

Semi Flush-mount room thermostats with KNX communications, 2-/4-pipe fan coils or DX type equipment

Semi Flush Mount room thermostat with LCD for fan coil units and compressors in DX-type equipment
- KNX communications
- Operating modes: Comfort, Economy and Protection
- For heating and/or cooling applications
- 2 or 3-position control outputs
- Output for 1-speed or 3-speed fan
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: signal white (RAL 9003)
- Backlit display

Application selectable:
- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

Operating voltage	AC 230 V
Setpoint setting range	5...40 °C
Analog inputs, number	2
Relay outputs, number	5
Relay outputs	Fan: N.O. contacts, non-floating
	Valve: N.O. contacts, non-floating
Relay output, switching voltage	AC 230 V
Relay output, switching current	5 (2) A
Type of fixing	Recessed rectangular conduit box BS4662 with fixing centres of 60.3 mm (ARG71)
Degree of protection	IP30

Range overview RDF..KNX Semi Flush Mount

Product Title	Dimensions (W x H x D)	Stock No.	Product No.
Semi Flush-mount room thermostat with KNX communications, 2-/4-pipe fan coils or DX type equipment	86 x 86 x 57 mm	S55770-T104	**RDF301**
Semi Flush-mount room thermostat with KNX communications, 2-/4-pipe fan coils or DX type equipment, four buttons for switching lights and blinds	86 x 86 x 57 mm	S55770-T105	**RDF301.50**

The matching ARG71 flush-mounting box must be ordered separately. See chapter Display and Operation untis - Room Temperature Controller.

Semi Flush-mount room thermostat with KNX communications, 2-/4-pipe fan coils or DX type equipment

RDF600KN

Semi Flush Mount room thermostat with LCD for fan coil units and compressors in DX-type equipment
- KNX communications
- Operating modes: Comfort, Economy and Protection
- For heating and/or cooling applications
- 2 or 3-position control outputs
- Output for 1-speed or 3-speed fan
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: signal white (RAL 9003)
- Backlit display

Application selectable:
- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

Operating voltage	AC 230 V
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog input, signal	NTC 3k
	Switch
Type of fixing	Recessed round conduit box diameter min. 60 mm
Degree of protection	IP30
Dimensions (W x H x D)	86 x 86 x 46 mm

	Stock No.	Product No.
	S55770-T293	**RDF600KN**

RDU341	**Semi Flush-mount room thermostat for rectangular conduit box with KNX communications, for VAV application**

Semi Flush-mount room thermostat for VAV application
- KNX communications
- Output for a DC 0...10 V actuator and AC 230V electrical heater (ON-OFF)
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Operating modes: Comfort, Economy and Protection
- Modulating PI control
- Control depending on the room or the return air temperature
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Adjustable minimum and maximum limitation for air flow signal DC 0...10V
- Output signal inversion as an option

Application selectable:
- Single-duct system
- Single-duct system with electrical heater

Operating voltage	AC 24 V
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog outputs, number	1
Analog output, signal	DC 0...10 V
Analog output, current	Max. ±1 mA
Relay outputs, number	1
Relay outputs	N.O. contact, potential-free
Relay output, switching voltage	AC 230 V
Relay output, switching current	Max. 5 (2) A
Type of fixing	Recessed rectangular conduit box BS4662 (ARG71) with fixing centres of 60.3 mm
Degree of protection	IP30
Dimensions (W x H x D)	86 x 86 x 57 mm

	Stock No.	Product No.
	S55770-T106	**RDU341**

The matching ARG71 flush-mounting box must be ordered separately. See chapter Display and Operation untis - Room Temperature Controller.

ARG71	**Conduit box 75 x 75 x 51 mm**

Dimensions (W x H x D)	75 x 75 x 51 mm

	Stock No.	Product No.
	S55770-T137	**ARG71**

Room thermostat with KNX communications, AC 230 V, for fan coil units and universal applications

RDG100KN

- KNX communications
- 3 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Operating modes: Comfort, Economy and Protection
- 2-position, 3-position or PWM control outputs
- Automatic or manual fan speed for 1-speed, 3-speed fan
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display

Application selectable:
- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 4-pipe system
- 4-pipe system with electrical heater
- 2-stage heating or cooling system

Operating voltage	AC 230 V
Switching differential	Heating: 0.5...6 K
	Cooling: 0.5...6 K
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog input, signal	
Digital inputs, number	1
Relay outputs, number	3
Relay outputs	Fan: 1- or 3-speed
Relay output, switching voltage	AC 230 V
	5 (4) A
Triac outputs, number	3
Triac outputs	Valve, el. heater
	2-position, PWM, 3-position
Triac output, switching voltage	AC 230 V
Triac output, switching current	Max. 1 A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	93 x 128 x 30.8 mm

	Stock No.	Product No.
	S55770-T163	**RDG100KN**

Room temperature controllers
Design-independent

RDG160KN

Room thermostat with KNX communications, AC 24 V, for fan coil units and universal applications, fan (1-/ 3-speed, DC), valves (2-point, DC)

- KNX communications
- For applications with DC control outputs and DC or 3-speed fan output
- For applications with 2-position control output with DC fan output
- 3 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Operating modes: Comfort, Energy Saving and Protection
- Automatic or manual EC fan or 1-/3-speed
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display

Application selectable:
- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 4-pipe system
- 2-stage heating or cooling system

Operating voltage	AC 24 V
Switching differential	Heating: 0.5...6 K
	Cooling: 0.5...6 K
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog input, signal	
Digital inputs, number	1
Relay outputs, number	3
Relay outputs	Valve, compressor or el. heater: 2 outputs, 2-position
	Fan: 1- or 3-speed
Relay output, switching voltage	AC 24...230 V
	5 (4) A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	93 x 128 x 30.8 mm

	Stock No.	Product No.
	S55770-T297	RDG160KN

NEW PRODUCT

Room thermostat with KNX communications, AC 24 V, VAV heating and cooling systems

RDG400KN

- KNX communications
- Output DC 0...10 V for VAV actuator and auxiliary output ON/OFF, PWM or 3-position or 3-position for VAV actuator and auxiliary output DC 0...10 V
- 2 multifunctional inputs for keycard contact, external room / return air temperature (1x, QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- 1 input DC 0...10 V for damper position feedback
- Operating modes: Comfort, Economy and Protection
- Modulating PI control
- Control depending on the room or the return air temperature
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Minimum and maximum limitation of air flow signal
- Output signal inversion (DC 0...10 V) as an option
- Backlit display

Application selectable:
- Single-duct system
- Single-duct system with electrical heater
- Single-duct system and radiator / floor heating
- Single-duct system with heating / cooling coil

Operating voltage	AC 24 V
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog input, signal	NTC 3k
	DC 0...10 V
Digital inputs, number	1
Analog outputs, number	1
Analog outputs	VAV actuator, electric heater, valve
Analog output, signal	DC 0...10 V
Analog output, current	Max. ±1 mA
Triac outputs, number	1
Triac outputs	VAV actuator, valve, el. heater
	2-position, PWM, 3-position
	AC 24 V
Triac output, switching current	Max. 1 A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	93 x 128 x 30.8 mm

	Stock No.	Product No.
	S55770-T165	**RDG400KN**

QMX3..	**Wall-mounted room sensors and operator units for KNX**

The wall-mounted room unit QMX3.. consists of:
- Base plate
- Sensor or room operator unit

The following functions are (depending on type):
- Temperature sensor or multisensor (T, r.h., CO2)
- Backlit display or LED display
- Touchkeys
- Switching and control of lighting, blinds, scenes

Measuring range, temperature	0...50 °C
Sensing element, temperature	NTC
Degree of protection	IP30
Mounting	Wall-mounting
Dimensions (W x H x D)	88.4 x 133.4 x 18 mm

QMX3.P02	**Room operator unit KNX with temperature sensor, configurable touchkeys, LED display**

Functions:
- Temperature sensor
- Configurable touchkeys with LED display
- Switching and control of lighting, blinds, scenes
- Window for labels

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO2)
- Setpoint for room temperature and relative humidity and CO2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H107	QMX3.P02

NEW PRODUCT

Room operator unit KNX with temperature sensor, segmented backlit display, touchkeys

Functions:
- Temperature sensor
- Segmented backlit display and touchkeys

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO_2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO_2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO_2)
- Setpoint for room temperature and relative humidity and CO_2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H105	QMX3.P34

Room operator unit KNX with temperature sensor, segmented backlit display, configurable touchkeys, LED display

Functions:
- Temperature sensor
- Segmented backlit display and touchkeys
- Configurable touchkeys with LED display
- Switching and control of lighting, blinds, scenes
- Window for labels

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO_2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO_2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO_2)
- Setpoint for room temperature and relative humidity and CO_2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H108	QMX3.P37

NEW PRODUCT

QMX3.P74

Room operator unit KNX with sensors for temperature, humidity, CO2, segmented backlit display, touchkeys

Functions:
- multisensor for temperature, humidity and CO_2
- Segmented backlit display and touchkeys

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO_2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO_2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO_2)
- Setpoint for room temperature and relative humidity and CO_2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H106	QMX3.P74

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2014

Pushbutton with scene controller and IR receiver decoder, i-system UP 223/..5

Dimensions (W x H x D)   55 x 55 x 11 mm

Range overview UP 223/..5

Product Title	Stock No.	Product No.
Pushbutton, triple, with status LED, with scene controller, with IR receiver decoder, titanium white	5WG1223-2DB15	**UP 223/15**
Pushbutton, triple, with status LED, with scene controller, with IR receiver decoder, aluminum metallic	5WG1223-2DB35	**UP 223/35**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Pushbutton with scene controller and IR receiver decoder, DELTA style UP 287/..5

Dimensions (W x H x D)   68 x 68 x 14 mm

Range overview UP 287/..5

Product Title	Stock No.	Product No.
Pushbutton, quadruple, with status LED, with scene controller, with IR receiver decoder, titanium white	5WG1287-2DB15	**UP 287/15**
Pushbutton, quadruple, with status LED, with scene controller, with IR receiver decoder, platinum metallic	5WG1287-2DB45	**UP 287/45**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

S 425/72	**IR remote, silver**

IR hand-held transmitters:
- For wireless control of actuators via infrared signals, e.g. for switching on/off/toggle, dimming, send value, control solar protection or recall/save scenes
- 1 LED per group for control of transmission and battery
- Infrared wave length: 890 nm
- Infrared frequency: 455 kHz
- Transmission range: 20 m, non-directional
- Power supply by two commercially available 1.5 V batteries type Alkaline LR03/AAA

Dimensions (W x H x D) 55 x 154 x 24 mm

The 2 batteries of type LR03/AAA (1.5 V) required for operation are included in delivery.

	Stock No.	Product No.
	5WG1425-7AB72	**S 425/72**

AP 42../13	**IR wall switch, titanium white**

- For wireless control of actuators via infrared signals, e.g. for switching On/Off/Over, dimming, value transmission, shutter/blind control or call up/store scenes
- 1 LED for control of transmission and battery
- Red LED cover
- DIP switches for selection of the channel number (1...64)
- Infrared wave length: 890 nm
- Infrared frequency: 455 kHz
- Transmitter range: 8 m, non-directional
- Power supply by two commercially available 1.5 V batteries type Alkaline LR03/AAA
- Mounting frame for mounting on a flush-mounting wall box, on a wall surface or with adhesive tape on an even surface

Dimensions (W x H x D) 82 x 115 x 21 mm

Range overview AP 42../13

Product Title	Stock No.	Product No.
IR wall switch, single, titanium white	5WG1420-3AB13	**AP 420/13**
IR wall switch, double, titanium white	5WG1421-3AB13	**AP 421/13**
IR wall switch, quadruple, titanium white	5WG1422-3AB13	**AP 422/13**

The 2 batteries of type LR03/AAA (1.5 V) required for operation are not included in delivery.

IR Receiver decoder   S 450/03

- For receiving IR signals transmitted from IR wall-mounted transmitters or IR hand-held transmitters
- Conversion of IR signals received from up to 32 IR channels into bus telegrams
- Configurable evaluation of the IR signals per IR channel as single button or as button pair
- Per IR button selectable functions
- Switching on/off/over
- Switching on or off at either rising or falling edge
- Single button dimming
- Single button sun protection control
- 1-/8-bit scene control
- 8-/16-bit value
- Percentage value
- Temperature value
- Brightness value
- Positively driven operation
- Depending on the selected main function
- Per IR button selectable additional function executed either after a time delay (time delay configurable from 100 ms to 6550 s) or alternatively on a long button press
- Per IR button pair selectable functions
- 2-button dimming with stop telegram
- 2-button sun protection control
- Transmission variable percentage value
- Transmission variable 8-bit value
- 1-/8-bit scene control
- Positively driven operation
- Depending on the selected main function: per IR button selectable additional functions
- Switching on/off
- 8-16-bit value
- Percentage value
- Temperature value
- Brightness value
- Recall/save 1-bit scene 1
- Recall/save 1-bit scene 2
- Recall 8-bit scene
- Positively driven on/off/deactivate
- Blocking can selected for each IR button and configured individually
- Integrated bus coupling units, Bus connection via bus terminal
- Bus-powered electronics
- Including clamping spring and rosette for installation in ceilings, walls or lights
- For commissioning when mounted, a magnet is required, such as a 5WG1 590-8AH01 programming magnet

Dimensions (W x H x D)   25 x 26 x 75 mm

	Stock No.	Product No.
	5WG1450-7AB03	**S 450/03**

The programming magnet must be ordered separately.

Programming magnet for IR receiver decoders   S 590H01

Programming magnet for S 450 IR receiver decoders

	Stock No.	Product No.
	5WG1590-8AH01	**S 590H01**

UP 204/..1	Room Controller Contouch, incl. bus coupling unit

- Multifunctional display/operating device for KNX, with 320 x 240 pixel, 2.8" LCD color display
- For the display and operation of at least 18 configurable room operator functions:
- Switching On/Off/Over
- Pushbutton function (bell function)
- Switching on/off and dimming
- Shutter/blind/roller control
- Value transmission: 1 byte in %, 1 byte integer without prefix, 1 byte integer with prefix, 2 byte integer without prefix, 2 byte integer with prefix
- Positively driven operation
- Scene control: Store and call up scene 8 bit, store and call up scene 1 bit
- Text display
- Warning and alarm indications
- Operation using touch screen and/or by turning/pushing rotary/push button
- RGB LED as orientation light or for signaling alarm indications
- Buzzer for acoustic alarm indication or as feedback when operating touch screen
- Integrated room temperature sensors
- Analysis and weighting of an external inside temperature sensor
- Room temperature control can be set as a two-point control and/or continuous-action control for heating only, for cooling only, or for heating and cooling mode
- Operating modes that can be switched via KNX: comfort mode, pre-comfort mode, energy-saving mode and frost or heat protection mode
- Local displaying of active operating modes or automatic or manual modes
- Local displaying of heating/cooling valve open, dew point alarm and open window
- Local switchover between automatic or manual mode, and between comfort, pre-comfort, energy-saving and protection modes
- Local, time-adjustable extension of comfort mode
- The room temperature setpoint value for comfort mode can be set via a rotary button on the room controller
- Basic room temperature setpoint value for comfort mode which can be set via the KNX
- Outdoor temperature-based tracking of temperature setpoint value in cooling mode
- Adjustable dead zone between the heating setpoint and the cooling setpoint for comfort mode
- Two-level heating or cooling
- Output of the control variable(s) either as an on/off switch command or as a positioning command in the range of 0...100%
- Local displaying of manually set fan speed step or automatic speed input
- Fan speed step can be set via the rotary button or entered automatically by the controller
- Weekly scheduling program for controller operating modes and for 18 room operator functions
- At least 16 time switching points per function per weekday
- Display of date and time
- Selection of at least 4 different design templates as operator and display interface
- Local activation of a cleaning function to lock the touch screen and the rotary/push button
- Slot for a micro SD card for transferring firmware and configuration data
- incl. bus coupling unit (included in delivery)
- Bus connection via bus terminal
- Connection of the separate 24 V DC boost voltage, power consumption approx. 50 mA
- Flush-mounting device for mounting in a Ø 60 mm installation box, with screw fixing

Dimensions (W x H x D)	86 x 116 x 30 mm

Range overview UP 204/..1

Product Title	Stock No.	Product No.
Room Controller Contouch, incl. bus coupling unit, titanium white	5WG1204-2AB11	**UP 204/11**
Room Controller Contouch, incl. bus coupling unit, carbon metallic	5WG1204-2AB21	**UP 204/21**
Room Controller Contouch, incl. bus coupling unit, aluminium metallic	5WG1204-2AB31	**UP 204/31**
Room Controller Contouch, incl. bus coupling unit, piano black	5WG1204-2AB51	**UP 204/51**

NEW PRODUCT

Accessories for UP 204/..1

Product Title	Stock No.	Product No.
Contouch flash kit, with micro SDHC card and adapters for USB and SD	5WG1204-8AB01	**S 204/01**
Electronic power supply units	4AC2402	**4AC2402**

UP 227	**Room Control Unit**

- Multifunctional display-/control panel for KNX with Dot-Matrix LCD display 96 x 128 pixels
- For the display and control of at least 10 adjustable room control functions:
- Switching toggle/On/Off
- Door bell function On/Off
- Dimming
- Solar protection control
- Send 1 Byte/2 Byte value
- Display 1 Bit/1 Byte/2 Byte value
- Forced control
- Display text messages
- Recall and save scenes
- Warning and alarm messaging
- 8 capacitive touch buttons for horizontal operation, blocking selectable for each function and configurable for each function depending on the value of the blocking object
- Green/red LED als Orientierungslicht, as orientation light, as status indication, as a response to pressing a button respectively to the signalling of alarm reports
- A signaler for acoustical alarm reports respectively as a status of the touch operation
- Integrated room temperature sensor
- Evaluation and weighting of an external inside temperature sensor
- Room temperature control configurable as two-step control and/or continuous control, for exclusive heating operation, exclusive cooling operation or heating and cooling operation
- Selectable operating modes over the KNX:
- Comfort
- Pre-comfort
- Energy-savings and protection
- Local indication
- Of the active operating modes or automatic- respectively manual mode
- Inside temperature or outside temperature
- Heating or cooling mode
- Dew point alarm
- Open windows
- Local switching between
- Manual- and automatic mode
- Comfort, pre-comfort, energy-saving- and protection mode
- Adjustable time-limited extension of the comfort mode
- Adjustable room temperature setpoint shifting for comfort mode
- Via KNX set basic setpoint value of the room temperature for comfort mode
- An outside temperature based temperature setpoint value tracing in the cooling operation
- Adjustable dead zone between the heating setpoint value and the cooling setpoint value for comfort mode
- Transmission of controller output(s) either as On/Off switching commands or as control commands in the range 0…100 %
- Local display of the manually selected fan rotational speed respectively of the automatic adjustment of the fan rotational speed
- Adjustable fan rotational speed respectively automatic adjustment of the fan rotational speed on the controller
- Weekly schedule programme for controller- operating modes, automatic mode and at the least 8 room control functions
- At the least 40 schedule tasks
- Display and set of the date and time
- User control of LCD background lighting and Background color
- Display system settings and room temperature controller in the languages: German, English, French, Italian od Spanish
- User setting of at least 3 operating languages
- Integrated bus coupling unit, bus connection via bus terminal
- Flush mounted device for the mounting in an flush wall box Ø 60 mm, for fixing on the mounting plate AQR2500NF via lateral springs (separately specified)

Dimensions (W x H x D)   55 x 55 x 37,2 mm

	Stock No.	Product No.
	5WG1227-2AB11	**UP 227**
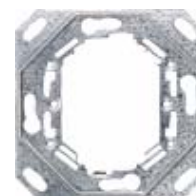
NEW PRODUCT

Mounting plate EU (CEE/VDE)   AQR2500NF

Dimensions (W x H)   70.8 x 70.8 mm

	Stock No.	Product No.
	S55720-S161	**AQR2500NF**

Mounting plate IT (3 modular)   AQR2500NG

Dimensions (W x H)   110 x 64 mm

	Stock No.	Product No.
	S55720-S163	**AQR2500NG**

Mounting plate UK (British Standard)   AQR2500NH

Dimensions (W x H)   83 x 83 mm
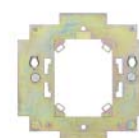
	Stock No.	Product No.
	S55720-S162	**AQR2500NH**

Mounting plate US (UL)   AQR2500NJ

Dimensions (W x H)   64 x 110 mm

	Stock No.	Product No.
	S55720-S164	**AQR2500NJ**

UP 587/..	**Text display, i-system**

- Horizontal operation of three pushbutton pairs
- Up to nine freely configurable operator functions
- Switching on/off, switching toggle
- Switching on/off and dimming
- Value transmission
- Sun protection control
- Store and call up 1-bit scenes with the respective scene modules
- Store and call up 8-bit scenes
- Text display
- Warning and alarm indication
- With distinction between short and long button press for dimming, scenes and the control of sun protection equipment
- An LCD with two lines, each with 11 characters, which are assigned as a block to the upper two pushbutton pairs
- LCD contrast and brightness can be user adjusted
- LCD backlighting as orientation light
- Four LEDS for switching status indication
- Buzzer for acoustic alarm indication
- Display and input of date and time
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging onto a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)

Dimensions (W x H x D)   55 x 55 x 11 mm

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Range overview UP 587/..

Product Title	Stock No.	Product No.
Text display, titanium white	5WG1587-2AB11	**UP 587/11**
Text display, aluminum metallic	5WG1587-2AB31	**UP 587/31**

UP 587/12	**Text display with weekly schedule, titanium white**

- Time-controlled switching (weekly switching schedule) for up to 40 time switching commands:
- Switching on/off
- Switching on/off and dimming
- Value transmission
- Sun protection control
- Call up of 1-bit and 8-bit scenes
- Adjustable time switching commands on the text display
- Titanium white

	Stock No.	Product No.
	5WG1587-2AB12	**UP 587/12**

UP 587/32	**Text display with weekly schedule, aluminum metallic**

	Stock No.	Product No.
	5WG1587-2AB32	**UP 587/32**

Frames, DELTA line, Titanium white (similar to RAL 9010)

5TG255..-0

Frames, DELTA line, Titanium white (similar to RAL 9010), for combinations, for horizontal and vertical mounting

Range overview 5TG255..-0

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, DELTA line, Titanium white (similar to RAL 9010), single	80 x 80 mm	5TG2551-0	**5TG25510**
Frames, DELTA line, Titanium white (similar to RAL 9010), double	151 x 80 mm	5TG2552-0	**5TG25520**
Frames, DELTA line, Titanium white (similar to RAL 9010), triple	222 x 80 mm	5TG2553-0	**5TG25530**
Frames, DELTA line, Titanium white (similar to RAL 9010), quadruple	293 x 80 mm	5TG2554-0	**5TG25540**
Frames, DELTA line, Titanium white (similar to RAL 9010), quintuple	364 x 80 mm	5TG2555-0	**5TG25550**

Frames, DELTA line, Electrical white (similar to RAL 1013)

5TG258..-0

Frames, DELTA line, Electrical white (similar to RAL 1013), for combinations, for horizontal and vertical mounting

Range overview 5TG258..-0

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, DELTA line, electrical white (similar to RAL 1013), single	80 x 80 mm	5TG2581-0	**5TG25810**
Frames, DELTA line, electrical white (similar to RAL 1013), double	151 x 80 mm	5TG2582-0	**5TG25820**
Frames, DELTA line, electrical white (similar to RAL 1013), triple	222 x 80 mm	5TG2583-0	**5TG25830**
Frames, DELTA line, electrical white (similar to RAL 1013),quadruple	293 x 80 mm	5TG2584-0	**5TG25840**
Frames, DELTA line, electrical white (similar to RAL 1013), quintuple	364 x 80 mm	5TG2585-0	**5TG25850**

5TG255..-3	**Frames, DELTA line, aluminum metallic (similar to RAL 9006)**

Frames, DELTA line, Aluminum metallic (similar to RAL 9006), for combinations, for horizontal and vertical mounting

Range overview 5TG255..-3

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, DELTA line, aluminum metallic (similar to RAL 9006), single	80 x 80 mm	5TG2551-3	**5TG25513**
Frames, DELTA line, aluminum metallic (similar to RAL 9006), double	151 x 80 mm	5TG2552-3	**5TG25523**
Frames, DELTA line, aluminum metallic (similar to RAL 9006), triple	222 x 80 mm	5TG2553-3	**5TG25533**
Frames, DELTA line, aluminum metallic (similar to RAL 9006), quadruple	293 x 80 mm	5TG2554-3	**5TG25543**
Frames, DELTA line, aluminum metallic (similar to RAL 9006), quintuple	364 x 80 mm	5TG2555-3	**5TG25553**

5TG255..-6	**Frames, DELTA line, carbon metallic (similar to RAL 7016)**

Frames, DELTA line, Carbon metallic (similar to RAL 7016), for combinations, for horizontal and vertical mounting

Range overview 5TG255..-6

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, DELTA line, carbon metallic (similar to RAL 7016), single	80 x 80 mm	5TG2551-6	**5TG25516**
Frames, DELTA line, carbon metallic (similar to RAL 7016), double	151 x 80 mm	5TG2552-6	**5TG25526**
Frames, DELTA line, carbon metallic (similar to RAL 7016), triple	222 x 80 mm	5TG2553-6	**5TG25536**
Frames, DELTA line, carbon metallic (similar to RAL 7016), quadruple	293 x 80 mm	5TG2554-6	**5TG25546**
Frames, DELTA line, carbon metallic (similar to RAL 7016), quintuple	364 x 80mm	5TG2555-6	**5TG25556**

Frames, DELTA line, with labeling field, Titanium white (similar to RAL 9010)   **5TG255..a**

Frames, DELTA line, with labeling field, Titanium white (similar to RAL 9010), for combinations, for horizontal and vertical mounting

Range overview 5TG255..a

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, DELTA line, with labeling field, titanium white (similar to RAL 9010), single	80 x 80 mm	5TG2551-1	**5TG25511**
Frames, DELTA line, with labeling field, titanium white (similar to RAL 9010), double, horizontal	151 x 80 mm	5TG2552-1	**5TG25521**
Frames, DELTA line, with labeling field, titanium white (similar to RAL 9010), double, vertical	80 x 151 mm	5TG2552-2	**5TG25522**
Frames, DELTA line, with labeling field, titanium white (similar to RAL 9010), triple, horizontal	222 x 80 mm	5TG2553-1	**5TG25531**
Frames, DELTA line, with labeling field, titanium white (similar to RAL 9010), triple, vertical	80 x 222 mm	5TG2553-2	**5TG25532**
Frames, DELTA line, with labeling field, titanium white (similar to RAL 9010), quadruple, horizontal	293 x 80 mm	5TG2554-1	**5TG25541**
Frames, DELTA line, with labeling field, titanium white (similar to RAL 9010), quadruple, vertical	80 x 293 mm	5TG2554-2	**5TG25542**

5TG258..   **Frames, DELTA line, with labeling field, Electrical white (similar to RAL 1013)**

Frames, DELTA line, with labeling field, Electrical white (similar to RAL 1013), for combinations, for horizontal and vertical mounting

Range overview 5TG258..

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, DELTA line, with labeling field, electrical white (similar to RAL 1013), single	80 x 80 mm	5TG2581-1	**5TG25811**
Frames, DELTA line, with labeling field, electrical white (similar to RAL 1013), double, horizontal	151 x 80 mm	5TG2582-1	**5TG25821**
Frames, DELTA line, with labeling field, electrical white (similar to RAL 1013), double, vertical	80 x 151 mm	5TG2582-2	**5TG25822**
Frames, DELTA line, with labeling field, electrical white (similar to RAL 1013), triple, horizontal	222 x 80 mm	5TG2583-1	**5TG25831**
Frames, DELTA line, with labeling field, electrical white (similar to RAL 1013), triple, vertical	80 x 222 mm	5TG2583-2	**5TG25832**
Frames, DELTA line, with labeling field, electrical white (similar to RAL 1013),quadruple, horizontal	293 x 80 mm	5TG2584-1	**5TG25841**
Frames, DELTA line, with labeling field, electrical white (similar to RAL 1013), quadruple, vertical	80 x 293 mm	5TG2584-2	**5TG25842**

Frames, DELTA line, with labeling field, aluminum metallic (similar to RAL 9006)

5TG255..b

Frames, DELTA line, with labeling field, Aluminum metallic (similar to RAL 9006), for combinations, for horizontal and vertical mounting

Range overview 5TG255..b

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, DELTA line, with labeling field, aluminum metallic (similar to RAL 9006), single	80 x 80 mm	5TG2551-4	**5TG25514**
Frames, DELTA line, with labeling field, aluminum metallic (similar to RAL 9006), double, horizontal	151 x 80 mm	5TG2552-4	**5TG25524**
Frames, DELTA line, with labeling field, aluminum metallic (similar to RAL 9006), double, vertical	80 x 151 mm	5TG2552-5	**5TG25525**

Frames, DELTA line, with labeling field, Carbon metallic (similar to RAL 7016)

5TG255..c

Frames, DELTA line, with labeling field, Carbon metallic (similar to RAL 7016), for combinations, for horizontal and vertical mounting

Range overview 5TG255..c

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, DELTA line, with labeling field, carbon metallic (similar to RAL 7016), single	80 x 80 mm	5TG2551-7	**5TG25517**
Frames, DELTA line, with labeling field, carbon metallic (similar to RAL 7016), double, horizontal	151 x 80 mm	5TG2552-7	**5TG25527**
Frames, DELTA line, with labeling field, carbon metallic (similar to RAL 7016), double, vertical	80 x 151 mm	5TG2552-8	**5TG25528**

5TG113..-0

Frames, Artist, Tom´s Drag

Frames, Artist, Tom´s Drag

Range overview 5TG113..-0

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frames, Artist, Tom´s Drag, single	90 x 90 mm	5TG1131-0	**5TG11310**
Frames, Artist, Tom´s Drag, double	90 x 161 mm	5TG1132-0	**5TG11320**
Frames, Artist, Tom´s Drag, triple	90 x 232 mm	5TG1133-0	**5TG11330**
Frames, Artist, Tom´s Drag, quadruple	90 x 303 mm	5TG1134-0	**5TG11340**

Frame, DELTA miro color, plastic, titanium white (similar to RAL 9010)   5TG111..-0

Frames, DELTA miro color, plastic, Titanium white (similar to RAL 9010), for combinations, for horizontal and vertical mounting

Range overview 5TG111..-0

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro color, plastic, titanium white (similar to RAL 9010), single	90 x 90 mm	5TG1111-0	**5TG11110**
Frame, DELTA miro color, plastic, titanium white (similar to RAL 9010),Double	90 x 161 mm	5TG1112-0	**5TG11120**
Frame, DELTA miro color, plastic, titanium white (similar to RAL 9010), triple	90 x 232 mm	5TG1113-0	**5TG11130**
Frame, DELTA miro color, plastic, titanium white (similar to RAL 9010), quadruple	90 x 303 mm	5TG1114-0	**5TG11140**
Frame, DELTA miro color, plastic, titanium white (similar to RAL 9010), quintuple	90 x 374 mm	5TG1115-0	**5TG11150**

Frame, DELTA miro color, plastic, aluminum metallic (similar to RAL 9006)   5TG111..-1

Frames, DELTA miro color, plastic, Aluminum metallic (similar to RAL 9006), for combinations, for horizontal and vertical mounting

Range overview 5TG111..-1

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro color, plastic, aluminum metallic (similar to RAL 9006), single	90 x 90 mm	5TG1111-1	**5TG11111**
Frame, DELTA miro color, plastic, aluminum metallic (similar to RAL 9006), double	90 x 161 mm	5TG1112-1	**5TG11121**
Frame, DELTA miro color, plastic, aluminum metallic (similar to RAL 9006), triple	90 x 232 mm	5TG1113-1	**5TG11131**
Frame, DELTA miro color, plastic, aluminum metallic (similar to RAL 9006), quadruple	90 x 303 mm	5TG1114-1	**5TG11141**
Frame, DELTA miro color, plastic, aluminum metallic (similar to RAL 9006), quintuple	90 x 374 mm	5TG1115-1	**5TG11151**

5TG111..-2   **Frame, DELTA miro color, plastic, carbon metallic (similar to RAL7016)**

Frames, DELTA miro color, plastic, Carbon metallic (similar to RAL 7016), for combinations, for horizontal and vertical mounting

Range overview 5TG111..-2

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro color, plastic, carbon metallic (similar to RAL7016), single	90 x 90 mm	5TG1111-2	**5TG11112**
Frame, DELTA miro color, plastic, carbon metallic (similar to RAL7016), double	90 x 161 mm	5TG1112-2	**5TG11122**
Frame, DELTA miro color, plastic, carbon metallic (similar to RAL7016), triple	90 x 232 mm	5TG1113-2	**5TG11132**
Frame, DELTA miro color, plastic, carbon metallic (similar to RAL7016), quintuple	90 x 303 mm	5TG1114-2	**5TG11142**
Frame, DELTA miro color, plastic, carbon metallic (similar to RAL7016), quintuple,	90 x 374 mm	5TG1115-2	**5TG11152**

Frames, DELTA miro glass, real glass, crystal green

5TG120..

Frames, DELTA miro glass, real glass, crystal green, for combinations, for horizontal and vertical mounting

Range overview 5TG120..

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro glass, real glass, crystal green, single	90 x 90 mm	5TG1201	**5TG1201**
Frame, DELTA miro glass, real glass, crystal green, double	90 x 161 mm	5TG1202	**5TG1202**
Frame, DELTA miro glass, real glass, crystal green, triple	90 x 232 mm	5TG1203	**5TG1203**
Frame, DELTA miro glass, real glass, crystal green, quadruple	90 x 303 mm	5TG1204	**5TG1204**
Frame, DELTA miro glass, real glass, crystal green, quintuple	90 x 374 mm	5TG1205	**5TG1205**

Frames, DELTA miro glass, real glass, white

5TG120..-1

Frames, DELTA miro glass, real glass, white, for combinations, for horizontal and vertical mounting

Range overview 5TG120..-1

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro glass, real glass, white, single	90 x 90 mm	5TG1201-1	**5TG12011**
Frame, DELTA miro glass, real glass, white, double	90 x 161 mm	5TG1202-1	**5TG12021**
Frame, DELTA miro glass, real glass, white, triple	90 x 232 mm	5TG1203-1	**5TG12031**
Frame, DELTA miro glass, real glass, white, quadruple	90 x 303 mm	5TG1204-1	**5TG12041**
Frame, DELTA miro glass, real glass, white, quintuple	90 x 374 mm	5TG1205-1	**5TG12051**

5TG120..-2   Frames, DELTA miro glass, real glass, black

Frames, DELTA miro glass, real glass, black, for combinations, for horizontal and vertical mounting

Range overview 5TG120..-2

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro glass, real glass, black, single	90 x 90 mm	5TG1201-2	**5TG12012**
Frame, DELTA miro glass, real glass, black, double	90 x 161 mm	5TG1202-2	**5TG12022**
Frame, DELTA miro glass, real glass, black, triple	90 x 232 mm	5TG1203-2	**5TG12032**
Frame, DELTA miro glass, real glass, black, quadruple	90 x 303 mm	5TG1204-2	**5TG12042**
Frame, DELTA miro glass, real glass, black, quintuple	90 x 374 mm	5TG1205-2	**5TG12052**

5TG120..-3   Frames, DELTA miro glass, real glass, orient

Frames, DELTA miro glass, real glass, orient, for combinations, for horizontal and vertical mounting

Range overview 5TG120..-3

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro glass, real glass, orient, single	90 x 90 mm	5TG1201-3	**5TG12013**
Frame, DELTA miro glass, real glass, orient, double	90 x 161 mm	5TG1202-3	**5TG12023**
Frame, DELTA miro glass, real glass, orient, triple	90 x 232 mm	5TG1203-3	**5TG12033**
Frame, DELTA miro glass, real glass, orient, quadruple	90 x 303 mm	5TG1204-3	**5TG12043**
Frame, DELTA miro glass, real glass, orient, quintuple	90 x 374 mm	5TG1205-3	**5TG12053**

Frames, DELTA miro glass, real glass, arena

5TG120..-4

Frames, DELTA miro glass, real glass, arena, for combinations, for horizontal and vertical mounting

Range overview 5TG120..-4

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro glass, real glass, arena, single	90 x 90 mm	5TG1201-4	**5TG12014**
Frame, DELTA miro glass, real glass, arena, double	90 x 161 mm	5TG1202-4	**5TG12024**
Frame, DELTA miro glass, real glass, arena, triple	90 x 232 mm	5TG1203-4	**5TG12034**
Frame, DELTA miro glass, real glass, arena, quadruple	90 x 303 mm	5TG1204-4	**5TG12044**
Frame, DELTA miro glass, real glass, arena, quintuple	90 x 374 mm	5TG1205-4	**5TG12054**
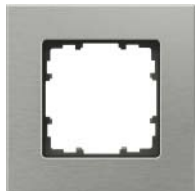
5TG112..-0	**Frame, DELTA miro aluminum, real aluminum, natural**

Frames, DELTA miro aluminum, real aluminum, natural, for combinations, for horizontal and vertical mounting
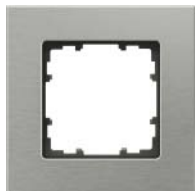
Range overview 5TG112..-0

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro aluminum, real aluminum, natural, single	90 x 90 mm	5TG1121-0	**5TG11210**
Frame, DELTA miro aluminum, real aluminum, natural, double	90 x 161 mm	5TG1122-0	**5TG11220**
Frame, DELTA miro aluminum, real aluminum, natural, triple	90 x 232 mm	5TG1123-0	**5TG11230**
Frame, DELTA miro aluminum, real aluminum, natural, quadruple	90 x 303 mm	5TG1124-0	**5TG11240**
Frame, DELTA miro aluminum, real aluminum, natural, quintuple	90 x 374 mm	5TG1125-0	**5TG11250**

5TG112..-1	**Frame, DELTA miro aluminum, real aluminum, titanium**

Frames, DELTA miro aluminum, real aluminum, titanium, for combinations, for horizontal and vertical mounting

Range overview 5TG112..-2

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro aluminum, real aluminum, titanium, single	90 x 90 mm	5TG1121-1	**5TG11211**
Frame, DELTA miro aluminum, real aluminum, titanium, double	90 x 161 mm	5TG1122-1	**5TG11221**
Frame, DELTA miro aluminum, real aluminum, titanium, triple	90 x 232 mm	5TG1123-1	**5TG11231**
Frame, DELTA miro aluminum, real aluminum, titanium, quadruple	90 x 303 mm	5TG1124-1	**5TG11241**
Frame, DELTA miro aluminum, real aluminum, titanium, quintuple	90 x 374 mm	5TG1125-1	**5TG11251**

Frame, DELTA miro aluminum, real aluminum, graphite

5TG112..-2

Frames, DELTA miro aluminum, real aluminum, graphit, for combinations, for horizontal and vertical mounting
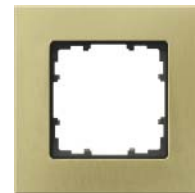
Range overview 5TG112..-2

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro aluminum, real aluminum, graphite, single	90 x 90 mm	5TG1121-2	**5TG11212**
Frame, DELTA miro aluminum, real aluminum, graphite, double	90 x 161 mm	5TG1122-2	**5TG11222**
Frame, DELTA miro aluminum, real aluminum, graphite, triple	90 x 232 mm	5TG1123-2	**5TG11232**
Frame, DELTA miro aluminum, real aluminum, graphite, quadruple	90 x 303 mm	5TG1124-2	**5TG11242**
Frame, DELTA miro aluminum, real aluminum, graphite, quintuple	90 x 374 mm	5TG1125-2	**5TG11252**

Frame, DELTA miro aluminum, real aluminum, yellow oxide

5TG112..-3

Frames, DELTA miro aluminum, real aluminum, yellow oxide, for combinations, for horizontal and vertical mounting

Range overview 5TG112..-3

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA miro aluminum, real aluminum, yellow oxide, single	90 x 90 mm	5TG1121-3	**5TG11213**
Frame, DELTA miro aluminum, real aluminum, yellow oxide, double	90 x 161 mm	5TG1122-3	**5TG11223**
Frame, DELTA miro aluminum, real aluminum, yellow oxide, triple	90 x 232 mm	5TG1123-3	**5TG11233**
Frame, DELTA miro aluminum, real aluminum, yellow oxide, quadruple	90 x 303 mm	5TG1124-3	**5TG11243**
Frame, DELTA miro aluminum, real aluminum, yellow oxide, quintuple	90 x 374 mm	5TG1125-3	**5TG11253**

5TG132..	**Frame, DELTA style, titanium white (similar to RAL 9010)**

Frames, DELTA style, Titanium white (similar to RAL 9010), for combinations, for horizontal and vertical mounting

Range overview 5TG132..

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA style, titanium white (similar to RAL 9010), single	82 x 82 mm	5TG1321	**5TG1321**
Frame, DELTA style, titanium white (similar to RAL 9010), double	82 x 153 mm	5TG1322	**5TG1322**
Frame, DELTA style, titanium white (similar to RAL 9010), triple	82 x 224 mm	5TG1323	**5TG1323**
Frame, DELTA style, titanium white (similar to RAL 9010), quadruple	82 x 295 mm	5TG1324	**5TG1324**
Frame, DELTA style, titanium white (similar to RAL 9010), quintuple	82 x 366 mm	5TG1325	**5TG1325**

5TG136..	**Frames, DELTA style, basalt black (similar to RAL 7016)**

Frames, DELTA style, Basalt black (similar to RAL 7016), for combinations, for horizontal and vertical mounting

Range overview 5TG136..

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA style, basalt black (similar to RAL 7016), single	82 x 82 mm	5TG1361	**5TG1361**
Frame, DELTA style, basalt black (similar to RAL 7016), double	82 x 153 mm	5TG1362	**5TG1362**
Frame, DELTA style, basalt black (similar to RAL 7016), triple	82 x 224 mm	5TG1363	**5TG1363**
Frame, DELTA style, basalt black (similar to RAL 7016), quadruple	82 x 295 mm	5TG1364	**5TG1364**
Frame, DELTA style, basalt black (similar to RAL 7016), quintuple	82 x 366 mm	5TG1365	**5TG1365**

Frame, DELTA style, platinum metallic   5TG132..-1

Frames, DELTA style, Platinum metallic (similar to RAL 9007), for combinations, for horizontal and vertical mounting
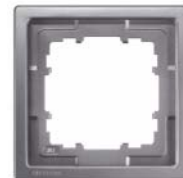
Range overview 5TG132..-1

Product Title	Dimensions (W x H)	Stock No.	Product No.
Frame, DELTA style, platinum metallic, single	82 x 82 mm	5TG1321-1	**5TG13211**
Frame, DELTA style, platinum metallic, double	82 x 153 mm	5TG1322-1	**5TG13221**
Frame, DELTA style, platinum metallic, triple	82 x 224 mm	5TG1323-1	**5TG13231**
Frame, DELTA style, platinum metallic, quadruple	82 x 295 mm	5TG1324-1	**5TG13241**
Frame, DELTA style, platinum metallic, quintuple	82 x 366 mm	5TG1325-1	**5TG13251**

Intermediate frame, DELTA style   5TG13..8

Intermediate frame, DELTA style, for inserting devices with cover plate 65 mm x 65 mm

Range overview 5TG13..8

Product Title	Dimensions (W x H)	Stock No.	Product No.
Intermediate frame, DELTA style, titanium white (similar to RAL 9010)	68 x 68 mm	5TG1328	**5TG1328**
Intermediate frame, DELTA style, basaltic black (similar to RAL 7016)	68 x 68 mm	5TG1368	**5TG1368**
Intermediate frame, DELTA style, platinum metallic (similar to RAL 9007)	68 x 68 mm	5TG1328-1	**5TG13281**

AQR2510NGW

Frame DELTA azio for front module

Design frames for front modules.

Dimensions (W x H)   80 x 120 mm / 120 x 80 mm

For horizontal and vertical mounting.

	Stock No.	Product No.
	S55720-S160	**AQR2510NGW**

Frames, DELTA, titanium white

5WG12408CB11

Dimensions (W x H)	80 x 122 mm / 122 x 80 mm

Frame for NEMA box. For matching DELTA profil operator interfaces, see Chapter System Products and Accessories –System products. Matching to DELTA style operator interfaces with intermediate frame DELTA Style see Chapter Display and Operation Units – Pushbutton accessories.

	Stock No.	Product No.
	5WG1240-8CB11	**5WG12408CB11**

Pushbutton accessories
Surface-mounting enclosures

5TG290..	Surface-mounting enclosures for flush-mounting devices, DELTA line, DELTA style, titanium white

Flame-retardant base plate, for combinations, for horizontal and vertical mounting

Range overview 5TG290..

Product Title	Dimensions (W x H x D)	Stock No.	Product No.
Surface-mounting enclosure, for flush-mounting devices, DELTA line, DELTA style, titanium white, single	84 x 84 x 42.5 mm	5TG2901	**5TG2901**
Surface-mounting enclosure, for flush-mounting devices, DELTA line, DELTA style, titanium white, double	84 x 155 x 42.5 mm	5TG2902	**5TG2902**
Surface-mounting enclosure, for flush-mounting devices, DELTA line, DELTA style, titanium white, triple	84 x 226 x 42.5 mm	5TG2903	**5TG2903**

5TG286..	Surface-mounting enclosures for flush-mounting devices, DELTA line, Electrical white

Flame-retardant base plate, for combinations, for horizontal and vertical mounting

Range overview 5TG286..

Product Title	Dimensions (W x H x D)	Stock No.	Product No.
Surface-mounting enclosure, for flush-mounting devices, DELTA line, electrical white, single	84 x 84 x 42.5 mm	5TG2861	**5TG2861**
Surface-mounting enclosure, for flush-mounting devices, DELTA line, electrical white, double	84 x 155 x 42.5 mm	5TG2862	**5TG2862**
Surface-mounting enclosure, for flush-mounting devices, DELTA line, electrical white, triple	84 x 226 x 42.5 mm	5TG2863	**5TG2863**

Touch Panel

UP 588/..3

- Multifunctional display/operating device for the KNX, with 320 x 240 pixels, 5.7" TFT color display and touch screen
- Dimming of LED background lighting over the operator interface
- For the display and operation of at least 210 communication objects on at least 20 display pages
- An additional page for the display and acknowledgement of at least 16 alarms
- Time program as weekly program for at least 110 communication objects and at least 10 switching tasks per weekday
- Presence simulation for at least 50 communication objects
- A trend module for storing and displaying graphics of the status values
- 1-bit or 8-bit scene control for at least 64 scenes
- At least 32 AND/OR operations, each comprising up to at least 4 communication objects
- At least 16 reference conditions for tripping one switching task respectively
- Individual password protection for each display page
- Buffered real-time clock and display of time and date
- Selection of at least 4 different design templates as operator and display interface
- Display of a loadable image as a start screen page or with display of a slide show containing at least 100 loadable images instead of a start screen page
- USB interface for loading images and symbols
- USB cable, 1 m long and a transfer rate of 480 MBit/sec.
- Pushbutton for device reset
- Integrated bus coupling units, Bus connection via bus terminal
- Flush-mounting device in flush-mounting/hollow-wall box

Dimensions (W x H x D)　　　161,5 x 135 x 64 mm

The matching design frame must be ordered separately.
The flush-mounting/hollow-wall box must be ordered separately.

Range overview 588/..3

Product Title	Stock No.	Product No.
Touch Panel, 230 V AC, 50 Hz	5WG1588-2AB13	**UP 588/13**
Touch Panel, 24 V AC/DC	5WG1588-2AB23	**UP 588/23**

Design frame for touch panel UP 588/..3, aluminium

S 588/12

Dimensions (W x H x D)　　　194 x 156 x 5 mm
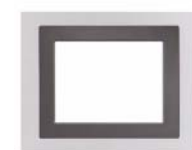
	Stock No.	Product No.
	5WG1588-8AB12	**S 588/12**

Design frame for touch panel UP 588/..3, stainless steel design

S 588/13

Dimensions (W x H x D)　　　194 x 156 x 5 mm

	Stock No.	Product No.
	5WG1588-8AB13	**S 588/13**

S 588/14	**Design frame for touch panel UP 588/..3, glass black**		
	Dimensions (W x H x D)	194 x 156 x 5 mm	
		Stock No.	Product No.
		5WG1588-8AB14	**S 588/14**

S 588/15	**Design frame for touch panel UP 588/..3, glass white**		
	Dimensions (W x H x D)	194 x 156 x 5 mm	
		Stock No.	Product No.
		5WG1588-8AB15	**S 588/15**

UP 588E01	**Flush-type box for all touch panel UP 588**		
	Dimensions (W x H x D)	161.5 x 135 x 64 mm	
		Stock No.	Product No.
		5WG1588-8EB01	**UP 588E01**

IR remote, silver   S 425/72

IR hand-held transmitters:
- For wireless control of actuators via infrared signals, e.g. for switching on/off/toggle, dimming, send value, control solar protection or recall/save scenes
- 1 LED per group for control of transmission and battery
- Infrared wave length: 890 nm
- Infrared frequency: 455 kHz
- Transmission range: 20 m, non-directional
- Power supply by two commercially available 1.5 V batteries type Alkaline LR03/AAA

Dimensions (W x H x D)   55 x 154 x 24 mm

Accessories for pushbuttons UP 223 and UP 287 with IR receiver decoder

The 2 batteries of type LR03/AAA (1.5 V) required for operation are included in delivery.

	Stock No.	Product No.
	5WG1425-7AB72	**S 425/72**

IR wall switch, titanium white   AP 42../13

- For wireless control of actuators via infrared signals, e.g. for switching On/Off/Over, dimming, value transmission, shutter/blind control or call up/store scenes
- 1 LED for control of transmission and battery
- Red LED cover
- DIP switches for selection of the channel number (1...64)
- Infrared wave length: 890 nm
- Infrared frequency: 455 kHz
- Transmitter range: 8 m, non-directional
- Power supply by two commercially available 1.5 V batteries type Alkaline LR03/AAA
- Mounting frame for mounting on a flush-mounting wall box, on a wall surface or with adhesive tape on an even surface

Dimensions (W x H x D)   82 x 115 x 21 mm

Accessories for pushbuttons UP 223 and UP 287 with IR receiver decoder

Range overview AP 42../13

Product Title	Stock No.	Product No.
IR wall switch, single, titanium white	5WG1420-3AB13	**AP 420/13**
IR wall switch, double, titanium white	5WG1421-3AB13	**AP 421/13**
IR wall switch, quadruple, titanium white	5WG1422-3AB13	**AP 422/13**

The 2 batteries of type LR03/AAA (1.5 V) required for operation are not included in delivery.
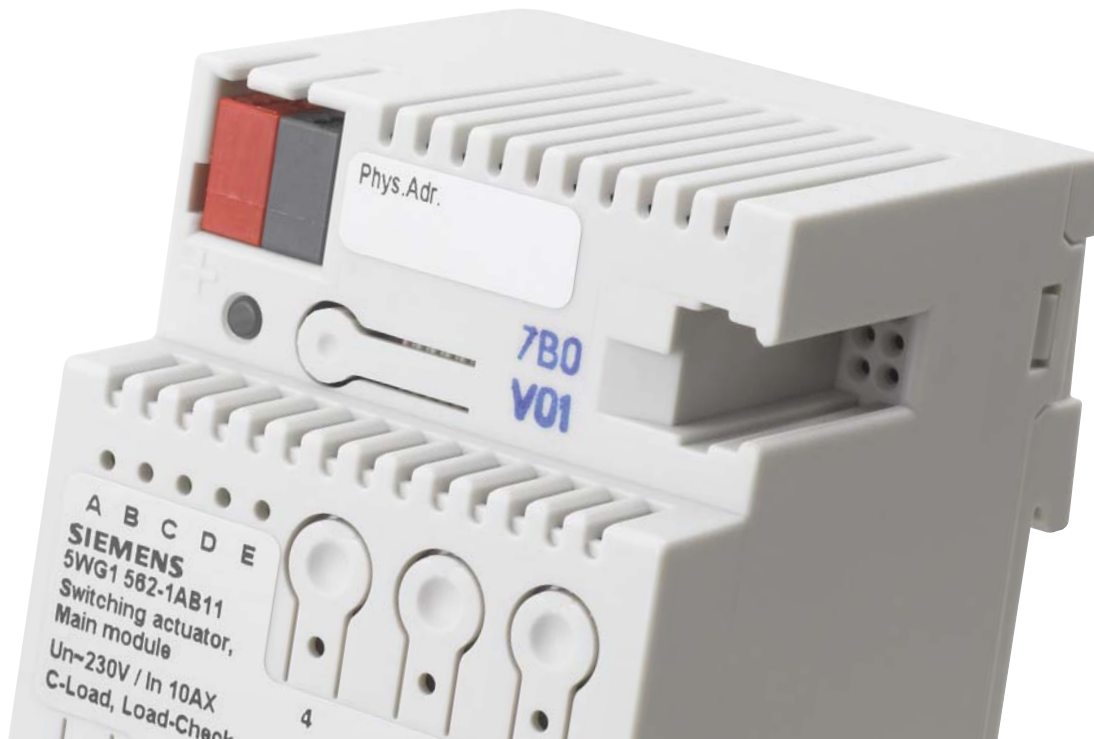
N 151/01	**IP viewer**

Interface converter between a KNX and an IP network, with the following simultaneously executable functions:
- As a WebServer for monitoring and control of up to 40 states and values transmitted via the KNX network, which can be displayed on up to 5 image pages of a PC connected to the IP network using Internet Explorer 6.0, 7.0, 8.0 or Firefox 3.0 (for other browsers, see documentation at www.siemens.com/gamma-td)
- For the parameterization of a KNX system using ETS3.0f/ETS4
- For communication between the KNX network and a ComBridge Studio visualization software
- Special WEB page for the multilanguage adaptation of the presentation of an image page and a special WEB page for firmware upgrades
- Ethernet interface for connection to the IP network using the Internet Protocol
- RJ45 socket for connection to Ethernet 10 Mbits/s
- 2 LED displays for indication of ready-to-run state and for IP communication
- Integrated bus coupling units
- KNX bus connection via bus terminal
- Electronics powered via an external 24 V AC/DC power supply unit
- Connection of external power supply unit via an extra-lowvoltage terminal
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1151-1AB01	**N 151/01**

Accessories for N 151/01

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

Output Devices

Output Devices
Overview and selection guides
Binary output devices

2

Details AC1, AX, AC3, C load

The industrial and building control sector have seen the establishment of a range of different switching capacities and outputs. These tend to be specific to the respective applications and are specified in the corresponding national and international standards. The tests are defined such that they reproduce typical applications, such as motor loads (industry) or fluorescent lamps (buildings).

The AC1 and AC3 details are switching capacity specifications which have become established in the industrial sector:
• AC1: refers to the switching of overwhelmingly resistive loads (p.f. = 0.8)
• AC3: refers to an (inductive) motor load (p.f. = 0.45)

These switching capacities are defined in the standard EN 60947-4-1. "Contactors and motor starters – Electromechanical contactors and motor starters". The standard describes starters and/or contactors, which are originally used in industrial applications.

The designation AX has become established in building controls:
• AX: refers to a (capacitive) fluorescent lamp load

Switchable capacitive loads (200 μF, 140 μF, 70 μF or 35 μF) are mentioned in conjunction with fluorescent lamp loads. This switching capacity refers to the standard EN 60669 "Switches for household and similar fixed electrical installations – Particular requirements", which is primarily implemented for applications in building control.
A test with 70 μF is required for 6 A devices and with 140 μF for devices larger than 6 A. The switching capacity specifications AC and AX cannot be directly compared with each other.

In short, it is generally true that
users who
• are primarily involved with industrial applications tend to refer to an AC3 switching capacity, whereas
• come from the building control and lighting sector generally refer to an AX switching capacity or C load (200 μF Loads)

Switching capacity differences must be taken into account when selecting a switching actuator.

Output Devices
Overview and selection guides
Binary output devices

2

Modular switch actuators
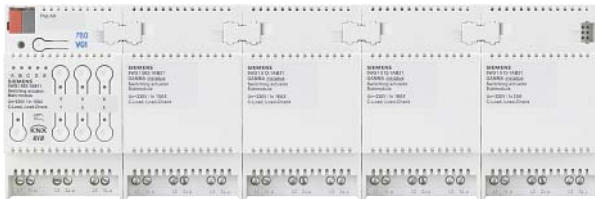
The modular design of the GAMMA switch actuators guarantees the flexible design for each use and requirement page. The integrated load current detection enables a wide range of new application options.

A switch actuator main unit can be simply expanded, if necessary, from a triple to a 6/9/12 or 15-times switch actuator and can be adjusted flexibly to the number and size of the loads to be switched. Using the coding bridge, up to four switch actuator expansions can be connected to the 6-pole interface on a main unit.

There is a broad spectrum of functions of the application software: It ranges from a multi-stage fan control, operating hours and switching operations counter, through scene control and thermal drive control to load detection and monitoring of the load current for each channel.

The extensive application program controls both the outputs of the main units and the outputs of all connected expansions. This includes:
• Recording and monitoring of load current per output for load failure or overload
• Simultaneous switching of all three outputs
• Implementation of a rotational speed stated as a percentage, in 1 to 3-stage switching commands (fan speed control)
• Implementation of a valve position stated as a percentage in a pulse width modulated switching command (thermal drive control)
• Switching operation and operating hours counter with limit monitoring per output
• Integrated 8-bit scene control, for which each output can be integrated in up to eight scenes

Block diagram: Switch actuator 15-times[1)2)]
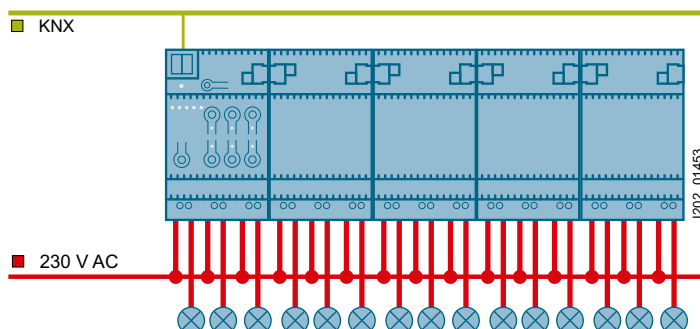
[1)] The block diagrams shown here are just an example of how modules can be interconnected and interfaced. For more detailed information,
please refer to the technical documentation available at:
www.siemens.com/gamma-td

[2)] All modules with the label 10 AX, 16 AX and 20 AX are compatible and therefore can be used with each other.

Application

Switch actuators for rail-mounting are the KNX devices most used, both in non-residential and residential construction
• Switching of loads up to 20 AX per channel
• Three-phase switching of drives/loads
• Control of 1 to 3-stage supply air / ventilation systems
• Load current detection
• Detection of a significant equipment failure
• Preventive detection of failures through continuous current monitoring
• Recording of operating hours and switching operations
• Report of maintenance or service work
• Detection of circuit interruptions

	Main modules			Expansions		
Type	N 562/11	N 512/11	N 513/11	N 562/21	N 512/21	N 513/21
Application program[1]	982002			[1]		
Enclosure data						
Design	N	N	N	N	N	N
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■	■	■
Interface for connection of a switch actuator expansion	■	■	■	■	■	■
Dimensions						
Width (1 MW = 18 mm)	3 MW	3 MW	3 MW	3 MW	3 MW	3 MW
Display/control elements						
Direct operation (local operation)	■	■	■	■[2]	■[2]	■[2]
LED for indicating direct operation	■	■	■			
LED for indicating the selected device	■	■	■			
LED for status indication per output	■	■	■	■[2]	■[2]	■[2]
Power supply						
Bus-powered electronics	■	■	■	■[2]	■[2]	■[2]
Bus connection						
Integrated bus coupling units	■	■	■			
Bus connection via bus terminal	■	■	■			
Outputs						
Load output						
Floating relay contacts	3	3	3	3	3	3
Rated contact voltage, AC [V]	230	230	230	230	230	230
Rated contact current						
• AX (200 µF) acc. to EN 60669-1 [AX]	10 (140 µF)	16	20	10 (140 µF)	16	20
• AC1 (p.f. = 0.8) [A]	16	16	20	16	16	20
• AC3 (p.f. = 0.45) acc. to DIN EN 60497-4-1 [A]	10	16	16	10	16	16
• 24 V DC [A]	10	16	20	10	16	20
Three-phase switching (3 outputs simultaneously)	■	■	■	■	■	■
Last check	■	■	■	■	■	■
Output functions						
Max. number of group addresses	511	511	511			
Max. number of assignments	511	511	511			
Max. number of expansion modules that can be butt-mounted	4	4	4			
Configurable behavior in the event of a bus voltage failure	■	■	■	■	■	■
Configurable behavior in the event of a bus voltage recovery	■	■	■	■	■	■
Behavior in the event of system voltage failure • Unchanged switching state of outputs	■	■	■	■	■	■
Ventilator control						
Speed control 1...3-step	■	■	■	■	■	■
Heating control						
Controlling electrothermal actuators	■	■	■	■	■	■
Scene control						
Integrated 8-bit scene control	■	■	■	■	■	■
Scenes to be integrated per channel	8	8	8	8	8	8
Time functions						
OFF delay	■	■	■	■	■	■
ON delay	■	■	■	■	■	■
Timer mode (automatic stairwell switch)	■	■	■	■	■	■
Night mode (lighting for cleaning)	■	■	■	■	■	■
Warning of impending OFF	■	■	■	■	■	■
Logical functions						
Positively driven operation	■	■	■	■	■	■
Logic function (2 objects)	■	■	■	■	■	■
Can be inverted per output (NO contact/NC contact)	■	■	■	■	■	■
Status						
Transmitting status per channel	■	■	■	■	■	■
Operating hours counter with limit monitoring per channel	■	■	■	■	■	■
Switching cycle counter with limit monitoring per channel	■	■	■	■	■	■
Load current recording per channel	■	■	■	■	■	■
Load current monitoring per channel	■	■	■	■	■	■

[1] For current application programs, see www.siemens.com/gamma-td. Via main module.
[2] Via main module

2-4

Type	N 567/01	N 567/12	N 567/11	N 567/22	N 510/03	N 510/04	N 512/01	N 511/02	N 502/02	N 562/01	UP 510/03	UP 510/13	UP 562/31	UP 511/10	RS 510/23	RL 512/23
Enclosure data																
Design	N	N	N	N	N	N	N	N	N	N	UP	UP	UP	UP	RS	RL
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■	■	■	■	■	■	■						
For installation in flush-mounting switch and socket boxes with Ø 60 mm											■	■	■	■		
Modular installation device for mounting in AP 118 automation module box or AP 641 room control box[1]															■	■
10-pole BTI socket (BTI - Bus Transceiver Interface) for plugging of bus terminal devices with BTI connector											■					
Dimensions																
• Width/Ø [mm] (1 MW = 18 mm)	4 MW	4 MW	4 MW	8 MW	4 MW	4 MW	8 MW	8 MW	8 MW	2 MW	71	50	Ø 53	Ø 53	50.2	47.8
• Height [mm]											42	41.3			35.5	36.2
• Depth [mm]											71	50.9	28	28	48.8	86.5
Mounting type																
Screw fixing											■					
Display/control elements																
Direct operation (local operation)	■	■	■	■				■	■							
Mechanical local operation					■	■	■									
Mechanical switching position indication					■	■	■									
LED for status indication per output	■	■	■	■				■	■							
LED for indicating direct operation	■	■	■	■				■	■							
Power supply																
Bus-powered electronics					■	■	■				■	■	■	■	■	■
Electronics powered via an integrated power supply unit for supply voltage 230 V AC	■	■	■	■				■	■							
Bus connection																
Integrated bus coupling units	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bus connection via bus terminal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bus connection via contact system to data rail	■	■	■	■	■	■	■	■	■	■						
Outputs																
Load output																
Floating relay contacts	4[2]	8[2]	8[2]	16[2]	4	4	8	8	8[2]	2	2	2	2	1	2	1
Rated contact voltage, AC [V]	230	230	230	230	230	230	230[3]	230	230	230	230	230	230	230	230	230
Rated contact current [A]	8	2	8	10	16	16	16	16	16	10	10	10	6	16	10	16
Inputs																
Max. cable length, unshielded, twisted [m]									100				5	5		
Pushbutton inputs																
For signal input (floating contacts)									8				2	2		
Determination of switching state by means of the voltage generated in the device													■	■		
For voltage input 12...230 V AC/DC									8							

[1] The AP 641 room control box and AP 118 automation module box must be ordered separately, see Chapter Quick-assembly system - Room control box - Module boxes.
[2] Except channel A.
[3] Also available as UL version: 120 V AC, 20 A, Order No.: 5WG1512-1CB01.

...Continuation of the table

	N 567/01	N 567/12	N 567/11	N 567/22	N 510/03	N 510/04	N 512/01	N 511/02	N 502/02		N 562/01					UP 510/03	UP 510/13	UP 562/31	UP 511/10	RS 510/23	RL 512/23
Application program[1]	980303	980304	980302	981C01	906401	906401	900701	908301	981D01	981601	520401	520501	520901	520B01	520802	982E01	982E01	207101	207101	982E01	982D01
Output functions																					
Max. number of group addresses	100	100	100	106	55	55	52	49	106	120	11	19	11	17	10	120	120	26	26	120	120
Max. number of assignments	100	100	100	106	56	56	52	49	74	120	11	20	12	17	10	120	120	27	27	120	120
Blocking function																		■	■		
Configurable behavior in the event of a bus voltage failure					■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■
Configurable behavior in the event of a bus voltage recovery					■	■	■	■		■		■	■	■		■	■	■	■	■	■
Configurable behavior in the event of a system voltage recovery	■	■	■	■					■	■											
Behavior in the event of system voltage failure																					
• Positive OFF switching of the outputs	■	■																			
• Unchanged switching state of outputs			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Heating control																					
Controlling electrothermal actuators																		■			
Scene control																					
Integrated 8-bit scene control	■	■	■	■					■	■						■	■			■	■
Scenes to be integrated per channel	8	8	8	8					8	8						8	8			8	8
Time functions																					
OFF delay	■	■	■	■	■	■	■	■	■	■	■		■			■	■	■	■	■	■
ON delay	■	■	■	■	■	■	■	■	■	■	■		■			■	■	■	■	■	■
Timer mode (automatic stairwell switch)	■	■	■	■	■	■	■	■	■	■						■	■	■	■	■	■
Night mode (lighting for cleaning)	■	■	■	■					■	■						■	■			■	■
Warning of impending OFF	■	■	■	■				■	■	■						■	■			■	■
Logical functions																					
Positively driven operation					■	■		■			■	■				■	■	■	■	■	■
Logic function (1 object)	■	■	■	■			■	■	■					■		■	■				
Logic function (2 objects)					■	■		■								■	■	■	■	■	■
Can be inverted per output (NO contact/NC contact)					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Status																					
Transmitting status per channel	■	■	■	■	■	■	■	■	■	■						■	■	■	■	■	■

[1] For current application programs, see www.siemens.com/gamma-td.

	N 562/11 switch actuators, main module / N 562/21 switch actuators, expansion	N 512/11 switch actuators, main module / N 512/21 switch actuators, expansion	N 513/11 switch actuators, main module / N 513/21 switch actuators, expansion	N 562/01 binary outputs	N 510/03 load switches	N 510/04 load switches	N 512/01 load switches[1]	N 511/02 switch actuators	N 567/01 switch actuators	N 567/11 switch actuators
Contact current										
Rated current, AC [A]	10 AX[3]	16 AX	20 AX	10	16	16	16	16	8	8
AC3 operation (p.f. = 0.45) [VA]	2300	3680	3680	500	2500	3680	3680	[2]	500	500
Maximum switch-on peak current (if more than one, specification of the highest current value) [A/ms]	[2]	[2]	[2]	[2]	400/0.15	600/0.15	600/0.15	[2]	[2]	110/50
Contact voltage										
Rated voltage, AC [V]	230	230	230	230	230	230	230	230	230	230
Service life										
Mechanical service life Switching operations in millions	1	1	1	50	1	1	1	30	2	10
Electrical service life Switching operations in millions	0.1	0.1	0.1	0.1	[2]	[2]	[2]	0.1	0.1	0.1
Power loss										
Maximum power loss per device at rated power [W]	3	3	3	1	5	5	9	10	5	4
Switching capacities/load types, loads										
Resistive load [W]	3680	3680	4600	2300	3680	3680	3680	3680	1840	1840
Minimum switching capacity [V/mA]	12/100	12/100	12/100	24/10	12/100	12/100	12/100	[2]	5/100	24/10
DC switching capacity [VA]	24/10	24/16	24/20	30/10	24/10	24/10	24/10	24/16	24/8	30/10
Maximum capacitive load [µF]	200	200	200	35	140	200	200	35	35	35
Incandescent lamps										
Incandescent lamps [W]	2300	3680	3680	1000	2500	3680	3680	1000	1000	1000
Halogen lamp 230 V [W]	2300	3680	3680	1000	2500	3680	3680	1000	1000	1000
LV halogen lamp with conventional transformer (inductive) [VA]	1200	2000	2000	500	500	2000	2000	500	200…500	200…500
T5/T8 fluorescent lamps										
Uncorrected [VA]	2300	3680	3680	500	2500	3680	3680	500	500	500
Parallel corrected (at max. possible C) [W]	1500	2500	2500	2 x 58	1300	2500	2500	2 x 58	2 x 58	2 x 58
DUO circuit [VA]	1500	3680	3680	1000	2500	3680	3680	1000	1000	1000
ECG Osram QTI 1 x 28/54 W [Unit(s)] [4]	37	59	59	37	59	59	59	59	37	37
ECG Osram QTP8 1 x 36 W [Unit(s)]	16	31	31	14	31	31	31	14	14	14
ECG Osram QTI 1 x 35/49/80 W; QTM 1 x 26-42 [4]	11	21	21	10	21	21	21	10	10	10
ECG Osram QTP8 2 x 58 W; QTI 2 x 35/49/80 [4]	5	9	9	5	9	9	9	5	5	5
Compact lamps										
Uncorrected [VA]	1600	3680	3680	500	1600	3680	3680	500	500	500
Parallel corrected (at max. possible C) [W]	1100	2500	2500	300	1100	3000	3000	300	300	300
ECG Osram Duluxtronics DT [Unit(s)] [4]	15	25	25	15	25	25	25	25	15	15
Mercury-vapor lamps										
ECG Osram PTI 35/220-240S [Unit(s)] [4]	7	14	14	7	14	14	14	7	7	7
ECG Osram PTI 70/220-240S [Unit(s)] [4]	4	8	8	4	8	8	8	4	4	4

[1] Also available as UL version: 120 V AC, 20 A, Order No.: 5WG1512-1CB01.

[2] On request.

[3] Further information see chapter Output devices.

[4] The number of ECG types takes into account the use of miniature circuit breakers with characteristic B.

For complete technical specifications, see: www.siemens.com/gamma-td.

2

...Continuation of the table

	N 567/12 switch actuators	N 567/22 switch actuators	N 502/02 combination switch actuators	N 670/03 Universal I/O modules	UP 510/03 binary outputs UP 510/13 binary outputs RS 510/23 binary outputs	UP 511/10 switch actuators	UP 562/31 switch actuators	RL 512/23 switch actuators
Contact current								
Rated current, AC [A]	2	10	16	10	10	16	6	16 AX
AC3 operation (p.f. = 0.45) [VA]	[1]	500	500	500	500	500	500	3680
Maximum switch-on peak current (if more than one, specification of the highest current value) [A/ms]	[1]	80/20	80/20	110/50	110/50	400/20	400/20	[1]
Contact voltage								
Rated voltage, AC [V]	230	230	230	230	230	230	230	230
Service life								
Mechanical service life Switching operations in millions	20	30	30	10	10	5	5	1
Electrical service life Switching operations in millions	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Power loss								
Maximum power loss per device at rated power [W]	5	9	13	9	3	2	1	3
Switching capacities/load types, loads								
Resistive load [W]	460	2300	3680	2300	2300	3680	1380	3680
Minimum switching capacity [V/mA]	5/10	24/100	24/100	24/100	24/10	[1]	[1]	12/100
DC switching capacity [VA]	24/8	24/10	24/16	30/10	30/10	[1]	[1]	24/16
Maximum capacitive load [µF]	12	35	35	35	35	105	105	200
Incandescent lamps								
Incandescent lamps [W]	500	1000	1000	1000	1000	2500	1380	3680
Halogen lamp 230 V [W]	500	1000	1000	1000	1000	2200	1000	3680
LV halogen lamp with conventional transformer (inductive) [VA]	200	500	500	200...500	200...500	1000	1000	2000
T5/T8 fluorescent lamps								
Uncorrected [VA]	200	500	500	500	500	28 x 58	1380	3680
Parallel corrected (at max. possible C) [W]	200	2 x 58	2 x 58	2 x 58	2 x 58	15 x 58	15 x 58	2500
DUO circuit [VA]	200	1000	1000	1000	1000	28 x 58	1380	3680
ECG Osram QTI 1 x 28/54 W [Unit(s)][2]	22	37	59	37	37	59	26	59
ECG Osram QTP8 1 x 36 W [Unit(s)]	7	14	14	14	14	28	28	31
ECG Osram QTI 1 x 35/49/80 W; QTM 1 x 26-42 [Unit(s)][2]	5	10	10	10	10	21	21	21
ECG Osram QTP8 2 x 58 W; QTI 2 x 35/49/80 [Unit(s)][2]	2	5	5	5	5	9	9	9
Compact lamps								
Uncorrected [VA]	200	500	500	500	500	[1]	[1]	3680
Parallel corrected (at max. possible C) [W]	200	300	300	300	300	[1]	[1]	2500
ECG Osram Duluxtronics DT [Unit(s)][2]	7	15	15	15	15	25	25	25
Mercury-vapor lamps								
ECG Osram PTI 35/220-240S [Unit(s)][2]	3	7	7	7	7	14	14	14
ECG Osram PTI 70/220-240S [Unit(s)][2]	2	4	4	4	4	8	8	8

[1] On request.

[2] The number of ECG types takes into account the use of miniature circuit breakers with characteristic B.
 For complete technical specifications, see: www.siemens.com/gamma-td.

Output Devices
Binary output devices
Modular switch actuators

2

Switch actuator, main module

- 3 Floating relay contacts
- Rated contact voltage, 230 V AC
- Interface for connecting a switching actuator submodule and software for controlling up to 4 switching actuator submodules
- Selectable 3-phase switching function (simultaneous switching of 3 outputs)
- Direct operation (local operation)
- LED for indicating direct operation
- LED for indicating the selected device
- LED for status indication per output
- Selectable 1- to 3-stage fan speed control function
- Function for controlling thermo-electrical drives
- Integrated 8-bit scene control
- Time functions: off delay, on delay, timer mode (automatic stairwell switch), night mode (lighting for cleaning), Warning of impending off
- Logical functions: Positively driven operation, Logic function (2 objects), Can be inverted per output (NO contact/NC contact)
- Per channel: transmitting status, Operating hours counter with limit monitoring, Switching cycle counter with limit monitoring, Load current recording, Load current monitoring
- Power supply for its own electronics and for the electronics of the connected switching actuator submodules via the bus voltage
- Bus connection via bus terminal

Dimension width (1 MW = 18 mm)   3 MW

Range overview switch actuators, main modules

Product Title	Stock No.	Product No.
Switch actuator, main module, 3 x AC 230/400 V, 10 AX, C load, Load-check	5WG1562-1AB11	**N 562/11**
Switch actuator, main module, 3 x AC 230/400 V, 16 AX, C load, Load-check	5WG1512-1AB11	**N 512/11**
Switch actuator, main module, 3 x AC 230/400 V, 20 AX, C load, Load-check	5WG1513-1AB11	**N 513/11**

Switch actuator, submodule

- 3 Floating relay contacts
- Rated contact voltage, 230 V AC
- Interface for connecting a switching actuator submodule and software for controlling up to 4 switching actuator submodules
- Selectable 3-phase switching function (simultaneous switching of 3 outputs)
- Direct operation (local operation)
- LED for indicating direct operation for each output
- Selectable 1- to 3-stage fan speed control function
- Function for controlling thermo-electrical drives
- Integrated 8-bit scene control
- Time functions: off delay, on delay, Timer mode (automatic stairwell switch), Night mode (lighting for cleaning), Warning of impending off
- Logical functions: Positively driven operation, Logic function (2 objects), Can be inverted per output (NO contact/NC contact)
- Per channel: transmitting status, Operating hours counter with limit monitoring, Switching cycle counter with limit monitoring, Load current recording, Load current monitoring
- Power supply for its own electronics and for the electronics of the connected switching actuator submodules via the bus voltage
- Bus connection via bus terminal

Dimension width (1 MW = 18 mm)   3 MW

Output Devices
Binary output devices
Modular switch actuators

2

Range overview expansion

Product Title	Stock No.	Product No.
Switch actuator submodule, 3 x AC 230/400 V, 10 AX, C load, Load-check	5WG1562-1AB21	**N 562/21**
Switch actuator submodule, 3 x AC 230/400 V, 16AX, C load, load-check	5WG1512-1AB21	**N 512/21**
Switch actuator submodule, 3 x AC 230/400 V, 20 AX, C load- Load-check	5WG1513-1AB21	**N 513/21**

Switch actuator

N 567/..

- One potential-free relay contact per output channel
- Electronics powered via an integrated power supply unit for 230 V AC
- Pushbutton for switching between bus operation and local operation
- A yellow LED indicating local operation
- 1 red LED per output channel to indicate switch status
- One pushbutton per output channel to activate the output through a UM-function in local operating mode
- Operational with an 230 V AC supply, (even with no bus voltage and faulty or not activated bus communication)
- Choice between identical or individually parameterized outputs
- Operating mode selectable for each channel (normal operation, time switch operation)
- Adjustable switching on/off delay
- Selectable logic link (AND/OR) between two communication objects and presettable logic operator for bus voltage return
- Possibility to add an additional night operation object per output channel for time limited activation of output (lighting) at night
- Selectable warning signal prior to imminent switching off in form of three times short off/on switching (flashing)
- Possibility to add one additional status indicator object per output channel, sending of status objects on request and/or automatically after change
- Possibility to add additional object to drive the integrated 8-bit scene controller, integrated 8 bit scene control and linking each output channel to up to 8 scenes
- Unchanged switch state for all output channels in case of power failure
- Selectable switch state after return of power for each output channel
- Integrated bus coupling units, bus connection via bus terminal or contact system to data rail, only 50% of standard busload
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Range overview switch actuators N567/..

Product Title	Dimension width (1 MW = 18 mm)	Stock No.	Product No.
Switch actuator, 4 x 230 V AC, 8 A	4 MW	5WG1567-1AB01	**N 567/01**
Switch actuator, 8 x 230 V AC, 8 A	4 MW	5WG1567-1AB11	**N 567/11**
Switch actuator, 8 x 230 V AC, 2 A	4 MW	5WG1567-1AB12	**N 567/12**
Switch actuator, 16x AC 230 V, 10 A	8 MW	5WG1567-1AB22	**N 567/22**

The data rail must be ordered separately. See chapter System Products and Accessories - Data rails.

N 511/02

Switch actuator 8 x 230 V AC, 16A

- One relay contact per output as switching element
- Rated operating voltage of relay contact: 230 V AC
- Rated current of relay contact: 16 A, p.f. = 1
- Integrated power supply for the electronics, connected to 230 V AC
- Push button to switch between bus operation and direct operation
- Yellow LED to indicate direct operation activated
- 1 red LED per output to indicate the switching state
- One push button per output to switch the output via a toggling function in direct operation mode, functional if 230 V AC present, (even if bus voltage absent or interrupted or bus communication not yet activated)
- Selection whether outputs are to be configured identically or individually
- Operation mode selectable for each output (normal mode, time switch mode)
- Selectable switching behaviour for each output (NO contact/NC contact)
- Adjustable On and Off delay times
- Selectable logic operation (AND/OR) for two communication objects and variable start value of the logic operation at bus voltage recovery
- Selectable additional night mode object for each output for time-limited switching on of the illumination at night
- Adjustable On period for night or time switch operation mode
- Selectable warning signal prior to imminent switching-off by means of three-times short off and on switching (flashing) at night or time switch operation mode
- Possibility to add one additional status indication object per output for status reporting
- Sending of status objects on request and/or automatically after a change
- Integrated 8-bit scene control and linking of each output into up to 8 scenes
- Unchanged switching state of all outputs if there is a power failure
- Adjustable switching state per output after mains voltage recovery
- Integrated bus coupling unit
- Bus connection both via bus terminal and contact system to a data rail
- Only half a standard bus load
- Rail-mounted device for mounting on rail TH 35 according to DIN EN 60715

Dimension width (1 MW = 18 mm)   8 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1511-1AB02	**N 511/02**

Switching actuator, 1 x 230 V AC, 20 A, 16 A, C load

RL 512/23

- 1 floating relay contact
- Rated contact voltage, 230 V AC
- Rated contact current 16 AX / 20 A
- Modular installation device for mounting in AP 118 automation module box or AP 641 room control box
- Switching operation and operating hours counter
- Configurable behavior in the event of a bus voltage failure/recovery
- Unchanged switching state of outputs in the event of system voltage failure
- Integrated 8-bit scene control
- Time functions: off delay, on delay, timer mode (automatic stairwell switch), night mode (lighting for cleaning), Warning of impending off
- Logical functions: Positively driven operation, logic function (1 object), logic function (2 objects), can be inverted per output (NO contact/NC contact)
- Transmitting status per channel
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   86.5 x 47.8 x 36.2 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately.
See chapter Quick-Assembly System - Room Control Box.

	Stock No.	Product No.
	5WG1512-4AB23	**RL 512/23**

Switch actuator

UP 5..

- Rated contact voltage 230 V AC
- 2 binary inputs for potential-free contacts
- 20 cm long wires for connecting phase conductor, output, inputs and bus
- Output to be configured as NO or NC contact
- Selectable preferred output state at bus voltage failure and recovery
- Switching status object
- Selectable additional functions:
- On/off delay
- Time-switch
- Logic operation, function forced positioning
- Forced position
- Selectable function of the binary inputs:
- Acting as secondary inputs directly on the switching outputs or acting as independant binary inputs with bus communication
- Free allocation of the functions switching, dimming, solar protection control, send value and scene control to the inputs
- Two independent switching objects per input
- Blocking object for each input
- Separately selectable behaviour per input at bus voltage recovery
- Telegram rate limitation for both inputs
- Integrated bus coupling units, bus-powered electronics
- Enclosed bus terminal for bus connection
- Installation in a flush-mounting wall or ceiling box with 60 mm diameter

Dimension (Ø x H)   53 x 28 mm

Range overview UP 5..

Product Title	Stock No.	Product No.
Switch actuator, 1 x AC 230 V, 16 A; 2 x binary input	5WG1511-2AB10	**UP 511/10**
Switch actuator, 2 x AC 230 V, 6 A; 2 x binary input	5WG1562-2AB31	**UP 562/31**

Output Devices
Binary output devices
Combination switch actuators

2

N 502/02	**Combi switching actuator, 8 x AC 230 V, 16 A, 8 x binary inputs**

- 8 inputs 12...230 V AC/DC
- 8 relay contact outputs
- Rated contact voltage 230 V AC
- Rated contact operating current 16 A, p.f. = 1
- Electronics power supply via an integrated power supply unit for 230 V AC
- Device functional even without bus connection or if bus voltage absent or bus communication interrupted or not yet activated
- Green LED to indicate operational readiness
- Push button to switch between bus and direct mode
- Yellow LED to indicate direct mode activated
- Push button for each output to switch the output in direct mode via a toggling function by a short actuation and for changing the output mode between remote control relay and time switch relay by holding down the push button for some seconds
- 1 red LED per output to indicate the switching state
- 1 red LED per input to indicate the current signal state
- Device preset at the factory for direct switching of an output through a toggling function via the input of the same name
- Selectable function for each input when using the Engineering Tool Software (ETS):
- Switching status / binary value transmission
- Switching, short / long operation
- Single button dimming, single button sun protection control, 1-button group control (sequence control)
- 1-bit scene control
- 8-bit scene control, 8-bit value, edge-triggered, 8-bit value, short / long operation
- 16-bit floating point value, edge-triggered, 16-bit value, short / long operation, 16-bit value, edge-triggered 16-bit floating point value, short / long operation
- Selectable function for each pair of inputs: 2-button dimming with stop telegram, 2-pushbutton shutter/blind control
- Selectable blocking / releasing of each input via a corresponding blocking object
- Sending of the input objects after a change of status
- Selectable logic operation (AND/OR) for one input with a further communication object and with variable start value of the logic operation at bus voltage recovery
- Setting by means of the ETS, whether all outputs are to be configured identically or individually
- Selectable mode for each output (normal mode, time switch mode)
- Optional addition of a night mode object for each output for time-limited switching On of the output (and hence the illumination) at night
- Variable On and Off delay times for each output
- Variable On period in night mode or in time switch mode
- Selectable warning signal prior to imminent switching-off by means of three-times short off and on switching (flashing) in night mode or in time switch mode
- Status object for reporting direct mode
- Optional status object per output for status reporting
- Sending of status objects on request and/or automatically after a change
- Integrated 8-bit scene control and linking of each output with up to 8 scenes
- Selectable switching state for each output at mains or bus power failure as well as after bus or mains voltage recovery
- Integrated bus coupling units with only half a standard bus load
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   8 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1502-1AB02	**N 502/02**

Load switch

N 510/..

- 4 Floating relay contacts
- Switching contacts can also be operated manually via slide switches
- Can be inverted per output (NO contact/NC contact)
- Configurable timer mode with configurable on/off delay
- Logic operation (AND/OR) of two communication objects and adjustable start value of operation
- Status object
- Positively driven operation
- Configurable behavior in the event of a bus voltage failure
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via bus terminal or contact system to data rail

Dimension width (1 MW = 18 mm)   4 MW

Range overview load switches N 510/..

Product Title	Stock No.	Product No.
Load switch, 4x 230 V AC, 16 A	5WG1510-1AB03	**N 510/03**
Load switch, 4x 230 V AC, 16 A, C load	5WG1510-1AB04	**N 510/04**

The data rail must be ordered separately. See chapter System Products and Accessories - Data rails.

Load switch

N 512..01

- 4 Floating relay contacts
- Switching contacts can also be operated manually via slide switches
- Can be inverted per output (NO contact/NC contact)
- Configurable timer mode with configurable on/off delay
- Logic operation (AND/OR) of two communication objects and adjustable start value of operation in the event of bus voltage recovery
- Status object
- Positively driven operation
- Switching option on bus voltage failure and bus voltage recovery
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   8 MW

Range overview load switches N 512..01

Product Title	Stock No.	Product No.
Load switch, 8x 230 V AC, 16 A, C load	5WG1512-1AB01	**N 512/01**
Load switch, 8x 347 V AC, 20 A, C load (UL listed)	5WG1512-1CB01	**N 512C01**

The data rail must be ordered separately. See chapter System Products and Accessories - Data rails.

N 562/01

Binary Output, 2 x 230V AC, 10A

- with one potential-free relay contact per output
- rated voltage 230 V AC
- rated current 10 A at p.f. = 1
- with selectable programs for the independent switching on/off of electrical loads, either with direct operation or with forced control, with status objects
- with operation as time switch or with on/off delay
- with logic operation (AND/OR) of two communication objects for channel A
- with selectable relay operating mode (NC contact / NO contact)
- with control of an electro thermal valve actuator or electrical heating
- with monitoring of the room temperature controller
- with adjustable characteristics of thermal drive (valve opened or closed for isolated drive)
- with communication object for reception of up to three window contact data per channel and closing of the valve if the window is open
- with communication objects for the reception of a frost alarm signal per channel
- with activation of the heating to 50 % of the On period (corresponds to a half-opened valve) if a frost alarm is received and on failure of communication with the room temperature controller
- with configurable output state in case of bus voltage failure and bus voltage recovery
- with bus-powered electronics
- with integrated bus coupling unit, bus connection via contact system to data rail
- for mounting on DIN rail EN 60715-TH35-7.5.

Dimension width (1 MW = 18 mm)   2 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1562-1AB01	**N 562/01**

RS 510/23

Binary output devices, 2 x 230 V AC, 10 A (ohmic load), modular installation device

- 2 Floating relay contacts
- Rated contact voltage 230 V AC
- Rated contact current 10 A
- Integrated bus coupling unit
- Modular installation device for mounting in AP 118 automation module box or AP 641 room control box
- Bus-powered electronics
- Bus connection via bus terminal, Integrated bus coupling units
- Configurable behavior in the event of a bus voltage failure/recovery
- Unchanged switching state of outputs in the event of system voltage failure
- Integrated 8-bit scene control
- Time functions: off delay, on delay, timer mode (automatic stairwell switch), night mode (lighting for cleaning), Warning of impending off
- Logical functions: Positively driven operation, Logic function (1 object), Logic function (2 objects), Can be inverted per output (NO contact/NC contact)
- Transmitting status per channel
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   50.2 x 48.8 x 35.5 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately. See chapter Quick-Assembly System - Room Control Box.

	Stock No.	Product No.
	5WG1510-2AB23	**RS 510/23**

Binary Output

UP 510/..3

- Rated contact voltage, 230 V AC
- Bus-powered electronics
- Bus connection via bus terminal, Integrated bus coupling units
- Configurable behavior in the event of a bus voltage failure
- Configurable behavior in the event of a bus voltage recovery
- Unchanged switching state of outputs
- Integrated 8-bit scene control
- Time functions: off delay, on delay, Timer mode (automatic stairwell switch), Night mode (lighting for cleaning), Warning of impending off
- Logical functions: Positively driven operation, Logic function (1 object), Logic function (2 objects), Can be inverted per output (NO contact/NC contact)
- Transmitting status per channel

Range overview binary output devices UP 510/..3

Product Title	Dimensions (W x H x D)	Stock No.	Product No.
Binary Output, 2 x 230 V AC, 10A, 10-pole BTI socket for plugging of bus terminal devices and mounting frame	71 x 71 x 42 mm	5WG1510-2AB03	**UP 510/03**
Binary Output, 2 x 230 V AC, 10A, without mounting frame	50 x 50.9 x 41.3 mm	5WG1510-2AB13	**UP 510/13**

N 670/03

Universal I/O module

- 2 universal inputs/outputs, each adjustable as
- Analog input 0…10 V DC, Analog output 0…10 V DC
- Binary input for 10 V DC, Binary output for 10 V DC
- Analog input with limit value monitoring and signaling, with adjustable limit values and hysteresis
- Analog output with adjustable lower and upper limit of the output voltage with adjustable voltage value in the event of bus voltage failure and recovery
- Binary input with pulse edge evaluation
- Binary output with adjustable switching position in the event of bus voltage failure and recovery
- 2 inputs for the connection of temperature sensors2) with Pt1000 measured element for temperature measurement in the range -25…+45 °C, with limit value monitoring and signaling, with adjustable limit values and hysteresis
- 2 binary outputs, relay contacts rated for 230 V AC, 10 A at p.f. = 1, with
- Configurable actuated position (NO contact/NC contact)
- Positively driven operation
- Configurable switching position in the event of bus voltage failure and recovery
- Electronics powered via an external 24 V AC/DC power supply unit, power consumption approx. 100 mA
- Integrated bus coupling units
- Bus connection via bus terminal and contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1670-1AB03	**N 670/03**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.
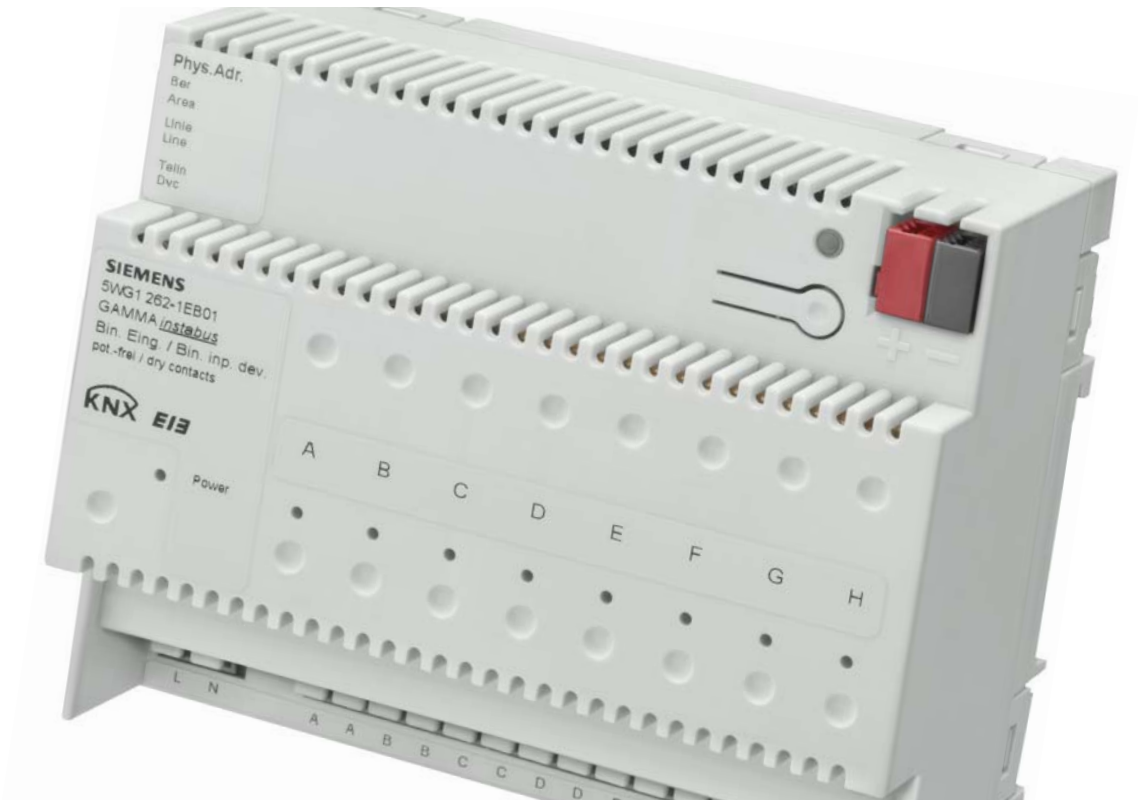The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).
For physical sensors, see Chapter, Physical sensors - without KNX connection.

Accessories for N 670/03

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

Input devices

Technical specification
Binaray input devices

3

Type	N 262E01	N 263E01	N 262E11	N 263E11	N 264E11	N 260/01 [1]	N 261/01	RL 260/23	UP 220/21	UP 220D31	N 501/01	N 502/02	UP 511/10	UP 520/31	UP 525/31	UP 562/31
Enclosure data																
Design	N	N	N	N	N	N	N	RL	UP	UP	N	N	UP	UP	UP	UP
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■	■	■	■				■	■				
For inserting into flush-mounting switch and socket boxes with Ø = 60 mm									■	■			■	■	■	■
Modular installation device for mounting in AP 118 automation module box or AP 641 room control box [2]						■										
Dimensions																
• Width [mm] (1 MW = 18 mm)	6 MW	6 MW	6 MW	6 MW	6 MW	2 MW	2 MW	47.8	42	42	8 MW	8 MW	Ø 53	Ø 53	Ø 53	Ø 53
• Height [mm]								36.2	42	42						
• Depth [mm]								86.5	8.5	8.5			28	28	28	28
Display/control elements																
LED for status indication per input	■	■	■	■	■						■	■				
Power supply																
Bus-powered electronics						■	■	■	■	■			■	■	■	■
Electronics powered via an integrated power supply unit for supply voltage 230 V AC	■	■	■	■	■						■	■				
Bus connection																
Integrated bus coupling units	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bus connection via contact system to data rail	■	■	■	■	■	■	■				■	■				
Bus connection via bus terminal	■	■	■	■	■			■	■	■	■	■	■	■	■	■
Inputs																
Max. cable length, unshielded, twisted [m]	100	100	100	100	100	100	100	100	10	10	100	100	5	5	5	5
Pushbutton inputs																
For signal input (floating contacts)	8		16		8				2 [3]	4 [3]			2	2	2	2
Determination of switching state by means of the voltage generated in the device	■		■		■				■	■			■	■	■	■
For voltage input		■		■	■	■	■	■			■	■				
• 230 V AC						4 [4]										
• 24 V AC/DC							4 [5]									
• 12...230 V AC/DC		8 [6]			8 [6]			4			8	8				
• 12...230 V AC/12...115 V DC				16 [6]												

[1] Also available as UL version, Order No.: 5WG1261-1CB01.

[2] The AP 641 room control box and AP 118 automation module box must be ordered separately, see Chapter Quick-assembly system - Room control box- Module boxes

[3] Inputs, alternatively can be used as outputs for controlling LEDs up to a maximum of 2 mA.

[4] Pushbutton inputs with shared ground (N).

[5] Pushbutton inputs with shared ground (COM-).

[6] The pushbutton inputs are mutually insulated from the base.

...Continuation of the table

Type	N 262E01	N 263E01	N 262E11	N 263E11	N 264E11	N 260/01			N 261/01			RL 260/23	UP 220/21	UP 220D31	N 501/01	N 502/02	UP 511/10	UP 520/31	UP 525/31	UP 562/31
Application program[1]	980902	980902	980D02	980D02	980D02	240505	240A01	220703	240505	240A01	220703	983101	982301	982201	981701	981601	207201	207301	301901	207101
Input functions																				
Max. number of group addresses	97	97	97	97	97	14	8	27	14	8	27	120	120	120	220	120	26	26	26	26
Max. number of assignments	97	97	97	97	97	16	9	27	16	9	27	120	120	120	220	120	27	27	27	27
Telegram rate limitations	■	■	■	■	■	■	■	■	■	■	■						■	■	■	■
Configurable debounce time	■	■	■	■	■	■	■	■	■	■	■						■	■	■	■
Locking of inputs using blocking objects	■	■	■	■	■							■	■	■	■	■	■	■	■	■
Adjustable duration of long button press	■	■	■	■	■			■				■	■	■	■	■	■	■	■	■
Configurable contact type (NO contact/NC contact)	■	■	■	■	■		■	■		■		■	■	■	■	■	■	■	■	■
Transmission parameters																				
Adjustable cyclic transmission	■	■	■	■	■	■		■				■					■	■	■	■
Configurable transmission in the event of changes to the input	■	■	■	■	■	■	■	■	■	■	■	■					■	■		
Configurable transmission in the event of bus voltage recovery	■	■	■	■	■	■				■		■	■	■	■	■	■	■	■	■
Transmission delay with adjustable delay time								■			■									
Configurable event-controlled transmission						■			■			■	■							
Switching																				
Switching ON/OFF																				
• Rising edge	■	■	■	■	■	■		■	■		■	■	■	■	■	■	■	■	■	■
• Falling edge	■	■	■	■	■	■		■	■		■	■	■	■	■	■	■	■	■	■
• Rising and falling edge	■	■	■	■	■	■		■	■		■	■	■	■	■	■	■	■	■	■
• Short/long button press can be evaluated	■	■	■	■	■	■		■	■		■	■	■	■	■	■				
Switching OVER																				
• Rising edge	■	■	■	■	■	■				■		■	■	■	■	■	■	■	■	■
• Falling edge	■	■	■	■	■	■				■		■	■	■	■	■	■	■	■	■
• Rising and falling edge	■	■	■	■	■			■				■	■	■	■	■	■	■	■	■
Value transmission																				
8 bit																				
• Rising edge	■	■	■	■	■		■	■		■	■	■	■	■	■	■	■	■	■	■
• Falling edge	■	■	■	■	■		■			■		■	■	■	■	■				
• Rising and falling edge	■	■	■	■	■		■	■		■	■	■	■	■	■	■				
• Short/long button press can be evaluated	■	■	■	■	■							■	■	■	■	■				
16 bit																				
• Rising edge	■	■	■	■	■							■	■	■	■	■				
• Falling edge	■	■	■	■	■							■	■	■	■	■				
• Rising and falling edge	■	■	■	■	■							■	■	■	■	■				
• Configurable short/long button press	■	■	■	■	■							■	■	■	■	■				
Dimming																				
1-pushbutton dimming	■	■	■	■	■							■	■	■	■	■	■	■	■	■
2-pushbutton dimming with stop telegram (4 bit)	■	■	■	■	■			■				■	■	■	■	■	■	■	■	■
2-pushbutton dimming with cyclic transmission (4 bit)								■			■	■	■	■	■	■	■	■	■	■
2-pushbutton dimming with value setting (8 bit)												■	■	■						
Short/long button press can be evaluated	■	■	■	■	■							■	■	■	■	■				
Shutter/blind																				
1-pushbutton shutter/blind control	■	■	■	■	■							■	■	■	■	■	■	■	■	■
2-pushbutton shutter/blind control	■	■	■	■	■			■				■	■	■	■	■	■	■	■	■
Short/long button press can be evaluated	■	■	■	■	■							■	■	■	■	■				
Scene																				
Store and call up scene, 8-bit	■	■	■	■	■							■	■	■	■	■				
Store and call up scene, 1-bit in conjunction with scene module	■	■	■	■	■							■	■	■	■	■	■	■	■	■
Pulse counting																				
Pulse counting with/without limit value monitoring (8 bit, 16 bit, 32 bit)	■	■	■	■	■							■	■	■	■	■				
Group control																				
1-pushbutton group control	■	■	■	■	■							■	■	■	■	■	■	■	■	■

[1] For current application programs, see www.siemens.com/gamma-td

Binary input device   N 26..E/..1

- Length of unshielded connecting cable per input of max. 100 m
- Integrated power supply for 230 V AC to supply the electronics
- Integrated bus coupling units, Bus connection via contact system to data rail, bus connection via bus terminal
- LED per binary input for status display
- Input functions: Telegram rate limitations, configurable debounce time, locking of inputs using blocking objects, adjustable duration of long button press, Configurable contact type (NO contact/NC contact)
- Transmission parameters: Adjustable cyclic transmission, Configurable transmission in the event of changes to the input, Configurable transmission in the event of bus voltage recovery
- Short/long button press can be evaluated
- Switching on/off/over
- Value transmission 8 bit, 16 bit
- Dimming: single button dimming, 2-pushbutton dimming with stop telegram (4 bit)
- 1-/2-pushbutton shutter/blind control
- Store and call up scene, 1-bit in conjunction with scene module
- Pulse counting with/without limit value monitoring (8 bit, 16 bit, 32 bit)
- 1-pushbutton group control

Dimension width (1 MW = 18 mm)   6 MW

Range overview binary input devices N26..E/..1

Product Title	Stock No.	Product No.
Binary input device, 8 x potential-free contacts	5WG1262-1EB01	**N 262E01**
Binary input device, 8 x AC/DC 12...230 V	5WG1263-1EB01	**N 263E01**
Binary input device, 16 x potential-free contacts	5WG1262-1EB11	**N 262E11**
Binary input device, 16 x AC 12...230 V / DC 12...115 V	5WG1263-1EB11	**N 263E11**
Binary input device, 8 x AC/DC 12...230 V + 8 x potential-free contacts	5WG1264-1EB11	**N 264E11**

The data rail must be ordered separately. See chapter System Products and Accessories - Data rails.

Binary input device   N 26../01

- Max. cable length, unshielded, twisted 100 m
- Configurable function per single input:
- Switching state/send binary value
- Switch edge, switching on short / long pulse
- 8-bit value edge
- Configurable function per pair of inputs:
- 2-pushbutton dimming with stop telegram, 2-pushbutton shutter/blind control
- Transmission of the input objects after a change of status
- Configurable cyclic transmission of the input objects
- Bus-powered electronics
- Integrated bus coupling units, bus connection via contact system to data rail

Dimension width (1 MW = 18 mm)   2 MW

Range overview N 26../01

Product Title	Stock No.	Product No.
Binary input device, 4 x 230 V AC	5WG1260-1AB01	**N 260/01**
Binary input device, 4 x 24 V AC/DC	5WG1261-1AB01	**N 261/01**
Binary input device, 4 x 24 V AC/DC (UL listed)	5WG1261-1CB01	**N 261C01**

The data rail must be ordered separately. See chapter System Products and Accessories - Data rails.

RL 260/23

Binary Input, 4 inputs for 12 ... 230 V AC/DC

- 4 Inputs for AC/DC 12...230 V
- Max. cable length, unshielded, twisted 100 m
- screwless terminals for connection and through-wiring of untreated single-core, stranded or multi-core conductors, 0.5 ... 2.5 mm [/2]
- The following functions can be selected per input:
- Switching state/send binary value
- Switch edge/short/long switch
- Dimming, shading control, single button group control
- 1/8-bit scene control
- 8-bit value edge
- 8-bit value short/long
- 16-bit floating-point value edge
- 16-bit floating-point short/long
- pulse counting with/without limit value monitoring (8/16/32 Bit)
- The following functions can be selected per input pair:
- 2-pushbutton dimming with stop telegram (4 bit)
- 2-pushbutton shading control
- Optional blocking of each input by means of the respective blocking object
- Transmission of the input objects after change
- Optional cyclic transmission of input objects
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   86.5 x 47.8 x 36.2 mm

	Stock No.	Product No.
	5WG1260-4AB23	**RL 260/23**

The AP 641 room control box and AP 118 automation module box must be ordered separately. See chapter Quick-Assembly System - Room Control Box.

UP 220/..

Pushbutton interface

- Inputs / outputs each configurable for potential-free contacts or for control of an LED
- Generation of the sensing voltage for potential-free contacts
- For inserting into flush-mounting switch and socket boxes with Ø = 60 mm
- Inputs max. 10 m cable length, unshielded, twisted
- Bus-powered electronics, Bus connection via bus terminal
- Bus connection via bus terminal
- Input functions: Locking of inputs using blocking objects, Adjustable duration of long button press, Configurable contact type (NO contact/NC contact)
- Transmission parameters: Adjustable cyclic transmission, Configurable transmission in the event of bus voltage recovery
- Short/long button press can be evaluated
- Switching on/off/toggle
- Value transmission 8 Bit, 16 Bit
- Single button dimming
- 2-pushbutton dimming with stop telegram (4 bit)
- 2-pushbutton dimming with cyclic transmission (4 bit)
- 2-pushbutton dimming with value setting (8 bit)
- 1-/2-pushbutton shutter/blind control
- Szene store and call up scene: 8 Bit, in conjunction with scene module 1 Bit
- Pulse counting with/without limit value monitoring (8 bit, 16 bit, 32 bit)
- 1-pushbutton group control

Dimensions (W x H x D)   42 x 42 x 8.5 mm

Range overview I/O pushbutton interface

Product Title	Stock No.	Product No.
Pushbutton interface, 2 x potential-free contact, output for LED control	5WG1220-2AB21	**UP 220/21**
Pushbutton interface, 4 x potential-free contact, output for LED control	5WG1220-2DB31	**UP 220D31**

Recommendation: LED light insert, for switches and pushbutton inserts, red, 1.5 V DC, 1 mA (Stock No.: 5TG7318).

Accessories for UP 220/..

Product Title	Stock No.	Product No.
LED light insert	5TG7318	**5TG7318**

3

N 501/01

Combination blind actuator, 4 x 230 V AC, 6 A, 8 x binary inputs

- 8 inputs for DC or AC in the range from 12 to 230 V
- 8 relay contact outputs slaved in pairs for controlling 4 × 230V AC sunblind drives
- Contact rated voltage 230 V AC
- Contact rated current 6 A, p.f. = 1
- Electronics powered by a 230 V AC integrated power supply
- Device functional even without bys connection or if the bus communication fails
- Preset on delivery for direct output control for each blind button function via the buttons connected to the inputs
- LED to indicate standby
- Key for switching between bus and direct mode
- LED for indicate direct mode activated
- Button for each relay contact output, for switching the output in direct mode while the button is held down
- LED per input to indicate the relevant signal status
- Selectable function for each input when using the ETS:
- Switching status, send binary value
- Toggle leading edge, Short/Long
- 1-pushbutton dimming, sunblind control, group control
- 1-bit/8-bit scene control
- 8-bit/16-bit value leading edge, Short/Long
- 16-bit floating point value leading edge, Short/Long
- Or for each pair of inputs:
- Acting directly on the corresponding outputs as blind button
- 2-button dimming with stop telegram or with cyclical sending
- 2-pushbutton sunblind control
- Selectable blocking of each input via a corresponding blocking object
- Sending of input objects after change
- Selectable cyclical input object sending
- Individual or shared configuration of actuator channels
- Communication objects for each blind channel for driving the sun protection into the end positions or for stopping the procedure and adjusting the blind slats in steps
- Communication objects for setting position of slats and blinds in percentage information
- Automatic opening of the blind slats to a preconfigured nominal setting after uninterrupted driving down of the blind from the top to the bottom end position, with integrated 1-bit scene control for storing and calling up (reproduction) of 2 interim blind and slat settings
- Integrated 1-bit/8-bit scene control, 8 scenes can be integrated per channel
- Optional "Sun" object for integration in a sunlight tracking control system
- Differentiation between automatic and manual mode and with automatic switchover from automatic to manual mode for the channel in question by pressing a bus button for manual control of the corresponding sun protection
- Manual mode taking precedence over automatic position commands
- Optional central command for each device or each channel for switching the relevant channels to automatic mode and driving the sun protection into the up or down end position
- Alarm: move to safety position, Locking in this position for as long as alarm is active
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Status objects for each channel for querying or for automatic sending of sun protection and slat settings as a percentage value
- Optional status objects for reporting that the up or down position has been reached
- Integrated bus coupling unit
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   8 MW

	Stock No.	Product No.
	5WG1501-1AB01	**N 501/01**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Combi switching actuator, 8 x AC 230 V, 16 A, 8 x binary inputs

N 502/02

- 8 inputs 12...230 V AC/DC
- 8 relay contact outputs
- Rated contact voltage 230 V AC
- Rated contact operating current 16 A, p.f. = 1
- Electronics power supply via an integrated power supply unit for 230 V AC
- Device functional even without bus connection or if bus voltage absent or bus communication interrupted or not yet activated
- Green LED to indicate operational readiness
- Push button to switch between bus and direct mode
- Yellow LED to indicate direct mode activated
- Push button for each output to switch the output in direct mode via a toggling function by a short actuation and for changing the output mode between remote control relay and time switch relay by holding down the push button for some seconds
- 1 red LED per output to indicate the switching state
- 1 red LED per input to indicate the current signal state
- Device preset at the factory for direct switching of an output through a toggling function via the input of the same name
- Selectable function for each input when using the Engineering Tool Software (ETS):
- Switching status / binary value transmission
- Switching, short / long operation
- Single button dimming, single button sun protection control, 1-button group control (sequence control)
- 1-bit scene control
- 8-bit scene control, 8-bit value, edge-triggered, 8-bit value, short / long operation
- 16-bit floating point value, edge-triggered, 16-bit value, short / long operation, 16-bit value, edge-triggered, 16-bit floating point value, short / long operation
- Selectable function for each pair of inputs: 2-button dimming with stop telegram, 2-pushbutton shutter/blind control
- Selectable blocking / releasing of each input via a corresponding blocking object
- Sending of the input objects after a change of status
- Selectable logic operation (AND/OR) for one input with a further communication object and with variable start value of the logic operation at bus voltage recovery
- Setting by means of the ETS, whether all outputs are to be configured identically or individually
- Selectable mode for each output (normal mode, time switch mode)
- Optional addition of a night mode object for each output for time-limited switching On of the output (and hence the illumination) at night
- Variable On and Off delay times for each output
- Variable On period in night mode or in time switch mode
- Selectable warning signal prior to imminent switching-off by means of three-times short off and on switching (flashing) in night mode or in time switch mode
- Status object for reporting direct mode
- Optional status object per output for status reporting
- Sending of status objects on request and/or automatically after a change
- Integrated 8-bit scene control and linking of each output with up to 8 scenes
- Selectable switching state for each output at mains or bus power failure as well as after bus or mains voltage recovery
- Integrated bus coupling units with only half a standard bus load
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   8 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1502-1AB02	**N 502/02**

3

UP 5..

Switch actuator

- Rated contact voltage 230 V AC
- 2 binary inputs for potential-free contacts
- 20 cm long wires for connecting phase conductor, output, inputs and bus
- Output to be configured as NO or NC contact
- Selectable preferred output state at bus voltage failure and recovery
- Switching status object
- Selectable additional functions:
- On/off delay
- Time-switch
- Logic operation, function forced positioning
- Forced position
- Selectable function of the binary inputs:
- Acting as secondary inputs directly on the switching outputs or acting as independant binary inputs with bus communication
- Free allocation of the functions switching, dimming, solar protection control, send value and scene control to the inputs
- Two independent switching objects per input
- Blocking object for each input
- Separately selectable behaviour per input at bus voltage recovery
- Telegram rate limitation for both inputs
- Integrated bus coupling units, bus-powered electronics
- Enclosed bus terminal for bus connection
- Installation in a flush-mounting wall or ceiling box with 60 mm diameter

Dimensions (Ø x H)   53 x 28 mm

Range overview UP 5..

Product Title	Stock No.	Product No.
Switch actuator, 1 x AC 230 V, 16 A; 2 x binary input	5WG1511-2AB10	**UP 511/10**
Switch actuator, 2 x AC 230 V, 6 A; 2 x binary input	5WG1562-2AB31	**UP 562/31**

UP 520/31

Venetian blind actuator 1 x 230 V AC, 6 A, 2 x binary inputs

- 1 x 230 V AC, 6 A, 2 x binary inputs
- 1 channels (one up and one down each)
- Electrically interlocked relays (for reversing direction of rotation)
- Max. cable length, unshielded, twisted 5 m
- For 2 signal inputs (floating contact)
- Determination of switching state by means of the voltage generated in the device
- Configurable behavior in the event of a bus voltage failure
- Configurable behavior in the event of a bus voltage recovery
- Transmitting status per channel
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Individual configuration of actuator channels
- Travel to end position, stopping, stepwise adjustment
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal
- For installation in flush-mounting switch and socket boxes with Ø 60 mm

Dimension (Ø x H)   53 x 28 mm

	Stock No.	Product No.
	5WG1520-2AB31	**UP 520/31**

Universal dimmer UP 525/31, 210 VA, AC 230 V, 50 Hz (R,L,C load)

UP 525/31

- One output for switching and dimming resistive, inductive or capacitive loads
- With semiconductor output for switching and dimming of lamps
- Rated operational voltage 230 V AC, 50/60 Hz
- Connected load 50...210 VA
- Settable switching and dimming behaviour
- Selectable mode of operation (normal mode, timer mode)
- Soft on, Soft off
- Dimming or jumping to a new dimming value
- Time-delayed switch-off when dimming below a settable dimming value
- Status objects for switching and dimming value
- Short-circuit message
- Message of a load failure
- Integrated 8-bit scene control
- Object for blocking the output
- Configurable brightness value at start and end of a blocking phase
- Adjustable behaviour of the output after bus voltage recovery
- 2 binary inputs for potential-free contacts
- Selectable function of the binary inputs: acting as secondary inputs directly on the switching outputs or acting as independant binary inputs with bus communication
- Free allocation of the functions switching, dimming, solar protection control, send value and scene control to the inputs
- Two independent switching objects per input
- Blocking object for each input
- Separately selectable behaviour per input at bus voltage recovery
- Telegram rate limitation for both inputs
- About 20 cm long wires for connecting phase conductor, output, inputs and bus
- Bus-powered electronics
- Integrated bus coupling unit
- Enclosed bus terminal for bus connection
- For installation in a flush-mounting wall or ceiling box with 60 mm diameter

Dimension (Ø x H)   53 x 28 mm

	Stock No.	Product No.
	5WG1525-2AB31	**UP 525/31**

3

N 670/03

Universal I/O module

- 2 universal inputs/outputs, each adjustable as
- Analog input 0...10 V DC, Analog output 0...10 V DC
- Binary input for 10 V DC, Binary output for 10 V DC
- Analog input with limit value monitoring and signaling, with adjustable limit values and hysteresis
- Analog output with adjustable lower and upper limit of the output voltage with adjustable voltage value in the event of bus voltage failure and recovery
- Binary input with pulse edge evaluation
- Binary output with adjustable switching position in the event of bus voltage failure and recovery
- 2 inputs for the connection of temperature sensors2) with Pt1000 measured element for temperature measurement in the range -25...+45 °C, with limit value monitoring and signaling, with adjustable limit values and hysteresis
- 2 binary outputs, relay contacts rated for 230 V AC, 10 A at p.f. = 1, with
- Configurable actuated position (NO contact/NC contact)
- Positively driven operation
- Configurable switching position in the event of bus voltage failure and recovery
- Electronics powered via an external 24 V AC/DC power supply unit, power consumption approx. 100 mA
- Integrated bus coupling units
- Bus connection via bus terminal and contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.
The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).
For physical sensors, see Chapter, Physical sensors - without KNX connection.

	Stock No.	Product No.
	5WG1670-1AB03	**N 670/03**

Accessories for N 670/03

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

Combination Devices

4

Type	N 501/01	N 502/02	N 670/03	UP 511/10	UP 562/31	UP 520/31	UP 525/31	UP 220/21	UP 220D31
Application program[1]	981701	981601	900501	207201	207101	207301	301901	982301	982201
Enclosure data									
Design	N	N	N	UP	UP	UP	UP	UP	UP
Modular installation device for mounting on TH35 EN 60715 mounting rail.	■	■	■						
For installation in flush-mounting switch and socket boxes with Ø = 60 mm				■	■	■	■	■	■
Dimensions									
• Width/Ø [mm] (1 MW = 18 mm)	8 MW	8 MW	4 MW	Ø 53	Ø 53	Ø 53	Ø 53	Ø 42	Ø 42
• Depth [mm]				28	28	28	28	8.5	8.5
Display/control elements									
LED for status indication per input	■	■							
LED for status indication per output	■	■							
LED for operation/status display	■	■							
Pushbuttons for local operation on the device	■	■							
Power supply									
Electronics powered via an integrated power supply unit for supply voltage 230 V AC	■	■							
Bus-powered electronics				■	■	■	■	■	■
Electronics powered via an external power supply unit			AC/DC 24 V[2]						
Bus-dependent operation possible	■	■[3]							
Bus connection									
Integrated bus coupling units	■	■	■	■	■	■	■	■	■
Bus connection via bus terminal	■	■	■	■	■	■	■	■	■
Bus connection via contact system to data rail	■	■	■						
Outputs									
Load output									
Floating relay contact		8[4]	2	1	2	1	1		
Silent semiconductor switch									
Electrically interlocked relays (for reversing direction of rotation)	4								
Load types									
Rated contact voltage, AC [V]	230	230	230	230	230	230	230		
Rated contact current [A]	6	16	10	16	6	6			
Max. short-time current									
Switching capacity for permanent loading									
Protection									
Electronic protection of outputs against overload and short circuit							■	■	
Universal inputs/outputs									
Adjustable universal inputs/outputs			2						
Inputs									
Max. cable length, unshielded, twisted [m]	100	100		5	5	5	5	10	10
For signal input (floating contact)				2	2	2	2	2[5]	4[5]
Determination of switching state by means of the voltage generated in the device				■	■	■	■	■	■
For voltage input AC/DC 12...230 V	8	8							
PT1000 temperature sensor input	[6]	[6]	2						

[1] For current application programs, see www.siemens.com/gamma-td
[2] Power consumption approx. 100 mA
[3] Each input affects the output of the same name, adjustable as timer or impulse relay.
[4] Except channel A.
[5] The inputs are mutually insulated from the base.
[6] Inputs, alternatively can be used as outputs for controlling LEDs up to a maximum of 2 mA.

4-2

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     2014

Combination blind actuator, 4 x 230 V AC, 6 A, 8 x binary inputs

N 501/01

- 8 inputs for DC or AC in the range from 12 to 230 V
- 8 relay contact outputs slaved in pairs for controlling 4 × 230V AC sunblind drives
- Contact rated voltage 230 V AC
- Contact rated current 6 A, p.f. = 1
- Electronics powered by a 230 V AC integrated power supply
- Device functional even without bys connection or if the bus communication fails
- Preset on delivery for direct output control for each blind button function via the buttons connected to the inputs
- LED to indicate standby
- Key for switching between bus and direct mode
- LED for indicate direct mode activated
- Button for each relay contact output, for switching the output in direct mode while the button is held down
- LED per input to indicate the relevant signal status
- Selectable function for each input when using the ETS:
- Switching status, send binary value
- Toggle leading edge, Short/Long
- 1-pushbutton dimming, sunblind control, group control
- 1-bit/8-bit scene control
- 8-bit/16-bit value leading edge, Short/Long
- 16-bit floating point value leading edge, Short/Long
- Or for each pair of inputs:
- Acting directly on the corresponding outputs as blind button
- 2-button dimming with stop telegram or with cyclical sending
- 2-pushbutton sunblind control
- Selectable blocking of each input via a corresponding blocking object
- Sending of input objects after change
- Selectable cyclical input object sending
- Individual or shared configuration of actuator channels
- Communication objects for each blind channel for driving the sun protection into the end positions or for stopping the procedure and adjusting the blind slats in steps
- Communication objects for setting position of slats and blinds in percentage information
- Automatic opening of the blind slats to a preconfigured nominal setting after uninterrupted driving down of the blind from the top to the bottom end position, with integrated 1-bit scene control for storing and calling up (reproduction) of 2 interim blind and slat settings
- Integrated 1-bit/8-bit scene control, 8 scenes can be integrated per channel
- Optional "Sun" object for integration in a sunlight tracking control system
- Differentiation between automatic and manual mode and with automatic switchover from automatic to manual mode for the channel in question by pressing a bus button for manual control of the corresponding sun protection
- Manual mode taking precedence over automatic position commands
- Optional central command for each device or each channel for switching the relevant channels to automatic mode and driving the sun protection into the up or down end position
- Alarm: move to safety position, Locking in this position for as long as alarm is active
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Status objects for each channel for querying or for automatic sending of sun protection and slat settings as a percentage value
- Optional status objects for reporting that the up or down position has been reached
- Integrated bus coupling unit
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   8 MW

	Stock No.	Product No.
	5WG1501-1AB01	**N 501/01**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

4

N 502/02

Combi switching actuator, 8 x AC 230 V, 16 A, 8 x binary inputs

- 8 inputs 12...230 V AC/DC
- 8 relay contact outputs
- Rated contact voltage 230 V AC
- Rated contact operating current 16 A, p.f. = 1
- Electronics power supply via an integrated power supply unit for 230 V AC
- Device functional even without bus connection or if bus voltage absent or bus communication interrupted or not yet activated
- Green LED to indicate operational readiness
- Push button to switch between bus and direct mode
- Yellow LED to indicate direct mode activated
- Push button for each output to switch the output in direct mode via a toggling function by a short actuation and for changing the output mode between remote control relay and time switch relay by holding down the push button for some seconds
- 1 red LED per output to indicate the switching state
- 1 red LED per input to indicate the current signal state
- Device preset at the factory for direct switching of an output through a toggling function via the input of the same name
- Selectable function for each input when using the Engineering Tool Software (ETS):
- Switching status / binary value transmission
- Switching, short / long operation
- Single button dimming, single button sun protection control, 1-button group control (sequence control)
- 1-bit scene control
- 8-bit scene control, 8-bit value, edge-triggered, 8-bit value, short / long operation
- 16-bit floating point value, edge-triggered, 16-bit value, short / long operation, 16-bit value, edge-triggered, 16-bit floating point value, short / long operation
- Selectable function for each pair of inputs: 2-button dimming with stop telegram, 2-pushbutton shutter/blind control
- Selectable blocking / releasing of each input via a corresponding blocking object
- Sending of the input objects after a change of status
- Selectable logic operation (AND/OR) for one input with a further communication object and with variable start value of the logic operation at bus voltage recovery
- Setting by means of the ETS, whether all outputs are to be configured identically or individually
- Selectable mode for each output (normal mode, time switch mode)
- Optional addition of a night mode object for each output for time-limited switching On of the output (and hence the illumination) at night
- Variable On and Off delay times for each output
- Variable On period in night mode or in time switch mode
- Selectable warning signal prior to imminent switching-off by means of three-times short off and on switching (flashing) in night mode or in time switch mode
- Status object for reporting direct mode
- Optional status object per output for status reporting
- Sending of status objects on request and/or automatically after a change
- Integrated 8-bit scene control and linking of each output with up to 8 scenes
- Selectable switching state for each output at mains or bus power failure as well as after bus or mains voltage recovery
- Integrated bus coupling units with only half a standard bus load
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   8 MW

	Stock No.	Product No.
	5WG1502-1AB02	**N 502/02**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Universal I/O module

N 670/03

- 2 universal inputs/outputs, each adjustable as
- Analog input 0...10 V DC, Analog output 0...10 V DC
- Binary input for 10 V DC, Binary output for 10 V DC
- Analog input with limit value monitoring and signaling, with adjustable limit values and hysteresis
- Analog output with adjustable lower and upper limit of the output voltage with adjustable voltage value in the event of bus voltage failure and recovery
- Binary input with pulse edge evaluation
- Binary output with adjustable switching position in the event of bus voltage failure and recovery
- 2 inputs for the connection of temperature sensors2) with Pt1000 measured element for temperature measurement in the range -25...+45 °C, with limit value monitoring and signaling, with adjustable limit values and hysteresis
- 2 binary outputs, relay contacts rated for 230 V AC, 10 A at p.f. = 1, with
- Configurable actuated position (NO contact/NC contact)
- Positively driven operation
- Configurable switching position in the event of bus voltage failure and recovery
- Electronics powered via an external 24 V AC/DC power supply unit, power consumption approx. 100 mA
- Integrated bus coupling units
- Bus connection via bus terminal and contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.
The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).
For physical sensors, see Chapter, Physical sensors - without KNX connection.

	Stock No.	Product No.
	5WG1670-1AB03	**N 670/03**

Accessories for N 670/03

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

4

N 605..

Thermal drive actuator

- Can be operated with instabus Room temperature controllers
- Direct operation (local operation), LED for operation/status display
- Rated voltage 230 V AC, 6 silent semiconductor switch
- Electronic protection of outputs against overload and short circuit
- 6 signal inputs (floating contacts), Determination of switching state by means of the voltage generated in the device, max. 50 m cable length, unshielded, twisted
- Funktionen Ausgänge: Switching (on/off per channel), Configurable transmission of input status objects
- Configurable behavior in the event of a bus voltage failure/recovery
- Electronics powered via an integrated power supply unit for supply voltage 230 V AC
- Integrated bus coupling units, Bus connection via bus terminal
- Modular installation device for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   6 MW

Range overview N 605..

Product Title	Stock No.	Product No.
Thermal drive actuator, 6 inputs, 6 outputs	5WG1605-1AB01	**N 605/01**
Thermal drive actuator, 6 inputs, 2 x 3 outputs for control of 2 heating / cooling ceilings	5WG1605-1AB11	**N 605/11**

UP 5..

Switch actuator

- Rated contact voltage 230 V AC
- 2 binary inputs for potential-free contacts
- 20 cm long wires for connecting phase conductor, output, inputs and bus
- Output to be configured as NO or NC contact
- Selectable preferred output state at bus voltage failure and recovery
- Switching status object
- Selectable additional functions:
- On/off delay
- Time-switch
- Logic operation, function forced positioning
- Forced position
- Selectable function of the binary inputs:
- Acting as secondary inputs directly on the switching outputs or acting as independant binary inputs with bus communication
- Free allocation of the functions switching, dimming, solar protection control, send value and scene control to the inputs
- Two independent switching objects per input
- Blocking object for each input
- Separately selectable behaviour per input at bus voltage recovery
- Telegram rate limitation for both inputs
- Integrated bus coupling units, bus-powered electronics
- Enclosed bus terminal for bus connection
- Installation in a flush-mounting wall or ceiling box with 60 mm diameter

Dimensions (Ø x H)   53 x 28 mm

Range overview UP 5..

Product Title	Stock No.	Product No.
Switch actuator, 1 x AC 230 V, 16 A; 2 x binary input	5WG1511-2AB10	**UP 511/10**
Switch actuator, 2 x AC 230 V, 6 A; 2 x binary input	5WG1562-2AB31	**UP 562/31**

4

Venetian blind actuator 1 x 230 V AC, 6 A, 2 x binary inputs

UP 520/31

- 1 x 230 V AC, 6 A, 2 x binary inputs
- 1 channels (one up and one down each)
- Electrically interlocked relays (for reversing direction of rotation)
- Max. cable length, unshielded, twisted 5 m
- For 2 signal inputs (floating contact)
- Determination of switching state by means of the voltage generated in the device
- Configurable behavior in the event of a bus voltage failure
- Configurable behavior in the event of a bus voltage recovery
- Transmitting status per channel
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Individual configuration of actuator channels
- Travel to end position, stopping, stepwise adjustment
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal
- For installation in flush-mounting switch and socket boxes with Ø 60 mm

Dimension (Ø x H)   53 x 28 mm

	Stock No.	Product No.
	5WG1520-2AB31	**UP 520/31**

Universal dimmer UP 525/31, 210 VA, AC 230 V, 50 Hz (R,L,C load)

UP 525/31

- One output for switching and dimming resistive, inductive or capacitive loads
- With semiconductor output for switching and dimming of lamps
- Rated operational voltage 230 V AC, 50/60 Hz
- Connected load 50...210 VA
- Settable switching and dimming behaviour
- Selectable mode of operation (normal mode, timer mode)
- Soft on, Soft off
- Dimming or jumping to a new dimming value
- Time-delayed switch-off when dimming below a settable dimming value
- Status objects for switching and dimming value
- Short-circuit message
- Message of a load failure
- Integrated 8-bit scene control
- Object for blocking the output
- Configurable brightness value at start and end of a blocking phase
- Adjustable behaviour of the output after bus voltage recovery
- 2 binary inputs for potential-free contacts
- Selectable function of the binary inputs: acting as secondary inputs directly on the switching outputs or acting as independant binary inputs with bus communication
- Free allocation of the functions switching, dimming, solar protection control, send value and scene control to the inputs
- Two independent switching objects per input
- Blocking object for each input
- Separately selectable behaviour per input at bus voltage recovery
- Telegram rate limitation for both inputs
- About 20 cm long wires for connecting phase conductor, output, inputs and bus
- Bus-powered electronics
- Integrated bus coupling unit
- Enclosed bus terminal for bus connection
- For installation in a flush-mounting wall or ceiling box with 60 mm diameter

Dimension (Ø x H)   53 x 28 mm

	Stock No.	Product No.
	5WG1525-2AB31	**UP 525/31**

4

UP 220/..

Pushbutton interface

- Inputs / outputs each configurable for potential-free contacts or for control of an LED
- Generation of the sensing voltage for potential-free contacts
- For inserting into flush-mounting switch and socket boxes with Ø = 60 mm
- Inputs max. 10 m cable length, unshielded, twisted
- Bus-powered electronics, Bus connection via bus terminal
- Bus connection via bus terminal
- Input functions: Locking of inputs using blocking objects, Adjustable duration of long button press, Configurable contact type (NO contact/NC contact)
- Transmission parameters: Adjustable cyclic transmission, Configurable transmission in the event of bus voltage recovery
- Short/long button press can be evaluated
- Switching on/off/toggle
- Value transmission 8 Bit, 16 Bit
- Single button dimming
- 2-pushbutton dimming with stop telegram (4 bit)
- 2-pushbutton dimming with cyclic transmission (4 bit)
- 2-pushbutton dimming with value setting (8 bit)
- 1-/2-pushbutton shutter/blind control
- Szene store and call up scene: 8 Bit, in conjunction with scene module 1 Bit
- Pulse counting with/without limit value monitoring (8 bit, 16 bit, 32 bit)
- 1-pushbutton group control

Dimensions (W x H x D)   42 x 42 x 8.5 mm

Range overview I/O pushbutton interface

Product Title	Stock No.	Product No.
Pushbutton interface, 2 x potential-free contact, output for LED control	5WG1220-2AB21	**UP 220/21**
Pushbutton interface, 4 x potential-free contact, output for LED control	5WG1220-2DB31	**UP 220D31**

Recommendation: LED light insert, for switches and pushbutton inserts, red, 1.5 V DC, 1 mA (Stock No.: 5TG7318).

Accessories for UP 220/..

Product Title	Stock No.	Product No.
LED light insert	5TG7318	**5TG7318**

Lighting

5

Universal dimmers

Universal dimmers are dimmers which automatically determine the load type connected to their outputs (resistive, inductive or capacitive) and switch over accordingly to leading-edge phase mode (for a resistive or inductive load such as incandescent lamps or LV halogen lamps with an upstream conventional transformer) or trailing-edge phase mode (for a capacitive load such as LV halogen lamps with an upstream electronic transformer).

Block diagram 1:

1-channel operation without KNX, control via conventional pushbuttons at the two inputs (E1, E2)[1]

Universal dimmer
expansion

E1
E2

■ 230 V AC

300 VA
500 VA
1000 VA

I202_02034
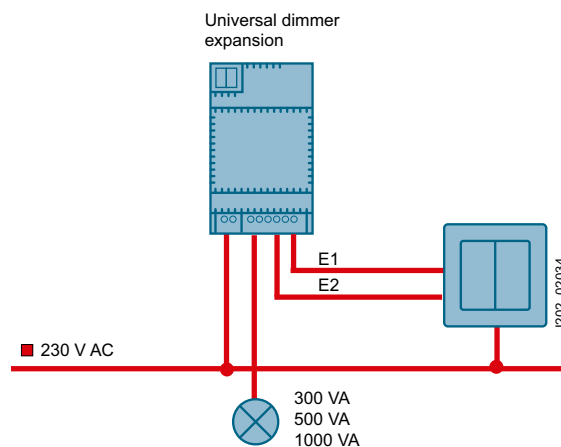
Block diagram 2:

Combination options for universal dimmers, main modules and expansions.[1]

max. 6 units, max. cable length 2 m

Main Module	Submodules				
300 VA 500 VA	300 VA 500 VA 1000 VA	300 VA 500 VA 1000 VA	300 VA 500 VA 1000 VA	300 VA 500 VA 1000 VA	300 VA 500 VA 1000 VA

I202_02288

Mixed operation
all combinations possible
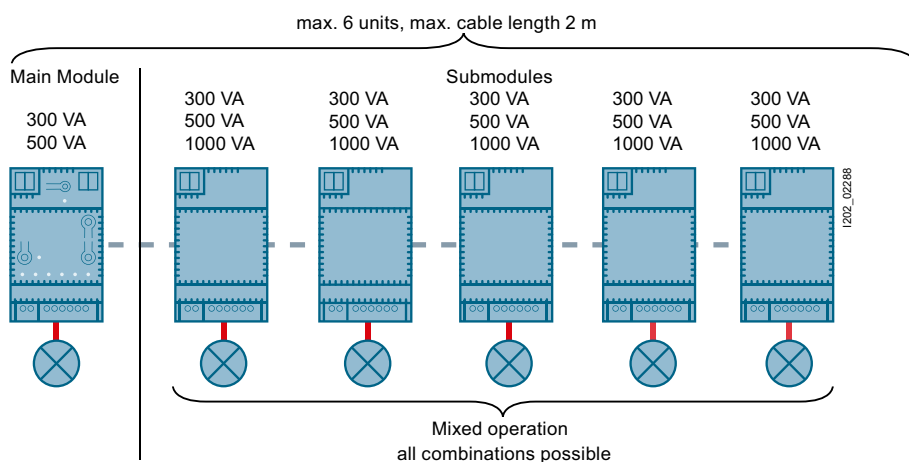
Block diagram 3:

Combination options for universal dimmers, main modules and expansions, as well as for increased performance.[1]
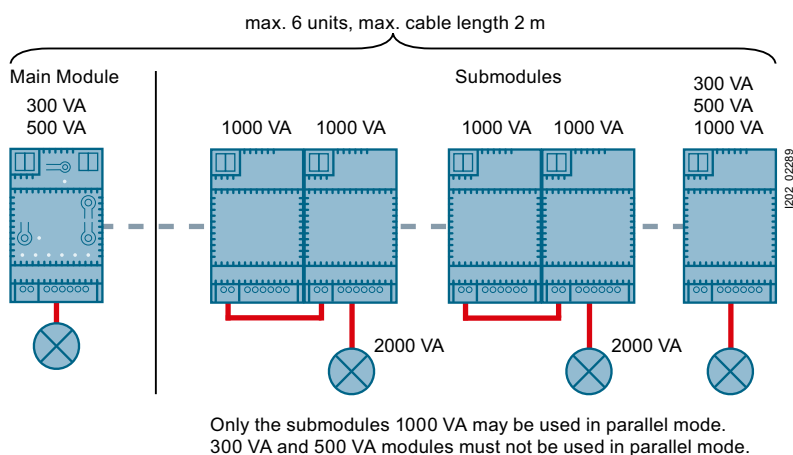
max. 6 units, max. cable length 2 m

Main Module	Submodules			
300 VA 500 VA	1000 VA	1000 VA	1000 VA	1000 VA	300 VA 500 VA 1000 VA

I202_02289

2000 VA   2000 VA

Only the submodules 1000 VA may be used in parallel mode.
300 VA and 500 VA modules must not be used in parallel mode.

[1] The block diagrams shown here are just an example of how modules can be interconnected and interfaced. For more detailed information, see
www.siemens.com/gamma-td

Lighting
Overview and selection guides
Switch/dimming actuators

5

DALI – simple and easy to manage

Digital Addressable Lighting Interface (DALI) was launched on the market in 2004 as a substitute for the classic 1...10 V interface and is an interface definition for the control of up to 64 DALI devices, primarily ECGs, over a control device that acts as a master.

DALI communication enables the simultaneous control of all DALI devices using the same command (broadcast). In the event of control via broadcast, all DALI devices behave as if they are being mutually controlled over a 1...10 V interface. As a second control option, DALI supports the assignment of a DALI device to one of up to 16 groups (group addressing).

DALI also allows the control of each DALI device individually (individual addressing). Individual addressing means that the control device can be interrogated for the failure of a lamp or ECG, as well as the switching status and current dimming value. This means that the operating state of each lamp group and even each lamp is constantly available to higher-level systems.

DALI supports assignment of DALI devices to a maximum of 16 scenes. The specific settings for each scene are stored in the individual DALI devices and can be called up by a single command. This allows even complex scenes or very fast command sequences to be called up. The cost of dimming with KNX and DALI is no higher than 1...10 V.

Comparing the degree of cabling required for DALI and for 1...10 V, and the difference in cost for material and labor, the cost of implementing a project with DALI is approx. a third cheaper than when using 1...10 V.

In the simplest of cases, a control device for light control with DALI can comprise a brightness sensor, a presence detector or a combined brightness sensor/presence detector, which can control a group of lamps - depending on occupancy and daylight. With these simple local applications, where DALI is used by sensors as an interface to one or more DALI devices, the broadcast method is used instead of the classic control method over 1...10 V. As such, these applications are not to be regarded as a networked system.

More high-performance control devices, such as the N 141/02 KNX/DALI gateway from Siemens, tap into all the options offered by DALI. A further option for the control of DALI devices is Flexcon. For further information, see Chapter FLEXCON.

OSRAM DALI-ECG corresponds to the DALI standard. This ensures a functionally equivalent exchange of the DALI-ECG for many years to come (investment security).

www.osram.com

Compare 1...10 V control system to DALI with KNX
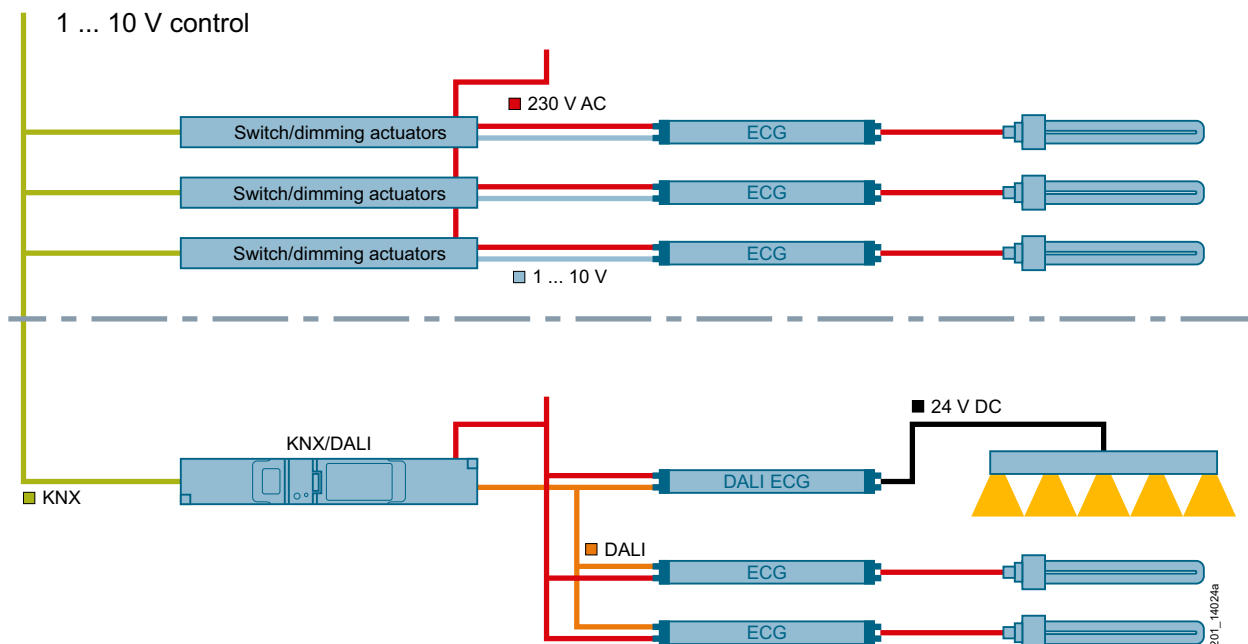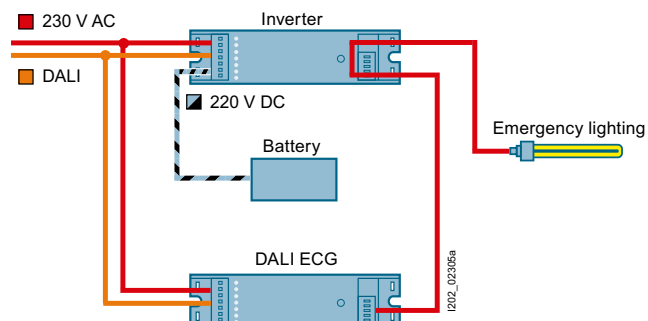

For further information on DALI:
www.siemens.com/dali

Lighting
Overview and selection guides
Switch/dimming actuators

Wiring of lighting groups 1...10 V control with KNX

I201_14025a

Wiring of lighting groups with DALI with KNX

I201_14026a

Advantages:
• Light groups are not hard-wired
• Separate planning of control cables and power supply
• Even load distribution in the power supply
• Lower fire load due to fewer cables
• Planning is easier and faster
• New: Integration of emergency lighting in general lighting

Lighting
Overview and selection guides
Switch/dimming actuators

5

Application Example

Intelligent solution via safety supply and KNX/DALI gateway with status indication in emergency mode

In emergency mode, communication is maintained via the safety supply from KNX and DALI.
The failure detection of the general supply is executed via a KNX binary input, which the KNX/DALI gateway switches to emergency mode. It is not possible to manually operate the emergency lights in emergency mode.

Simple solution with KNX/DALI gateway

Normal mode

- Lighting control with DALI
- Feedback of fault indications and failure of lighting and ECGs to building control
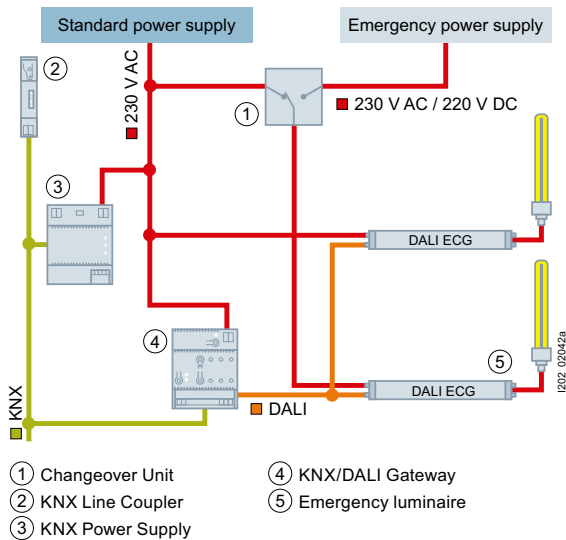
Emergency operation

- Automatic emergency lighting in the event of DALI voltage failure
- Parameterization of dimming value of DALI-ECG for emergency lighting via KNX/DALI gateway
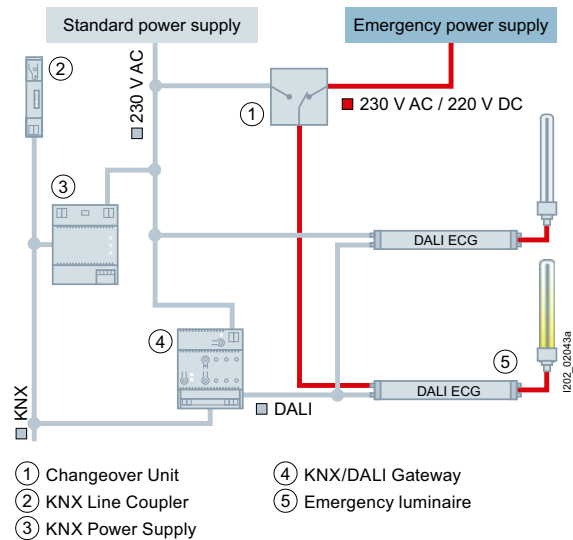
① Changeover Unit	④ KNX/DALI Gateway
② KNX Line Coupler	⑤ Emergency luminaire
③ KNX Power Supply	

① Changeover Unit	④ KNX/DALI Gateway
② KNX Line Coupler	⑤ Emergency luminaire
③ KNX Power Supply	

Intelligent solution via safety supply and KNX/DALI gateway with status indication in emergency mode

Normal mode

- Lighting control with DALI
- Feedback of fault indications and failure of lighting and ECGs to building control
- Monitoring of operating hours for lamp replacement
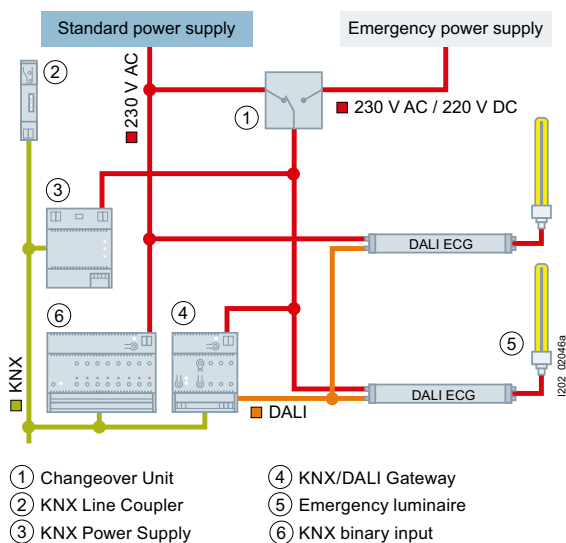
Emergency operation

- Parameterization of dimming value of DALI-ECG in emergency operation via KNX/DALI gateway
- The integrated buffer of the KNX power supply ensures an interruption-free switchover (< 200 ms) to emergency operation
- The continued transmission of status indications in emergency operation is possible because there is no interruption of supply to KNX and DALI.

① Changeover Unit	④ KNX/DALI Gateway
② KNX Line Coupler	⑤ Emergency luminaire
③ KNX Power Supply	⑥ KNX binary input

① Changeover Unit	④ KNX/DALI Gateway
② KNX Line Coupler	⑤ Emergency luminaire
③ KNX Power Supply	⑥ KNX binary input
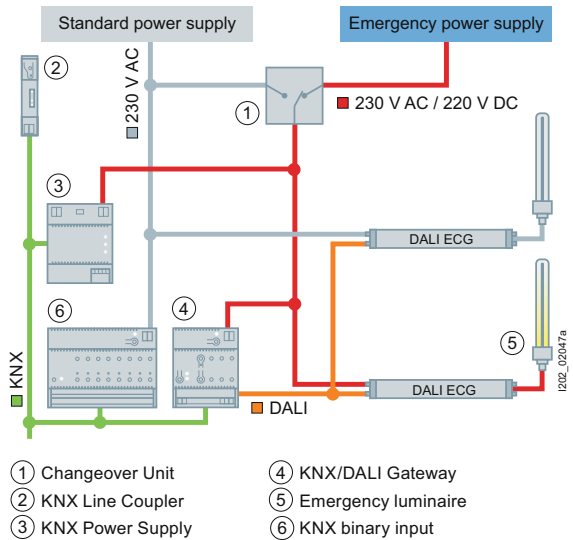
Emergency lighting with single battery KNX/DALI gateway

Lighting
Overview and selection guides
Switch/dimming actuators

Normal mode

- Lighting control with DALI
- Initiate/record tests

Emergency operation

- Automatic emergency lighting acc. to parameterization via KNX/DALI gateway

www.siemens.com/gamma

2014

5

Type	N 527/31 N527/32[1]	N 528/31	N 528/41[2]	N 527/41[2] N527/42[1]	N 527/51[2] N527/52[1]	UP 525/03	UP 525/13	UP 525/31	RS 525/23
Enclosure data									
Design	N	N	N	N	N	UP	UP	UP	RS
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■	■				
For installation in flush-mounting switch and socket boxes with Ø = 60 mm						■	■	■	
10-pole BTI socket (BTI - Bus Transceiver Interface) for plugging of bus terminal devices with BTI connector						■			
Modular installation device for mounting in AP 118 automation module box or AP 641 room control box[5]									■
Interface for connection of a universal dimmer expansion	■	■	■	■	■				
Dimensions									
• Width/Ø [mm] (1 MW = 18 mm)	3 MW	3 MW	3 MW	3 MW	3 MW	71	50	Ø 53	50.2
• Height [mm]						71	41.3		35.5
• Depth [mm]						41,5	50.9	28	48.8
Mounting type									
Screw fixing						■			
Power supply									
Bus-powered electronics						■	■	■	■
Electronics powered via an integrated power supply unit, for supply voltage 230 V AC	■	■	■	■	■				
Bus connection									
Integrated bus coupling units	■	■	■	■	■	■	■	■	■
Bus connection via bus terminal	■	■	■	■	■	■	■	■	■
Outputs									
Load output									
Number of channels	1	1	1	1	1	1	1	1	1
Load type	R, L, C	R, L, C	R, L, C	R, L, C	R, L, C	R, L, C	R, L, C	R, L, C	R, L, C
Load									
Contact rated voltage, AC [V]	230	230	230	230	230	230	230	230	230
Dimmer output [VA]	20... 500[4]	20... 300[4]	20... 300[4]	20... 500[4]	20... 1000[3)4]	10... 250	10... 250	50... 210	10... 250
Protection									
Electronic protection of outputs against overload and short circuit	■	■	■	■	■	■	■	■	■
Inputs									
Max. cable length, unshielded, twisted [m]	100	100	100	100	100			5	
For signal inputs (floating contact)								2	
Determination of switching state by means of the voltage generated in the device	■	■	■	■	■			■	
For conventional pushbuttons 230 V AC	2	2	2	2	2				

[1] For islanding.
[2] Bus operation only when used together with N 527/31, N527/32 or N 528/31.
[3] Increased performance through parallel switching of the outputs of two N 527/51 to 40...2000 VA, (for electronic transformers 80...2000 VA) only in conjunction with main module N 527/31, N527/32 or N 528/31 and ETS parameterization.
[4] Low-voltage halogen lamps with electronic transformers require a minimum load of 40 VA.
[5] The AP 641 room control box and AP 118 automation module box must be ordered separately, see Chapter Quick-assembly system - Room control box - Module boxes.

...Continuation of the table

Type	N 527/31 N527/32	N 528/31	UP 525/03	UP 525/13	UP 525/31	RS 525/23
Application program[1]	982101	982101	982C01	982C01	301901	982C01
Output functions						
Max. number of group addresses	255	255	120	120	26	120
Max. number of assignments	383	383	120	120	27	120
Blocking function	■	■	■	■		■
Configurable behavior in the event of a bus voltage failure	■	■	■	■	■	■
Configurable behavior in the event of a bus voltage recovery	■	■	■	■	■	■
Switching						
Switching ON/OFF	■	■	■	■	■	■
Configurable starting value	■	■	■	■	■	■
Blocking object per channel	■	■	■	■	■	■
Dimming						
BRIGHTER/DARKER dimming	■	■	■	■	■	■
Adjustable dimming range Minimum dimming value (basic brightness) Maximum dimming value	■	■	■	■	■	■
Operation of 2 dimming modules (using two different dimming time curves)	■	■	■	■		■
Dim or startup 8-bit value	■	■	■	■	■	■
Scenes						
1-bit scene	■	■				
8-bit scene	■	■	■	■	■	■
Scenes to be integrated per channel	8[1]	8[1]	8	8	8[1]	8
Status						
Transmitting switch and dimming status	■	■	■	■	■	■
Fault indications overload/short circuit/ overtemperature on bus	■	■	■	■	■	■

[1] For current application programs, see www.siemens.com/gamma-td
[2] Only assignment of scene number 1...8 possible.

Type	DALI control outputs			Control outputs 1...10 V
	N 141/31	N 141/02	N 525E01	N 526E02
Application program[1]	9833XX	981CXX	9808XX	981301
Enclosure data				
Design	N	N	N	N
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■
Dimensions				
Width [mm] (1 MW = 18 mm)	4 MW	4 MW	4 MW	8 MW
Display/control elements				
Mechanical switching position indication for status indication per output	■			■
LED for status indication per output	■	■	■	
LEDs for fault indication (lighting failure) per output			■	
Pushbuttons for local operation on the device	■	■	■	
Direct operation (local operation)	■	■	■	
Mechanical local operation with switching position indication				■
Power supply				
Bus-powered electronics				■
Electronics powered via an integrated power supply unit	■	■	■	
DALI outputs powered via an integrated power supply unit	■	■	■	
Bus connection				
Integrated bus coupling units	■	■	■	■
Bus connection via contact system to data rail		■	■	■
Bus connection via bus terminal	■	■	■	■
Outputs				
Control output				
1...10 V DC				8
DALI outputs (lines)	2	1	8	
Max. ECG per output (Osram Dynamik 58 W)	64 units	64 units	8 units	60 units
Load output[2]				
Floating relay contacts				8
Contact rated voltage, AC [V]				230
Contact rated current [A]				16

[1] For current application programs, see www.siemens.com/gamma-td

Technical specifications
Switch/dimming actuators

... Continuation of the table

Type	N 141/31	DALI control outputs		Control outputs 1...10 V N 526E02
		N 141/02	N 525E01	
Application program[1]	9833XX	981CXX	9808XX	981301
Functions				
Max. number of group addresses	3000	1023	108	250
Max. number of assignments	3000	1023	107	250
Integrated constant light level control	[2]	[2]		
Configurable behavior in the event of a bus voltage failure	■	■	■	■
Configurable behavior in the event of a bus voltage recovery	■	■	■	■
Configurable behavior in the event of a system voltage failure	■	■	■	
Configurable behavior in the event of a system voltage recovery	■	■	■	
Switching				
Switching ON/OFF	■	■	■	■
Configurable starting value	■	■	■	■
Switching ON/OFF possible via BRIGHTER/DARKER dimming	■	■	■	■
Dimming				
BRIGHTER/DARKER dimming	■	■	■	■
Adjustable dimming time	■	■	■	■
Brightness limitation, adjustable min. dimming value/max. dimming value	■	■	■	■
Value transmission				
Set 8-bit value	■	■	■	■
Scene control				
Integrated 8-bit scene control	■	■	■	■
Scenes to be integrated per DALI output	16	16	16	
Scenes to be integrated per channel				8
Effect control				
Broadcast	■			
Integrated effect control (one-off or cyclic chaselight operation, color control)		■		
Emergency lighting				
Support for prescribed test sequences for emergency lights		■		
Controlling single battery lights		■		
Status				
DALI short circuit	■	■	■[3]	
DALI power supply	■	■	■	
Status output (ON/OFF, value, lamp fault, ECG fault)			■	■[4]
Status group (ON/OFF, value, lamp fault, ECG fault)	■	■		
Status ECG (ON/OFF, value, lamp fault, ECG fault)		■		
Time functions				
ON/OFF delay	■	■	■	■
Timer mode, 1-step (stairwell circuits)	■	■	■	■
Timer mode, 2-step	■	■	■	■
Night mode (lighting for cleaning)	■	■	■	■
Warning of impending OFF	■	■	■	■

[1] For current application programs, see www.siemens.com/gamma-td
[2] Supports ECGs with integrated constant light level control on the ECG-connected brightness sensor.
[3] Per channel.
[4] Status ON/OFF, value.

5

	Switch/dimming actuators N 526E02
Contact current	
Rated current, AC [A]	16
Maximum switch-on peak current (if more than one, specification of the highest current value)[A/ms]	400/0.15
Contact voltage	
Rated voltage, AC [V]	230
Service life	
Mechanical service life Switching operations in millions	1
Electrical service life Switching operations in millions	[1]
Power loss	
Maximum power loss per device at rated power [W]	9
Switching capacities/load types, loads	
Resistive load [W]	3680
Minimum switching capacity [V/mA]	12/100
DC switching capacity [V/A]	24/10
Maximum capacitive load [µF]	140
Incandescent lamps	
Incandescent lamps [W]	2500
Halogen lamp 230 V [W]	2500
LV halogen lamp with conventional transformer (inductive) [VA]	500
T5/T8 fluorescent lamps	
Uncorrected [VA]	2500
Parallel corrected (at max. possible C)[W]	1300
DUO circuit [VA]	2500
ECG Osram QTI 1 x 28/54W [Unit(s)]	59
ECG Osram QTP 1 x 18/24/36 W [Unit(s)]	31
ECG Osram QTP 1 x 58 W [Unit(s)]	21
ECG Osram QTP 2 x 18/24/58 W; 3 x 18 W; 4 x 18 W [Unit(s)]	9
Compact lamps	
Uncorrected [VA]	1600
Parallel corrected (at max. possible C)[W]	1100
ECG Osram Duluxtronics DT [Unit(s)]	25
Mercury-vapor lamps	
ECG Osram PTI 35/220-240S [Unit(s)]	14
ECG Osram PTI 70/220-240S [Unit(s)]	8

[1] On request.

For complete technical specifications, see: www.siemens.com/gamma-td

Technical specifications
Light level controls

Type	UP 258E21	UP 285D11	UP 255/11	AP 255/12	GE 255/13	N 342/01	AP 254/02
Enclosure data							
Design	UP/AP	UP/AP	UP	AP	GE	N	AP
For installation in lights					■		
Modular installation devices for mounting on TH35 EN 60715 mounting rail						■	
Dimensions							
• Width/Ø [mm](1 MW = 18 mm)	88	88	75	75	50	1 MW	72
• Height [mm]	63[1]	63[1]	20	27	20		110
• Depth [mm]					35		54
Power supply							
Bus-powered electronics	■	■		■		■	■
Electronics powered via an integrated power supply unit for supply voltage 230 V AC							
Bus connection							
Integrated bus coupling units	■	■		■		■	■
Plug onto UP 110 bus coupling unit							
Plug onto UP 114 bus coupling unit							
Bus connection via bus terminal	■	■		■			■
Bus connection via contact system to data rail						■	
Control							
Integrated constant light level control	1-channel			1-channel			
Integrated two-step control	1-channel	1-channel		1-channel			
Light level controls dependent on surrounding light						■	■
Offset groups	4 channels			4 channels			
Light sensor							
External light							■
Indoor brightness	■	■		■			
Indoor brightness (indirect lighting)				■			
Transmission of brightness values over KNX	■	■		■			■

[1] For flush mounting, mounting height approx. 31 mm, for surface mounting with AP 258E surface-mounting enclosure, approx. 73 mm.

Universal Dimmer, main modul (R,L,C load)

N 52../3..

- One output for switching and dimming resistive, inductive or capacitive loads
- Interface for connecting universal dimmer submodules and with software for controlling up to 5 universal dimmer submodules
- Automatic adjustment to leading edge or trailing edge control, depending on the type of load
- Integrated power supply unit for the electronics, connected to 230 V AC
- A pushbutton on top of the device for switching between bus mode and direct mode and for selecting the device (output A…F) to be switched directly
- Two pushbuttons on top of the device for switching and dimming the selected output in direct operating mode
- 6 bicolor LEDs for indicating the switch status or an error (blinking) in the selected device (output)
- Selectable mode for each output (normal mode, one- or two-level timer mode, blinking)
- Integrated 8-bit scene control and integration of each output in up to 8 scenes
- Integrated bus coupling units, Bus connection via bus terminal
- Electronic protection of the output against overload, short circuit and temperature rise
- 2 subsidiary inputs for 230 V AC (with neutral line as reference potential) for connecting 2 conventional pushbuttons for direct switching and dimming of the output and with selectable additional transmission of these switching and dimming commands via the bus
- Max. length of connecting lines on the subsidiary inputs up to 100 m
- Determination of switching state by means of the voltage generated in the device

Dimension width (1 MW = 18 mm)   3 MW

5

Range overview universal dimmer main modules N 52../31

Product Title	Stock No.	Product No.
Universal Dimmer, main modul, 20 … 300 VA, AC 230 V, (R,L,C load)	5WG1528-1AB31	**N 528/31**
Universal Dimmer, main modul, 20 … 500 VA, AC 230 V, (R,L,C load)	5WG1527-1AB31	**N 527/31**
Universal Dimmer, main modul, 20 … 500 VA, for Islanding	5WG1527-1AB32	N 527/32

Low-voltage halogen lamps with electronic transformers require a minimum load of 40 VA.

NEW PRODUCT

N 527../528..

Universal Dimmer, expansions, (R,L,C load)

- One output for switching and dimming resistive, inductive or capacitive loads
- Interface for connecting the universal dimmer submodule to the universal dimmer main module and / or connecting further universal dimmer submodules
- Rotary switch for adjusting the device (output) address to B...F
- Selectable objects and adjustable operation mode of each device (output) as well as for the main module via the main module's application program
- Automatic adjustment to leading edge or trailing edge control, depending on the type of load
- Electronics powered via an integrated power supply unit, for supply voltage 230 V AC
- Integrated 8-bit scene control and integration of each output in up to 8 scenes
- Selectable mode for each output (normal mode, one- or two-level timer mode, blinking)
- Electronic protection of the output against overload, short circuit and temperature rise
- 2 subsidiary inputs for 230 V AC (with neutral line as reference potential) for connecting 2 conventional pushbuttons for direct switching and dimming of the output and with selectable additional transmission of these switching and dimming commands via the bus
- Length of connecting lines on the subsidiary inputs up to 100 m
- Determination of switching state by means of the voltage generated in the device

Dimension width (1 MW = 18 mm)   3 MW

Range overview universal dimmer expansions

Product Title	Stock No.	Product No.
Universal Dimmer, expansions, 20...300 VA, AC 230 V, (R,L,C load)	5WG1528-1AB41	**N 528/41**
Universal Dimmer, expansions, 20...500 VA, AC 230 V, (R,L,C load)	5WG1527-1AB41	**N 527/41**
Universal Dimmer, expansions, 20...1000 VA, AC 230 V, (R,L,C load)	5WG1527-1AB51	**N 527/51**
Universal Dimmer, expansions, 20...500 VA, AC 230 V, for Islanding, (R,L,C load)	5WG1527-1AB42	N 527/42
Universal Dimmer, expansions, 20...1000 VA, AC 230 V, for Islanding, (R,L,C load)	5WG1527-1AB52	N 527/52

Low-voltage halogen lamps with electronic transformers require a minimum load of 40 VA.

NEW PRODUCT

www.siemens.com/gamma   2014

Universal Dimmer, (R,L,C load)   UP 525/..3

- One output for switching and dimming resistive, inductive or capacitive loads
- Automatic adjustment to leading edge or trailing edge control, depending on the type of load
- Rated operational voltage 230 V AC
- Rated frequency 50...60 Hz
- Rated power at +35°C ambient temperature: 10...250 VA
- Electronic protection of the output against overload, short circuit and temperature rise
- Reporting of overload, short circuit and temperature rise via the bus
- Screwless terminals for connection and through-wiring of untreated single-core, stranded or multi-core conductors, 0.5...2.5mm²
- Selectable mode for each output (normal mode, one- or two-level timer mode, blinking)
- Adjustable on- and off-delay
- Separately adjustable dimming time from 0% to 100% for switching on / off and dimming brighter / darker
- Two dimming value objects, each with individually adjustable dimming time from 0...100%
- The ability to switch an output on or off by dimming brighter / darker
- Adjustable dimming value when switching on
- Immediate activation (jumping) or dimming to a new dimming value
- Selectable additional status object switching and / or status object dimming value for each output
- Additional object for each output for blocking / releasing the output
- Sending of status objects on request and / or automatically after a change
- Adjustable blocking time for sending status objects after restart and bus voltage recovery
- Adjustable dimming value for each output in the event of bus voltage failure and recovery, as well as for mains voltage recovery
- Additional night mode object for time-limited switching on the output (and hence illumination) at night
- Adjustable on period at night or with timer mode
- Selectable warning of imminent switching off the illumination by dimming to 50% of the previous dimming value during night mode or timer mode
- Integrated 8-bit scene control and integration of each output in up to 8 scenes
- Separately adjustable dimming time for scene control
- Selectable counting of operating hours and with threshold monitoring of the operating hours
- Selectable counting of load cycles and with threshold monitoring of the load cycles
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via bus terminal

Range overview universal dimmer

Product Title	Dimensions (W x H x D)	Stock No.	Product No.
Universal Dimmer, 1 x 230 V AC, 10 ... 250 VA, with mounting frame and BTI interface	50 x 50.9 x 41.3 mm	5WG1520-2AB03	**UP 525/03**
Universal Dimmer, 1 x 230 V AC, 10 ... 250 VA, without mounting frame	50 x 50.9 x 41.3 mm	5WG1520-2AB13	**UP 525/13**

RS 525/23	**Universal Dimmer, 1 x 230 V AC, 250 VA, (R,L,C load)**

- One output for switching and dimming resistive, inductive or capacitive loads
- Automatic adjustment to leading edge or trailing edge control, depending on the type of load
- Rated operational voltage 230 V AC
- Rated frequency 50...60 Hz
- Rated power at +35°C ambient temperature: 10...250 VA
- Electronic protection of the output against overload, short circuit and temperature rise
- Reporting of overload, short circuit and temperature rise via the bus
- Screwless terminals for connection and through-wiring of untreated single-core, stranded or multi-core conductors, 0.5...2.5mm²
- Selectable mode for each output (normal mode, one- or two-level timer mode, blinking)
- Adjustable on- and off-delay
- Separately adjustable dimming time from 0...100 % for switching on / off and dimming brighter / darker
- Two dimming value objects, each with individually adjustable dimming time from 0...100 %
- The ability to switch an output on or off by dimming brighter / darker
- Adjustable dimming value when switching on
- Immediate activation (jumping) or dimming to a new dimming value
- Selectable additional status object switching and / or status object dimming value for each output
- Additional object for each output for blocking / releasing the output
- Sending of status objects on request and / or automatically after a change
- Adjustable blocking time for sending status objects after restart and bus voltage recovery
- Adjustable dimming value for each output in the event of bus voltage failure and recovery, as well as for mains voltage recovery
- Additional night mode object for time-limited switching on the output (and hence illumination) at night
- Adjustable on period at night or with timer mode
- Selectable warning of imminent switching off the illumination by dimming to 50 % of the previous dimming value during night mode or timer mode
- Integrated 8-bit scene control and integration of each output in up to 8 scenes
- Separately adjustable dimming time for scene control
- Selectable counting of operating hours and with threshold monitoring of the operating hours
- Selectable counting of load cycles and with threshold monitoring of the load cycles
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via bus terminal

Dimensions (W x H x D)   50.2 x 48.8 x 35.5 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately.
See chapter Quick-Assembly System - Room Control Box.

	Stock No.	Product No.
	5WG1525-2AB23	**RS 525/23**

Universal dimmer UP 525/31, 210 VA, AC 230 V, 50 Hz (R,L,C load)

UP 525/31

- One output for switching and dimming resistive, inductive or capacitive loads
- With semiconductor output for switching and dimming of lamps
- Rated operational voltage 230 V AC, 50/60 Hz
- Connected load 50...210 VA
- Settable switching and dimming behaviour
- Selectable mode of operation (normal mode, timer mode)
- Soft on, Soft off
- Dimming or jumping to a new dimming value
- Time-delayed switch-off when dimming below a settable dimming value
- Status objects for switching and dimming value
- Short-circuit message
- Message of a load failure
- Integrated 8-bit scene control
- Object for blocking the output
- Configurable brightness value at start and end of a blocking phase
- Adjustable behaviour of the output after bus voltage recovery
- 2 binary inputs for potential-free contacts
- Selectable function of the binary inputs: acting as secondary inputs directly on the switching outputs or acting as independant binary inputs with bus communication
- Free allocation of the functions switching, dimming, solar protection control, send value and scene control to the inputs
- Two independent switching objects per input
- Blocking object for each input
- Separately selectable behaviour per input at bus voltage recovery
- Telegram rate limitation for both inputs
- About 20 cm long wires for connecting phase conductor, output, inputs and bus
- Bus-powered electronics
- Integrated bus coupling unit
- Enclosed bus terminal for bus connection
- For installation in a flush-mounting wall or ceiling box with 60 mm diameter

Dimension (Ø x H)   53 x 28 mm

	Stock No.	Product No.
	5WG1525-2AB31	**UP 525/31**

Lighting
Switch/dimming actuators
DALI control outputs

| N 141/31 | **KNX / DALI Gateway Twin** |

- Communication via KNX EIB with electronic ballasts (ECG) with a DALI interface
- Two (2) DALI output acc. to IEC 60929, each for communication with up to 64 DALI ballasts and at least 10 sensors
- Integrated power supply with input voltage 110…240 V AC, 50…60 Hz or 120…240 V DC for powering the gateway electronics and DALI output
- Maximum DALI output voltage of 19 V, short circuit resistant
- Incorrect voltage detection during commissioning, whether incorrect power line is connected to a DALI output
- LC display for displaying operation mode and error messages
- Pushbutton for switching between bus and direct operating mode
- One pair of push buttons for switching On/Off of all connected DALI ballasts
- One LED per DALI output for status signal of all connected luminaries in direct mode
- Configurable assignment of max. 128 DALI ECG to max. 32 DALI groups, exclusive controlled in groups (switching, dimming, set dimming value) and feedback for group status and lamp failure
- Configurable behaviour for bus failure (stand-alone mode)
- Control (switching, dimming, set dimming value) of all connected luminaries together in broad-cast mode
- Status signal and display of lamp and ECG failure per group and per DALI device
- Transformation of dimming commands into a temporary set point adjustment for ballasts with integrated constant light level control and directly connected light level sensor
- One or two level timer
- Integrated scene control for up to 32 scenes
- 16 integrated 2-level-controller for brightness control
- Assignment of DALI ECG to groups and test option for ECG, groups and scenes via ETS during commissioning
- Assignment of DALI sensors and test option of sensors via ETS during commissioning
- Integrated bus coupling unit with only half a standard bus load, bus connection via bus terminal
- Mounting on DIN rail EN 60715-TH35-7.5

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	5WG1141-1AB31	N 141/31

NEW PRODUCT

Lighting
Switch/dimming actuators
DALI control outputs

Accessories for N 141/31

DALI Multisensor office   UP 141/51

- Used as passive infrared detector for indoor ceiling installation
- Sensing range, horizontal 360 °, vertical approx. 80 °
- For monitoring an area with a diameter of approx. 4 m to approx. 7 m (depending on mounting and room height)
- LED on sensor head for display
- Used as brightness sensor
- Cone–shaped detection area, opening angle 90 °
- Measuring range 20 to 1000 lx
- Integrated DALI bus coupling unit for communicating with a central DALI controller
- Power supply through DALI line with 5 mA DALI bus load
- Plug-in terminals for connecting the DALI line
- For installation in suspended ceilings

Dimensions (Ø x H)   40 x 19 mm

	Stock No.	Product No.
	5WG1141-2AB51	**UP 141/51**

DALI Push button interface 4fold   UP 141/71

- Binary input device
- 4 inputs to connect installation buttons
- Supported actions per input
- Short button press
- Long button press
- Integrated DALI bus coupling unit for communicating with a central DALI controller
- Power supply through DALI line with 6 mA DALI bus load
- For flush-mounting wall or ceiling outlet installations with a 60 mm diameter and depth of 60 mm
- Plug-in terminals for connecting the DALI line
- Cable set for connecting pushbuttons

Dimensions (W x H x D)   43 x 43 x 11 mm

	Stock No.	Product No.
	5WG1141-2AB71	**UP 141/71**

Lighting
Switch/dimming actuators
DALI control outputs

N 141/02	KNX / DALI gateway, UL standard

- For communication via KNX EIB with electronic ballasts with a DALI interface
- DALI output acc. to IEC 60929, for communication with up to 64 DALI ballasts
- Integrated power supply with input voltage AC/DC 110...240 V, 50...400 Hz, for powering the gateway electronics and DALI output
- Maximum DALI output voltage of 16 V, short circuit resistant
- Green LED for displaying the operating voltage
- Pushbutton for switching between bus and direct operating mode
- Yellow LED for displaying direct mode
- One pair of push buttons for switching On/Off of all connected DALI ballasts
- One red LED in the switching button for displaying the switching state of all DALI ballasts (permanent LED light) and displaying a DALI fault condition by blinking
- Control (switching, dimming, and setting dimming value) as well as feedback of status and lamp failure of up to 64 DALI ballasts
- Operation of each DALI ballast either as individual device or as member of one of up to 16 DALI groups
- Configurable assignment of the DALI ballasts to up to 16 DALI groups, which can only be switched and dimmed in groups including reporting status and lamp failures in groups
- Control (switching, dimming, setting dimming value) of self-contained emergency luminaires as individual luminaires or as member of a DALI group
- Distinction between self-contained emergency luminaires with one or two DALI devices
- Starting the self-conducted testing of each individual inverter and reporting the test result via bus
- Distinction between function test, short duration test, and long duration test
- Optional configuration of any DALI ballast to dim to a preset dimming value in case of emergency mode
- Locking of switching and dimming commands as well as configuration while emergency mode is activated
- Activation of emergency mode based on a configurable number of failed DALI ballasts
- Transformation of dimming commands into a temporary set point adjustment for ballasts with integrated constant light level control and directly connected light level sensor
- One or two level timer
- Integrated scene control for up to 16 scenes
- Integrated one time or cyclical control of repeatable sequences or color effects
- Possible assignment of a CIN to a DALI ballast and with commissioning of DALI ballasts and test of channel, scene, and effect functionality within ETS
- Integrated bus coupling unit
- Only half a standard bus load
- Bus connection via bus terminal or contact system to data rail
- For mounting on DIN rail EN 60715-TH35-7.5

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1141-1AB02	**N 141/02**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Lighting
Switch/dimming actuators
DALI control outputs

Switch/dimming actuator, 8 x DALI, 8 ECGs per DALI output

N 525E01

- 8 DALI outputs
- Control capacity for up to 8 DALI-ECGs per DALI output
- Power supplied to the electronics and the DALI outputs through an integrated power supply unit for 230 V AC
- Green LED for status display
- Pushbutton for selecting and switching over 4 DALI outputs respectively between bus and direct mode
- Yellow LED for indicating which 4 DALI outputs the direct mode is activated for
- 1 red LED per DALI output for indicating the circuit state or fault (e.g. lighting medium failure) of the connected group
- Four pushbutton pairs for switching and dimming of 4 DALI outputs in direct mode, functional when 230 V AC is applied (also when no bus voltage is connected and also when bus communication has not yet been started or is interrupted)
- Selection of identical or individual configuration of all DALI outputs
- Selectable operating mode per DALI output (normal mode, 1-level or 2-level time-switch mode)
- Per DALI output with command objects for switching on/off, dimming brighter/darker and setting dimming value
- Per DALI output optionally with up to 4 add-on status objects (circuit state and lighting medium failure, dimming value status and DALI status)
- Sending of status objects on request and/or automatically after change
- Per DALI output with add-on object for time-limited switching on of lighting in night mode (cleaning light)
- Warning approx. 1 minute before imminent switching off, by dimming to 50 % of former dimming value in night or timer mode
- Adjustable switching on and/or off of a channel through dimming brighter/darker, dimming value when switching on, actuating or dimming a new dimming value, dimming time from 0% to 100%
- Adjustable behavior on bus voltage or mains voltage failure and bus voltage or mains voltage recovery
- Add-on object and integrated 8bit scene control for saving and restoring up to 16 scenes per DALI output
- Integrated bus coupling unit as only half standard bus load
- Bus connection through bus terminal as well as contact system to data rail
- Device for mounting on rail TH35 DIN EN 60715

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1525-1EB01	**N 525E01**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

N 526E02	**Switch/dimming actuator 8 x AC 230 V, 16 A, 1...10 V, UL standard**

- For switching and dimming of eight mutually independent groups (channels) of fluorescent lamps with dimmable electronic control gear (ECG)
- 8 control voltage outputs 1...10 V DC
- Control power min. 60 OSRAM ECG dynamic each
- 8 switching outputs (relay contacts) for 230 V AC, 50/60 Hz, 16 A at p.f. = 1
- Each of them for connection of min. 30 OSRAM ECG dynamic for 58 W fluorescent lamps
- Slide switch per relay output for manual operation and switch position indication
- Selection between identical or individual configuration of all channels
- Command objects for each actuator channel for switching on/off, dimming brighter/darker and set/value
- One 1-bit and one 8-bit-status object (switching state and dimming value) per output
- Per channel configurable time-limited activation of the lighting during night mode (base lighting)
- Warning 30 seconds prior to imminent switch off by dimming to 50 % of the previous dimming value for each channel with time-limited operation
- Switching on or off of a channel by dimming brighter/darker
- Configurable dimming value upon switching on
- Jumping or dimming to a new dimming value
- Configurable dimming time from 0...100%
- Integrated 8 bit scene control and assignment of each output to up to 8 scenes
- Transmission of status objects on request, cyclically and/or automatically after changes
- Configurable behaviour on bus voltage failure and recovery
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   8 MW

	Stock No.	Product No.
	5WG1526-1EB02	**N 526E02**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Presence detectors   UP 258.B..1

- Used as passive infrared detector for indoor ceiling installation
- Sensing range, horizontal 360 °, vertical approx. 100°, rotating/swiveling sensor head, optionally for shading off parts of the sensing range
- For monitoring an area for presence up to approx. 6 x 3.5 m, for a mounting height of 2.8 m (presence detection), motion detection up to 5 x 3.5 m
- Mixed light measurement, measuring range 20...1000 lux
- Presence detection for three function blocks (presence detector, motion detector and HVAC detector)
- Functions: Switching on/off, 8-bit value, 16-bit value, temperature value, brightness value, 8-bit scene control
- Blocking object per function module
- Adjustable delay time per function module, which can be optionally set to a fixed time, or two times that can be switched between via bus, or set to one value via bus
- Parallel operation of several presence detectors (master-slave, master-master) without logic modules
- Integrated IR receiver for S 255/11 IR remote control with six pushbutton pairs (see accessories)
- In the case of individual pushbuttons, selectable function per pushbutton: Switching Over, Switching On, Switching Off, call up 8-bit scene, 8-bit value, 16-bit value, temperature value, brightness value
- In the case of pushbutton pairs, selectable function Switching on/off, switching over/over, 2-pushbutton dimming with stop telegram, 2-pushbutton sun protection control, transmit variable 8-bit value, 8-bit scene control
- Blocking object for IR receiver decoder
- LED for display of detected motions in test mode
- Mounting on the ceiling in a flush-mounting device box with 60 mm diameter and at least 40 mm mounting depth, or in an AP 258E surface-mounting enclosure, which must be ordered separately (see accessories)

Dimension (Ø x H)   88 x 63 mm

Presence detector with brightness sensor   UP 258E21

- Integrated constant light level control and 2-step light control, optionally available in fully automatic or semi-automatic version
- 4 channels for offset groups

Stock No.	Product No.
5WG1258-2EB21	**UP 258E21**

Motion detector with brightness sensor   UP 258D11

- Integrated 2-step light control, optionally available in fully automatic or semi-automatic version
- 3 independent control channels each with 2 start objects and 2 end objects

Stock No.	Product No.
5WG1258-2DB11	**UP 258D11**

Accessories for UP 258.B..1

S 255/11

IR remote control accessories for UP 258E21 or UP 258D11

- 6 pushbutton pairs for the remote control of lighting, shutter/blinds and scenes via UP 258E21 or UP 258D11 presence detector
- Parameterization is via ETS in the UP 258E21 or UP 258D11 presence detector
- Range: approx. 4.5 m
- Power supply: CR2025 lithium button cell
- Degree of protection (acc. to EN 60529): IP40

Dimensions (W x H x D)   40 x 87 x 6 mm

	Stock No.	Product No.
	5WG1255-7AB11	**S 255/11**

AP 258E01

Surface-mounting enclosures for UP 258E21 or UP 258D11

For fixing the presence detector as a surface mounting device

	Stock No.	Product No.
	5WG1258-7EB01	**AP 258E01**

Brightness controller

- For measuring the brightness on an illuminated work area through measurement of the reflected light
- Measuring range 0...2000 lux (with a reflectance of the illuminated area of approx. 30%)
- Including two rigid optical fiber rods:
- Parallel light-sensitive surface for mounting surface
- Inclined (30°) light-sensitive surface for mounting surface
- Integrated infrared receiver for calibration of the brightness measurement via the S 255 infrared remote calibration tool
- Transmission of the brightness measured value, either in the event of change and/or cyclically
- Discretionary set-point as a parameter or a communication object
- Optional two-step dimmer control for lights that can only be switched or constant light level control for lights that can be switched and dimmed
- Selectable starting value of the lighting at the start of constant light level control
- Optionally with dimming of up to 4 further lighting groups to the dimming value of the constant light level control or a dimming value that differs from the dimming value of the constant light level controller by an offset value, which can be set per group
- The constant light level control is automatically deactivated by manually dimming, or by dimming to a preset value
- Configurable behavior in the event of a bus voltage recovery

UP 255/11, AP 255/12, GE 255/13

Range overview UP 255/11, AP 255/12, GE 255/13

Product Title	Dimensions (W x H x D)	Dimension (Ø x H)	Stock No.	Product No.
UP-Brightness-controller		75 x 20 mm	5WG1255-4AB11	**UP 255/11**
Brightness controller		75 x 27 mm	5WG1255-4AB12	**AP 255/12**
Brightness controller	50 x 35 x 20 mm		5WG1255-4AB13	**GE 255/13**

Low-voltage halogen lamps with electronic transformers require a minimum load of 40 VA.

Accessories for UP 255/11, AP 255/12, GE 255/13

IR remote calibration, accessories for UP 255/11, AP 255/12, GE 255/13

- Range: up to approx. 4.5 m
- Power supply: CR2025 lithium button cell (included in delivery)
- Degree of protection (acc. to EN 60529): IP40

Dimensions (W x H x D)   40 x 86 x 6 mm

S 255/01

	Stock No.	Product No.
	5WG1255-7AB01	**S 255/01**

| **AP 254/02** | **Dual sensor for brightness measurement, temperature measurement, sun protection control, lighting control** |

- Brightness measurement, temperature measurement, sun protection control, lighting control
- For the detection and transmission of brightness and temperature
- Temperature measuring range -25 °C...+55 °C
- Brightness measuring range 1 Lux...100 kLux
- Horizontal sensing angle -60°...+60°, vertical -35°...+66.5°
- For the control of switch, dimming and shutter/blind actuators, depending on the ambient luminosity and/or ambient temperature
- One sun protection channel for the automatic control of sun protection equipment, with
- Starting and stopping of automation by means of an object or a dusk threshold
- Up to three brightness thresholds for determining the height and position of the shutters/blinds or roller shutters
- Optional teach-in of dusk thresholds and brightness thresholds by means of a teach-in facility
- Blocking object for the temporary deactivation of the sun protection channel function
- Up to four universal channels for the control of switch, dimming and shutter/blind actuators, depending on ambient luminosity and/or temperature. Optionally available with:
- Threshold switches for brightness
- Threshold switches for temperature
- Threshold switches with logical combination of brightness and temperature
- Optional teach-in of brightness threshold for each universal channel by means of an associated teach-in facility
- Deactivation option for each universal channel by means of an associated blocking object (1 bit)
- Optional second object for transmission of a second telegram on fulfillment of threshold conditions
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal
- Surface mounting
- Degree of protection: IP54

Dimensions (W x H x D)   72 x 110 x 54 mm

	Stock No.	Product No.
	5WG1254-3EY02	**AP 254/02**

| **N 342/01** | **Light level control module** |

- Ten mutually independent light control functions that control the indoor lighting depending on the outdoor brightness
- Shared current outdoor light intensity value for all 10 light control functions, with light intensity measured by an outdoor brightness sensor and sent to an N 342
- Separate brightness curve per light control function
- With configuration option per light control function as continuous dimming control for the detection and transmission of dimming commands to dimming or switch/dimming actuators or as 2-step control with hysteresis for detection and transmission of on/off switching commands to switch actuators
- Automatic adaptation (shifting) of the respective brightness curve to the desired new indoor brightness when the dimming value is manually changed (e. g. using a bus pushbutton) and restoration of the original curve when the lighting is switched off
- Control range up to 32000 lux

Dimension width (1 MW = 18 mm)   1 MW

The matching physical sensors must be ordered separately. See chapter Physical Sensors - sensors with KNX connection.
The data rail must be ordered separately. See chapter System Products and Accessories - Data rails.
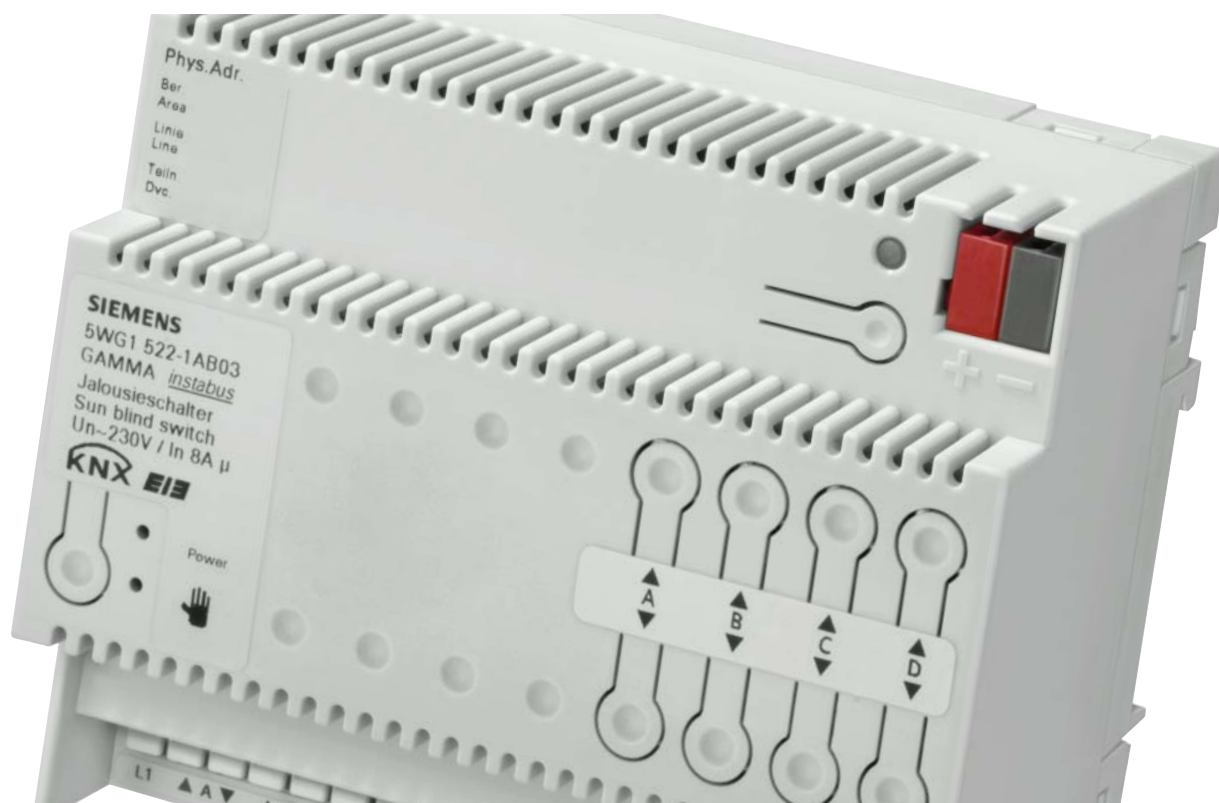
	Stock No.	Product No.
	5WG1342-1AB01	**N 342/01**

Sun Protection, Anti-Glare Protection, Utilization of Daylight
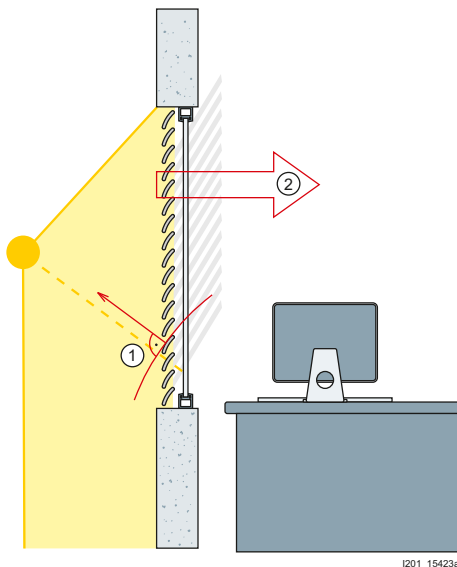
Sunlight tracking control

When using the sunlight tracking control, the blind slats are not completely closed but track the current sun position so that the sun cannot shine directly into the room. However, the spaces between the slats allow as much diffuse daylight into the room as possible and ensure maximum daylight with minimum glare, while at the same time reducing energy costs.
The sunlight tracking function continually adjusts the blind slats so that they are constantly placed vertical to the sun. This optimizes the utilization of daylight.
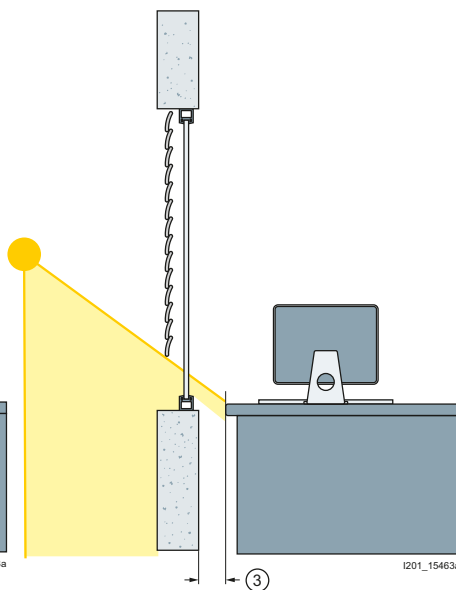
Shadow outline tracking

With activated shadow outline tracking, the sun protection is not fully extended, rather it is extended for a configurable distance (e. g. 50 cm) to allow a specified amount of sunshine to penetrate the room.
Advantages: it is still possible to look out of the lower part of the window, any plants on the window sill still benefit from the sunshine, while occupants of the room are protected from its glare.

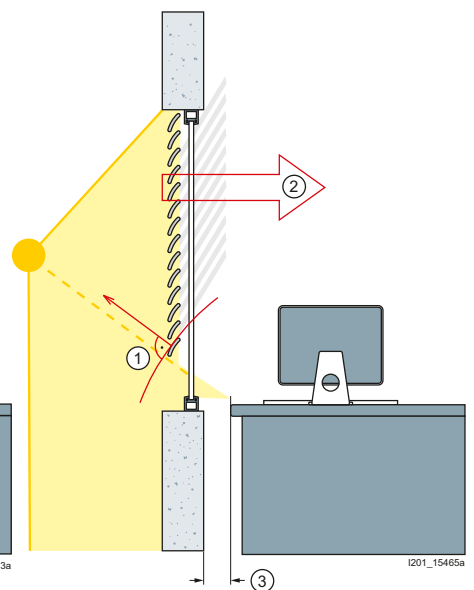### Sunlight tracking control and shadow outline tracking combined

It goes without saying that the two principles can be combined, thus offering optimum sun protection.
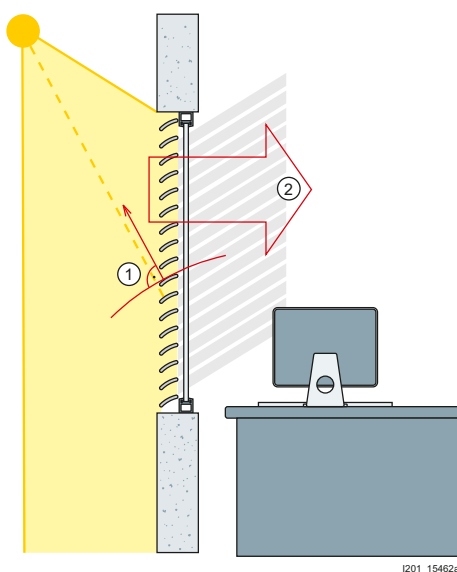

I201_15423a

① Total reflection from direct sunshine
② Proportion of diffuse daylight

I201_15463a

③ Maximum depth of sunlight penetration

I201_15465a

① Total reflection from direct sunshine
② Proportion of diffuse daylight
③ Maximum depth of sunlight penetration

I201_15462a

① Total reflection from direct sunshine
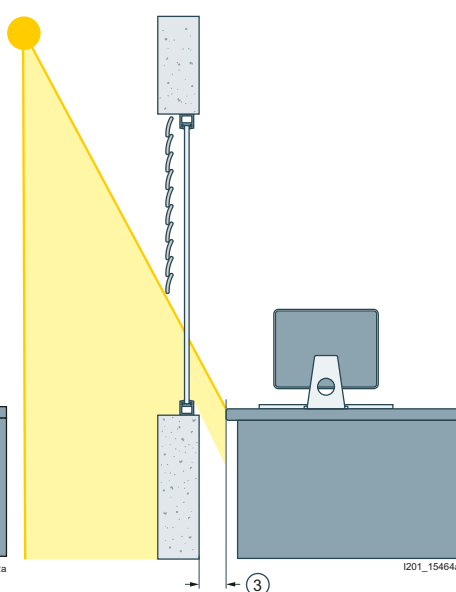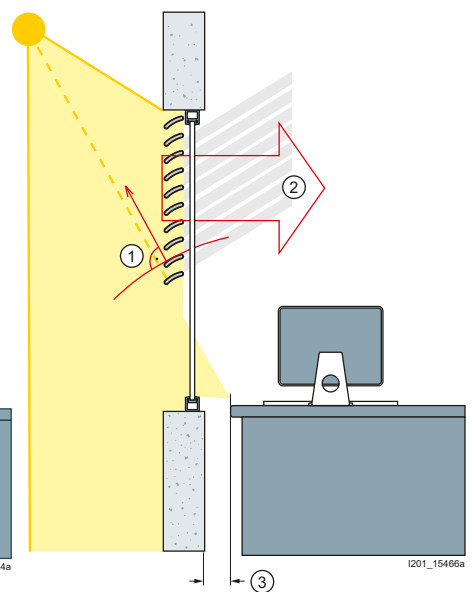② Proportion of diffuse daylight

I201_15464a

③ Maximum depth of sunlight penetration

I201_15466a

① Total reflection from direct sunshine
② Proportion of diffuse daylight
③ Maximum depth of sunlight penetration

Type	N 522/03	N 523/02	N 523/03	N 523/04 [1]	N 523/11	N 501/01	N 524/01	N 521/01	UP 520/03	UP 520/13	UP 520/31	RS 520/23	RL521/23
Enclosure data													
Design	N	N	N	N	N	N	N	N	UP	UP	UP	RS	RL
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■	■	■	■	■					
For installation in flush-mounting switch and socket boxes with Ø = 60 mm									■	■	■		
Modular installation device for mounting in AP 118 automation module box or AP 641 room control box [2]												■	■
10-pole BTI socket (BTI - Bus Transceiver Interface) for plugging of bus terminal devices with BTI connector									■				
Dimensions													
• Width/Ø [mm] (1 MW = 18 mm)	6 MW	4 MW	4 MW	4 MW	8 MW	8 MW	6 MW	3 MW	71	50	53	50.2	47.8
• Height [mm]									71	50.9		35.5	36.2
• Depth [mm]									42	41.3	28	48.8	86.5
Mounting type													
Screw fixing									■				
Display/control elements													
LED for status indication per output	■	■	■	■	■	■	■						
Direct operation (local operation)	■	■	■	■	■	■	■						
Power supply													
Bus-powered electronics									■	■	■	■	■
Electronics powered via an integrated power supply unit. Supply voltage 230 V AC	■	■	■	■	■	■							
Bus connection													
Integrated bus coupling units	■	■	■	■	■	■	■	■	■	■	■	■	■
Bus connection via bus terminal	■	■	■	■	■	■	■		■	■	■	■	■
Bus connection via contact system to data rail	■	■	■	■	■	■		■					
Outputs													
Load output													
Number of channels (one UP and one DOWN each)	4	4 [3]	4 [3]	4 [3]	8 [4]	4 [3]	4	2	1	1	1	1	2
Integrated isolating relay function for connection of 2 drives per channel									■				
Electrically interlocked relays (for reversing direction of rotation)	■	■	■	■	■	■	■	■	■	■	■	■	■
Contact rated voltage													
• 230 V AC/50 Hz	■	■	■	■	■		■	■	■	■	■	■	■
• 24 V DC						■							
Contact rated current	8	6	6	6	6	6	1 DC	6	6	6	6	6	6
Inputs													
Max. cable length, unshielded, twisted [m]						100					5		
For signal inputs (floating contact)											2		
Determination of switching state by means of the voltage generated in the device											■		

[1] Also available as UL version (5WG1523-1CB04).
[2] The AP 641 room control box and AP 118 automation module box must be ordered separately, see Chapter Quick-assembly system - Room control box - enclosure.
[3] 2 floating.
[4] 6 floating.

Technical specifications
Anti-glare/sun protection actuators

...Continuation of the table

Type	N522/03	N 523/02	N 523/03	N 523/04 [2]	N 523/11	N 501/01	N 524/01	N 521/01	UP 520/03	UP 520/13	UP 520/31	RS 520/23	RL521/23
Application program [1]	981101	980103	980181	981201	980601	981701	980201	520206	982A01	982A01	207301	982A01	982B01
Output functions													
Max. number of group addresses	114	100	100	110	200	220	40	11	120	120	26	120	120
Max. number of assignments	156	100	100	125	200	220	65	12	120	120	27	120	120
Configurable behavior in the event of a bus voltage failure					■	■	■	■	■	■	■	■	■
Configurable behavior in the event of a bus voltage recovery	■						■		■	■	■	■	■
Configurable behavior in the event of a system voltage recovery	■				■	■	■						
Operating mode													
Automatic mode for sunlight tracking control	■			■	■	■	■		■	■		■	■
Manual mode	■			■	■	■	■		■	■		■	■
Standard mode	■	■	■	■	■	■	■	■	■	■	■	■	■
Status													
Transmitting status per channel	■	■	■	■	■	■	■		■	■		■	■
Indication of direct operation with status object	■			■	■	■							
Status position of sun protection, 8-bit	■	■	■	■	■	■	■		■	■		■	■
Status position of slats, 8-bit	■	■		■	■	■	■		■	■		■	■
Scene control													
Integrated 1-bit scene control	■	■	■		■	■			■	■		■	■
Integrated 8-bit scene control	■				■	■			■	■		■	■
Scenes to be integrated per channel	8	2	2		8	8			8	8		8	8
Shutter/blind control													
Travel lock (e. g. for cleaning the outer shutter/blinds)	■	■	■	■	■	■			■	■	■	■	■
Separate raising/lowering protection	■	■	■				■						■
Alarm • Move to safety position • Locking in this position for as long as alarm is active • Alarm check, wire break, alarm delayed • Channels single lockable during alarm	■	■	■	■	■	■	■	■	■	■	■	■	■
Individual configuration of actuator channels	■	■	■	■	■	■	■		■	■	■	■	■
Shared configuration of actuator channels	■	■	■	■	■	■		■					
Adaptation of objects and functions to drive type	■	■	■	■	■	■	■		■			■	
Delay time adjustable				■	■								
Suitable for integration in a sunlight tracking control system				■	■	■	■		■			■	■
End position detection									■	■		■	■
Adaptation of objects and functions to electronic limit switch													
Sun protection control (UP/DOWN)													
Using position data (8-bit value)				■	■	■	■		■	■		■	■
Travel to end position, stopping, stepwise adjustment		■	■	■	■	■	■	■	■	■	■	■	■
Slat control (OPEN/CLOSE)													
Using position data (8-bit value)				■	■	■	■		■	■		■	■
Travel to end position, stopping, stepwise adjustment		■		■	■	■	■	■	■		■	■	■
Step adjustable [3]				■ n	■ n	■ n	■ %		■ n	■ n		■ n	■ n

[1] For current application programs, see www.siemens.com/gamma-td
[2] Also available as UL version (5WG1523-1CB04).
[3] n = number, % = %-value.

6

	N 501/01 combination shutter/blind actuators	N 521/01 shutter/blind actuators	N 523/02 shutter/blind actuators N 523/03 roller shutter actuators N 523/04 shutter/blind actuators	N 523/11 shutter/blind actuators	N 522/03 shutter/blind actuators	N 524/01 shutter/blind actuators	RL 521/23 shutter/blind actuators	UP 520/03 shutter/blind actuators UP520/13 shutter/blind actuators RS 520/23 shutter/blind actuators
Contact current								
Rated current [A]	6 (AC)	6 (AC)	6 (AC)	6 (AC)	8 (AC)	1 (DC)	6 (AC)	6 (AC)
AC3 operation (p.f. = 0.45)[VA]	200	500	200	200	200	200	500	500
Contact voltage								
Rated voltage [V]	AC 230	AC 230	AC 230	AC 230	AC 230	DC 24	AC 230	AC 230
Service life								
Mechanical service life Switching operations in millions	20	50	20	20	20	20	10	10
Electrical service life Switching operations in millions	0.1	0.1	0.1	0.1	0.1	0.1	0,1	0,1
Power loss								
Maximum power loss per device at rated power [W]	7	2	3	5	8	6	4,5	2,3
Switching capacities/load types, loads								
Resistive load [W]	1380	1380	1380	1380	1840	24	1380	1380
Minimum switching capacity [V/mA]	5/10	24/10	5/10	5/10	5/10	5/10	24/10	24/10
DC switching capacity [V/A]	24/8	30/10	24/8	24/8	24/8	24/8	30/10	30/10

[1] On request.

For complete technical specifications, see: www.siemens.com/gamma-td.

Venetian blind actuator, 4 x 230 V AC, 8 A, with limit position detection and sunlight tracking

- For the separate control per actuator channel of a sun protection, damper, door or window drive with a motor for 230 V AC and electromechanical or electronic limit switches
- Integrated electronics for detection of the actuation of an electromechanical limit switch and with auto-calibration of the travel time from one limit switch to the other
- Electrically interlocked relays to reverse the direction of rotation
- Relay contacts rated for nominal voltage 230 V AC, 8 A (resistive load)
- 4 terminals per channel for connection of L, R, N and PE conductor of a drive
- Configuration by the user whether all actuator channels are to be identically or individually parameterized
- Communication objects per actuator channel for moving the sun protection to the limit positions or to stop travel and for step-by-step adjustment of the blind slats
- Communication objects for moving the sun protection and adjusting the blind slats directly to a new position (as precisely as drive mechanics permit) by positioning commands as percentage values
- Automatic opening of blind slats up to a set position after the blinds have been lowered without any stop from the upper to the lower limit position
- Integrated 1-bit scene control for save and recall of 2 favored positions of blind and slats
- Integrated 8-bit scene control and assignment of up to 8 scenes per channel
- Optional object "Sunshine" for activation / deactivation of sunlight tracking of the slats for shading with greatest possible daylight component
- Differentiation between automatic and manual mode and with automatic switchover from automatic to manual mode of the respective actuator channel on activation of a bus pushbutton for manual control of the sun blind
- Priority of manual mode over automatic positioning commands
- Alarm object per device or per channel for moving the sun protection to the configured safety position in the event of a wind alarm e.g. and with blocking of travel to another position as long as alarm pending
- Travel blocking object per device or per channel for blocking the sun protection in its current position (needed during cleaning of an outdoor Venetian blind e.g.)
- Status objects per actuator channel for query or automatic transmission of sun blind and slat position as percentage value
- Electronics powered via an integrated power supply unit for 230 V AC
- Green LED for displaying the 230 V operating voltage
- Pushbutton for switchover between bus mode and direct mode
- Yellow LED for display of activated direct mode
- Two pushbuttons each per actuator channel for drive control in direct mode
- Integrated in the actuator housing and operational if the actuator is supplied with 230 V AC (even if bus voltage missing or communication not operational)
- Integrated bus coupling unit with only half a standard bus load
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   6 MW

	Stock No.	Product No.
	5WG1522-1AB03	**N 522/03**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Anti-glare/sun protection actuators

N 523/..	**Shutter/blind actuators**

- Rated contact current 6 A
- LED for status indication per output
- Direct operation (local operation)
- Electrically interlocked relays (for reversing direction of rotation)
- Transmitting status per channel
- Status Position Sonnenschutz 8 Bit
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Alarm:Move to safety position, locking in this position for as long as alarm is active
- Individual or shared configuration of actuator channels
- Adaptation of objects and functions to drive type
- Sun protection control (up/down): travel to end position, stopping, stepwise adjustment
- Integrated power supply unit for the electronics, connected to 230 V AC
- Integrated bus coupling units
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

N 523/02	**Venetian blind actuator, 4 x 230 V AC, 6 A**

- 4 channels (one up and one down each)
- Rated contact voltage 230 V AC, 50 Hz
- Status position of slats, 8-bit
- Integrated 1-bit scene control, 2 Scenes to be integrated per channel
- Separate raising/lowering protection
- Sun protection control (up/down) using position data (8-bit value)

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1523-1AB02	**N 523/02**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

N 523/03	**Roller shutter actuator, 4 x 230 V AC, 6 A**

- 4 channels (one up and one down each)
- Rated contact voltage 230 V AC, 50 Hz
- Integrated 1-bit scene control, 2 Scenes to be integrated per channel
- Separate raising/lowering protection

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1523-1AB03	**N 523/03**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

6

Venetian blind actuator, 4 x 230 V AC, 6 A, with sunlight tracking of slats, UL standard

N 523/04

- 4 channels (one up and one down each)
- Rated contact voltage 230 V AC, 50 Hz
- Automatic mode for sunlight tracking control
- Manual mode
- Indication of direct operation with status object
- Status position of slats, 8-bit
- Suitable for integration in a sunlight tracking control system
- Sun protection control (up/down) using position data (8-bit value)
- Slat control (open/close) using position data (8-bit value) or travel to end position, stopping, stepwise adjustment

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1523-1AB04	**N 523/04**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Venetian blind actuator, 4 x 120 V AC, 6 A, with sunlight tracking of slats, UL standard

N 523C04

- 4 channels (one up and one down each)
- Rated contact voltage 120 V AC, 50 Hz
- Automatic mode for sunlight tracking control
- Manual mode
- Indication of direct operation with status object
- Status position of slats, 8-bit
- Suitable for integration in a sunlight tracking control system
- Sun protection control (up/down) using position data (8-bit value)
- Slat control (open/close) using position data (8-bit value) or travel to end position, stopping, stepwise adjustment

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1523-1CB04	**N 523C04**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Venetian blind actuator, 8x 230 V AC, 6A, with sunlight tracking of slats

N 523/11

- 8 channels (one up and one down each)
- Rated contact voltage 230 V AC, 50 Hz
- Configurable behavior in the event of a bus voltage failure
- Configurable behavior in the event of a system voltage recovery
- Automatic mode for sunlight tracking control
- Manual mode
- Indication of direct operation with status object
- Status position of slats, 8-bit
- Integrated 1-/8-bit-scene control, 8 Scenes to be integrated per channel
- Suitable for integration in a sunlight tracking control system
- Sun protection control (up/down) using position data (8-bit value)
- Slat control (open/close) using position data (8-bit value) or travel to end position, stopping, stepwise adjustment

Dimension width (1 MW = 18 mm)   8 MW

	Stock No.	Product No.
	5WG1523-1AB11	**N 523/11**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Anti-glare/sun protection actuators

N 501/01 — **Combination blind actuator, 4 x 230 V AC, 6 A, 8 x binary inputs**

- 8 inputs for DC or AC in the range from 12 to 230 V
- 8 relay contact outputs slaved in pairs for controlling 4 × 230V AC sunblind drives
- Contact rated voltage 230 V AC
- Contact rated current 6 A, p.f. = 1
- Electronics powered by a 230 V AC integrated power supply
- Device functional even without bys connection or if the bus communication fails
- Preset on delivery for direct output control for each blind button function via the buttons connected to the inputs
- LED to indicate standby
- Key for switching between bus and direct mode
- LED for indicate direct mode activated
- Button for each relay contact output, for switching the output in direct mode while the button is held down
- LED per input to indicate the relevant signal status
- Selectable function for each input when using the ETS:
- Switching status, send binary value
- Toggle leading edge, Short/Long
- 1-pushbutton dimming, sunblind control, group control
- 1-bit/8-bit scene control
- 8-bit/16-bit value leading edge, Short/Long
- 16-bit floating point value leading edge, Short/Long
- Or for each pair of inputs:
- Acting directly on the corresponding outputs as blind button
- 2-button dimming with stop telegram or with cyclical sending
- 2-pushbutton sunblind control
- Selectable blocking of each input via a corresponding blocking object
- Sending of input objects after change
- Selectable cyclical input object sending
- Individual or shared configuration of actuator channels
- Communication objects for each blind channel for driving the sun protection into the end positions or for stopping the procedure and adjusting the blind slats in steps
- Communication objects for setting position of slats and blinds in percentage information
- Automatic opening of the blind slats to a preconfigured nominal setting after uninterrupted driving down of the blind from the top to the bottom end position, with integrated 1-bit scene control for storing and calling up (reproduction) of 2 interim blind and slat settings
- Integrated 1-bit/8-bit scene control, 8 scenes can be integrated per channel
- Optional "Sun" object for integration in a sunlight tracking control system
- Differentiation between automatic and manual mode and with automatic switchover from automatic to manual mode for the channel in question by pressing a bus button for manual control of the corresponding sun protection
- Manual mode taking precedence over automatic position commands
- Optional central command for each device or each channel for switching the relevant channels to automatic mode and driving the sun protection into the up or down end position
- Alarm: move to safety position, Locking in this position for as long as alarm is active
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Status objects for each channel for querying or for automatic sending of sun protection and slat settings as a percentage value
- Optional status objects for reporting that the up or down position has been reached
- Integrated bus coupling unit
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   8 MW

	Stock No.	Product No.
	5WG1501-1AB01	**N 501/01**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

Shutter / blind actuator, 4 x DC 6 ... 24 V, 1 A   N 524/01

- LED for status indication per output
- Direct operation (local operation)
- 4 channels (one up and one down each)
- Electrically interlocked relays (for reversing direction of rotation)
- Configurable behavior in the event of a system voltage recovery
- Configurable behavior in the event of a bus voltage failure
- Automatic mode for sunlight tracking control
- Manual or standard mode
- Transmitting status
- Per channel
- Position of sun protection, 8-bit
- Status position of slats, 8-bit
- Integrated 1-bit/8-bit scene control, 8 scenes to be integrated per channel
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Adaptation of objects and functions to drive type
- Suitable for integration in a sunlight tracking control system
- Sun protection control (up/down)
- Using position data (8-bit value)
- Travel to end position, stopping, stepwise adjustment
- Slat control (open/close)
- Using position data (8-bit value)
- Travel to end position, stopping, stepwise adjustment
- Electronics powered via an integrated power supply unit. Supply voltage 230 V AC
- Integrated bus coupling units
- Bus connection via bus terminal

Dimension width (1 MW = 18 mm)   6 MW

	Stock No.	Product No.
	5WG1524-1AB01	**N 524/01**

Shutter / blind actuator, 4 x 230 V AC, 6 A (2 x parallel)   N 521/01

- 2 channels (one up and one down each)
- Integrated isolating relay function for connection of 2 drives per channel
- Electrically interlocked relays (for reversing direction of rotation)
- Rated contact voltage 230 V AC, 50 Hz
- Rated contact current 6 A
- Configurable behavior in the event of a bus voltage failure
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Shared configuration of actuator channels
- Adaptation of objects and functions to drive type
- Sun protection control (up/down)
- Using position data (8-bit value)
- Travel to end position, stopping, stepwise adjustment
- Slat control (open/closed)
- Using position data (8-bit value)
- Travel to end position, stopping, stepwise adjustment sun protection control (up/down) and slat control (open/close)
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   3 MW

	Stock No.	Product No.
	5WG1521-1AB01	**N 521/01**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

UP 520/..3	**Shutter actuators**

- Electrically interlocked relays (for reversing direction of rotation)
- Configurable behavior in the event of a bus voltage failure and recovery
- Automatic mode for sunlight tracking control
- Manual or standard mode
- Status: transmitting status per channel, status position of sun protection 8-bit, status position of slats 8-bit
- Integrated 1-/8-bit scene control
- 8 scenes to be integrated per channel
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Separate raising/lowering protection
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Individual or shared configuration of actuator channels
- Adaptation of objects and functions to drive type
- Suitable for integration in a sunlight tracking control system
- End position detection
- Using position data (8-bit value) travel to end position, stopping, stepwise adjustment sun protection control (up/down) and Slat control (open/closed)
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Range overview UP 520/..3

Product Title	Dimensions (W x H x D)	Stock No.	Product No.
Shutter Actuator with mounting frame and BTI socket	71 x 71 x 42 mm	5WG1520-2AB03	**UP 520/03**
Shutter Actuator without mounting frame	50 x 50.9 x 41.3 mm	5WG1520-2AB13	**UP 520/13**

UP 520/31	**Venetian blind actuator 1 x 230 V AC, 6 A, 2 x binary inputs**

- 1 x 230 V AC, 6 A, 2 x binary inputs
- 1 channels (one up and one down each)
- Electrically interlocked relays (for reversing direction of rotation)
- Max. cable length, unshielded, twisted 5 m
- For 2 signal inputs (floating contact)
- Determination of switching state by means of the voltage generated in the device
- Configurable behavior in the event of a bus voltage failure
- Configurable behavior in the event of a bus voltage recovery
- Transmitting status per channel
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Individual configuration of actuator channels
- Travel to end position, stopping, stepwise adjustment
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal
- For installation in flush-mounting switch and socket boxes with Ø 60 mm

Dimension (Ø x H)	53 x 28 mm		
		Stock No.	Product No.
		5WG1520-2AB31	**UP 520/31**

Shutter Actuator, 1 x 230 V AC, 6 A   RS 520/23

- 1 channels (one up and one down each)
- Electrically interlocked relays (for reversing direction of rotation)
- Configurable behavior in the event of a bus voltage failure/recovery
- Automatic mode for sunlight tracking control
- Manual and standard mode
- Status: Transmitting status per channel, status position of sun protection, 8-bit, status position of slats, 8-bit
- Integrated 1-bit/8-bit scene control
- 8 scenes to be integrated per channel
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Separate raising/lowering protection
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Individual configuration of actuator channels
- Adaptation of objects and functions to drive type
- Suitable for integration in a sunlight tracking control system
- End position detection
- Using position data (8-bit value) for sun protection control (up/down) and slat control (open/closed)
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   50.2 x 48.8 x 35.5 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately. See Chapter Quick-assembly system - Room control box.

	Stock No.	Product No.
	5WG1520-2AB23	**RS 520/23**

Shutter Actuator, 2 x 230 V AC, 6 A   RL 521/23

- For mounting in AP 118 automation module box or AP 641 room control box
- 2 channels (one up and one down each)
- Electrically interlocked relays (for reversing direction of rotation)
- Configurable behavior in the event of a bus voltage failure/recovery
- Automatic mode for sunlight tracking control
- Manual and standard mode
- Status: Transmitting status per channel, Status position of sun protection, 8-bit, Status position of slats, 8-bit
- Integrated 1-bit/8-bit scene control
- 8 scenes to be integrated per channel
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Separate raising/lowering protection
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Individual configuration of actuator channels
- Adaptation of objects and functions to drive type
- Suitable for integration in a sunlight tracking control system
- End position detection
- Using position data (8-bit value) for sun protection control (up/down) and slat control (open/close)
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   86.5 x 47.8 x 36.2 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately. See Chapter Quick-assembly system - Room control box.

	Stock No.	Product No.
	5WG1521-4AB23	**RL 521/23**

AP 257/..2

Weather-/sun station

- Receiver for GPS time signal
- Input the assembly location by selecting country and city or by stating the GPS longitude/latitude coordinates
- Transmission and receipt of date and time over bus
- Transmission of all measured values via bus
- Functions:
- Monitoring of all measured values up to 3 limit values each
- Sensor monitoring
- Sunlight tracking control
- Shadow outline tracking
- Central command for activation/deactivation of sun protection at the start and end of sunshine
- 4 AND operations
- 4 OR operations
- 8 OR operations for alarm/fault indications
- Blocking function for window cleaning tasks
- Safety/alarm objects
- LED for the display of GPS reception
- Electronics powered via an external power supply unit (20 V AC or 24 V DC, max. 185 mA)
- Integrated bus coupling units
- Bus connection via bus terminal
- Integrated sensors
- Heated sensor for measuring wind speed without mechanically moved parts, measuring range at least 0...35 m/s
- Brightness sensor, measuring range min. 0...150 klx
- Dusk detection, measuring range min. 0...1000 lx
- Outdoor temperature sensor, measuring range min. -35...+80 °C
- Heated precipitation monitors

Dimensions (W x H x D)   96 x 77 x 118 mm

The 4AC2402 electronic power pack is recommended for the power supply.

Range overview AP 257/..2

Product Title	Stock No.	Product No.
Weather center (GPS), 8 facade sectors, sun tracking	5WG1257-3AB22	**AP 257/22**
Weather station WS1 (GPS)	5WG1257-3AB32	**AP 257/32**

AP 257/42

Wind sensor

- Windspeed Measuring range 0...35 m/s
- Recording, querying and resetting the maximum wind speed
- Automatic indication in the event of a defective sensor
- Mast mountings
- Limit value monitoring (3 limit values)
- Transmission of sensor values via bus
- Logic operations (8 AND, 8 OR)
- Electronics powered via an external power supply unit
- Integrated bus coupling units, bus connection via bus terminal
- Surface mounting, degree of protection IP44

Dimensions (W x H x D)   96 x 77 x 118 mm

The 4AC2402 electronic power pack is recommended for the power supply.

	Stock No.	Product No.
	5WG1257-3AB42	**AP 257/42**

Accessories for AP 257/..2

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

Heating, Cooling, Ventilation, Air-Conditioning

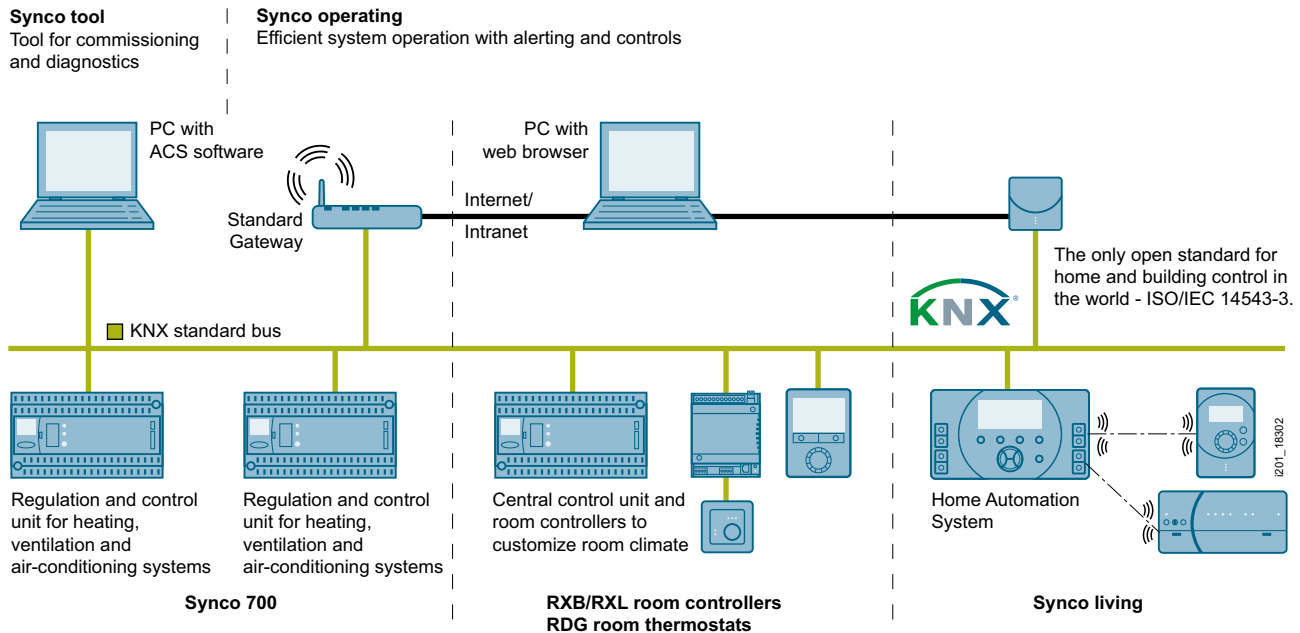## Overview and selection guides
A wide range of HVAC products - optimally coordinated

HVAC products - low energy consumption thanks to efficient products

The Siemens HVAC product range offers a comprehensive assortment of products for every kind of application. The components are optimally coordinated with each other. You benefit not only from minimal installation and running costs, but also from the fact that all our products are extremely failsafe.

Intelligent convenience - for both indoor environment and operation

Easy-to-use components that offer maximum convenience. Adjust your living environment intuitively, quickly and accurately to your needs - no tedious learning curve.

Synco tool
Tool for commissioning and diagnostics

Synco operating
Efficient system operation with alerting and controls

PC with ACS software

Standard Gateway

PC with web browser

Internet/ Intranet

The only open standard for home and building control in the world - ISO/IEC 14543-3.

KNX standard bus

Regulation and control unit for heating, ventilation and air-conditioning systems

Regulation and control unit for heating, ventilation and air-conditioning systems

Central control unit and room controllers to customize room climate

Home Automation System

Synco 700

RXB/RXL room controllers
RDG room thermostats

Synco living

Commissioning software tools

Synco products are commissioned using the software tool ACS. Synco devices use LTE, a protocol specifically for Synco devices. Communication is also implemented via the KNX bus cable. Synco devices can be operated together with GAMMA _instabus_ devices using the same KNX bus cable. If you also want to send data between the GAMMA _instabus_ (KNX S-mode) and the Synco devices, the data exchange for both product groups is configured using ETS.

A wealth of experience, high quality standards and simple handling

Siemens has now been promoting HVAC control technology for more than 60 years. In this time, it has acquired broad application expertise and skills in this specialist field. As a result, and thanks to a rigorous quality management system, Siemens HVAC products offer the highest quality, efficiency and reliability. They also reflect an in-depth knowledge of the HVAC market, building automation and their processes: furthermore, the components are particularly simple to install, commission and maintain.

For further information on
ACS: www.siemens.com/synco
ETS: www.knx.org

Type	N 605/01	N 605/11	N 670/03	REG 540/01	REG 540/11
Application program	906101	906202	900501	49550	49551
Enclosure data					
Design	N	N	N	REG	REG
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■	■
Dimensions					
• Width [mm] (1 MW = 18 mm)	6 MW	6 MW	4 MW	6 MW	4 MW
• Length [mm]	90	90	90	90	90
• Height [mm]	55	55	55	55	55
Display/control elements					
LED for operation/status display	■	■		■	■
Can be operated with	[1]	[1]	[1]	UP 237E, UP 237F UP 252E, UP 252F UP 254E, UP 254F	UP 237E, UP 237F UP 252E, UP 252F UP 254E, UP 254F
Direct operation (local operation)	■(manual)	■(manual)		■(test mode)	■(test mode)
Power supply					
Electronics powered via an external 24 V AC/DC power supply unit			■		■(AC only)
Electronics powered via an integrated power supply unit. Supply voltage 230 V AC	■	■		■	
Bus connection					
Integrated bus coupling units	■	■	■	■	■
Bus connection via contact system to data rail			■		
Bus connection via bus terminal	■	■	■		
Bus connection via screw terminals				■	■
Outputs					
Load output					
Floating relay contact			2	3	3
• Rated contact voltage, AC			230	230	230
• Rated contact current (p.f. = 1)			10	6	6
Silent semiconductor switch	6	6		2	2
• Rated voltage, AC	230	230		24	24
• Max. permanent loading (p.f. = 1)	12	6		5	15
Protection					
Electronic protection of outputs against overload and short circuit	■	■			
Universal inputs/outputs					
Adjustable inputs/outputs as • Analog input (0...10 V DC) with limit value monitoring and indication • Analog output (0...10 V DC) with adjustable lower and upper limits • Binary input for 10 V DC with pulse edge evaluation • Binary output (10 V DC)			2		
Inputs					
Pushbutton inputs					
For signal input (floating contacts)	6	6		2	1
Determination of switching state by means of the voltage generated in the device	■	■		■	■
Sensor inputs					
PT1000 temperature sensor input			2		
Temperature sensor input				1 [2]	1 [2]
Potentiometer input (setpoint adjustment)				1	
Max. cable length, unshielded, twisted	50	50	[3]	30	30

[1] *instabus* room temperature controllers.
[2] M 540 temperature sensors.
[3] On request.

Technical specifications
Actuators for HVAC

...Continuation of the table

Type	N 605/01	N 605/11	N 670/03	REG 540/01	REG 540/11
Application program[1]	906101	906202	900501	49550	49551
Output functions					
Switching (ON/OFF per channel)	▪	▪	▪	▪	▪
Value setting per channel, 8-bit	▪		▪	▪	▪
Positively driven operation	▪		▪		
Configurable transmission of output status	▪	▪			
Transmitting status		▪			
Input functions					
Configurable debounce time			▪		
Configurable pulse edge evaluation			▪		
Configurable transmission of input status objects	▪	▪	▪		
General functions					
Max. number of group addresses	35	40	40	[2]	[2]
Max. number of assignments	55	65	40	[2]	[2]
Integrated controllers with PI algorithms				▪	▪
Comfort mode				▪	▪
Standby mode				▪	▪
Night mode				▪	▪
Frost protection mode				▪	▪
Heat protection mode				▪	▪
Energy-saving function		▪			
Calcification protection	▪				
Configurable behavior in the event of a bus voltage failure	▪	▪	▪		
Configurable behavior in the event of a bus voltage recovery	▪	▪	▪		

[1] For current application programs, see www.siemens.com/gamma-td
[2] On request.

7

Type	AP 561/01[1]	AP 561/02[1]	AP 561/03	AP 561/04	STA23	STA73	STA73HD	STP23[1]
Enclosure data								
Dimensions								
• Height [mm]	58	58	58	58	74	74	74	74
• Width/Ø [mm]	44.5	44.5	44.5	44.5	44	44	44	44
Output								
Electrothermal actuators (silent)								
• 230 V AC	■	■			■			■
• 24 V AC/DC			■	■		■	■	
Valve position in de-energized state[2]	NC	NO	NC	NO	NC	NC	NC	NO
Valve position indication	■		■		■	■	■	■
Max. lift / max. positioning force [mm/N]	3.5/105	2.6/105	3.5/105	2.6/105	4.5/100	4.5/100	4.5/90	4.5/100
Max. open/close time [Min.]	3	Approx. 3	Approx. 3	Approx. 3	3.5	4.5	4.5	3.5
Actuating signal	Two-step	Two-step	Two-step	Two-step	Two-step	Two-step	Two-step	Two-step
Length of connecting lead [m]	1	1	1	1	1	1	0.8	1
Ambient temperature for operation [°C]	0...+50	0...+50	0...+50	0...+50	+5...+50	+5...+50	+5...+50	+5...+50
Power inputs [W]	3	3	3	3	2.5	2.5	2.5	2.5
Mounting	Horizontal, horizontal/standing				360°, also headfirst			
Degree of protection	IP43	IP43	IP43	IP43	IP54	IP54	IP54	IP54

[1] Suitable for N 605/01 and N 650/11 thermal drive actuators, see Chapter Heating, Cooling, Ventilation, Air-Conditioning - Actuators for HVAC.
[2] Closed (NC), open (NO).

7

Temperature sensor 4 x Pt1000

N 258/02

- For four Pt1000 sensors
- For the measurement and transmission of 4 temperatures in the range -40...+150 °C
- For connection of four Pt1000 temperature sensors2), each via a 2-wire cable up to 50 m in length
- Configurable smoothing of a measured value through mean value generation
- Monitoring of a lower and upper limit value for each measured value, with configurable hysteresis for limit value signals
- Electronics powered via an integrated power supply unit for 230 V AC
- Green LED for displaying ready-to-run status
- Integrated bus coupling units
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The accompanying physical sensors must be ordered separately. See chapter Physical sensors - sensors without KNX connection.
The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1258-1AB02	**N 258/02**

Universal I/O module

N 670/03

- 2 universal inputs/outputs, each adjustable as
- Analog input 0...10 V DC, Analog output 0...10 V DC
- Binary input for 10 V DC, Binary output for 10 V DC
- Analog input with limit value monitoring and signaling, with adjustable limit values and hysteresis
- Analog output with adjustable lower and upper limit of the output voltage with adjustable voltage value in the event of bus voltage failure and recovery
- Binary input with pulse edge evaluation
- Binary output with adjustable switching position in the event of bus voltage failure and recovery
- 2 inputs for the connection of temperature sensors2) with Pt1000 measured element for temperature measurement in the range -25...+45 °C, with limit value monitoring and signaling, with adjustable limit values and hysteresis
- 2 binary outputs, relay contacts rated for 230 V AC, 10 A at p.f. = 1, with
- Configurable actuated position (NO contact/NC contact)
- Positively driven operation
- Configurable switching position in the event of bus voltage failure and recovery
- Electronics powered via an external 24 V AC/DC power supply unit, power consumption approx. 100 mA
- Integrated bus coupling units
- Bus connection via bus terminal and contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.
The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).
For physical sensors, see Chapter, Physical sensors - without KNX connection.

	Stock No.	Product No.
	5WG1670-1AB03	**N 670/03**

Accessories for N 670/03

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

AP 254/02

Dual sensor for brightness measurement, temperature measurement, sun protection control, lighting control

- Brightness measurement, temperature measurement, sun protection control, lighting control
- For the detection and transmission of brightness and temperature
- Temperature measuring range -25 °C...+55 °C
- Brightness measuring range 1 Lux...100 kLux
- Horizontal sensing angle -60°...+60°, vertical -35°...+66.5°
- For the control of switch, dimming and shutter/blind actuators, depending on the ambient luminosity and/or ambient temperature
- One sun protection channel for the automatic control of sun protection equipment, with
- Starting and stopping of automation by means of an object or a dusk threshold
- Up to three brightness thresholds for determining the height and position of the shutters/blinds or roller shutters
- Optional teach-in of dusk thresholds and brightness thresholds by means of a teach-in facility
- Blocking object for the temporary deactivation of the sun protection channel function
- Up to four universal channels for the control of switch, dimming and shutter/blind actuators, depending on ambient luminosity and/or temperature. Optionally available with:
- Threshold switches for brightness
- Threshold switches for temperature
- Threshold switches with logical combination of brightness and temperature
- Optional teach-in of brightness threshold for each universal channel by means of an associated teach-in facility
- Deactivation option for each universal channel by means of an associated blocking object (1 bit)
- Optional second object for transmission of a second telegram on fulfillment of threshold conditions
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal
- Surface mounting
- Degree of protection: IP54

Dimensions (W x H x D)	72 x 110 x 54 mm	
	Stock No.	Product No.
	5WG1254-3EY02	**AP 254/02**

Fan-coil unit controllers for offices, i-system

UP 237E

- For the display and operation of the room temperature control using a REG 540 fan-coil unit controller
- 5 yellow LEDs for the display of manually set fan speed step or automatic speed input
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging into a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)
- Pushbutton for switching the room operating mode between comfort and energy-saving mode and for setting the required fan speed step or the automatic input of the speed step by the fan-coil unit controller
- Rotary button for setting the room temperature setpoint value within a user-defined range
- 3 green LEDs for the display of the current room operating mode (comfort, energy-saving or protection mode)
- Design: i-system

Dimensions (W x H x D)   55 x 55 x 16 mm

Range overview UP 237E

Product Title	Stock No.	Product No.
Fan-coil unit operator panel office, titanium white	5WG1237-2EB11	**UP 237E11**
Fan-coil unit operator panel office, aluminum metallic	5WG1237-2EB31	**UP 237E31**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories

Fan-coil unit controllers for hotels, i-system

UP 237F

- For the display and operation of the room temperature control using a REG 540 fan-coil unit controller
- 5 yellow LEDs for the display of manually set fan speed step or automatic speed input
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging onto a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)
- Pushbutton for setting the required fan speed step or for automatic entry of the speed step by the fan-coil unit controller
- Rotary button for setting the room temperature setpoint value within the range of 16...26 °C
- 2 green LEDs for indicating whether the room is being heated or cooled
- Design: i-system

Dimensions (W x H x D)   55 x 55 x 16 mm

Range overview UP 237F

Product Title	Stock No.	Product No.
Fan-coil unit operator panel hotel, titanium white	5WG1237-2FB11	**UP 237F11**
Fan-coil unit operator panel hotel, aluminum metallic	5WG1237-2FB31	**UP 237F31**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories

UP 254E

Fan-coil unit controllers for offices, DELTA style

- For the display and operation of the room temperature control using a REG 540 fan-coil unit controller
- 5 yellow LEDs for the display of manually set fan speed step or automatic speed input
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging into a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)
- Pushbutton for switching the room operating mode between comfort and energy-saving mode and for setting the required fan speed step or the automatic input of the speed step by the fan-coil unit controller
- Rotary button for setting the room temperature setpoint value within a user-defined range
- 3 green LEDs for the display of the current room operating mode (comfort, energy-saving or protection mode)

Dimensions (W x H x D)   68 x 68 x 16 mm

Range overview UP 254E

Product Title	Stock No.	Product No.
Fan-coil unit operator panel office, titanium white/metallic silver	5WG1254-2EB11	**UP 254E11**
Fan-coil unit operator panel office, platinum metallic	5WG1254-2EB41	**UP 254E41**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

UP 254F

Fan-coil unit controllers for hotels, DELTA style

- For the display and operation of the room temperature control using a REG 540 fan-coil unit controller
- 5 yellow LEDs for the display of manually set fan speed step or automatic speed inpu
- 10-pole BTI plug (BTI - Bus Transceiver Interface) for plugging onto a bus transceiver module (BTM) or UP actuator with bus transceiver module (BTM)
- Pushbutton for setting the required fan speed step or for automatic entry of the speed step by the fan-coil unit controller
- Rotary button for setting the room temperature setpoint value within the range of 16...26 °C
- 2 green LEDs for indicating whether the room is being heated or cooled

Dimensions (W x H x D)   68 x 68 x 16 mm

Range overview UP 254F

Product Title	Stock No.	Product No.
Fan-coil unit operator panel hotel, titanium white / metallic silver	5WG1254-2FB11	**UP 254F11**
Fan-coil unit operator panel hotel, platinum metallic,	5WG1254-2FB41	**UP 254F41**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Temperature controller, i-system

UP 237K..

- Integrated room temperature sensors
- Control can be set as a two-point control and/or continuous-action control (P or PI algorithm), for heating only, for cooling only, or for heating and cooling mode
- Operating modes that can be switched via KNX: comfort mode, pre-comfort mode, energy-saving mode and frost or heat protection mode
- Presence pushbutton to locally switch between comfort and pre-comfort mode or comfort and energy-saving mode and to extend comfort mode after operating energy-saving or protection mode
- Pushbutton for switching over between manual and automatic mode
- The room temperature setpoint value for comfort mode can be set via an interchangeable rotary button (+/-) on the controller and via the KNX
- Basic setpoint of the room temperature for comfort mode which can be set via the KNX
- Setpoint value for comfort mode in °C which can be set via an interchangeable rotary button on the controller
- Adjustable dead zone between the heating setpoint and the cooling setpoint for comfort mode
- Two-level heating or cooling
- Output of the control variable(s) either as an on/off switch command or as a positioning command in the range of 0...100 %
- 5 LEDs to display manual mode and the current operating modes
- 4 LEDs to display heating/cooling valve open, dew point alarm and open window
- For plugging onto a bus transceiver module (BTM) or a flush-mounting actuator with bus transceiver module (BTM)

Dimensions (W x H x D)   68 x 68 x 16 mm

Range overview UP 237K..

Product Title	Stock No.	Product No.
Temperature controller, titanium white	5WG1237-2KB11	**UP 237K11**
Temperature controller, aluminum metallic	5WG1237-2KB31	**UP 237K31**

The bus coupling module (BTM) (see chapter Systemproducts and Accessories) or flush-mounting actuator wih bus coupling (BTM) must be ordered separately. The matching design frame must be ordered separately. See chapter Display and Operation Units - Pushbutton Accessories.

UP 254K	**Temperature controller, DELTA style**

- Integrated room temperature sensors
- Control can be set as a two-point control and/or continuous-action control (P or PI algorithm), for heating only, for cooling only, or for heating and cooling mode
- Operating modes that can be switched via KNX: comfort mode, pre-comfort mode, energy-saving mode and frost or heat protection mode
- Presence pushbutton to locally switch between comfort and pre-comfort mode or comfort and energy-saving mode and to extend comfort mode after operating energy-saving or protection mode
- Pushbutton for switching over between manual and automatic mode
- The room temperature setpoint value for comfort mode can be set via an interchangeable rotary button (+/-) on the controller and via the KNX
- Basic setpoint of the room temperature for comfort mode which can be set via the KNX
- Setpoint value for comfort mode in °C which can be set via an interchangeable rotary button on the controller
- Adjustable dead zone between the heating setpoint and the cooling setpoint for comfort mode
- Two-level heating or cooling
- Output of the control variable(s) either as an on/off switch command or as a positioning command in the range of 0...100 %
- 5 LEDs to display manual mode and the current operating modes
- 4 LEDs to display heating/cooling valve open, dew point alarm and open window
- For plugging onto a bus transceiver module (BTM) or a flush-mounting actuator with bus transceiver module (BTM)

Dimensions (W x H x D)	68 x 68 x 16 mm

Range overview UP 254K

Product Title	Stock No.	Product No.
Temperature controller, titanium white/metallic silver	5WG1254-2KB13	**UP 254K13**
Temperature controller, platinmetallic	5WG1254-2KB43	**UP 254K43**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Semi Flush Mount room thermostat with LCD for fan coil units and compressors in DX-type equipment
- KNX communications
- Operating modes: Comfort, Economy and Protection
- For heating and/or cooling applications
- 2 or 3-position control outputs
- Output for 1-speed or 3-speed fan
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: signal white (RAL 9003)
- Backlit display

Application selectable:
- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

RDF..KNX Semi Flush Mount

Operating voltage	AC 230 V
Setpoint setting range	5...40 °C
Analog inputs, number	2
Relay outputs, number	5
Relay outputs	Fan: N.O. contacts, non-floating
	Valve: N.O. contacts, non-floating
Relay output, switching voltage	AC 230 V
Relay output, switching current	5 (2) A
Type of fixing	Recessed rectangular conduit box BS4662 with fixing centres of 60.3 mm (ARG71)
Degree of protection	IP30

Range overview RDF..KNX Semi Flush Mount

Product Title	Dimensions (W x H x D)	Stock No.	Product No.
Semi Flush-mount room thermostat with KNX communications, 2-/4-pipe fan coils or DX type equipment	86 x 86 x 57 mm	S55770-T104	**RDF301**
Semi Flush-mount room thermostat with KNX communications, 2-/4-pipe fan coils or DX type equipment, four buttons for switching lights and blinds	86 x 86 x 57 mm	S55770-T105	**RDF301.50**

The matching ARG71 flush-mounting box must be ordered separately. See chapter Display and Operation untis - Room Temperature Controller.

RDF600KN

Semi Flush-mount room thermostat with KNX communications, 2-/4-pipe fan coils or DX type equipment

Semi Flush Mount room thermostat with LCD for fan coil units and compressors in DX-type equipment
- KNX communications
- Operating modes: Comfort, Economy and Protection
- For heating and/or cooling applications
- 2 or 3-position control outputs
- Output for 1-speed or 3-speed fan
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: signal white (RAL 9003)
- Backlit display

Application selectable:
- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

Operating voltage	AC 230 V
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog input, signal	NTC 3k Switch
Type of fixing	Recessed round conduit box diameter min. 60 mm
Degree of protection	IP30
Dimensions (W x H x D)	86 x 86 x 46 mm

	Stock No.	Product No.
	S55770-T293	**RDF600KN**

Semi Flush-mount room thermostat for rectangular conduit box with KNX communications, for VAV application

Semi Flush-mount room thermostat for VAV application
- KNX communications
- Output for a DC 0...10 V actuator and AC 230V electrical heater (ON-OFF)
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Operating modes: Comfort, Economy and Protection
- Modulating PI control
- Control depending on the room or the return air temperature
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Adjustable minimum and maximum limitation for air flow signal DC 0...10V
- Output signal inversion as an option

Application selectable:
- Single-duct system
- Single-duct system with electrical heater

Operating voltage	AC 24 V
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog outputs, number	1
Analog output, signal	DC 0...10 V
Analog output, current	Max. ±1 mA
Relay outputs, number	1
Relay outputs	N.O. contact, potential-free
Relay output, switching voltage	AC 230 V
Relay output, switching current	Max. 5 (2) A
Type of fixing	Recessed rectangular conduit box BS4662 (ARG71) with fixing centres of 60.3 mm
Degree of protection	IP30
Dimensions (W x H x D)	86 x 86 x 57 mm

	Stock No.	Product No.
	S55770-T106	**RDU341**

The matching ARG71 flush-mounting box must be ordered separately. See chapter Display and Operation untis - Room Temperature Controller.

Conduit box 75 x 75 x 51 mm

Dimensions (W x H x D)	75 x 75 x 51 mm

	Stock No.	Product No.
	S55770-T137	**ARG71**

RDG100KN

Room thermostat with KNX communications, AC 230 V, for fan coil units and universal applications

- KNX communications
- 3 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Operating modes: Comfort, Economy and Protection
- 2-position, 3-position or PWM control outputs
- Automatic or manual fan speed for 1-speed, 3-speed fan
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display

Application selectable:
- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 4-pipe system
- 4-pipe system with electrical heater
- 2-stage heating or cooling system

Operating voltage	AC 230 V
Switching differential	Heating: 0.5...6 K
	Cooling: 0.5...6 K
Analog inputs, number	2
Analog input, signal	
Digital inputs, number	1
Relay outputs, number	3
Relay outputs	Fan: 1- or 3-speed
Relay output, switching voltage	AC 230 V
Relay output, switching current	5 (4) A
Triac outputs, number	3
Triac outputs	Valve, el. heater
	2-position, PWM, 3-position
Triac output, switching voltage	AC 230 V
Triac output, switching current	Max. 1 A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	93 x 128 x 30.8 mm

	Stock No.	Product No.
	S55770-T163	**RDG100KN**

Room thermostat with KNX communications, AC 24 V, for fan coil units and universal applications, fan (1-/ 3-speed, DC), valves (2-point, DC)

RDG160KN

- KNX communications
- For applications with DC control outputs and DC or 3-speed fan output
- For applications with 2-position control output with DC fan output
- 3 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Operating modes: Comfort, Energy Saving and Protection
- Automatic or manual EC fan or 1-/3-speed
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display

Application selectable:
- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 4-pipe system
- 2-stage heating or cooling system

Operating voltage	AC 24 V
Switching differential	Heating: 0.5...6 K
	Cooling: 0.5...6 K
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog input, signal	
Digital inputs, number	1
Relay outputs, number	3
Relay outputs	Valve, compressor or el. heater: 2 outputs, 2-position
	Fan: 1- or 3-speed
Relay output, switching voltage	AC 24...230 V
	5 (4) A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	93 x 128 x 30.8 mm

	Stock No.	Product No.
	S55770-T297	RDG160KN

7

NEW PRODUCT

7

RDG400KN

Room thermostat with KNX communications, AC 24 V, VAV heating and cooling systems

- KNX communications
- Output DC 0...10 V for VAV actuator and auxiliary output ON/OFF, PWM or 3-position or 3-position for VAV actuator and auxiliary output DC 0...10 V
- 2 multifunctional inputs for keycard contact, external room / return air temperature (1x, QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- 1 input DC 0...10 V for damper position feedback
- Operating modes: Comfort, Economy and Protection
- Modulating PI control
- Control depending on the room or the return air temperature
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Minimum and maximum limitation of air flow signal
- Output signal inversion (DC 0...10 V) as an option
- Backlit display

Application selectable:
- Single-duct system
- Single-duct system with electrical heater
- Single-duct system and radiator / floor heating
- Single-duct system with heating / cooling coil

Operating voltage	AC 24 V
Setpoint setting range	5...40 °C
Analog inputs, number	2
Analog input, signal	NTC 3k
	DC 0...10 V
Digital inputs, number	1
Analog outputs, number	1
Analog outputs	VAV actuator, electric heater, valve
Analog output, signal	DC 0...10 V
Analog output, current	Max. ±1 mA
Triac outputs, number	1
Triac outputs	VAV actuator, valve, el. heater
	2-position, PWM, 3-position
Triac output, switching voltage	AC 24 V
Triac output, switching current	Max. 1 A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	93 x 128 x 30.8 mm

	Stock No.	Product No.
	S55770-T165	**RDG400KN**

Wall-mounted room sensors and operator units for KNX

QMX3..

The wall-mounted room unit QMX3.. consists of:
- Base plate
- Sensor or room operator unit

The following functions are (depending on type):
- Temperature sensor or multisensor (T, r.h., CO2)
- Backlit display or LED display
- Touchkeys
- Switching and control of lighting, blinds, scenes

Measuring range, temperature	0…50 °C
Sensing element, temperature	NTC
Degree of protection	IP30
Mounting	Wall-mounting
Dimensions (W x H x D)	88.4 x 133.4 x 18 mm

Room operator unit KNX with temperature sensor, configurable touchkeys, LED display

QMX3.P02

Functions:
- Temperature sensor
- Configurable touchkeys with LED display
- Switching and control of lighting, blinds, scenes
- Window for labels

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO2)
- Setpoint for room temperature and relative humidity and CO2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H107	QMX3.P02

NEW PRODUCT

QMX3.P34

Room operator unit KNX with temperature sensor, segmented backlit display, touchkeys

Functions:
- Temperature sensor
- Segmented backlit display and touchkeys

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO_2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO_2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO_2)
- Setpoint for room temperature and relative humidity and CO_2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H105	QMX3.P34

QMX3.P37

Room operator unit KNX with temperature sensor, segmented backlit display, configurable touchkeys, LED display

Functions:
- Temperature sensor
- Segmented backlit display and touchkeys
- Configurable touchkeys with LED display
- Switching and control of lighting, blinds, scenes
- Window for labels

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO_2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO_2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO_2)
- Setpoint for room temperature and relative humidity and CO_2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H108	QMX3.P37

NEW PRODUCT

Room operator unit KNX with sensors for temperature, humidity, CO2, segmented backlit display, touchkeys

QMX3.P74

Functions:
- multisensor for temperature, humidity and CO2
- Segmented backlit display and touchkeys

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO2)
- Setpoint for room temperature and relative humidity and CO2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H106	QMX3.P74

7

NEW PRODUCT

N 670/03

Universal I/O module

- 2 universal inputs/outputs, each adjustable as
- Analog input 0...10 V DC, Analog output 0...10 V DC
- Binary input for 10 V DC, Binary output for 10 V DC
- Analog input with limit value monitoring and signaling, with adjustable limit values and hysteresis
- Analog output with adjustable lower and upper limit of the output voltage with adjustable voltage value in the event of bus voltage failure and recovery
- Binary input with pulse edge evaluation
- Binary output with adjustable switching position in the event of bus voltage failure and recovery
- 2 inputs for the connection of temperature sensors2) with Pt1000 measured element for temperature measurement in the range -25...+45 °C, with limit value monitoring and signaling, with adjustable limit values and hysteresis
- 2 binary outputs, relay contacts rated for 230 V AC, 10 A at p.f. = 1, with
- Configurable actuated position (NO contact/NC contact)
- Positively driven operation
- Configurable switching position in the event of bus voltage failure and recovery
- Electronics powered via an external 24 V AC/DC power supply unit, power consumption approx. 100 mA
- Integrated bus coupling units
- Bus connection via bus terminal and contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.
The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).
For physical sensors, see Chapter, Physical sensors - without KNX connection.

	Stock No.	Product No.
	5WG1670-1AB03	**N 670/03**

Accessories for N 670/03

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

N 605..

Thermal drive actuator

- Can be operated with instabus Room temperature controllers
- Direct operation (local operation), LED for operation/status display
- Rated voltage 230 V AC, 6 silent semiconductor switch
- Electronic protection of outputs against overload and short circuit
- 6 signal inputs (floating contacts), Determination of switching state by means of the voltage generated in the device, max. 50 m cable length, unshielded, twisted
- Funktionen Ausgänge: Switching (on/off per channel), Configurable transmission of input status objects
- Configurable behavior in the event of a bus voltage failure/recovery
- Electronics powered via an integrated power supply unit for supply voltage 230 V AC
- Integrated bus coupling units, Bus connection via bus terminal
- Modular installation device for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   6 MW

Range overview N 605..

Product Title	Stock No.	Product No.
Thermal drive actuator, 6 inputs, 6 outputs	5WG1605-1AB01	**N 605/01**
Thermal drive actuator, 6 inputs, 2 x 3 outputs for control of 2 heating / cooling ceilings	5WG1605-1AB11	**N 605/11**

Fan-Coil Unit Controller REG 540..

- Possible modes: comfort mode, standby mode, Night mode, frost protection mode, Heat protection mode
- Direct operation (test mode)
- Input for M 540 temperature sensor
- Potentiometer input (setpoint adjustment), max. 30 m cable length, unshielded, twisted
- Switching (on/off per channel)
- Value setting per channel, 8-bit
- Integrated controllers with PI algorithms
- Integrated bus coupling units, Bus connection via screw terminals

Fan-Coil Unit Controller, 230 V AC REG 540/01

- Load outputs:
- 3 x 230 V AC, 6 A (p.f. = 1)
- 2 x 24 V AC, 5 W (p.f. = 1)
- Electronics powered via an integrated 24 V AC/DC power supply unit
- 2 signal input (floating contacts), Determination of switching state by means of the voltage generated in the device

Dimension width (1 MW = 18 mm)   6 MW

	Stock No.	Product No.
	5WG1540-5AS01	**REG 540/01**

Fan-coil unit controller, 24 V AC REG 540/11

- Load outputs:
- 3 x 230 V AC, 6 A (p.f. = 1)
- 2 x 24 V AC, 15 W (p.f. = 1)
- Electronics powered via an external 24 V AC/DC power supply unit
- 1 signal input (floating contacts), Determination of switching state by means of the voltage generated in the device

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1540-5AS11	**REG 540/11**

Accessories for REG 540..

Temperature sensor M 540/01

- Including a 2 m long connecting lead with terminal plug

	Stock No.	Product No.
	5WG1540-8AS01	**M 540/01**

7

| RXB2.. | **Room controller with KNX communication** |

The controllers are used for temperature control in individual rooms.
- For 2-pipe with changeover or 4-pipe fan coil systems
- For radiator and chilled ceiling (RXB24.1 only)
- Control of thermal valve actuators AC 24 V, PDM, valve and damper actuators AC 24 V (3-position) as well as KNX bus actuators
- Potential-free relay contacts for fan speed control
- Relay for electric heating (RXB22.1 only)
- KNX bus communication
- Connection to Desigo building automation and control system via PX KNX
- Commissioning with "Handy Tool" QAX34.3 or Synco ACS

Application description fan coil: CM110672
Application description RAD/CLC: CM110671

Operating voltage	AC 230 V
Frequency	50/60 Hz
Power consumption	Max. 12 VA
Control algorithm	PI
Digital inputs, number	2
Triac outputs	ON/OFF
	PWM
	3-position
Triac output, switching voltage	AC 24 V
Triac output, switching current	0.5 A
Relay output, switching voltage	AC 250 V
Relay output, switching current	5 (4) A
Communication	Bus: KNX (S-mode and LTE mode)
	Room unit: PPS2
Service plug	RXT20.1
Mounting location	Ceiling voids with cover
	Fan coil
	Panel
Mounting	On DIN rail
	With screws
Dimensions (W x H x D)	113 x 167 x 62 mm

| RXB21.1/FC-10 | **Room controller for 3-speed fan** |

For fan coil UNITS with 3-speed fan.

Triac outputs, number	4
Relay outputs, number	3

Applications: FNC02 / FNC04 / FNC08 / FNC20
Application sheet: 10672

	Stock No.	Product No.
	BPZ:RXB21.1/FC-10	**RXB21.1/FC-10**

Room controller for 3-speed fan | RXB21.1/FC-11

For fan coil units with 3-speed fan.

Triac outputs, number	4
Relay outputs, number	3

Applications: FNC10 / FNC12 / FNC18
Application sheet: 10672

	Stock No.	Product No.
	BPZ:RXB21.1/FC-11	**RXB21.1/FC-11**

Room controller with 3-speed fan and electric heating coil | RXB22.1/FC-12

For fan coil units with 3-speed fan and electric heating coil.

Triac outputs, number	2
Relay outputs, number	4
Relay outputs	1 for electric heating coil
	3 for 3-speed fan control

Applications: FNC03 / FNC05
Application sheet: 10672

	Stock No.	Product No.
	BPZ:RXB22.1/FC-12	**RXB22.1/FC-12**

Room controller for chilled ceilings and radiators | RXB24.1/CC-02

Triac outputs, number	4
Relay outputs, number	0

Applications: CLC01 / CLC02 / RAD01

	Stock No.	Product No.
	BPZ:RXB24.1/CC-02	**RXB24.1/CC-02**

7

Accessories for REG540 and RXB..

S 290/..1   **door/window contact**

- Opening alarm for the monitoring of windows and doors, comprising:
- 1 magnet (Ø 8 x 30 mm)
- 1 magnetically operated contact in a fully cast plastic enclosure (Ø 8 x 30 mm)
- Switching voltage: max. DC 110 V
- Switching current: 10 mA...100 mA
- Contact current carrying capacity: max. 5 W
- Contact resistance: max. 150 mW
- VdS-class B
- 5 m long connection cable LiYY 4 x 0,14 mm2
- Suitable for flush and surface mounting
- 2 surface-mounting enclosure tops (43 x 12 x 12 mm)
- 2 surface-mounting enclosure bottoms
- 4 spacer plates (thickness: 2 x 4 mm or 2 x 2 mm)
- 2 flush-mounting flanges
- 4 antimagnetic countersunk self-tapping screws DIN 7982-ST2, 9 x 16-A2

Dimensions (W x H x D)   43 x 12 x 12 mm

Range overview S 290/..1

Product Title	Stock No.	Product No.
Door/window contact, white	5WG1290-7AB11	**S 290/11**
Door/window contact, brown	5WG1290-7AB81	**S 290/81**

Accessories for RXB2..

RXZ20.1   **Terminal cover for RXA2../ RXB2../ RXL2../ RXC2..**

	Stock No.	Product No.
	BPZ:RXZ20.1	**RXZ20.1**

QAX84.1/PPS2   **Flush-mounted room unit complete with PPS2 interface and design frame**

The set consists of:
- Operator unit,
- PPS2 bus coupling unit and
- Design frame DELTA line in titanium white.

Functionality:
- Acquisition of room temperature
- Switch for adjustment of room temperature setpoint
- Switch for mode selection (Off/Auto) and for manual fan control with fan coil systems (up to 3 speeds)
- LCD with display of room temperature and control mode

Dimensions (W x H x D)   80 x 80 x 30.5 mm

	Stock No.	Product No.
	BPZ:QAX84.1/PPS2	**QAX84.1/PPS2**

VAV compact controller KNX

G..B181.1E/KN

- Networked compact controller with KNX capability for plants with variable or constant air volume flow
- Integrated, highly precise differential pressure sensor, damper actuator and digitally configurable air volume controller
- Nominal torque 5 or 10 Nm, air damper rotation angle mechanically adjustable between 0 and 90°
- Configurable as single device per room or for cascade control with pressure ratio 1:1, positive pressure, or negative pressure
- Prewired with a 0.9 m connecting cable and a 0.9 m KNX bus cable

Can be configured as damper actuator (without air volume control) with ETS.

Dimensions (W x H x D)   71 x 158 x 61 mm

Range overview G..B181.1E/KN

Product Title	Stock No.	Product No.
VAV compact controller KNX, 24 V, 5 Nm, 150 s, 300 Pa	S55499-D134	**GDB181.1E/KN**
VAV compact controller KNX, 24 V, 10 Nm, 150 s, 300 Pa	S55499-D135	**GLB181.1E/KN**

7

AP 562/02

Electromotive valve actuator with LED valve position indication

Electromotive, proportional (constant) valve actuator with LED valve position indication and with integrated bus coupling unit for direct connection to KNX:

- For latching to valve adapter
- Delivery with valve adapter rings suitable for Siemens (VDN../VEN.., VPD../VPE.., VD…CLC, V..I46.., V..P47..) Danfoss RA, Heimeier, MNG, Schlösser ab 3/93, Honeywell, Braukmann, Dumser (distribution board), Reich (distribution board), Oventrop, Herb, Onda
- Max. positioning force: 120 N
- Cable permanently connected to the enclosure for bus connection and two additional signaling contacts (e. g. window contacts), which can be connected as binary inputs
- For operation solely with the bus voltage, i. e. without external auxiliary power
- Maintenance-free, silent drive
- Automatic valve stroke detection, through which the actuator travel is adjusted to the valve used

Dimensions (W x H x D)	50 x 82 x 65 mm	
	Stock No.	Product No.
	5WG1562-7AB02	**AP 562/02**

7

Accessories for AP 562/02

Product Title	Stock No.	Product No.
	5WG1562-8AB02	S 562/02

NEW PRODUCT

Valve actuator

AP 561/0..

- Electrothermal valve actuator (noiseless)
- Max. open/close time 3 Min.
- Max. positioning force 105 N
- Two-step actuating signal
- Length of connecting lead 1 m
- Ambient temperature for operation 0…+50 ℃
- Power inputs 3 W
- Mounting: horizontal, horizontal/standing
- Degree of protection IP43

Dimensions (Ø x H)   44.5 x 58 mm

Range overview AP 561/0..

Product Title	Stock No.	Product No.
Valve actuator (electrothermal), AC/DC 230 V, NC, deenergized closed	5WG1561-7AH01	**AP 561/01**
Valve actuator (electrothermal), AC/DC 230 V, NO, deenergized open	5WG1561-7AH02	**AP 561/02**
Valve actuator (electrothermal), AC/DC 24 V, NC, deenergized closed	5WG1561-7AH03	**AP 561/03**
Valve actuator (electrothermal), AC/DC 24 V, NO, deenergized open	5WG1561-7AH04	**AP 561/04**

Accessories for AP 561/0..

Product Title	Stock No.	Product No.
Adapter to AP 561H for Herz valves	5WG1561-8AH01	**S 561H01**
Adapter to AP 561H for Vaillant valves	5WG1561-8AH02	**S 561H02**
Adapter to AP 561H for Danfoss RS2000 valves	5WG1561-8AH03	**S 561H03**
Adapter to AP 561H for TA valves	5WG1561-8AH04	**S 561H04**
Adapter to AP 561H for Danfoss valves with clamp-connection	5WG1561-8AH05	**S 561H05**
MNG adapter-sleeve to AP 561H for Onda valves	5WG1561-8AH06	**S 561H06**

AP 561/01 and AP 561/02 are suitable for N 605 and N 650/11 thermal drive actuators, see chapter Heating, Cooling, Ventilation, Air-Conditioning - Actuators for HCVA.

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Electrothermal valve actuators for HCVA

STA..3

Electrothermal actuators with and without connecting cable for radiator, small, and zone valves

Electrothermal actuators with and without connecting cable for:
- Radiator valves VDN.., VEN.., VUN..
- MCV MiniCombiValves VPD.., VPE..
- Small valves VD1..CLC..
- Zone valves V..I46..
- Combi valves VPP46.., VPI46..
- Valves of other manufacturers

Actuators without connecting cable can be equipped with:
- Connecting cable up to 15 m, also halogen-free
- Connecting cable with LED operation indicator
- Connecting cable with auxiliary switch or DC 0...10 V module

Stroke	4.5 mm
Degree of protection	IP54
Mounting position	Any, 360°
Power consumption	2.5 W

Range overview actuators STA..3

Operating voltage	Positioning time [s]	Positioning signal	Cable length [m]	Stock No.	Product No.
AC 230 V	210	2-position	1	S55174-A101	**STA23**
AC 230 V	210	2-position	1	S55174-A103	**STP23**
AC 24 V DC 24 V	270	2-position PDM	1	S55174-A100	**STA73**
AC 24 V DC 24 V	270	2-position	0.8	S55174-A106	**STA73HD**

The given positioning time is related to the maximum stoke of 4.5 mm.

STA23 and STP 23 are suitable for N 605 and N 650/11 thermal drive actuators. See chapter Actuators for HCVA.

Accessories for STA..3

Product Title	Stock No.	Product No.
Third-party valve adapter on Beulco valve	BPZ:AV51	**AV51**
Third-party valve adapter on Comap valve	BPZ:AV52	**AV52**
Third-party valve adapter on Danfoss RAVL	BPZ:AV54	**AV54**
Third-party valve adapter on Danfoss RAV	BPZ:AV55	**AV55**
Third-party valve adapter on Herz valve	BPZ:AV57	**AV57**
Third-party valve adapter on Oventrop M30x1	BPZ:AV58	**AV58**
Adapter for Vaillant	BPZ:AV59	**AV59**
Third-party valve adapter on TA to 2002	BPZ:AV60	**AV60**
Third-party valve adapter on MMA Markaryd	BPZ:AV61	**AV61**

Load Management

Peak load limiter   **N 360/01**

- For peak load limitation in plants with tariff-based power measurement
- Value of an energy pulse configurable in watt hours
- Configurable peak load limit of 30…1000 kW, with configurable warning limit of 25…1000 kW
- Configurable measuring period of 15, 30 or 60 minutes for the calculation of the power mean value
- Configurable cycle time of 15, 30, 60, 120 or 240 seconds for the load extrapolation interval
- Value of pulse 10…20000 W/h
- Up to 120 loads assignable to peak load limitation
- State monitoring and switching of loads via KNX
- With parameters assignable per load
- Power consumption of the load
- Turn-off priority (1…10)
- Release/locking of load
- Minimum make time
- Minimum break time
- Maximum break time
- Number of permissible switching cycles in 24 h
- Transmission of extrapolation data via KNX after each extrapolation
- Transmission of statistics data via KNX at the end of each measuring period
- 3 LEDs for display of availability (operating voltage), of an impending exceeding of the maximum value and of a missing synchronization pulse
- 5 LEDs for display of the current time interval within the measuring interval
- 8 LEDs for displaying the status of the first 8 loads
- Inputs for connection of energy pulses generated by utility company counters and for connection of synchronous pulses and high/low-tariff contacts
- Electronics powered via an integrated power supply unit for 230 V AC
- Date and time required via bus
- Integrated bus coupling units
- Bus connection via bus terminal and contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.
Like the documentation, the statistics software for the peak load limiter can be downloaded free of charge from the Internet at: www.siemens.com/gamma-td

	Stock No.	Product No.
	5WG1360-1AB01	**N 360/01**

Safety

9

Presence-simulation module

N 345/01

- For recording switching, dimming and shutter/blind activities of up to 32 channels and up to a total of 5000 actions over a maximum period of 4 weeks (corresponds to 5 to 6 actions per channel and day)
- Continuous recording or one-off recording of sample weeks
- Detection of public holidays during recording, which is taken into account during simulation, with replay of the recorded telegrams in the same order, but with time-definable random deviation from the recording
- Return to the start of the simulation after 1 to 4 weeks
- Module-internal clock, which requires regular synchronization by a master clock
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   1 MW

The following devices can be used as a master clock or time source for synchronizing the module-internal real-time clock: a time switch (e. g. 5WG1 372-5EY01) or an N 350E IP controller.
The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1345-1AB01	**N 345/01**

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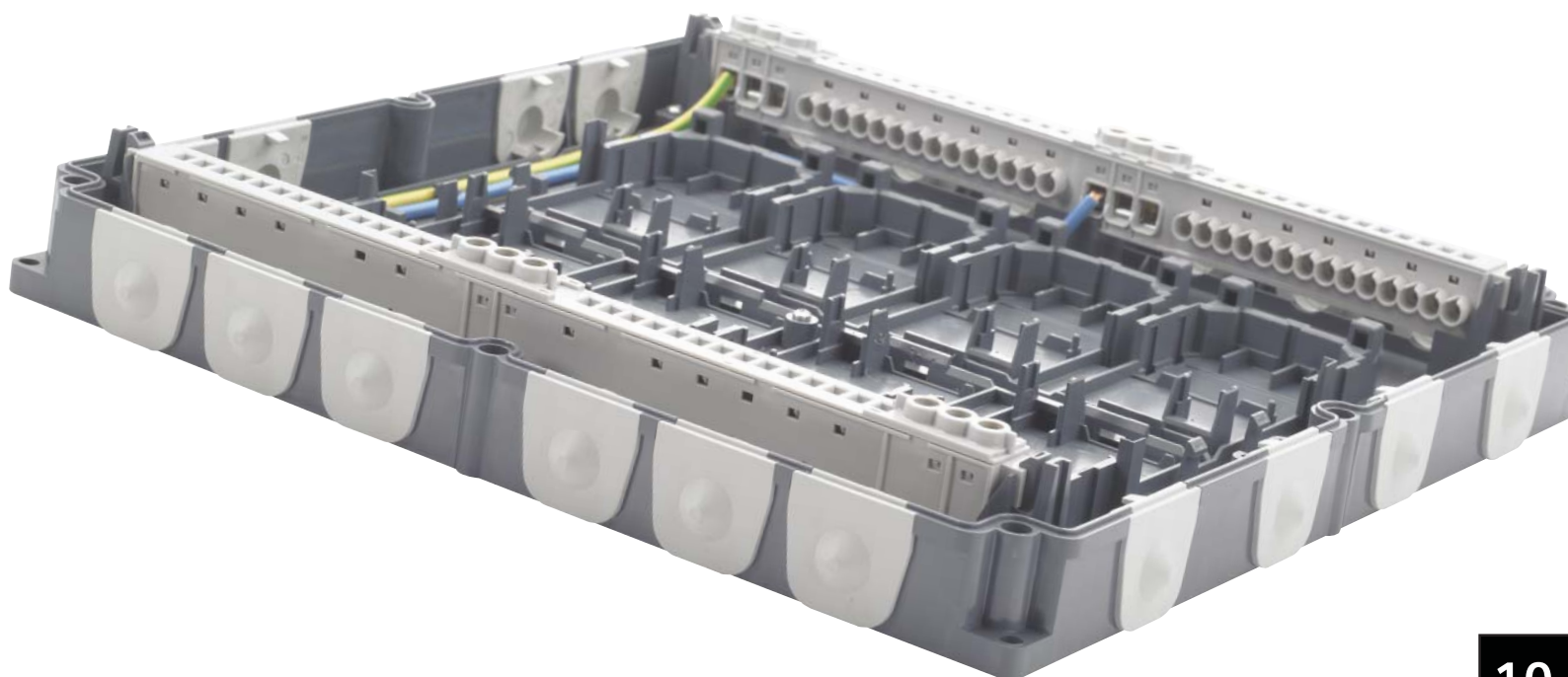
UP 272/11   **Water sensor, DELTA profil, titanium white**

- For detecting water in rooms with risk of leakages
- With water sensor for mounting near the ground with a 2 m long connecting lead (extendable to max. 20 m) with jack plug and a flush-mounting device
- For plugging onto a UP 110 or UP 114 bus coupling unit
- Indication of water/no water
- Alarm indication with adjustable cyclic transmission time
- Indication of defective device / cable
- Alarm indication for resetting the alarm
- Bus-powered electronics

Dimensions (W x H x D)   65 x 65 x 42 mm

	Stock No.	Product No.
	5WG1272-2AB11	**UP 272/11**

9

Quick-Assembly System, Room Control Box

10

A new chapter for GAMMA instabus – decentralized and yet modular room automation with its own KNX components for flexible use in the room, based on one platform – regardless of installation location and type.

For surface mounting, for example, in a room or hallway, we recommend the new room automation box, providing space for eight KNX sensor/actuator modules. Moreover, the automation module box further permits the addition of an independent KNX sensor/actuator module close to the actual application, for example, in wall ducts, blind boxes or light housings.

Both automation boxes are assembled with RS or RL sensor/actuator modules in a special quick-mount design. The available modules are full KNX bus participants functioning as binary inputs and outputs, as well as blind actuators, universal dimmer, and switch actuators. The RS and RL modules have the same functionality for flush-mounting actuators as well Identical functionality is available for different installation types or locations featuring the same configuration possibilities. As a result, the devices use a common application program regardless of mounting variant – i.e. devices for installation in the room automation box and automation module box as well as flush-mount with or without mounting frame.

Ⓐ Bus transceiver module (BTM)
Ⓑ Flush-mounting actuator with bus transceiver module (BTM)
Ⓒ DELTA frames
Ⓓ GAMMA Display/Operation
Ⓔ BTI interface
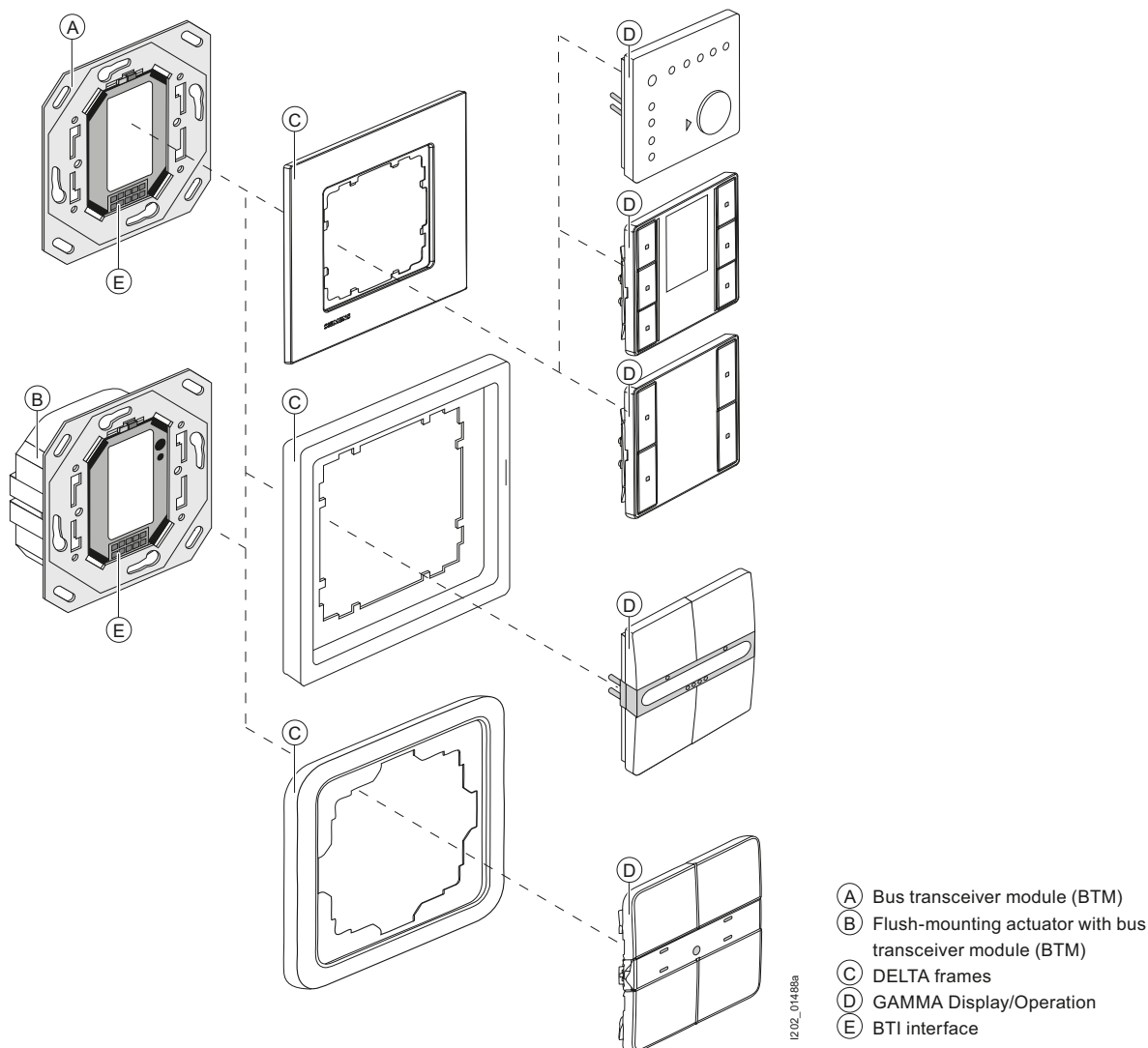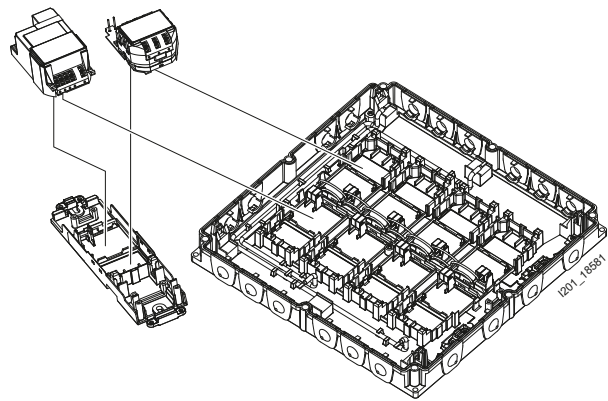
Control Module Box, 1 slot for a sensor/actuator module, type RS or RL

AP 118/01

- 1 slot for a sensor/actuator module, type RS or RL
- Separate connection compartment and strain relief for bus cable and functional lines
- Modular installation device with screw fixing for installation in linking ducts, under raised floors or for surface mounting on the ceiling
- Enclosure: Plastic
- Degree of protection: IP20

Dimensions (W x H x D)   180 x 50 x 41.1 mm

	Stock No.	Product No.
	5WG1118-4AB01	**AP 118/01**

Room Control Box, 8 slots for a sensor/actuator module, type RS or RL

AP 641/01

- 8 slots for a sensor/actuator module, type RS or RL
- Internal bus cable for connection of the sensor/actuator module to the bus
- Separate connection compartment and strain relief for functional lines
- Two PE/N bars for accommodation of the PE and neutral conductor of the functional lines
- Bus connection via bus terminal
- Modular installation device with screw fixing for installation under raised floors, on the wall or ceiling or in wet rooms
- Enclosure: Plastic
- Degree of protection: IP54

Dimensions (W x H x D)   300 x 300 x 50 mm

	Stock No.	Product No.
	5WG1641-3AB01	**AP 641/01**

10

RL 260/23

Binary Input, 4 inputs for 12 ... 230 V AC/DC

- 4 Inputs for AC/DC 12...230 V
- Max. cable length, unshielded, twisted 100 m
- screwless terminals for connection and through-wiring of untreated single-core, stranded or multi-core conductors, 0.5 ... 2.5 mm [/2]
- The following functions can be selected per input:
- Switching state/send binary value
- Switch edge/short/long switch
- Dimming, shading control, single button group control
- 1/8-bit scene control
- 8-bit value edge
- 8-bit value short/long
- 16-bit floating-point value edge
- 16-bit floating-point short/long
- pulse counting with/without limit value monitoring (8/16/32 Bit)
- The following functions can be selected per input pair:
- 2-pushbutton dimming with stop telegram (4 bit)
- 2-pushbutton shading control
- Optional blocking of each input by means of the respective blocking object
- Transmission of the input objects after change
- Optional cyclic transmission of input objects
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   86.5 x 47.8 x 36.2 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately. See chapter Quick-Assembly System - Room Control Box.

	Stock No.	Product No.
	5WG1260-4AB23	**RL 260/23**

RS 510/23

Binary output devices, 2 x 230 V AC, 10 A (ohmic load), modular installation device

- 2 Floating relay contacts
- Rated contact voltage 230 V AC
- Rated contact current 10 A
- Integrated bus coupling unit
- Modular installation device for mounting in AP 118 automation module box or AP 641 room control box
- Bus-powered electronics
- Bus connection via bus terminal, Integrated bus coupling units
- Configurable behavior in the event of a bus voltage failure/recovery
- Unchanged switching state of outputs in the event of system voltage failure
- Integrated 8-bit scene control
- Time functions: off delay, on delay, timer mode (automatic stairwell switch), night mode (lighting for cleaning), Warning of impending off
- Logical functions: Positively driven operation, Logic function (1 object), Logic function (2 objects), Can be inverted per output (NO contact/NC contact)
- Transmitting status per channel
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   50.2 x 48.8 x 35.5 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately. See chapter Quick-Assembly System - Room Control Box.

	Stock No.	Product No.
	5WG1510-2AB23	**RS 510/23**

Switching actuator, 1 x 230 V AC, 20 A, 16 A, C load

RL 512/23

- 1 floating relay contact
- Rated contact voltage, 230 V AC
- Rated contact current 16 AX / 20 A
- Modular installation device for mounting in AP 118 automation module box or AP 641 room control box
- Switching operation and operating hours counter
- Configurable behavior in the event of a bus voltage failure/recovery
- Unchanged switching state of outputs in the event of system voltage failure
- Integrated 8-bit scene control
- Time functions: off delay, on delay, timer mode (automatic stairwell switch), night mode (lighting for cleaning), Warning of impending off
- Logical functions: Positively driven operation, logic function (1 object), logic function (2 objects), can be inverted per output (NO contact/NC contact)
- Transmitting status per channel
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   86.5 x 47.8 x 36.2 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately.
See chapter Quick-Assembly System - Room Control Box.

	Stock No.	Product No.
	5WG1512-4AB23	**RL 512/23**

Shutter Actuator, 1 x 230 V AC, 6 A

RS 520/23

- 1 channels (one up and one down each)
- Electrically interlocked relays (for reversing direction of rotation)
- Configurable behavior in the event of a bus voltage failure/recovery
- Automatic mode for sunlight tracking control
- Manual and standard mode
- Status: Transmitting status per channel, status position of sun protection, 8-bit, status position of slats, 8-bit
- Integrated 1-bit/8-bit scene control
- 8 scenes to be integrated per channel
- Travel lock (e. g. for cleaning the outer shutter/blinds)
- Separate raising/lowering protection
- Alarm: Move to safety position, locking in this position for as long as alarm is active
- Individual configuration of actuator channels
- Adaptation of objects and functions to drive type
- Suitable for integration in a sunlight tracking control system
- End position detection
- Using position data (8-bit value) for sun protection control (up/down) and slat control (open/closed)
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   50.2 x 48.8 x 35.5 mm

The AP 641 room control box and AP 118 automation module box must be ordered separately. See chapter Quick-Assembly System - Room Control Box.

|	Stock No.	Product No.
	5WG1520-2AB23	**RS 520/23**

10

Gateways, Interface Converters

11

Gateways, Interface Converters
Overview and selection guides
Gateways in the KNX network
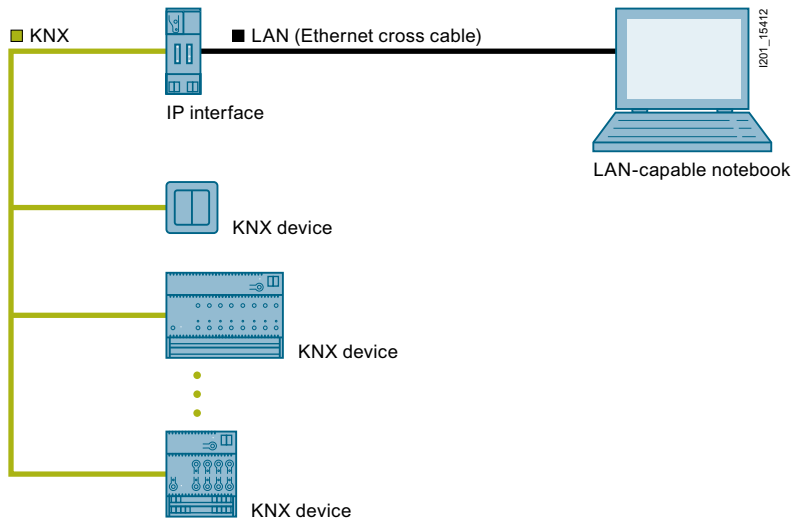
The KNX network

GAMMA _instabus_ offers interfaces to many other technologies, such as Ethernet (LAN) and lighting controls with DALI, making it easy to exchange information and data via the KNX network. In particular, the KNXnet/IP supports connection to building control (OPC, PROFINET, SIMATIC S7, etc.).

KNX network

11
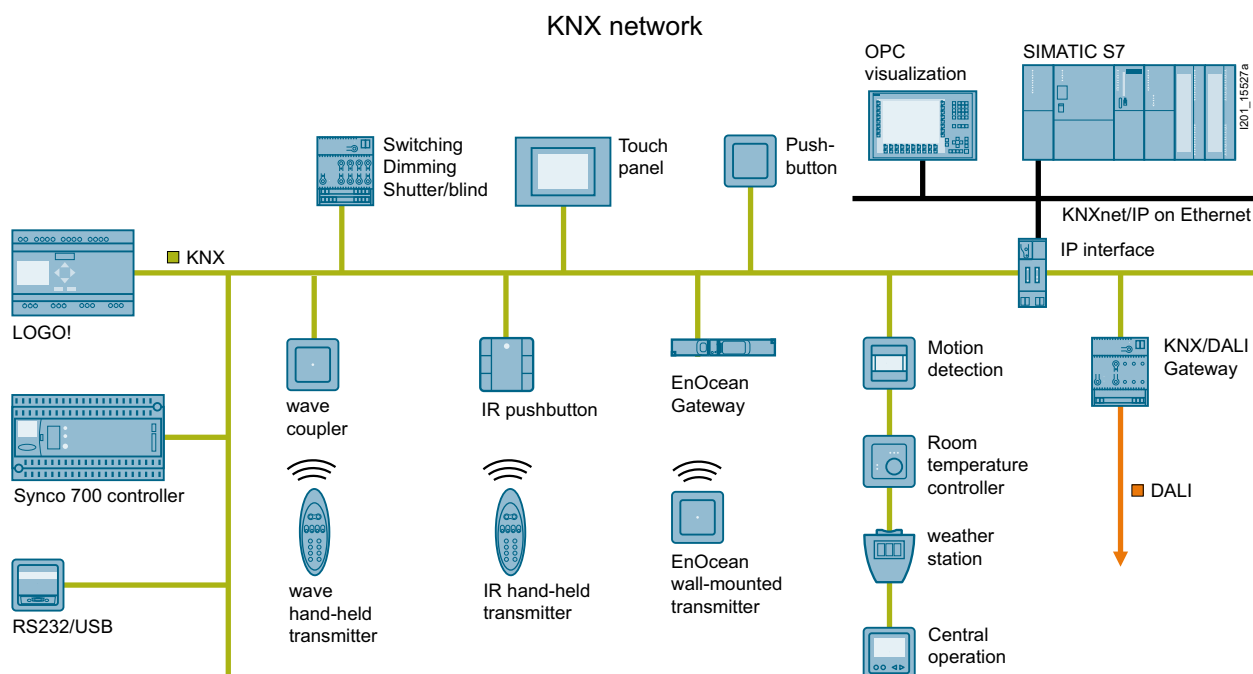
KNX/Ethernet

Faster downloads save time

With the KNXnet/IP standard, KNX telegrams can be transmitted via Ethernet (LAN). This enables applications and solutions. Existing network infrastructures and technologies are used to transmit KNX data over greater distances. Links between buildings and/or building levels can be clearly and easily implemented using KNXnet/IP.

■ KNX   ■ LAN (Ethernet cross cable)

IP interface

LAN-capable notebook

KNX device

KNX device
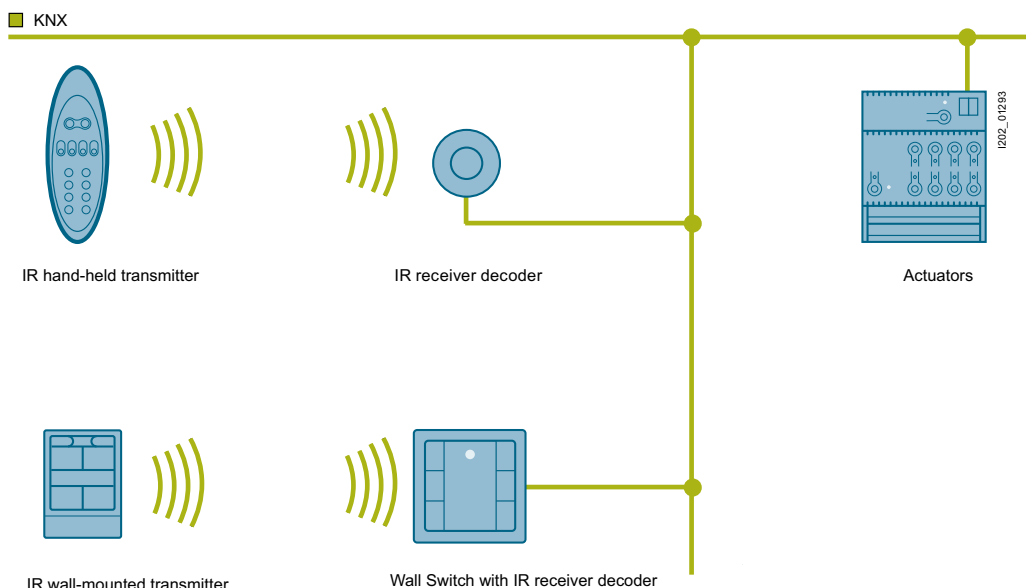
KNX device

KNX/infrared

IR products

IR products are available for the remote control of room functions. Compared to radio solutions, IR is particularly interesting because
• there are applications in which radio-based remote control is not permitted (e. g. hospitals)
• the frequencies used are not allowed in all countries

Application

• Remote control of room functions: Lighting, shading, room climate, scenes, etc.
• Mounting on "movable" walls
• Use in hospitals where radio solutions are often prohibited
• Additional room functions which can be operated only by remote control (e. g. by service personnel, doctors, teachers, etc.)

■ KNX

IR hand-held transmitter

IR receiver decoder

Actuators

IR wall-mounted transmitter

Wall Switch with IR receiver decoder

System overview of IR products

For IR remote controls and IR wall-mounted transmitters (see chapter Display and Operation Units)

11

The level of automated applications is also increasing in the area of building automation. Customers are interested in using components from the field of industrial automation for the automation of infrastructure facilities. This is now possible using SIEMENS IP/Ethernet components.

Benefits

Use of tried and tested industrial components in the field of building automation, i. e. utilization of building automation data for the automation of factories. Simple transfer of configuration data from ETS3.

Application

Automation and monitoring of buildings using KNX devices with components from the SIMATIC product range.

Function

Modules for communication of a SIMATIC S7 with KNX bus via IP/Ethernet using a KNXnet/IP interface:
• N 146/02 IP routers
• N 148/22 IP interfaces
• N 350E IP controllers
• N 151 IP viewers
The KNX/EIB2S7 program package comprises modules for communication to the IP router/interface/controller/viewer and an editor for user-friendly parameterization of the modules.
Addressing is implemented by means of group addresses in the case of KNX and with DB and DW in the case of SIMATIC. Assignment of the various address terms to one another is implemented largely automatically in the KNX/EIB2S7 Editor.
One SIMATIC S7 can be connected to up to 5 KNXnet/IP interfaces, which permits the monitoring, operation and reading of a total of up to 7000 group addresses (depending on control type and the number of KNXnet/IP interfaces connected).
The modules also support the cyclic reading of values in 5 different, freely configurable cycles (10 min. - 1 x daily).

The following data point types are supported:

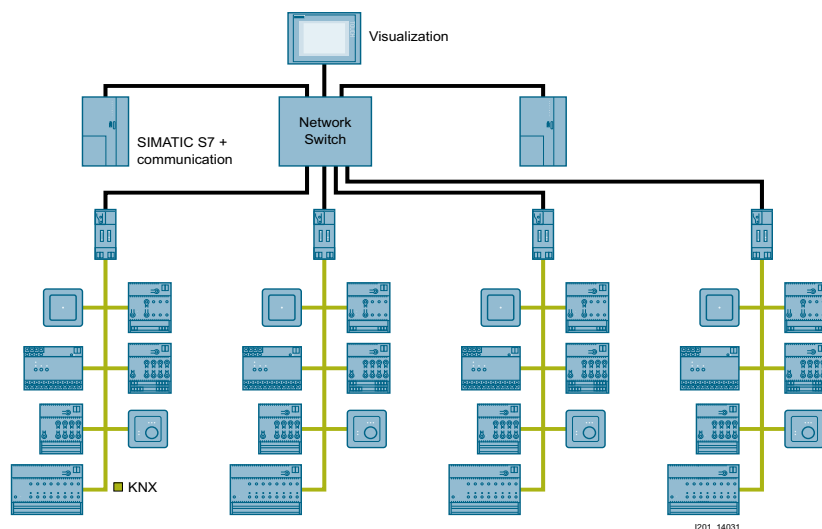| Data point type	Application	Length	Receive	Write	Read
EIS 1	Switching	1 Bit	X	X	X
EIS 2	Dimming	4 Bit	X	X	X
EIS 3	Time	3 Byte		X	
EIS 4	Date	3 Byte		X	
EIS 5	Floating-point	2 Byte	X	X	X
EIS 6	Scaling	8 Bit	X	X	X
EIS 7	Motor control	1 Bit	X	X	X
EIS 8	Priority	2 Bit	X	X	
EIS 9	Floating-point	4 Byte	X	X	X
EIS 11	32-bit counter	4 Byte	X	X	X
EIS 14	8-bit counter	1 Byte	X	X	X
EIS 15	String	14 Byte		X	

KNX/EIB2S7 supports the following SIMATIC S7 CPUs:
• ET 200
 - IM 151-8 PN/DP CPU
• S7 300/400
 - CPU 315-2 PN/DP
 - CPU 317-2 PN/DP
 - CPU 319-3 PN/DP
 - CPU 414-3 PN/DP
 - CPU 416-3 PN/DP
• Soft PLC
 - SIMATIC WinAC RTX 2008 SP 1
• SIMATIC S7 300 with CP 343 - 1
 - CPU 315-2 DP
 - CPU 317-2 DP
 - CPU 319-3 PN/DP
• SIMATIC S7 400 with CP 443 - 1 Advanced
 - CPU 412-2 MPI/DP
 - CPU 414-2 MPI/DP
 - CPU 416-2 MPI

I201_14031

Further information and ordering data for KNX/EIB2S7 see www.siemens.de/simatic.

Type	N 148/22	N 146/02	N 350E01	N 151/01
Enclosure data				
Design	N	N	N	N
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■
Width (1 MW = 18 mm)	2 MW	2 MW	4 MW	4 MW
Display/control elements				
LEDs for indicating that the device is ready-to-run, KNX communication, IP communication	■	■	■	■
LCD			■	
Power supply				
Electronics powered via an external nominal AC/DC power supply unit for 24 V DC	■	■	■	■
Power consumption at 24 V DC [mA]	57	57	60	60
Power supply for the electronics via "Power over Ethernet" according to IEEE 802.3af	■ (0.8 W)	■ (0.8 W)		
Bus connection				
Integrated bus coupling units	■	■	■	■
Bus connection via bus terminal	■	■	■	■
Mains connection				
Ethernet connection via RJ45 socket	■	■	■	■
Plug-in terminal block for the connection of an external power supply unit	■	■	■	
Gateway				
Supports KNXnet/IP	■	■	■	■
line coupler function (Routing)		■		
Interface functions (Tunneling)	4	4	1	1
Interface functions (object server)	1	1	1	1
Integrated real-time clock weekly scheduling program for 100 scheduled entries/Astro function			■	
Yearly time switching functions			■	
Event entries			200	
Logic gates			30	
Web servers				■

11

Technical specification
KNX/DALI

Type	N 141/31	N 141/02	N 525E
Enclosure data			
Design	N	N	N
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■
Dimensions			
Width [mm] (1 MW = 18 mm)	4 MW	4 MW	4 MW
Display/control elements			
Status indication per output	nLED + 7 Segment	nLED	nLED
Power supply			
Electronics powered via an integrated power supply unit	■	■	■
DALI outputs powered via an integrated power supply unit	■	■	■
Bus connection			
Integrated bus coupling units	■	■	■
Bus connection via contact system to data rail		■	■
Bus connection via bus terminal	■	■	■
Outputs			
Control outputs			
DALI outputs (lines)	2	1	8
DALI output acc. to IEC 60929 for DALI ECG (16 V, floating, short-circuit resistant)	■	■	■
Max. ECG per output (Osram Dynamik 58 W)	64	64	8
DALI sensors	■		
Functions			
Direct operation	■	■	■
Broadcast operation	■		■
Standalone operation	■		
Configurable behavior in the event of a bus voltage failure/recovery	■	■	■
Support of CIN		■	
Scene control			
Integrated 8-bit scene control	■	■	■
Scenes to be integrated per DALI output	16	16	16
Effect control			
Integrated effect control (one-off or cyclic chaselight operation, color control)		■	
Test function via ETS			
Testing individual ECGs	■	■	
Testing group assignment	■	■	
Testing scenes	■	■	
Testing effects		■	
Group control			
Up to 16 groups per DALI output • Switching ON/OFF • BRIGHTER/DARKER dimming • Set value	■	■	
Individual ECG control			

Operation of individual ECG with
• Switching ON/OFF
   BRIGHTER/DARKER dimming
   Set value
	■	■
		■	

• ETSApp in KNX Online Shop	■	■	

...Continuation of the table

Type	N 141/31	N 141/02	N 525E
Application program[1]	9833xx [1]	981CXX[1]	980801
Time functions			
Timer mode, 1-step (automatic stairwell switch)	■	■	■
Timer mode, 2-step	■	■	■
Night mode (lighting for cleaning)	■	■	■
Warning of impending OFF	■	■	■
Dimming			
BRIGHTER/DARKER dimming	■	■	■
Adjustable dimming time	■	■	■
Brightness limitation, adjustable min. dimming value/max. dimming value	■	■	■
Switching			
Switching ON/OFF	■	■	■
Configurable starting value	■	■	■
Switching ON/OFF possible via BRIGHTER/DARKER dimming	■	■	■
Emergency lighting			
Support for prescribed test sequences for emergency lights		■	
Controlling single battery lights		■	
Status			
DALI short circuit	■	■	■[2]
DALI power supply	■	■	■
Status output (ON/OFF, value, lamp fault, ECG fault)	■		■
Status group (ON/OFF, value, lamp fault, ECG fault)	■	■	
Status ECG (ON/OFF, value, lamp fault, ECG fault)		■	

[1] For current application programs, see www.siemens.com/gamma-td
[2] Per channel (line).

11

Technical specification
KNX/Infrared

	i-system	DELTA style
Design	i-system	DELTA style
Type	UP 223/5	UP 287/..5
Application program[1]	909301	
Enclosure data		
Dimensions		
• Width [mm]	55	68
• Height [mm]	55	68
• Depth [mm]	11	14
Display/control elements		
Individual pushbuttons	6	8
Pushbutton pairs	3	4
Operation (v: vertical, h: horizontal)	h	v
LED per pushbutton pair for status indication	2	2
LED for orientation light (ON/OFF configurable/dimmable)	■	
IR activity display configurable via orientation LED	■	■
LED brightness configurable and controllable via object	■	■
Bus connection		
For plugging onto a bus coupling unit (BTM) or a flush-mounting actuator with bus coupling unit (BTM)	■	■
Inputs		
IR receiver decoder	■	■
IR channels in blocks of 64	16	16
Input functions		
Switching		
Switching ON/OFF/OVER	■	■
Pushbutton function (bell function)	■	■
Dimming		
• Dimming with stop telegram (4-bit) • Short button press, ON/OFF • Long button press, BRIGHTER/DARKER	■	■
One-pushbutton dimming	■	■
Value transmission		
8 bit/percent/16 bit	■	■
Brightness value	■	■
Temperature value	■	■
Positively driven operation	■	■
Time-delayed transmission of a second telegram, depending on main function	■	■
Button deactivation	■	■
Shutter/blind		
Shutter/blind control short button press, slat OPEN/CLOSED or STOP, long button press, UP/DOWN	■	■
One-pushbutton sun protection	■	■
Scene		
Integrated 8-bit scene control (channels)	■	■
Assignments per channel	8	8
Store and call up scene, 8-bit	■	■
Store and call up scene, 1-bit	■	■
Short or long button press (store/call up scene), configurable	■	■
Status		
LED on/off/flashing depending on the value (1 bit/8 bit/16 bit)	■	■
Pushbutton operation display configurable via LED	■	■

IR remote controls and IR wall-mounted transmitters must be ordered separately. see chapter Display and Operation Units - Pushbutton with IR receiver decoder.

[1] For current application programs, see www.siemens.com/gamma-td

11

IP interface

N 148/22

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Power consumption at 24 V DC, 57 mA
- Power supply for the electronics via "Power over Ethernet" according to IEEE 802.3af
- Integrated bus coupling units, Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- 4 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   2 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1148-1AB22	**N 148/22**

IP router

N 146/02

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Power consumption at 24 V DC 57 mA
- Power supply for the electronics via "Power over Ethernet" according to IEEE 802.3af
- Integrated bus coupling units
- Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- Line coupler function (Routing)
- 4 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   2 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1146-1AB02	**N 146/02**

11

N 350E01

IP controller

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- LC-Display
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Integrated bus coupling units
- Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- 1 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Integrated real-time clock weekly scheduling program for 100 scheduled entries/Astro function
- Yearly time switching functions
- 200 Event entries
- 30 Logic gates
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1350-1EB01	**N 350E01**

N 151/01

IP viewer

Interface converter between a KNX and an IP network, with the following simultaneously executable functions:
- As a WebServer for monitoring and control of up to 40 states and values transmitted via the KNX network, which can be displayed on up to 5 image pages of a PC connected to the IP network using Internet Explorer 6.0, 7.0, 8.0 or Firefox 3.0 (for other browsers, see documentation at www.siemens.com/gamma-td)
- For the parameterization of a KNX system using ETS3.0f/ETS4
- For communication between the KNX network and a ComBridge Studio visualization software
- Special WEB page for the multilanguage adaptation of the presentation of an image page and a special WEB page for firmware upgrades
- Ethernet interface for connection to the IP network using the Internet Protocol
- RJ45 socket for connection to Ethernet 10 Mbits/s
- 2 LED displays for indication of ready-to-run state and for IP communication
- Integrated bus coupling units
- KNX bus connection via bus terminal
- Electronics powered via an external 24 V AC/DC power supply unit
- Connection of external power supply unit via an extra-lowvoltage terminal
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1151-1AB01	**N 151/01**

Accessories for IP interface, IP router, IP controller and IP viewer

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

KNX / DALI Gateway Twin

N 141/31

- Communication via KNX EIB with electronic ballasts (ECG) with a DALI interface
- Two (2) DALI output acc. to IEC 60929, each for communication with up to 64 DALI ballasts and at least 10 sensors
- Integrated power supply with input voltage 110…240 V AC, 50…60 Hz or 120…240 V DC for powering the gateway electronics and DALI output
- Maximum DALI output voltage of 19 V, short circuit resistant
- Incorrect voltage detection during commissioning, whether incorrect power line is connected to a DALI output
- LC display for displaying operation mode and error messages
- Pushbutton for switching between bus and direct operating mode
- One pair of push buttons for switching On/Off of all connected DALI ballasts
- One LED per DALI output for status signal of all connected luminaries in direct mode
- Configurable assignment of max. 128 DALI ECG to max. 32 DALI groups, exclusive controlled in groups (switching, dimming, set dimming value) and feedback for group status and lamp failure
- Configurable behaviour for bus failure (stand-alone mode)
- Control (switching, dimming, set dimming value) of all connected luminaries together in broad-cast mode
- Status signal and display of lamp and ECG failure per group and per DALI device
- Transformation of dimming commands into a temporary set point adjustment for ballasts with integrated constant light level control and directly connected light level sensor
- One or two level timer
- Integrated scene control for up to 32 scenes
- 16 integrated 2-level-controller for brightness control
- Assignment of DALI ECG to groups and test option for ECG, groups and scenes via ETS during commissioning
- Assignment of DALI sensors and test option of sensors via ETS during commissioning
- Integrated bus coupling unit with only half a standard bus load, bus connection via bus terminal
- Mounting on DIN rail EN 60715-TH35-7.5

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	5WG1141-1AB31	N 141/31

11

NEW PRODUCT

Accessories for N 141/31

UP 141/51	**DALI Multisensor office**

- Used as passive infrared detector for indoor ceiling installation
- Sensing range, horizontal 360 °, vertical approx. 80 °
- For monitoring an area with a diameter of approx. 4 m to approx. 7 m (depending on mounting and room height)
- LED on sensor head for display
- Used as brightness sensor
- Cone–shaped detection area, opening angle 90 °
- Measuring range 20 to 1000 lx
- Integrated DALI bus coupling unit for communicating with a central DALI controller
- Power supply through DALI line with 5 mA DALI bus load
- Plug-in terminals for connecting the DALI line
- For installation in suspended ceilings

Dimensions (Ø x H)   40 x 19 mm

	Stock No.	Product No.
	5WG1141-2AB51	**UP 141/51**

UP 141/71	**DALI Push button interface 4fold**

- Binary input device
- 4 inputs to connect installation buttons
- Supported actions per input
- Short button press
- Long button press
- Integrated DALI bus coupling unit for communicating with a central DALI controller
- Power supply through DALI line with 6 mA DALI bus load
- For flush-mounting wall or ceiling outlet installations with a 60 mm diameter and depth of 60 mm
- Plug-in terminals for connecting the DALI line
- Cable set for connecting pushbuttons

Dimensions (W x H x D)   43 x 43 x 11 mm

	Stock No.	Product No.
	5WG1141-2AB71	**UP 141/71**

KNX / DALI gateway, UL standard

N 141/02

- For communication via KNX EIB with electronic ballasts with a DALI interface
- DALI output acc. to IEC 60929, for communication with up to 64 DALI ballasts
- Integrated power supply with input voltage AC/DC 110...240 V, 50...400 Hz, for powering the gateway electronics and DALI output
- Maximum DALI output voltage of 16 V, short circuit resistant
- Green LED for displaying the operating voltage
- Pushbutton for switching between bus and direct operating mode
- Yellow LED for displaying direct mode
- One pair of push buttons for switching On/Off of all connected DALI ballasts
- One red LED in the switching button for displaying the switching state of all DALI ballasts (permanent LED light) and displaying a DALI fault condition by blinking
- Control (switching, dimming, and setting dimming value) as well as feedback of status and lamp failure of up to 64 DALI ballasts
- Operation of each DALI ballast either as individual device or as member of one of up to 16 DALI groups
- Configurable assignment of the DALI ballasts to up to 16 DALI groups, which can only be switched and dimmed in groups including reporting status and lamp failures in groups
- Control (switching, dimming, setting dimming value) of self-contained emergency luminaires as individual luminaires or as member of a DALI group
- Distinction between self-contained emergency luminaires with one or two DALI devices
- Starting the self-conducted testing of each individual inverter and reporting the test result via bus
- Distinction between function test, short duration test, and long duration test
- Optional configuration of any DALI ballast to dim to a preset dimming value in case of emergency mode
- Locking of switching and dimming commands as well as configuration while emergency mode is activated
- Activation of emergency mode based on a configurable number of failed DALI ballasts
- Transformation of dimming commands into a temporary set point adjustment for ballasts with integrated constant light level control and directly connected light level sensor
- One or two level timer
- Integrated scene control for up to 16 scenes
- Integrated one time or cyclical control of repeatable sequences or color effects
- Possible assignment of a CIN to a DALI ballast and with commissioning of DALI ballasts and test of channel, scene, and effect functionality within ETS
- Integrated bus coupling unit
- Only half a standard bus load
- Bus connection via bus terminal or contact system to data rail
- For mounting on DIN rail EN 60715-TH35-7.5

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1141-1AB02	**N 141/02**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

11

N 525E01

Switch/dimming actuator, 8 x DALI, 8 ECGs per DALI output

- 8 DALI outputs
- Control capacity for up to 8 DALI-ECGs per DALI output
- Power supplied to the electronics and the DALI outputs through an integrated power supply unit for 230 V AC
- Green LED for status display
- Pushbutton for selecting and switching over 4 DALI outputs respectively between bus and direct mode
- Yellow LED for indicating which 4 DALI outputs the direct mode is activated for
- 1 red LED per DALI output for indicating the circuit state or fault (e.g. lighting medium failure) of the connected group
- Four pushbutton pairs for switching and dimming of 4 DALI outputs in direct mode, functional when 230 V AC is applied (also when no bus voltage is connected and also when bus communication has not yet been started or is interrupted)
- Selection of identical or individual configuration of all DALI outputs
- Selectable operating mode per DALI output (normal mode, 1-level or 2-level time-switch mode)
- Per DALI output with command objects for switching on/off, dimming brighter/darker and setting dimming value
- Per DALI output optionally with up to 4 add-on status objects (circuit state and lighting medium failure, dimming value status and DALI status)
- Sending of status objects on request and/or automatically after change
- Per DALI output with add-on object for time-limited switching on of lighting in night mode (cleaning light)
- Warning approx. 1 minute before imminent switching off, by dimming to 50 % of former dimming value in night or timer mode
- Adjustable switching on and/or off of a channel through dimming brighter/darker, dimming value when switching on, actuating or dimming a new dimming value, dimming time from 0% to 100%
- Adjustable behavior on bus voltage or mains voltage failure and bus voltage or mains voltage recovery
- Add-on object and integrated 8bit scene control for saving and restoring up to 16 scenes per DALI output
- Integrated bus coupling unit as only half standard bus load
- Bus connection through bus terminal as well as contact system to data rail
- Device for mounting on rail TH35 DIN EN 60715

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	5WG1525-1EB01	**N 525E01**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

11

USB interface   N 148/11

- Electronics powered via bus voltage or via USB by a connected PC
- Integrated bus coupling units
- Bus connection via bus terminal or contact system to data rail
- Transmission PC – USB USB 1.1 or higher
- Electrically isolated access to the bus line via integrated socket USB (Typ B)
- Access to all bus devices in the system
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   1 MW

	Stock No.	Product No.
	5WG1148-1AB11	**N 148/11**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

USB interface, DELTA profil, titanium white   UP 146E11

- Electronics powered via bus voltage or via USB by a connected PC
- Plug onto UP 110 or UP 114 bus coupling unit
- Transmission PC – USB 1.1 or higher
- Electrically isolated access to the bus line via integrated socket USB (type B)
- Access to all bus devices in the system

Dimensions (W x H x D)   65 x 65 x 42 mm

The bus trasnceiver module BCU1/2 must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.
The matching desin frame must be ordered separately. See chapter Display and Operation Units.

	Stock No.	Product No.
	5WG1146-2EB11	**UP 146E11**

11

UP 223/..5	**Pushbutton with scene controller and IR receiver decoder, i-system**

Dimensions (W x H x D)   55 x 55 x 11 mm
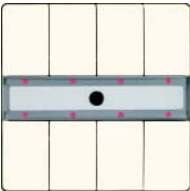
Range overview UP 223/..5

Product Title	Stock No.	Product No.
Pushbutton, triple, with status LED, with scene controller, with IR receiver decoder, titanium white	5WG1223-2DB15	**UP 223/15**
Pushbutton, triple, with status LED, with scene controller, with IR receiver decoder, aluminum metallic	5WG1223-2DB35	**UP 223/35**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

IR remote controls and IR wall-mounted transmitters must be ordered separately. See chapter Display and Operation Units - Remote controls.

UP 287/..5	**Pushbutton with scene controller and IR receiver decoder, DELTA style**

Dimensions (W x H x D)   68 x 68 x 14 mm

Range overview UP 287/..5

Product Title	Stock No.	Product No.
Pushbutton, quadruple, with status LED, with scene controller, with IR receiver decoder, titanium white	5WG1287-2DB15	**UP 287/15**
Pushbutton, quadruple, with status LED, with scene controller, with IR receiver decoder, platinum metallic	5WG1287-2DB45	**UP 287/45**

The bus transceiver module (BTM) (see Chapter System Products and Accessories) or flush-mounting actuator with bus transceiver module (BTM) must be ordered separately. The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

IR remote controls and IR wall-mounted transmitters must be ordered separately. See chapter Display and Operation Units - Remote controls.

IR Receiver decoder   S 450/03

- For receiving IR signals transmitted from IR wall-mounted transmitters or IR hand-held transmitters
- Conversion of IR signals received from up to 32 IR channels into bus telegrams
- Configurable evaluation of the IR signals per IR channel as single button or as button pair
- Per IR button selectable functions
- Switching on/off/over
- Switching on or off at either rising or falling edge
- Single button dimming
- Single button sun protection control
- 1-/8-bit scene control
- 8-/16-bit value
- Percentage value
- Temperature value
- Brightness value
- Positively driven operation
- Depending on the selected main function
- Per IR button selectable additional function executed either after a time delay (time delay configurable from 100 ms to 6550 s) or alternatively on a long button press
- Per IR button pair selectable functions
- 2-button dimming with stop telegram
- 2-button sun protection control
- Transmission variable percentage value
- Transmission variable 8-bit value
- 1-/8-bit scene control
- Positively driven operation
- Depending on the selected main function: per IR button selectable additional functions
- Switching on/off
- 8-16-bit value
- Percentage value
- Temperature value
- Brightness value
- Recall/save 1-bit scene 1
- Recall/save 1-bit scene 2
- Recall 8-bit scene
- Positively driven on/off/deactivate
- Blocking can selected for each IR button and configured individually
- Integrated bus coupling units, Bus connection via bus terminal
- Bus-powered electronics
- Including clamping spring and rosette for installation in ceilings, walls or lights
- For commissioning when mounted, a magnet is required, such as a 5WG1 590-8AH01 programming magnet

Dimensions (W x H x D)   25 x 26 x 75 mm

The programming magnet must be ordered separately.

	Stock No.	Product No.
	5WG1450-7AB03	**S 450/03**

Programming magnet for IR receiver decoders   S 590H01

Programming magnet for S 450 IR receiver decoders

The matching IR remote controls and IR wall-mounted transmitters must be ordered separately. See Chapter Display and Operation Units - Remote controls.

	Stock No.	Product No.
	5WG1590-8AH01	**S 590H01**

11

UP 140H..	**Coupler wave / instabus, i-system**

- For coupling GAMMA wave with GAMMA instabus
- Coupling of a total of up to 50 GAMMA wave sensor channels with GAMMA instabus actuator channels or GAMMA instabus sensor channels with GAMMA wave actuator channels
- Pushbutton rocker, single with intermediate position
- Vertical operation
- ETS3 and higher supports configuration of the functions: switching, switching and dimming, shutter/blind control and scene control
- Short and long button press for on/off, brighter/darker for dimming or up/down and adjustment of slats for shutter/blind control
- Storage and call up of up to two scenes
- 1 LED for the indication of telegram transmissions
- KNX-RF transmitter/receiver for 868.3 MHz
- 10-pole plug for plugging onto a UP 114 bus coupling unit, version BCU 2.1. or higher

Dimensions (W x H x D)   55 x 55 x 13 mm

Range overview U 140..

Product Title	Stock No.	Product No.
Coupler wave / instabus, titanium white	5WG3140-2HB11	**UP 140H11**
Coupler wave / instabus, aluminum metallic	5WG3140-2HB31	**UP 140H31**

The UP 114/02 bus coupling unit must be ordered separately. See chapter System Products and Accessories - Bus coupling units and accessories. The matching design frame must be ordered separately. See chapter Display and Operation Units.

11

Radio frequency receiver with Gateway EnOcean/KNX

RXZ97.1/KNX

- Evaluation of up to 32 EnOcean channels
- With RXB, other EnOcean functions may also be integrated: switches, window contacts, motion detectors
- Other EnOcean functions (dimming, blinds, light sensors) can be realized in KNX systems
- Powered via KNX bus
- With internal antenna

Operating voltage	DC 24 V
Power consumption	0.6 VA
Ambient temperature, operation	-5...45 °C
Ambient humidity, operation	5...93 % r.H.
Degree of protection	IP20
Dimensions (W x H x D)	71 x 71 x 27 mm
Weight	0.07 kg

For more products, see Chapter Radio system – EnOcean.

	Stock No.	Product No.
	S55842-Z101	**RXZ97.1/KNX**

11

CM KNX

LOGO! communication module KNX/LOGO!

- For connection of LOGO! to KNX, as communication module for the LOGO! logic module (12/24 V or 115/240 V) and as bus device on KNX
- For linking transmitted KNX data points and LOGO! inputs and outputs via logic and control functions through LOGO!
- For the linking and transmitting via KNX of up to
- 8 LOGO! binary inputs and 4 LOGO! binary outputs
- 16 virtual KNX binary inputs
- 12 virtual KNX binary outputs
- 8 virtual KNX analog inputs
- 8 virtual KNX analog outputs
- Transmission of date and time of the LOGO! real-time clock via KNX
- Two LEDs for the display of the communication status of LOGO! and KNX
- Electronics powered via an external 24 V AC/DC power supply unit, 25 mA
- Integrated bus coupling units, bus connection via screw terminals
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   2 MW

For more LOGO! Products, see Chapter Control and Automation Devices.
The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	6BK1700-0BA00-0AA2	**CM KNX**

Accessories

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

11

Physical Sensors

12

Technical specification
Physical Sensors with KNX connection

Type	UP 258E21 UP 258D11	UP 257/.. UP 258H/..	AP 251/..1	AP 254/02	N 258/02	AP 255/12	UP 255/11	GE 255/13	AP 257/42
Enclosure data									
Modular installation devices for mounting on TH35 EN 60715 mounting rail					■				
For installation in lights								■	
Surface mounting	■[1]		■	■	■	■			■
Flush mounting	■	■					■		
Mounting in intermediate ceilings								■	
Degree of protection	IP20	IP20	IP55	IP54	IP20		IP20		IP44
Mast mountings									■
Dimensions									
• Width/Ø [mm] (1 MW = 18 mm)	88	[2]	82	72	4 MW		[4]		96
• Height [mm]	63[3]	[2]	80	110			[4]		77
• Depth [mm]		23	182	54			[4]		118
Power supply									
Bus-powered electronics	■	■	■	■			■		■
Electronics powered via an integrated power supply unit for supply voltage 230 V AC					■				
Voltage supply through external power supply unit									■[5]
Bus connection									
Integrated bus coupling units	■		■	■	■		■		■
Plug onto UP 110 bus coupling unit		■							
Plug onto UP 114 bus coupling unit		■							
Bus connection via bus terminal	■		■	■	■		■		■ ■
Bus connection via contact system to data rail					■				
Transmission of sensor values via bus	■	■	■	■	■		■		■
Motion/presence									
Motion	■	■	■						
Presence	■								
HVCA message output	■								
Horizontal sensing angle	360°	180°	290°						
Vertical sensing angle	100°								
Range to the front [m]		10	8						
Range on each side, up to [m]	2.5 [6]	6	8						
Adjustable range	■[7]	■							
Brightness									
Measuring range [Lux]	20...1000	1...1000		1...100000			0...2000		
For measuring outdoor brightness				■					
For measuring indoor brightness	■	■					■		
For measuring indoor brightness, taking into account indirect lighting							■		
2 m connecting lead of sensor element (cannot be extended)									
Temperature									
Measuring range [°C]				-25...+55	-40...+150				
PT1000 temperature sensor input					4				
Max. cable length, unshielded, twisted [m]					50				
Wind speed									
Measuring range [m/s]									0...3 5
Limit value monitoring (3 limit values)									■
Logic operations (8 AND, 8 OR)									■
Recording, querying and resetting the maximum wind speed									■

[1] In conjunction with AP 258E surface-mounting enclosure.
[2] Dimensions are Design-dependent, see Physical sensors - with KNX connection.
[3] For flush mounting, mounting height approx. 31 mm, for surface mounting with AP 258E surface-mounting enclosure, approx. 73 mm. In conjunction with AP 258E surface-mounting enclosure.
[4] Dimensions, see chapter Physical sensors - with KNX connection .
[5] The 4AC2402 electronic power supply unit is recommended.
[6] At mounting height 2.8 m (presence detection). Motion detection up to 5 m. For the complete technical specifications, see www.siemens.com/gamma-td
[7] Rotating/swiveling sensor head.

Temperature

Type		Measuring range		Power supply		Degree of protection	Dimensions
		Pt1000 (passive)[1]	0...10 V DC (active)[2]				(W x H x D)
		°C	°C	[V] AC	[V] DC		mm
Room sensor	AQR2531BNW	0...+50[3]				IP30	55 x 55[4]
	AQR2532NNW		0 ... +50[3]			IP30	55 x 55[4]
	AQR2540..[5]	■[3]	■[3]	24	15...36	IP30	70,8 x 70,8
	QAA2012	0...+50				IP30	90 x 100 x 32
	QAA2061		0...+50	24	13,5...35	IP30	90 x 100 x 36
	QAA2061D		0...+50	24	13,5...35	IP30	90 x 100 x 36
Contact sensor	QAD2012[6]	-30...+130				IP42	60 x 67 x 43
External sensor	QAC2012	-50...+70				IP54	80 x 92 x 50
	QAC3161		-50...+50	24	13,5...35	IP65	80 x 88 x 39

[1] Can be connected to the N 258/02 temperature sensor (5WG1258-1AB02), see Physical sensors - with KNX connection. And the Universal N 670/03 I/O module (5WG1670-1AB03), see Input devices - Analog input devices.
[2] Can be connected to the Universal N 670/03 I/O module (5WG1670-1AB03), see Input devices - Analog input devices.
[3] Output signal via basic modul AQR2540.. .
[4] The matching design frame DELTA line und DELTA miro must be ordered separately, see chapter Display and Operation Units - pushbutton accessories.
[5] Available as country specific version, see Physical sensors - without KNX connection.
[6] Including mounting accessories.

Humidity

Type		Measuring range		Output voltage	Relay-contact	Display	Power supply		Degree of protection	Dimensions
		Humidity	Temperature							(W x H x D)
		% r. F.	°C	[V] DC			[V] AC	[V] DC		mm
Room sensor	AQR2533NNW	0...100[3]		[3]					IP30	55 x 55[2]
	AQR2535NNW	0...100[3]	0...+50[3]	[3]					IP30	55 x 55[2]
	AQR2540.. [5]	■	■	0...10[4]			24	15...36	IP30	70,8 x 70,8
	QFA2000	0...95	--	0...10[4]			24	13,5...35	IP30	90 x 100 x 36
	QFA2060	0...95	-12...+50	0...10[4]			24	13,5...35	IP30	90 x 100 x 36
	QFA2060D	0...95	-12...+50	0...10[4]		■	24	13,5...35	IP30	90 x 100 x 36
Hygrostats	QFA1000	30...90[1]			■				IP20	76 x 76 x 34
	QFA1001	30...90[1]			■				IP20	76 x 76 x 34

[1] Measuring range adjustable.
[2] The matching design frame DELTA line und DELTA miro must be ordered separately, see chapter Display and Operation Units - pushbutton accessories.
[3] Output signal via AQR2540.. basic module.
[4] Can be connected to the Universal N 670/03 I/O module (5WG1670-1AB03), see Input devices - Analog input devices.
[5] Available as country specific version, see Physical sensors - without KNX connection.

Air quality

Type		Measuring range				Output voltage	Display	Power supply		Degree of protection	Dimensions
		CO_2	VOC	Temperature	Humidity						(W x H x D)
		ppm	%	°C	% r. F.	[V] DC]		[V] AC	[V] DC		mm
Room sensor	AQR2530NNW									IP30	55 x 55[1]
	AQR2532NNW			0...+50		[2]				IP30	55 x 55[1]
	AQR2533NNW				0...100	[2]				IP30	55 x 55[1]
	AQR2535NNW			0...+50	0...100	[2]				IP30	55 x 55[1]
	AQR2546..[3]	0...2000				0...10[4]		24	15...36	IP30	70,8 x 70,8
	AQR2547..[3]		0...100			0...10[4]		24	15...36	IP30	70,8 x 70,8
	AQR2548..[3]	0...2000	0...100			0...10[4]		24	15...36	IP30	70,8 x 70,8
	QPA2000	0...2000	0...100			0...10[4]		24	15...36	IP30	90 x 100 x 36
	QPA2002	0...2000	0...100			0...10[4]		24	15...35	IP30	90 x 100 x 36
	QPA2060	0...2000		-0...+50/ -35...+35		0...10[4]		24	15...35	IP30	90 x 100 x 36
	QPA2062	0...2000		-0...+50/ -35...+35	0...95	0...10[4]		24		IP30	90 x 100 x 36
	QPA2062D	0...2000		-0...+50/ -35...+35	0...95	0...10[4]	■	24		IP30	90 x 100 x 36

[1] The matching design frame DELTA line und DELTA miro must be ordered separately, see chapter Display and Operation Units - pushbutton accessories.
[2] Output signal via AQR2546..; AQR2547..; AQR2548.. basic module.
[3] Available as country specific version, see Physical sensors - without KNX connection.
[4] Can be connected to the Universal N 670/03 I/O module (5WG1670-1AB03), see Input devices - Analog input devices.

12

Motion detector, i-system

UP 258H

- For detecting movement and measuring indoor brightness
- Horizontal sensing angle 180°
- Adjustable range: range to the front 10 m, range on each side, up to 6 m
- Measuring range 1...1000 Lux
- Transmission of sensor values via bus
- Flush mounting, Degree of protection IP20
- Plug onto UP 110 or UP 114 bus coupling unit
- Bus-powered electronics

Dimensions (W x H x D)   55 x 55 x 23 mm

Range overview UP 258H

Product Title	Stock No.	Product No.
Motion detector, assembly height 1.10 m, titanium white	5WG1258-2HB11	**UP 258H11**
Motion detector, assembly height 1.10 m, aluminium metallic	5WG1258-2HB31	**UP 258H31**
Motion detector, assembly height 2.20 m, titanium white	5WG1258-2HB12	**UP 258H12**
Motion detector, assembly height 2.20 m, aluminium metallic	5WG1258-2HB32	**UP 258H32**

The bus transceiver module BCU1/2 must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories
The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

Motion detector, DELTA style

UP 257

- For detecting movement and measuring indoor brightness
- Horizontal sensing angle 180°
- Adjustable range: range to the front 10 m, range on each side, up to 6 m
- Measuring range 1...1000 Lux
- Transmission of sensor values via bus
- Flush mounting, Degree of protection IP20
- Plug onto UP 110 or UP 114 bus coupling unit
- Bus-powered electronics

Dimensions (W x H x D)   68 x 68 x 23 mm

12

Range overview UP 257

Product Title	Stock No.	Product No.
Motion detector, assembly height 1.10 m, titanium white	5WG1257-2AB13	**UP 257/13**
Motion detector, assembly height 1.10 m, platinum metallic	5WG1257-2AB41	**UP 257/41**
Motion detector, assembly height 2.20 m, titanium white	5WG1257-2AB14	**UP 257/14**
Motion detector, assembly height 2.20 m, platinum metallic	5WG1257-2AB42	**UP 257/42**

The bus transceiver module BCU1/2 must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories
The matching design frame must be ordered separately. See Chapter Display and Operation Units - Pushbutton accessories.

UP 258.B..1

Presence detectors

- Used as passive infrared detector for indoor ceiling installation
- Sensing range, horizontal 360 °, vertical approx. 100°, rotating/swiveling sensor head, optionally for shading off parts of the sensing range
- For monitoring an area for presence up to approx. 6 x 3.5 m, for a mounting height of 2.8 m (presence detection), motion detection up to 5 x 3.5 m
- Mixed light measurement, measuring range 20...1000 lux
- Presence detection for three function blocks (presence detector, motion detector and HVAC detector)
- Functions: Switching on/off, 8-bit value, 16-bit value, temperature value, brightness value, 8-bit scene control
- Blocking object per function module
- Adjustable delay time per function module, which can be optionally set to a fixed time, or two times that can be switched between via bus, or set to one value via bus
- Parallel operation of several presence detectors (master-slave, master-master) without logic modules
- Integrated IR receiver for S 255/11 IR remote control with six pushbutton pairs (see accessories)
- In the case of individual pushbuttons, selectable function per pushbutton: Switching Over, Switching On, Switching Off, call up 8-bit scene, 8-bit value, 16-bit value, temperature value, brightness value
- In the case of pushbutton pairs, selectable function Switching on/off, switching over/over, 2-pushbutton dimming with stop telegram, 2-pushbutton sun protection control, transmit variable 8-bit value, 8-bit scene control
- Blocking object for IR receiver decoder
- LED for display of detected motions in test mode
- Mounting on the ceiling in a flush-mounting device box with 60 mm diameter and at least 40 mm mounting depth, or in an AP 258E surface-mounting enclosure, which must be ordered separately (see accessories)

Dimension (Ø x H)   88 x 63 mm

Range overview UP 258.B..1

Product Title	Stock No.	Product No.
Presence detector with brightness sensor	5WG1258-2EB21	**UP 258E21**
Motion detector with brightness sensor	5WG1258-2DB11	**UP 258D11**

Accessories for UP 258.B..1

S 255/11

IR remote control accessories for UP 258E21 or UP 258D11

- 6 pushbutton pairs for the remote control of lighting, shutter/blinds and scenes via UP 258E21 or UP 258D11 presence detector
- Parameterization is via ETS in the UP 258E21 or UP 258D11 presence detector
- Range: approx. 4.5 m
- Power supply: CR2025 lithium button cell
- Degree of protection (acc. to EN 60529): IP40

Dimensions (W x H x D)   40 x 87 x 6 mm

	Stock No.	Product No.
	5WG1255-7AB11	**S 255/11**

Surface-mounting enclosures for UP 258E21 or UP 258D11

AP 258E01

For fixing the presence detector as a surface mounting device

Dimensions (Ø x H)   88 x 44 mm

	Stock No.	Product No.
	5WG1258-7EB01	**AP 258E01**

AP 251	**Motion detector**

- To detect and report motion, optionally with or without a brightness threshold taken into consideration
- Sensing angle 290°, including masking to limit the capture zone, range at least 16 m (radius) with mounting height 2...4 m and at 22 °C
- Integrated infrared receiver to set brightness threshold and delay time, as well as operating mode (test mode, standard mode, pulse mode) via an infrared remote control
- Blocking and release of reporting mode through a communication object
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via bus terminal
- Device for wall or ceiling mounting
- Degree of protection IP 55 zur Montage auch im Außenbereich

Dimensions (W x H x D)   180 x 86 x 74 mm

Range overview AP 251

Product Title	Stock No.	Product No.
Motion detector IP55, titanium white	5WG1251-3AB11	**AP 251/11**
Motion detector IP55, anthracite	5WG1251-3AB21	**AP 251/21**

Accessories for AP 251

5TC7900	**Special base, accessory for AP 251 surface-mounting motion detectors, IP55, titanium white (similar to RAL9010)**

- For outside or inside-angle mounting
- Cable entry surface or flush-mounted
- Titanium white

Dimensions (W x H x D)   88 x 64 x 105 mm

	Stock No.	Product No.
	5TC7900	**5TC7900**

5TC7901	**Special base, accessory for AP 251 surface-mounting motion detectors, IP55, anthracite**

- For outside or inside-angle mounting
- Cable entry surface or flush-mounted
- Anthracite

Dimensions (W x H x D)   88 x 64 x 105 mm

	Stock No.	Product No.
	5TC7901	**5TC7901**

12

IR remote control accessory for motion detectors AP 251 and 5TC721.. 5TC7902

- Infrared remote control
- Range: Approx. 5 m
- Functions
- Vacation function / Presence
- Continuous on (4h) / Normal mode
- Test mode
- Programming of the currently measured brightness value and the overrun time of 5s to 30 min
- Direct selection of an overrun time of 10 min
- Switchover to brightness-independent mode and pulse mode
- Resetting of detector to 7 lux and 2 min delay time
- Power supply through CR2025 lithium button cell, included in delivery

Dimensions (W x H x D)   40 x 87 x 6 mm

	Stock No.	Product No.
	5TC7902	**5TC7902**

UP 255/11, AP 255/12, GE 255/13

Brightness controller

- For measuring the brightness on an illuminated work area through measurement of the reflected light
- Measuring range 0...2000 lux (with a reflectance of the illuminated area of approx. 30%)
- Including two rigid optical fiber rods:
- Parallel light-sensitive surface for mounting surface
- Inclined (30°) light-sensitive surface for mounting surface
- Integrated infrared receiver for calibration of the brightness measurement via the S 255 infrared remote calibration tool
- Transmission of the brightness measured value, either in the event of change and/or cyclically
- Discretionary set-point as a parameter or a communication object
- Optional two-step dimmer control for lights that can only be switched or constant light level control for lights that can be switched and dimmed
- Selectable starting value of the lighting at the start of constant light level control
- Optionally with dimming of up to 4 further lighting groups to the dimming value of the constant light level control or a dimming value that differs from the dimming value of the constant light level controller by an offset value, which can be set per group
- The constant light level control is automatically deactivated by manually dimming, or by dimming to a preset value
- Configurable behavior in the event of a bus voltage recovery

Range overview UP 255/11, AP 255/12, GE 255/13

Product Title	Dimension (Ø x H)	Dimensions (W x H x D)	Stock No.	Product No.
Brightness controller	75 x 27 mm		5WG1255-4AB12	**AP 255/12**
UP-Brightness-controller	75 x 20 mm		5WG1255-4AB11	**UP 255/11**
Brightness controller		50 x 35 x 20 mm	5WG1255-4AB13	**GE 255/13**

Accessories for UP 255/11, AP 255/12, GE 255/13

S 255/01

IR remote calibration, accessories for UP 255/11, AP 255/12, GE 255/13

- Range: up to approx. 4.5 m
- Power supply: CR2025 lithium button cell (included in delivery)
- Degree of protection (acc. to EN 60529): IP40

Dimensions (W x H x D)	40 x 86 x 6 mm

		Stock No.	Product No.
		5WG1255-7AB01	**S 255/01**

Dual sensor for brightness measurement, temperature measurement, sun protection control, lighting control

- Brightness measurement, temperature measurement, sun protection control, lighting control
- For the detection and transmission of brightness and temperature
- Temperature measuring range -25 °C...+55 °C
- Brightness measuring range 1 Lux...100 kLux
- Horizontal sensing angle -60°...+60°, vertical -35°...+66.5°
- For the control of switch, dimming and shutter/blind actuators, depending on the ambient luminosity and/or ambient temperature
- One sun protection channel for the automatic control of sun protection equipment, with
- Starting and stopping of automation by means of an object or a dusk threshold
- Up to three brightness thresholds for determining the height and position of the shutters/blinds or roller shutters
- Optional teach-in of dusk thresholds and brightness thresholds by means of a teach-in facility
- Blocking object for the temporary deactivation of the sun protection channel function
- Up to four universal channels for the control of switch, dimming and shutter/blind actuators, depending on ambient luminosity and/or temperature. Optionally available with:
- Threshold switches for brightness
- Threshold switches for temperature
- Threshold switches with logical combination of brightness and temperature
- Optional teach-in of brightness threshold for each universal channel by means of an associated teach-in facility
- Deactivation option for each universal channel by means of an associated blocking object (1 bit)
- Optional second object for transmission of a second telegram on fulfillment of threshold conditions
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal
- Surface mounting
- Degree of protection: IP54

Dimensions (W x H x D)   72 x 110 x 54 mm

Light level control modules N 342 see chapter Lighting - Light level controls

	Stock No.	Product No.
	5WG1254-3EY02	**AP 254/02**

12

AP 257/42

Wind sensor

- Windspeed Measuring range 0...35 m/s
- Recording, querying and resetting the maximum wind speed
- Automatic indication in the event of a defective sensor
- Mast mountings
- Limit value monitoring (3 limit values)
- Transmission of sensor values via bus
- Logic operations (8 AND, 8 OR)
- Electronics powered via an external power supply unit
- Integrated bus coupling units, bus connection via bus terminal
- Surface mounting, degree of protection IP44

Dimensions (W x H x D)   96 x 77 x 118 mm

The 4AC2402 electronic power supply unit is recommended.

	Stock No.	Product No.
	5WG1257-3AB42	**AP 257/42**

Accessories for AP 257/..2

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

Water sensor, DELTA profil, titanium white

UP 272/11

- For detecting water in rooms with risk of leakages
- With water sensor for mounting near the ground with a 2 m long connecting lead (extendable to max. 20 m) with jack plug and a flush-mounting device
- For plugging onto a UP 110 or UP 114 bus coupling unit
- Indication of water/no water
- Alarm indication with adjustable cyclic transmission time
- Indication of defective device / cable
- Alarm indication for resetting the alarm
- Bus-powered electronics

Dimensions (W x H x D)   65 x 65 x 42 mm

	Stock No.	Product No.
	5WG1272-2AB11	**UP 272/11**

12

N 258/02	**Temperature sensor 4 x Pt1000**

- For four Pt1000 sensors
- For the measurement and transmission of 4 temperatures in the range -40...+150 °C
- For connection of four Pt1000 temperature sensors2), each via a 2-wire cable up to 50 m in length
- Configurable smoothing of a measured value through mean value generation
- Monitoring of a lower and upper limit value for each measured value, with configurable hysteresis for limit value signals
- Electronics powered via an integrated power supply unit for 230 V AC
- Green LED for displaying ready-to-run status
- Integrated bus coupling units
- Bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The accompanying physical sensors must be ordered separately. See chapter Physical sensors - sensors without KNX connection.
The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1258-1AB02	**N 258/02**

AP 254/02	**Dual sensor for brightness measurement, temperature measurement, sun protection control, lighting control**

- Brightness measurement, temperature measurement, sun protection control, lighting control
- For the detection and transmission of brightness and temperature
- Temperature measuring range -25 °C...+55 °C
- Brightness measuring range 1 Lux...100 kLux
- Horizontal sensing angle -60°...+60°, vertical -35°...+66.5°
- For the control of switch, dimming and shutter/blind actuators, depending on the ambient luminosity and/or ambient temperature
- One sun protection channel for the automatic control of sun protection equipment, with
- Starting and stopping of automation by means of an object or a dusk threshold
- Up to three brightness thresholds for determining the height and position of the shutters/blinds or roller shutters
- Optional teach-in of dusk thresholds and brightness thresholds by means of a teach-in facility
- Blocking object for the temporary deactivation of the sun protection channel function
- Up to four universal channels for the control of switch, dimming and shutter/blind actuators, depending on ambient luminosity and/or temperature. Optionally available with:
- Threshold switches for brightness
- Threshold switches for temperature
- Threshold switches with logical combination of brightness and temperature
- Optional teach-in of brightness threshold for each universal channel by means of an associated teach-in facility
- Deactivation option for each universal channel by means of an associated blocking object (1 bit)
- Optional second object for transmission of a second telegram on fulfillment of threshold conditions
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal
- Surface mounting
- Degree of protection: IP54

Dimensions (W x H x D)   72 x 110 x 54 mm

	Stock No.	Product No.
	5WG1254-3EY02	**AP 254/02**

Front modules for base modules   AQR253..

Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm

Range overview AQR253..

Measuring range, tempera-ture	Signal output temperature	Measurement range humidity	Stock No.	Product No.
			S55720-S137	**AQR2530NNW**
0...50 °C	Active		S55720-S136	**AQR2532NNW**

The matching design frame must be ordered Separately. See chapter Display and Operation Units - Pushbutton accessories.

Base module with KNX for temperature and humidity measurement   AQR2570..

- The room sensor for flush mounting consists of a base - and front module
- Temperature control as continuous control (PID algorithm) for pure heating operation, heating and cooling operation, and adjustable control value as continuous control value 0...100%, or as pulse-width modulated (PWM) switching signal On/Off
- Ventilation control across 3 settable switching points for relative humidity, and 3 switching signal objects On/Off, or one control value object 0...100% to control a ventilation actuator
- Setpoints for room temperature and relative humidity adjustable via KNX bus
- 1 analog input to connect temperature sensors with NTC 10k sensing element to measure room, floor, or ceiling temperature
- 2 multi-functional binary inputs to control window contacts or switches for blinds and/or lighting control
- Settable commissioning and control parameters
- Power supply via KNX-bus, bus load < 5 mA
- Integrated bus coupler with programming button and LED

Voltage supply	KNX bus
Analog inputs	Passive temperature sensor NTC 10k
Analog inputs, number	1
Digital inputs	Potential-free contacts
Digital inputs, number	2
Connection, electrical	Bus connection: spring terminal sensor inputs: 4 screw terminals

Range overview AQR2570..

Mechanical design	Dimensions (W x H)	Stock No.	Product No.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S203	**AQR2570NF**
UK (British Standard)	83 x 83 mm	S55720-S204	**AQR2570NH**
IT (3 Modular)	110 x 64 mm	S55720-S205	**AQR2570NG**
US (UL)	64 x 110 mm	S55720-S206	**AQR2570NJ**

12

QMX3..	**Wall-mounted room sensors and operator units for KNX**

The wall-mounted room unit QMX3.. consists of:
- Base plate
- Sensor or room operator unit

The following functions are (depending on type):
- Temperature sensor or multisensor (T, r.h., CO2)
- Backlit display or LED display
- Touchkeys
- Switching and control of lighting, blinds, scenes

Measuring range, temperature	0...50 °C
Sensing element, temperature	NTC
Degree of protection	IP30
Mounting	Wall-mounting
Dimensions (W x H x D)	88.4 x 133.4 x 18 mm

QMX3.P30 — Room sensor KNX for temperature

Functions:
- Temperature sensor

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO2)
- Setpoint for room temperature and relative humidity and CO2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H103	QMX3.P30

QMX3.P70 — Room sensor KNX for temperature, humidity, CO2

Functions:
- multisensor for temperature, humidity and CO2
- Air quality indicator with LED

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO2)
- Setpoint for room temperature and relative humidity and CO2 concentration adjustable via KNX

	Stock No.	Product No.
	S55624-H104	QMX3.P70

12

NEW PRODUCT

Front modules for base modules

AQR253..

Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm

Range overview AQR253..

Measuring range, temperature	Signal output temperature	Measurement range humidity	Stock No.	Product No.
		0...100 %	S55720-S140	**AQR2533NNW**
0...50 °C	Active	0...100 %	S55720-S141	**AQR2535NNW**

The matching design frame must be ordered Separately. See chapter Display and Operation Units - Pushbutton accessories.

Base module with KNX for temperature and humidity measurement

AQR2570..

- The room sensor for flush mounting consists of a base - and front module
- Temperature control as continuous control (PID algorithm) for pure heating operation, heating and cooling operation, and adjustable control value as continuous control value 0...100%, or as pulse-width modulated (PWM) switching signal On/Off
- Ventilation control across 3 settable switching points for relative humidity, and 3 switching signal objects On/Off, or one control value object 0...100% to control a ventilation actuator
- Setpoints for room temperature and relative humidity adjustable via KNX bus
- 1 analog input to connect temperature sensors with NTC 10k sensing element to measure room, floor, or ceiling temperature
- 2 multi-functional binary inputs to control window contacts or switches for blinds and/or lighting control
- Settable commissioning and control parameters
- Power supply via KNX-bus, bus load < 5 mA
- Integrated bus coupler with programming button and LED

Voltage supply	KNX bus
Analog inputs	Passive temperature sensor NTC 10k
Analog inputs, number	1
Digital inputs	Potential-free contacts
Digital inputs, number	2
Connection, electrical	Bus connection: spring terminal
	sensor inputs: 4 screw terminals

Range overview AQR2570..

Mechanical design	Dimensions (W x H)	Stock No.	Product No.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S203	**AQR2570NF**
UK (British Standard)	83 x 83 mm	S55720-S204	**AQR2570NH**
IT (3 Modular)	110 x 64 mm	S55720-S205	**AQR2570NG**
US (UL)	64 x 110 mm	S55720-S206	AQR2570NJ

12

QMX3.P70	**Room sensor KNX for temperature, humidity, CO2**

Functions:
- multisensor for temperature, humidity and CO2
- Air quality indicator with LED

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO2)
- Setpoint for room temperature and relative humidity and CO2 concentration adjustable via KNX

Dimensions (W x H x D)   88.4 x 133.4 x 18 mm

	Stock No.	Product No.
	S55624-H104	QMX3.P70

12

NEW PRODUCT

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2014

Front modules for base modules

AQR253..

Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm

Range overview AQR253..

Measuring range, temperature	Signal output temperature	Measurement range humidity	Display	Stock No.	Product No.
				S55720-S137	**AQR2530NNW**
0...50 °C	Active			S55720-S136	**AQR2532NNW**
		0...100 %		S55720-S140	**AQR2533NNW**
0...50 °C	Active	0...100 %		S55720-S141	**AQR2535NNW**
0...50 °C	Active	0...100 %	CO2 indicator by LED	S55720-S219	**AQR2535NNWQ**

The matching design frame must be ordered Separately. See chapter Display and Operation Units - Pushbutton accessories.

Base modules with KNX for CO_2 measurement

AQR2576..

- The room sensor for flush mounting consists of a base - and front module
- Integrated maintenance- and recalibration-free CO2 sensor
- Ventilation control across 3 settable switching points for relative humidity and CO2-concentration, and 3 switching signal objects On/Off, or one control value object 0...100% to control a ventilation actuator
- Setpoints for room temperature,relative humidity and CO2-concentration adjustable via KNX bus
- Temperature control as continuous control (PID algorithm) for pure heating operation, heating and cooling operation, and adjustable control value as continuous control value 0...100%, or as pulse-width modulated (PWM) switching signal On/Off
- 1 analog input to connect temperature sensors with NTC 10k sensing element to measure room, floor, or ceiling temperature
- 2 multi-functional binary inputs to control window contacts or switches for blinds and/or lighting control
- Settable commissioning and control parameters
- Power supply via KNX-bus, bus load < 15 mA
- Integrated bus coupler with programming button and LED

Voltage supply	KNX bus
Analog inputs	Passive temperature sensor NTC 10k
Analog inputs, number	1
Digital inputs	Potential-free contacts
Digital inputs, number	2
Measuring range	CO_2: 0...5000 ppm
Connection, electrical	Bus connection: spring terminal sensor inputs: 4 screw terminals

Range overview AQR2576..

Mechanical design	Dimensions (W x H)	Stock No.	Product No.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S207	**AQR2576NF**
UK (British Standard)	83 x 83 mm	S55720-S208	**AQR2576NH**
IT (3 Modular)	110 x 64 mm	S55720-S209	**AQR2576NG**
US (UL)	64 x 110 mm	S55720-S210	**AQR2576NJ**

12

QMX3.P70	**Room sensor KNX for temperature, humidity, CO2**

Functions:
- multisensor for temperature, humidity and CO2
- Air quality indicator with LED

- Temperature control, adjustable as PWM control and/or modulating control (PID algorithm), for pure heating mode, pure cooling mode, heating and cooling mode
- Operating modes switchable via KNX or display: Comfort mode, Pre-Comfort, energy savings and protection mode
- Adjustable commissioning and control parameters for radiated heating, slow and fast, floor heating slow and fast
- Integrated bus coupling unit
- 3 independently adjustable switching values for CO2 concentration and relative air humidity for air quality control
- Output for 1, 2, or 3-stage fans (humidity and CO2)
- Output for 1, 2, or 3-point positioning signal (humidity and CO2)
- Setpoint for room temperature and relative humidity and CO2 concentration adjustable via KNX

Dimensions (W x H x D) 88.4 x 133.4 x 18 mm

	Stock No.	Product No.
	S55624-H104	QMX3.P70

NEW PRODUCT

Front module with passiv temperature measurement, Pt1000

AQR2531BNW

Front module with passiv sensor.

Dimensions (W x H)   55 x 55 mm

Connectable with temperature sensor N 258/02 (5WG1258-1AB02), see chapter Physical Sensors - with KNX connection. And with the universal I/O-Module N 670 (5WG1670-1AB03) - see chapter Input Devices - Analog input devices.

The matching design frame must be ordered separately. See chapter Diesplay and Operation untis.
The matching mounting plates must be ordered separately.

	Stock No.	Product No.
	S55720-S134	**AQR2531BNW**

Accessories mounting plates for front modules AQR2531..

Mounting plate EU (CEE/VDE)
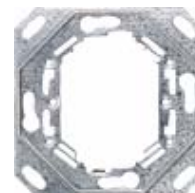
AQR2500NF

Dimensions (W x H)   70.8 x 70.8 mm

	Stock No.	Product No.
	S55720-S161	**AQR2500NF**

Mounting plate IT (3 modular)

AQR2500NG

Dimensions (W x H)   110 x 64 mm

	Stock No.	Product No.
	S55720-S163	**AQR2500NG**

Mounting plate UK (British Standard)

AQR2500NH

Dimensions (W x H)   83 x 83 mm

	Stock No.	Product No.
	S55720-S162	**AQR2500NH**

12

AQR2500NJ	**Mounting plate US (UL)**	

Dimensions (W x H)   64 x 110 mm

	Stock No.	Product No.
	S55720-S164	**AQR2500NJ**

AQR2532NNW	**Front module for base module, temperature (active)**

Front modules without sensor or with humidity and / or temperature sensors.

Dimensions (W x H x D)   55 x 55 mm

The matching design frame must be ordered separately. See chapter Diesplay and Operation untis.

	Stock No.	Product No.
	S55720-S136	**AQR2532NNW**

12

AQR2540..	**Base modules for temperature and humidity measurement**

Operating voltage	AC 24 V
	DC15...36 V
Analog output, signal	DC 0...10 V
	DC 2...10 V
	DC 0...5 V
	DC 0...20 mA
	DC 4...20 mA
	DC 0...10 mA
Connection, electrical	Screw terminals

Range overview AQR2540..

Mechanical design	Dimensions (W x H)	Stock No.	Product No.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S142	**AQR2540NF**
UK (British Standard)	83 x 83 mm	S55720-S143	**AQR2540NH**
IT (3 modular)	110 x 64 mm	S55720-S144	**AQR2540NG**
US (UL)	64 x 110 mm	S55720-S145	**AQR2540NJ**

Can be connected to the Universal I/O Modul N 670 (5WG1670-1AB03) - see chapter Sensors for HCVA..

Room temperature sensor Pt1000 QAA2012

Dimensions (W x H x D)   90 x 100 x 32 mm

Connectable with temperature sensor N 258/02 (5WG1258-1AB02) amd with the Universal I/O-Module
N 670 (5WG1670-1AB03) - see chapter sensors for HCVA

	Stock No.	Product No.
	BPZ:QAA2012	**QAA2012**

Room temperature sensor, active QAA20..1

Measuring range	0…50 °C
Measurement accuracy	at AC 24 V in the range of
	-25 °C...+25 °C ± 0.75 K
	-50 °C...+50 °C ±0.9 K
Time constant	7 min
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 36 mm

Range overview QAA20..1

Analog output, signal	Operating voltage	Display	Stock No.	Product No.
DC 0...10 V	AC 24 V DC 13.5...35 V		BPZ:QAA2061	**QAA2061**
DC 0...10 V	AC 24 V DC 13.5...35 V	LCD	BPZ:QAA2061D	**QAA2061D**

Connectable with the universal I/O-Module N 670 (5WG1670-1AB03) - see chapter Input Devices - Analog input devices.

Strap-on temperature sensor Pt1000 QAD2012

Dimensions (W x H x D)   60 x 67 x 43 mm

Connectable with temperature sensor N 258/02 (5WG1258-1AB02), see chapter Physical Sensors - with
KNX connection. And with the universal I/O-Module N 670 (5WG1670-1AB03) - see chapter Input Devic-
es - Analog input devices.

	Stock No.	Product No.
	BPZ:QAD2012	**QAD2012**

12

QAC2012

Outside sensor Pt1000

For acquiring the outside temperature and – to a lesser degree – solar radiation, the effect of wind and the temperature of the wall.

Dimensions (W x H x D)   80 x 92 x 50 mm

Connectable with temperature sensor N 258/02 (5WG1258-1AB02), see chapter Physical Sensors - with KNX connection. And with the universal I/O-Module N 670 (5WG1670-1AB03) - see chapter Input Devices - Analog input devices.

	Stock No.	Product No.
	BPZ:QAC2012	**QAC2012**

QAC3161

Outside / room temperature sensor DC 0..10V

Active sensor for acquiring the outside temperature. For use in heating, ventilation and air conditioning plants.

Dimensions (W x H x D)   80 x 88 x 39 mm

Connectable with Universal I/O-Module N 670 (5WG1670-1AB03) - see chapter Input Devices - Analog input devices.

	Stock No.	Product No.
	BPZ:QAC3161	**QAC3161**

12

Front modules for base modules

AQR253..

Front modules without sensor or with humidity and / or temperature sensors.

Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm

Range overview AQR253..

Measuring range, temperature	Signal output temperature	Measurement range humidity	Stock No.	Product No.
		0...100 %	S55720-S140	**AQR2533NNW**
0...50 °C	Active	0...100 %	S55720-S141	**AQR2535NNW**

The matching design frame must be ordered Separately. See chapter Display and Operation Units - Pushbutton accessories.

Base modules for temperature and humidity measurement

AQR2540..

Operating voltage	AC 24 V
	DC15...36 V
Analog output, signal	DC 0...10 V
	DC 2...10 V
	DC 0...5 V
	DC 0...20 mA
	DC 4...20 mA
	DC 0...10 mA
Connection, electrical	Screw terminals

Range overview AQR2540..

Mechanical design	Dimensions (W x H)	Stock No.	Product No.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S142	**AQR2540NF**
UK (British Standard)	83 x 83 mm	S55720-S143	**AQR2540NH**
IT (3 modular)	110 x 64 mm	S55720-S144	**AQR2540NG**
US (UL)	64 x 110 mm	S55720-S145	**AQR2540NJ**

Can be connected to the Universal I/O Modul N 670 (5WG1670-1AB03) - see chapter Sensors for HCVA..

12

| QFA20.. | **Room sensor for rel. humidity / temperature** |

For relative humidity and temperature

Measurement range humidity	0...95 % r.h.
Measurement accuracy	At 0...95 % r.h. and 23 °C: ±5 %
	At 30...70 % r.h. and 23 °C: ±3 %
Time constant	Humidity <20 s
	Temperature <8.5 min
Connection, electrical	Screw terminals
Degree of protection	IP30

Range overview QFA20..

Signal output humidity	Signal output temperature	Operating voltage	Measuring range, temperature	Display	Stock No.	Product No.
DC 0...10 V		AC 24 V DC 13.5...35 V			BPZ:QFA2000	**QFA2000**
DC 0...10 V	DC 0...10 V	AC 24 V DC 13.5...35 V	0...50 °C -35...35 °C -40...70 °C		BPZ:QFA2060	**QFA2060**
DC 0...10 V	DC 0...10 V	AC 24 V DC 13.5...35 V	0...50 °C -35...35 °C -40...70 °C	LCD	BPZ:QFA2060D	**QFA2060D**

| QFA1000 | **Room hygrostat, setpoint setting range 30...90 % r.h., setpoint adjuster inside device** |

2-position controller with humidity sensor
Setpoint adjuster inside device

Setpoint setting range	30...90 % r.h.
Switching differential	6 % r.h.
Time constant	At v = 0.2 m/s: 5 min
Digital outputs	1-pin
	Potential-free
	Changeover contact
Connection, electrical	Screw terminals
Digital output, switching voltage	AC 230 V
Digital output, switching current	5 (3) A
Degree of protection	IP20
Dimensions (W x H x D)	76 x 76 x 34 mm

	Stock No.	Product No.
	BPZ:QFA1000	**QFA1000**

Room hygrostat, setpoint setting range 30...90 % r.h., external setpoint adjustment

QFA1001

2-position controller with humidity sensor
External setpoint adjustment

Setpoint setting range	30...90 % r.h.
Switching differential	6 % r.h.
Time constant	At v = 0.2 m/s: 5 min
Digital outputs	1-pin
	Potential-free
	Changeover contact
Connection, electrical	Screw terminals
Digital output, switching voltage	AC 230 V
Digital output, switching current	5 (3) A
Degree of protection	IP20
Dimensions (W x H x D)	76 x 76 x 34 mm

	Stock No.	Product No.
	BPZ:QFA1001	**QFA1001**

AQR253..	Front modules for base modules

Front modules without sensor or with humidity and / or temperature sensors.

Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm

Range overview AQR253..

Measuring range, temperature	Signal output temperature	Measurement range humidity	Stock No.	Product No.
			S55720-S137	**AQR2530NNW**
0...50 °C	Active		S55720-S136	**AQR2532NNW**
		0...100 %	S55720-S140	**AQR2533NNW**
0...50 °C	Active	0...100 %	S55720-S141	**AQR2535NNW**

The matching design frame must be ordered Separately. See chapter Display and Operation Units - Pushbutton accessories.

AQR2547..	Base modules with integrated VOC measurement

Operating voltage	AC 24 V
	DC15...36 V
Analog output, signal	DC 0...10 V
	DC 2...10 V
	DC 0...5 V
	DC 0...20 mA
	DC 4...20 mA
	DC 0...10 mA
Measuring range	VOC: 0...100 %
Connection, electrical	Screw terminals

Range overview AQR2547..

Mechanical design	Dimensions (W x H)	Stock No.	Product No.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S146	**AQR2547NF**
UK (British Standard)	83 x 83 mm	S55720-S149	**AQR2547NH**
IT (3 modular)	110 x 64 mm	S55720-S152	**AQR2547NG**
US (UL)	64 x 110 mm	S55720-S155	**AQR2547NJ**

Can be connected to the Universal I/O-Modul N 670 (5WG1670-1AB03) - see chapter Sensors for HCVA.

12

Base modules with integrated CO$_2$ measurement   AQR2546..

Operating voltage	AC 24 V
	DC15...36 V
Analog output, signal	DC 0...10 V
	DC 2...10 V
	DC 0...5 V
	DC 0...20 mA
	DC 4...20 mA
	DC 0...10 mA
Measuring range	CO$_2$: 0...2000 ppm
Connection, electrical	Screw terminals

Range overview AQR2546..

Mechanical design	Dimensions (W x H)	Stock No.	Product No.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S147	**AQR2546NF**
UK (British Standard)	83 x 83 mm	S55720-S150	**AQR2546NH**
IT (3 modular)	110 x 64 mm	S55720-S153	**AQR2546NG**
US (UL)	64 x 110 mm	S55720-S156	**AQR2546NJ**

Can be connected to the Universal I/O-Modul N 670 (5WG1670-1AB03) - see chapter Sensors for HCVA.

Base modules with integrated CO$_2$ and VOC measurement   AQR2548..

Operating voltage	AC 24 V
	DC15...36 V
Analog output, signal	DC 0...10 V
	DC 2...10 V
	DC 0...5 V
	DC 0...20 mA
	DC 4...20 mA
	DC 0...10 mA
Measuring range	CO$_2$ + VOC: 0...100 %
	CO$_2$: 0...2000 ppm
Connection, electrical	Screw terminals

Range overview AQR2548..

Mechanical design	Dimensions (W x H)	Stock No.	Product No.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S148	**AQR2548NF**
UK (British Standard)	83 x 83 mm	S55720-S151	**AQR2548NH**
IT (3 modular)	110 x 64 mm	S55720-S154	**AQR2548NG**
US (UL)	64 x 110 mm	S55720-S157	**AQR2548NJ**

Can be connected to the Universal I/O-Modul N 670 (5WG1670-1AB03) - see chapter Sensors for HCVA.

12

QPA..	**Room air quality sensor CO$_2$ / temperature / rel. Humidity / VOC**

Operating voltage	AC 24 V
	DC 15...35 V
Power consumption	2 VA
Analog output, signal	DC 0...5 V
	DC 0...10 V
Ambient temperature, operation	0...50 ℃
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 36 mm
Time constant	CO$_2$: <5 min
	Humidity: <20 s
	Temperature: <8.5 min

Note:Not suited for safety-related applications!

Range overview QPA..

Measuring range	Measuring range, temperature	Measurement range humidity	Display	Stock No.	Product No.
CO$_2$: 0...2000 ppm				BPZ:QPA2000	**QPA2000**
CO$_2$: 0...2000 ppm CO$_2$+VOC: 0...2000 ppm				BPZ:QPA2002	**QPA2002**
CO$_2$: 0...2000 ppm	0...50 ℃ -35...35 ℃			BPZ:QPA2060	**QPA2060**
CO$_2$: 0...2000 ppm	0...50 ℃ -35...35 ℃	0...95 % r.H.		BPZ:QPA2062	**QPA2062**
CO$_2$: 0...2000 ppm	0...50 ℃ -35...35 ℃	0...95 % r.H.	LCD	BPZ:QPA2062D	**QPA2062D**

Can be connected to the Universal I/O-Modul N 670 (5WG1670-1AB03) - see chapter Sensors for HCVA.

12

Solar sensor   **QLS60**

For measuring the solar radiation intensity.

Operating voltage	AC 24 V
	DC 18...30 V
Power consumption	2.5 VA
Analog output, signal	DC 0...10 V
	DC 4...20 mA
Measuring range	0...1000 W/m²
Time constant	≤2 s
Connection, electrical	Screw terminals
Degree of protection	IP65
Dimensions (W x H x D)	51 x 92 x 46 mm

Connectable with Universal I/O-Module N 670 (5WG1670-1AB03) - see chapter sensors for HCVA

	Stock No.	Product No.
	BPZ:QLS60	**QLS60**

12

Control and Automation Devices

13

Technical specification
Logic modules, scene modules, time/eventmodules

Type / Application program[2]	N 305/01 750005	N 347/02 800C04 (ETS2) 800C10 (ETS3)	N 350/01 801701	N 350E[1] 908701	N 302/01 740202	N 341/01 800A01 (ETS2) 800A06 (ETS3)	N 301/01 720101	N 301/01 740301	N 301/01 740A01	N 301/01 740B01	N 301/01 740C01	N 301/01 740D01
Enclosure data												
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■	■	■			■			
Ethernet connection via RJ45 socket				■								
Dimensions												
Width (1 MW = 18 mm)	1 MW	1 MW	1 MW	4 MW	1 MW	1 MW			1 MW			
Power supply												
Bus-powered electronics	■	■	■		■	■			■			
Electronics powered via an external AC/DC power supply unit [V]				12...30								
Bus connection												
Integrated bus coupling units	■	■	■	■	■	■			■			
Bus connection via bus terminal	■			■								
Bus connection via contact system to data rail	■	■	■		■	■			■			
Functions												
Logic functions												
Inputs (virtual)		255	60	80	4		8	4				
Configurable inverting of inputs		■		■	■		■	■				
Outputs		255	10[3]	30	4[3]		2[3]	4[3]				
Configurable inverting of outputs		■	■		■		■	■				
User-definable logic gate		127	10	30			2					
Configurable transmission conditions		■	■	■	■							
Up to 30 internal flags				■								
Positively driven ON/OFF switching of loads (4 channels)												■
Partition control												
Partition inputs									4	4	4	
Controllable rooms									4	4	4	
Switching commands (2 x 1 bit)									■			
Brightness values (1 byte)										■		
Switch/dimming commands (1 bit, 4 bit)											■	
Time functions												
OFF delay		■		■[4]	■	■[4]						
ON delay		■		■[4]	■	■[4]						
Timer mode		■		■[4]	■	■[4]						
Scheduled entries			100	100		400						
Weekly program			■	■		■						
Day, week, month, year program				■		■						
Master clock (time source)				■								
Slave clock			■[5]			■						
Astro function				■		■						
Internal clock, can be synchronized via master clock			■(KNX)	■(LAN)[6]		■						
Event functions												
Event entries	80[7]		100	200		200						
Event trigger	8		10	30		[8]						
Sequence control	■		■	■		■						
Scene control												
Integrated 1-bit scene control	■			■[9]								
Integrated 8-bit scene control	■			■[9]								
Scenes to be integrated	8											

[1] The software required for parameter assignment via the Ethernet interface is available on CD-ROM and is included in delivery, or can be downloaded at www.siemens.com/gamma-td.
[2] For current application programs, see www.siemens.com/gamma-td
[3] Transmission filter.
[4] Via event entries.
[5] The following devices can be used as a master clock or time source for synchronizing the module-internal real-time clock: a time switch or an N 350E IP controller.
[6] Time synchronization via time server in the data network (NTP).
[7] 10 entries per trip unit.
[8] On request.
[9] Via event trigger.

13

Type	N 350E01	REG 371/01	REG 372/01			REG 372/02		
Application program[1]	908701	221D01	7F0401	7F0501	7F0601	7F0401	7F0501	7F0601
Enclosure data								
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■		■			■	
Dimensions								
Width (1 MW = 18 mm)	4 MW	2 MW		6 MW			6 MW	
Display/control elements								
LCD for time, day of the week, daylight saving times, switching state of channels	■[2]	■		■			■	
Jog pushbuttons for setting the time, day and program entries	■	■		■			■	
Programming via PC	■[3]							
Power supply								
Bus-powered electronics		■		■			■	
Additional 230 V power supply for integrated DCF77 power supply unit [V]							■	
Electronics powered via an external AC/DC power supply unit [V]	12...30							
Bus connection								
Integrated bus coupling units	■	■		■			■	
Bus connection via bus terminal	■	■		■			■	
Connection for DCF77 receiver	■						■	
Software								
Timer functions								
Channels	80[4]	2		4			4	
Memory locations	[5]	36		324			324	
Standard day/weekly program	■	■		■			■	
No. of weekly programs that can be prioritized	8			9			9	
Holiday switching (duration 1...99 days, batch 0...99 days)	[5]	■		■			■	
Random program				■			■	
Astro program with sunrise and sunset times	■			■				
Supported telegrams								
Switching (1 bit)	■	■	■	■	■	■	■	■
Set value (1 byte)	■	■	■	■	■	■	■	■
Floating decimal point (2 byte), for temperature, etc.	■			■			■	
Positively driven operation (2 bit)		■	■	■	■	■	■	■
Scenes		2			4			4
Adjustable cyclic transmission		■	■	■	■	■	■	■
Internal clock, can be synchronized via master clock by KNX					■			■
Transmission of date and time via KNX bus	■		■			■		
Synchronization with DCF77 signal							■	
Time synchronization via time server in the data network	■							

[1] For current application programs, see www.siemens.com/gamma-td
[2] No daylight saving times, no switching state of the channels.
[3] The software required for parameter assignment via the Ethernet interface is available on CD-ROM and is included in delivery, or can be downloaded at www.siemens.com/gamma-td
[4] Communication objects
[5] On request.

13

13-3

Type	Basic modules		Expansion modules				
	LOGO! 230RC	LOGO! 12/24RC	LOGO! DM8 230R	LOGO! DM8 12/24R	LOGO! AM2	LOGO! AM2 RTD	LOGO! AM2 AQ
Enclosure data							
Can be used for LOGO! 230RC			■		■	■	■
Can be used for LOGO! 12/24RC				■	■	■	■
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■	■	■	■
Dimensions							
• Width [mm] (1 TE = 18 mm)	4 MW	4 MW	2 MW	2 MW	2 MW	2 MW	2 MW
• Height [mm]						36	36
• Depth [mm]						55	55
Power supply							
Power supply 115...230 V AC/DC	■		■				
Power supply 12...24 V DC		■		■	■	■	■
Inputs							
Pushbutton inputs							
For voltage input							
• 230 V	8	8 (4)[1]	4	4			
• 12/24 V							
Control inputs							
Analog input (0...10 V or 4...20 mA)	4 x 0...10 V				2		
Sensor inputs							
Temperature sensor input PT100 and/or PT1000 automatic detection						2	
Measuring range [°C]						-50...+200	
Outputs							
Control outputs							
Analog output 0...10 V and/or 0/4...20 mA							2
Load output							
Floating relay contact	4	4	4	4			
Rated contact voltage, AC [V]	230	230	230	230			
Rated contact current [A]	10	10	5	5			

[1] 8 digital inputs, of which 4 can be used as analog inputs 0...10 V.

Scene- / Event Controller

N 305/01

- 80 Event entries, 8 Event trigger, Sequence control
- 1-bit-/8-bit integrated scene control, 8 scenes to be integrated
- Bus-powered electronics
- Integrated bus coupling units, bus connection via bus terminal or contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   1 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1305-1AB01	**N 305/01**

Logic operation module

N 347/02

- 255 configurable inverting of inputs (virtual)/ configurable inverting of outputs
- 127 free definable logic gate
- Configurable transmission conditions
- Time functions: 100 Scheduled entries, Weekly program
- Internal clock, can be synchronized via master clock
- 100 Event entries, 10 Event trigger, Sequence control
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   1 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1347-1AB02	**N 347/02**

Event program, weekly time switching program, logic module

N 350/01

- Inputs for logic functions 60 (virtual)
- Configurable inverting of outputs 10
- User-definable logic gate 10
- Configurable transmission conditions
- Time functions: 100 Scheduled entries, Weekly program
- Internal clock, can be synchronized via master clock
- 100 Event entries, 10 Event trigger, Sequence control
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   1 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1350-1AB01	**N 350/01**

13

N 350E01	**IP controller**

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- LC-Display
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Integrated bus coupling units
- Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- 1 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Integrated real-time clock weekly scheduling program for 100 scheduled entries/Astro function
- Yearly time switching functions
- 200 Event entries
- 30 Logic gates
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1350-1EB01	**N 350E01**

Accessories for N 350E01

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

N 302/01	**Time module**

- 4 Configurable inverting of inputs (virtual)
- 4 configurable inverting outputs
- Configurable transmission conditions
- Time functions: on-/off delay, timer mode
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   1 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1302-1AB01	**N 302/01**

N 341/01	**Event / time module**

- Time functions: on-/off delay, timer mode: 400 scheduled entries, Day, week, month, year program, slave clock, Astro function, Internal clock, can be synchronized via master clock
- 200 Event entries, sequence control
- Bus-powered electronics
- Integrated bus coupling units, bus connection via contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   1 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1341-1AB01	**N 341/01**

Logic module

N 301/01

- 8 configurable inverting of inputs (virtual)
- 4 configurable inverting of outputs
- 2 user-definable logic gates
- Positively driven on/off switching of loads (4 channels)
- Partition control: 4 partition inputs, 4 controllable rooms, switching commands (2 x 1 bit), brightness values (1 byte), switch/dimming commands (1 bit, 4 bit)
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via contact system to data rail
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   1 MW

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1301-1AB01	**N 301/01**

N 350E01

IP controller

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- LC-Display
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Integrated bus coupling units
- Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- 1 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Integrated real-time clock weekly scheduling program for 100 scheduled entries/Astro function
- Yearly time switching functions
- 200 Event entries
- 30 Logic gates
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1350-1EB01	**N 350E01**

Accessories for N 350E01

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

REG 371/01

Weekly time switch, 2-channel

- LCD for time, day of the week, daylight saving times, switching state of channels
- Jog pushbuttons for setting the time, day and program entries
- Timer functions: 2 Channels, 36 Memory locations, Standard day/weekly program, Holiday switching (duration 1…99 days, batch 0…99 days)
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via bus terminal
- Astro program with sunrise and sunset times: switching (1 bit), set value (1 byte), positively driven operation (2 bit), 2 scenes, Adjustable cyclic transmission
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   2 MW

	Stock No.	Product No.
	5WG1371-5EY01	**REG 371/01**

13

Time switch   REG 372..

- Programming via PC (Obelisk)
- Timer functions: 4 Channels, 324 Memory locations, Standard day/weekly program, 9 weekly programs that can be prioritized, Holiday switching (duration 1…99 days, batch 0…99 days), Random program
- LCD for time, day of the week, daylight saving times, switching state of channels
- Jog pushbuttons for setting the time, day and program entries
- Supported telegrams: switching (1 bit), set value (1 byte), Floating decimal point (2 byte) for temperature, etc., Positively driven operation (2 bit), 4 Scenes, adjustable cyclic transmission, Internal clock, can be synchronized via master clock by KNX, transmission of date and time via KNX bus
- Bus-powered electronics
- Integrated bus coupling units, Bus connection via bus terminal

Dimension width (1 MW = 18 mm)

Year time switch, 4-channel   REG 372/01

Astro program with sunrise and sunset times

	Stock No.	Product No.
	5WG1372-5EY01	**REG 372/01**

Year time switch, 4-channel with DCF-77 connection   REG 372/02

- Additional 230 V power supply for integrated DCF77 power supply unit
- Connection for DCF77 receiver
- Synchronization with DCF77 signal

	Stock No.	Product No.
	5WG1372-5EY02	**REG 372/02**

Accessories for REG 372

Product Title	Stock No.	Product No.
DCF-77 aerial	5WG1390-3EY01	**AP 390**

13

230RC	**LOGO! 230RC**

- Power supply 115/230 V AC/DC
- 8 digital inputs 115/230 V AC/DC
- 4 floating relay contacts 10 A
- Integrated time switch
- 200 function blocks linkable
- Expandable with extra modules
- Programming cable: LOGO! PC cabel (RS232 or USB)

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	6ED1052-1FB00-0BA6	**230RC**

230RCE	**LOGO! 230RCE**

- Power supply 115/230 V AC/DC
- 8 digital inputs 115/230 V AC/DC
- 4 floating relay contacts 10 A
- Integrated time switch
- 200 function blocks linkable
- Expandable with extra modules
- Programming cable: Ethernet

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6ED1052-1FB00-0BA7	**230RCE**

12/24RC	**LOGO! 12/24RC**

- Power supply 12/24 V DC
- 8 digital inputs, of which 4 can be used as analog inputs (0...10 V)
- 4 floating relay contacts 10 A
- Integrated time switch
- 200 function blocks linkable
- Expandable with extra modules
- Programming cable: LOGO! PC cabel (RS232 or USB)

Dimension width (1 MW = 18 mm)   4 MW

	Stock No.	Product No.
	6ED1052-1MD00-0BA6	**12/24RC**

13

12/24RCE	**LOGO! 12/24RCE**

- Power supply 12/24 V DC
- 8 digital inputs, of which 4 can be used as analog inputs (0...10 V)
- 4 floating relay contacts 10 A
- Integrated time switch
- 200 function blocks linkable
- Expandable with extra modules
- Programming cable: Ethernet

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6ED1052-1MD00-0BA7	**12/24RCE**

Expansion LOGO! DM8 230R

DM8 230R

- Power supply 115/230 V AC/DC
- 4 digital inputs 115/230 V AC/DC
- 4 floating relay contacts 5 A

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6ED1055-1FB00-0BA1	**DM8 230R**

Expansion LOGO! DM8 12/24R

DM8 12/24R

- Power supply 12/24 V DC
- 4 digital inputs 12/24 V DC
- 4 floating relay contacts 5 A

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6ED1055-1MB00-0BA1	**DM8 12/24R**

Expansion LOGO! AM2

AM2

- Power supply 12...24 V DC
- 2 analog inputs (0...10 V or 4...20 mA)

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6ED1055-1MA00-0BA0	**AM2**

13

AM2 RTD

LOGO! AM2 RTD

- Power supply 12/24 V DC
- 2 analog inputs Pt100 and/or Pt1000
- Temperature range -50...+200 °C

Dimension width (1 MW = 18 mm)   2 MW

	Stock No.	Product No.
	6ED1055-1MD00-0BA1	**AM2 RTD**

AM2 AQ

LOGO! AM2 AQ

- Power supply 24 V DC
- 2 analog inputs 0...10 V
- 0/4...20 mA

Dimension width (1 MW = 18 mm)   2 MW

	Stock No.	Product No.
	6ED1055-1MM00-0BA1	**AM2 AQ**

13

6EP13211SH03

LOGO! Power 12 V/1.9 A

- Controlled power supply 12 V/1.9 A DC
- For connection to a 1-phase AC system
- Rated input voltage 100...240 V AC wide-range input
- Range input voltage 85...264 V AC
- Nominal output voltage 12 V DC, setting range 10.5...16.1 V
- Nominal output current 1.9 A
- Efficiency during operation at rated value typ. 80 %
- Ambient temperature -20...70 °C
- Protection class II, Degree of protection: IP20
- Potential separation SELV acc. to EN 60950 and EN 50178
- Emitted interference class B acc. to EN 55022
- Approval acc. to CE, UL/cUL, FM
- Marine approval GL, ABS

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6EP1321-1SH03	**6EP13211SH03**

LOGO! Power 12 V/4.5 A

6EP13221SH03

- Controlled power supply 12 V/4.5 A DC
- For connection to a 1-phase AC system
- Rated input voltage 100…240 V AC wide-range input
- Range input voltage 85…264 V AC
- Nominal output voltage 12 V DC, setting range 10.5…16.1 V
- Nominal output current 4.5 A
- Efficiency during operation at rated value typ. 85 %
- Ambient temperature -20…70 °C
- Protection class II, Degree of protection: IP20
- Potential separation SELV acc. to EN 60950 and EN 50178
- Emitted interference class B acc. to EN 55022
- Approval acc. to CE, UL/cUL, FM
- Marine approval GL, ABS

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6EP1322-1SH03	**6EP13221SH03**

LOGO! Power 24 V/1.3 A

6EP13311SH03

- Controlled power supply 24 V/1.3 A DC
- For connection to a 1-phase AC system
- Rated input voltage 100…240 V AC wide-range input
- Range input voltage 85…264 V AC
- Nominal output voltage 24 V DC, setting range 10.5…16.1 V
- Nominal output current 1.3 A
- Efficiency during operation at rated value typ. 82 %
- Ambient temperature -20…70 °C
- Protection class II, Degree of protection: IP20
- Potential separation SELV acc. to EN 60950 and EN 50178
- Emitted interference class B acc. to EN 55022
- Approval acc. to CE, UL/cUL, FM
- Marine approval GL, ABS

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6EP1331-1SH03	**6EP13311SH03**

LOGO! Power 24 V/2.5 A

6EP13321SH43

- Controlled power supply 24 V/2.5 A DC
- For connection to a 1-phase AC system
- Rated input voltage 100…240 V AC wide-range input
- Range input voltage 85…264 V AC
- Nominal output voltage 24 V DC
- Nominal output current 2.5 A
- Efficiency during operation at rated value typ. 87 %
- Ambient temperature -20…70 °C
- Protection class II, Degree of protection: IP20
- Potential separation SELV acc. to EN 60950 and EN 50178
- Emitted interference class B acc. to EN 55022
- Approval acc. to CE, UL/cUL, FM
- Marine approval GL, ABS

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6EP1332-1SH43	**6EP13321SH43**

13

6EP13321SH52	**LOGO! Power 24 V/4 A**

- Controlled power supply 24 V/4 A DC
- For connection to a 1-phase AC system
- Rated input voltage 100…240 V AC wide-range input
- Range input voltage 85…264 V AC
- Nominal output voltage 24 V DC
- Nominal output current 4 A
- Efficiency during operation at rated value typ. 89 %
- Ambient temperature -20…70 °C
- Protection class II, Degree of protection: IP20
- Potential separation SELV acc. to EN 60950 and EN 50178
- Emitted interference class B acc. to EN 55022
- Approval acc. to CE, UL/cUL, FM
- Marine approval GL, ABS

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	6EP1332-1SH52	**6EP13321SH52**

CM KNX	**LOGO! communication module KNX/LOGO!**

- For connection of LOGO! to KNX, as communication module for the LOGO! logic module (12/24 V or 115/240 V) and as bus device on KNX
- For linking transmitted KNX data points and LOGO! inputs and outputs via logic and control functions through LOGO!
- For the linking and transmitting via KNX of up to
- 8 LOGO! binary inputs and 4 LOGO! binary outputs
- 16 virtual KNX binary inputs
- 12 virtual KNX binary outputs
- 8 virtual KNX analog inputs
- 8 virtual KNX analog outputs
- Transmission of date and time of the LOGO! real-time clock via KNX
- Two LEDs for the display of the communication status of LOGO! and KNX
- Electronics powered via an external 24 V AC/DC power supply unit, 25 mA
- Integrated bus coupling units, bus connection via screw terminals
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   2 MW

	Stock No.	Product No.
	6BK1700-0BA00-0AA2	**CM KNX**

Accessories for Programmable logic controllers LOGO!

Product Title	Stock No.	Product No.
LOGO! PC cable	6ED1057-1AA00-0BA0	**6ED10571AA000BA0**
LOGO! USB PC cable	6ED1057-1AA01-0BA0	**6ED10571AA010BA0**
LOGO! Ethernet cable	6XV1850-2GH20	**6XV18502GH20**
LOGO! German manual	6ED1050-1AA00-0AE8	**6ED10501AA000AE8**
LOGO! English manual	6ED1050-1AA00-0BE8	**6ED10501AA000BE8**
LOGO! Soft Comfort V7	6ED1058-0BA02-0YA1	**6ED10580BA020YA1**
LOGO! Memory card	6ED1056-1DA00-0BA0	**6ED10561DA000BA0**
LOGO! Battery card	6ED1056-6XA00-0BA0	**6ED10566XA000BA0**
LOGO! Combo Memory & Battery card	6ED1056-7DA00-0BA0	**6ED10567DA000BA0**

13

System Products and Accessories

14

System Products and Accessories
Overview and selection guides
Bus coupling units and accessories

Modular bus coupling unit and flush-mounting actuator

A key feature of the GAMMA _instabus_ is its uniform bus coupling unit. The bus transceiver module (BTM) can be used as a stand-alone unit, as well as a combined version in various devices of the flush-mounting actuator range.

Implementation of the BTI interface (Bus Transceiver Interface) with the bus transceiver module (BTM) ensures maximum flexibility and an impressive range of functions. Bus coupling units (BTM) and flush-mounting actuators with integrated bus transceiver modules (BTM) enable the use of GAMMA display/operator interfaces, such as pushbuttons, text displays, room temperature controllers and operation units in a wide range of designs. Thus, all GAMMA instabus operator interfaces with BTI interface in the design lines i-system and DELTA style/profil can be combined with either a bus transceiver module (BTM) or a flush-mounting actuator with bus transceiver module (BTM).

This reduces planning work and facilitates installation and commissioning. The application programs of the flush-mounting actuators are identical to those of the functionally equivalent devices from the modular room control range. This means that all devices have the same standard application program – regardless of mounting type – whether flush-mounting, with or without mounting frame – or whether designed for installation in the room control box and automation module box.

Ⓐ Bus transceiver module (BTM)
Ⓑ Flush-mounting actuator with bus transceiver module (BTM)
Ⓒ DELTA frames
Ⓓ GAMMA Display/Operation
Ⓔ BTI interface

14

System Products and Accessories
Overview and selection guides
Operator interfaces with DELTA bus coupling unit

Operator interfaces with DELTA bus coupling unit

Ⓘ DELTA UP 116 with claw

Ⓐ Bus coupling unit
Ⓑ Screw fixing
Ⓒ DELTA frame
Ⓔ DELTA pushbutton/rocker, single, double
Ⓘ Claw fixing
Ⓚ Without peripheral external interface (PEI)
   and without BTI interface

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14

14-3

System Products and Accessories
Overview and selection guides
Power supply units

Application Example

Intelligent solution via safety supply and KNX/DALI gateway with status indication in emergency mode

In emergency mode, communication is maintained via the safety supply from KNX and DALI.

The failure detection of the general supply is executed via a KNX binary input, which the KNX/DALI gateway switches to emergency mode. It is not possible to manually operate the emergency lights in emergency mode.

Normal mode

- Lighting control with DALI
- Feedback of fault indications and failure of lighting and ECGs to building control
- Monitoring of operating hours for lamp replacement

Emergency operation

- Parameterization of dimming value of DALI-ECG in emergency operation via KNX/DALI gateway
- The integrated buffer of the KNX power supply ensures an interruption-free switchover to emergency operation
- The continued transmission of status indications in emergency operation is possible because there is no interruption of supply to KNX and DALI.

①	Changeover Unit	④	KNX/DALI Gateway
②	KNX Line Coupler	⑤	Emergency luminaire
③	KNX Power Supply	⑥	KNX binary input

①	Changeover Unit	④	KNX/DALI Gateway
②	KNX Line Coupler	⑤	Emergency luminaire
③	KNX Power Supply	⑥	KNX binary input
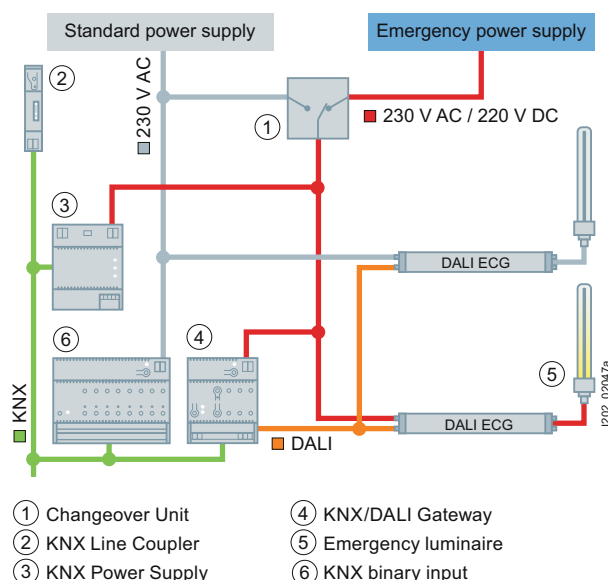
Emergency lighting with single battery KNX/DALI gateway

Normal mode

- Lighting control with DALI
- Initiate/record tests

Emergency operation

- Automatic emergency lighting acc. to parameterization via KNX/DALI gateway

14
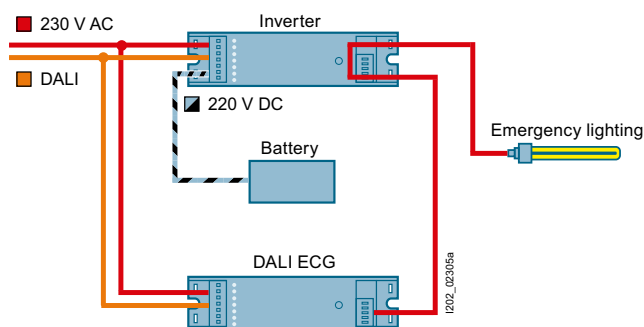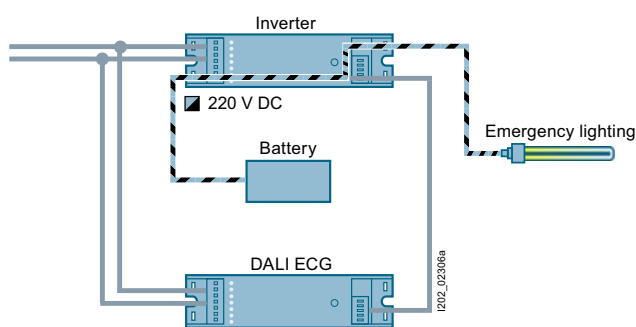
For example

Classic topology
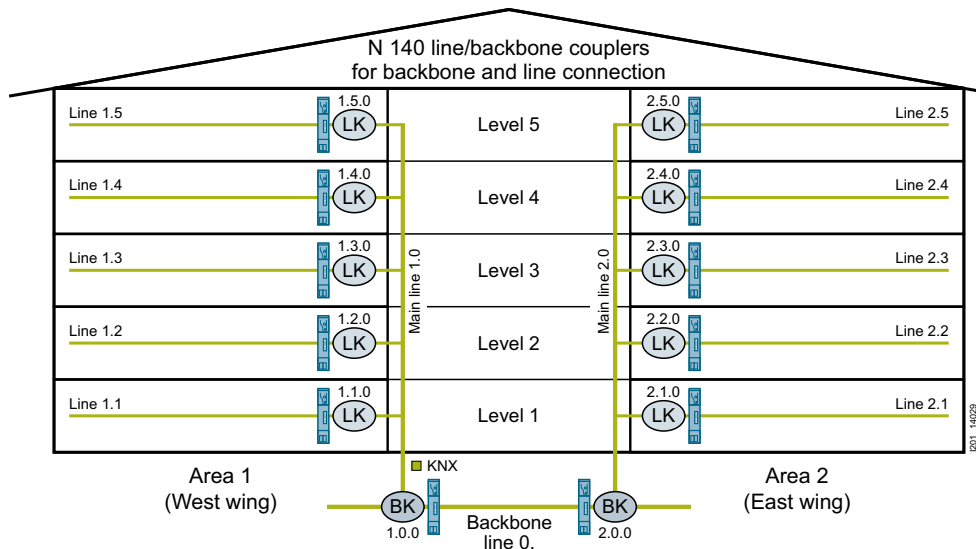
In the classic topology, all the line and backbone couplers are traditionally KNX couplers.

Tried and tested, this topology is widely deployed. The bus cable lengths are generally limited to a single building.

Modern topology
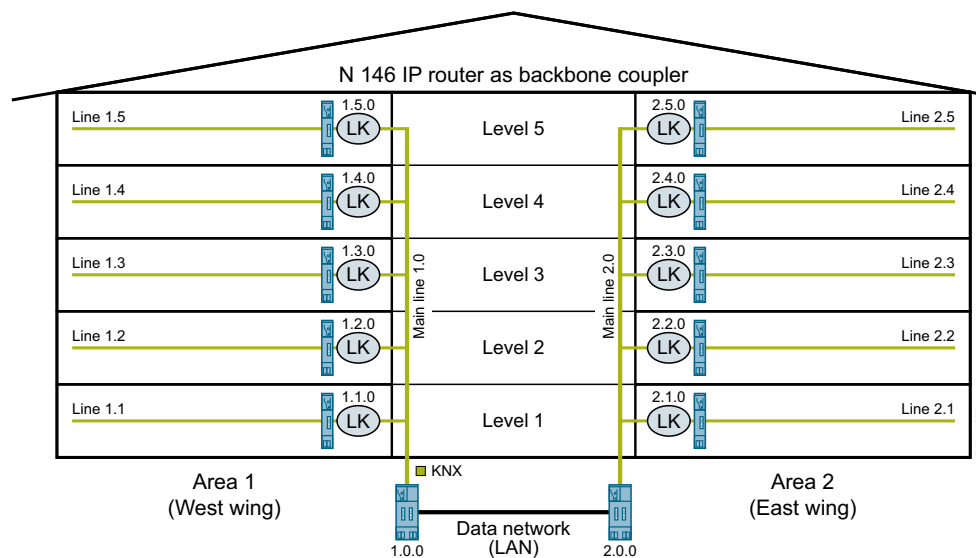
In this modern topology, the backbone couplers are replaced by N146/02 IP routers.

mple), due to the use of standard network components, the linking of 2 building sections is no longer restricted by the lengths of the bus cable.

Other media, such as optical fiber cables or W-LAN, can also be used to couple separate buildings and for the exchange of group address telegrams.

Innovative topology
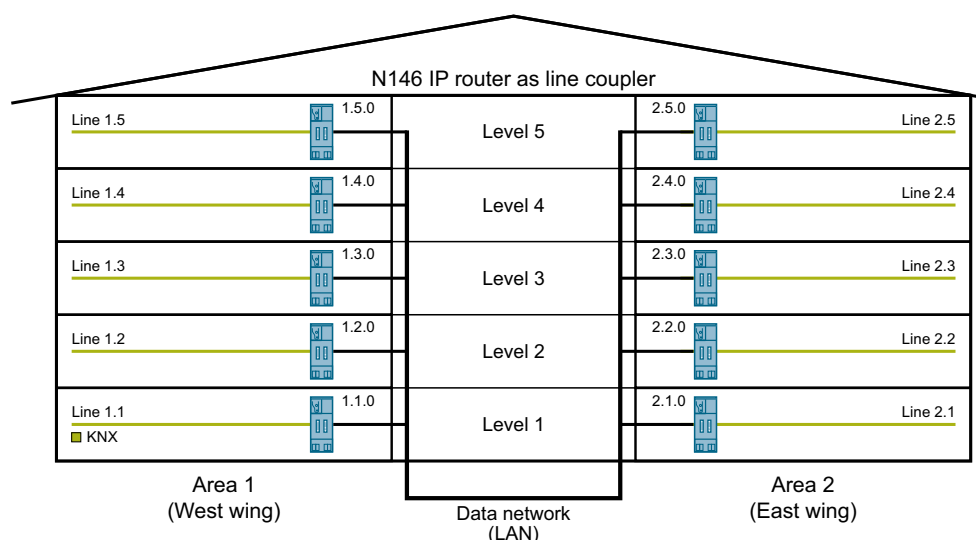
In this innovative topology all line couplers are replaced by N 146/02 IP routers.

Backbone couplers are no longer required. This configuration enables the linking of each individual building level via Ethernet (LAN) and by using existing LAN networks.

Furthermore, the correct configuration of the N 146/02 IP router makes the commissioning of both large projects and smaller individual projects quicker and easier to manage.

An exchange of group address telegrams is still possible even if projects are broken down into individual projects.

14

Bus coupling units and accessories

Type	UP 117/12	UP 114/02	UP 110/03	UP 110/11	UP 116/01 UP 116/21	UP 116/11 UP 116/31	UP 110C03[1]
Enclosure data							
For installation in flush-mounting switch and socket boxes with Ø = 60 mm	▪	▪	▪	▪	▪	▪	▪
For mounting rockers from the DELTA product ranges					▪	▪	
10-pole user interface (UI) for plugging onto a bus terminal		▪	▪	▪			▪
10-pole BTI socket connector (BTI: Bus-Transceiver-Interface) for plugging onto a bus terminal	▪						
Dimensions							
• Width [mm]	71	71	71	71	71	71	69
• Height [mm]	71	71	71	71	71	71	115
• Depth [mm]	18	16	27	19/32	32	32	26
Mounting type							
Claw fixing				▪	▪	▪	
Screw fixing	▪	▪	▪	▪	▪	▪	▪
Display/control elements							
LED for status indication					▪	▪	
LED for orientation light					▪	▪	
Bus connection							
Integrated bus coupling units	▪	▪	▪	▪	▪	▪	▪
Bus connection via bus terminal	▪	▪	▪	▪	▪	▪	▪

[1] Suitable for NEMA wall box, matching DELTA contour frame must be ordered separately, see chapter Display and Operation units - Pushbutton accessories.

Power supply units

Type	N 125/02	N 125/12	N 125/22
Enclosure data			
Modular installation devices for mounting on TH35 EN 60715 mounting rail	▪	▪	▪
Dimensions			
• Width (1 MW = 18 mm)	4 MW	4 MW	4 MW
Bus connection			
Integrated chokes	▪	▪	▪
Bus connection via contact system to data rail	▪	▪	▪
Bus connection via bus terminal	▪	▪	▪
Outputs			
Rated operational voltage			
• V AC	120...230	120...230	120...230
• V DC	220	220	220
50...60 Hz	▪	▪	▪
Output voltage, DC [V]	29	29	29
Output current [mA]	160	320	640
Additional unchoked output for 29 V DC, for powering a second bus line via an external choke (e. g. N 120/02)	▪	▪	▪

14

Type	N 148/22	N 146/02	N 350E01	N 151/01
Enclosure data				
Design	N	N	N	N
Modular installation devices for mounting on TH35 EN 60715 mounting rail	■	■	■	■
Width (1 MW = 18 mm)	2 MW	2 MW	4 MW	4 MW
Display/control elements				
LEDs for indicating that the device is ready-to-run, KNX communication, IP communication	■	■	■	■
LCD			■	
Power supply				
Electronics powered via an external nominal AC/DC power supply unit for 24 V DC	■	■	■	■
Power consumption at 24 V DC [mA]	57	57	60	60
Power supply for the electronics via "Power over Ethernet" according to IEEE 802.3af	■ (0.8 W)	■ (0.8 W)		
Bus connection				
Integrated bus coupling units	■	■	■	■
Bus connection via bus terminal	■	■	■	■
Mains connection				
Ethernet connection via RJ45 socket	■	■	■	■
Plug-in terminal block for the connection of an external power supply unit	■	■	■	
Gateway				
Supports KNXnet/IP	■	■	■	■
line coupler function (Routing)		■		
Interface functions (Tunneling)	4	4	1	1
Interface functions (object server)	1	1	1	1
Integrated real-time clock weekly scheduling program for 100 scheduled entries/ Astro function			■	
Yearly time switching functions			■	
Event entries			200	
Logic gates			30	
Web servers				■

Bus transceiver modules, Mounting depth 18 mm

<div align="right">

UP 117/12
</div>

- For connection of a modular bus device to the bus line
- 10-pole BTI socket (BTI - Bus Transceiver Interface) for plugging of bus terminal devices with BTI connector
- For installation in flush-mounting switch and socket boxes with Ø 60 mm
- Screw fixing
- Bus connection via bus terminal

Dimensions (W x H x D)   71 x 71 x 18 mm

	Stock No.	Product No.
	5WG1117-2AB12	**UP 117/12**

Bus coupling unit, with BCU2, mounting depth 16 mm

<div align="right">

UP 114/02
</div>

- 10-pole user interface (UI) for plugging onto a bus terminal
- BCU2
- For installation in flush-mounting switch and socket boxes with ∅ = 60 mm
- Screw fixing
- Mounting depth 27 mm
- Bus connection via bus terminal

Dimensions (W x H x D)   71 x 71 x 16 mm

	Stock No.	Product No.
	5WG1114-2AB02	**UP 114/02**

Bus coupling unit, with BCU1, mounting depth 27 mm

<div align="right">

UP 110/03
</div>

- 10-pole user interface (UI) for plugging onto a bus terminal
- BCU1
- Reverse voltage protection for switching off the bus coupling unit if the bus cable is incorrectly connected
- For installation in flush-mounting switch and socket boxes with ∅ = 60 mm
- Screw fixing
- Mounting depth 27 mm
- Bus connection via bus terminal

Dimensions (W x H x D)   71 x 71 x 27 mm

	Stock No.	Product No.
	5WG1110-2AB03	**UP 110/03**

14

Bus coupling unit, with BCU1, mounting depth 19/32 mm

<div align="right">

UP 110/11
</div>

- 10-pole user interface (UI) for plugging onto a bus terminal
- BCU1
- Reverse voltage protection for switching off the bus coupling unit if the bus cable is incorrectly connected
- For installation in flush-mounting switch and socket boxes with ∅ = 60 mm
- For screw or claw fixing, mounting depth 19 mm screw fixing and 32 mm claw fixing
- Mounting depth 27 mm
- Bus connection via bus terminal

Dimensions (W x H x D)   71 x 71 x 32 mm

	Stock No.	Product No.
	5WG1110-2AB11	**UP 110/11**

UP 110C03 — BUS coupling unit, mounting depth 27 mm

- 10-pole user interface (UI) for plugging onto a bus terminal
- Suitable for NEMA wall box
- BCU1
- Reverse voltage protection for switching off the bus coupling unit if the bus cable is incorrectly connected
- For installation in flush-mounting switch and socket boxes with ∅ = 60 mm
- Screw fixing
- Bus connection via bus terminal

Dimensions (W x H x D)   69 x 115 x 26 mm

	Stock No.	Product No.
	5WG1110-2CB03	**UP 110C03**

Accessories

Product Title	Stock No.	Product No.
Mounting bracket for UP 110/11	5WG1294-8AB01	**S 294/01**
Paint shield	5WG1196-2AB01	**UP 196/01**
Sealing sets for rockers, IP44, for single or double rockers	5TG4324	**5TG4324**

One set contains four insert seals

UP 116.. — DELTA Bus coupling unit

- For installation in flush-mounting switch and socket boxes with diameter = 60 mm, for Screw fixing and prepared for Claw fixing
- LED per pushbutton pair for status indication or configurable as orientation light
- Mounting of rockers from the DELTA product ranges
- Integrated bus coupling units, bus connection via bus terminal

Dimensions (W x H x D)   71 x 71 x 32 mm

UP 116/01 — DELTA bus coupling unit, single, intermediate position, with 2 LEDs

- One Rocker button, intermediate position (pushbutton with 2 operating points)
- The following functions can be assigned per operating point as required:
- Switching on/off/over
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or stop Long button press, up/down
- Store and call up scene, 1-bit in conjunction with scene module
- Short or long button press (store/call up scene), configurable
- Display of any status objects (1-bit)
- Display of pushbutton objects

The required single or multiple rocker (with or without window) must be ordered separately.

	Stock No.	Product No.
	5WG1116-2AB01	**UP 116/01**

14

DELTA bus coupling unit, single, pushbutton position, with 2 LEDs

UP 116/21

- One Rocker button, pushbutton position (pushbutton with 1 operating point)
- Optional assigned functions Switching on/off/over
- Display of pushbutton objects

The required single or multiple rocker (with or without window) must be ordered separately.

	Stock No.	Product No.
	5WG1116-2AB21	**UP 116/21**

DELTA bus coupling unit, double, intermediate position, with 2 LEDs

UP 116/11

- Two Rocker button, intermediate position (pushbutton with 2 operating points)
- The following functions can be assigned per operating point as required:
- Switching on/off/over
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or stop Long button press, up/down
- Store and call up scene, 1-bit in conjunction with scene module
- Short or long button press (store/call up scene), configurable

The required single or multiple rocker (with or without window) must be ordered separately.

	Stock No.	Product No.
	5WG1116-2AB11	**UP 116/11**

DELTA bus coupling unit, double, pushbutton position, with 2 LEDs

UP 116/31

- Two Rocker button, pushbutton position (pushbutton with 1 operating point)
- The following functions can be assigned per operating point as required:
- Switching on/off/over
- Dimming with stop telegram (4-bit) Short button press, on/off Long button press, brighter/darker
- Dimming with cyclic transmission (4-bit) Short button press, on/off Long button press, brighter/darker
- Shutter/blind control Short button press, slat open/closed or stop Long button press, up/down
- Display of pushbutton objects

The required single or multiple rocker (with or without window) must be ordered separately.

	Stock No.	Product No.
	5WG1116-2AB31	**UP 116/31**

14

Accessories for UP 116..

Product Title	Stock No.	Product No.
Sealing sets for rockers, IP44, for single or double rockers	5TG4324	**5TG4324**

One set contains four insert seals

N 125/..2	**Power supply unit**
	• Integrated chokes
	• Bus connection via bus terminal or contact system to data rail
	• Rated operational voltage 120...230 V AC 50...60 Hz, 220 V DC
	• Output voltage 29 V DC
	• Additional unchoked output for 29 V DC, for powering a second bus line via an external choke (e. g. N 120/02)
	• Modular installation devices for mounting on TH35 EN 60715 mounting rail

Operating voltage	AC 120...230 V
	DC 220 V
Dimension width (1 MW = 18 mm)	4 MW
Bus connection	Integrated choke
	Via bus terminal
	Via data rail

Range overview N 125

Product Title	Stock No.	Product No.
Power supply unit DC 29 V, 160 mA with additional unchoked output, N 125/02	5WG1125-1AB02	**N 125/02**
Power supply unit DC 29 V, 320 mA with additional unchoked output, N 125/12	5WG1125-1AB12	**N 125/12**
Power supply unit DC 29 V, 640 mA with additional unchoked output, N 125/22	5WG1125-1AB22	**N 125/22**

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

N 120/02	**Choke, 640 mA**
	• For operation with a KNX power supply without integrated choke or for connection to the unchoked output of the KNX N 125/x2 power supplies
	• Contact system for data rail
	• Low-voltage terminal for unchoked voltage and bus
	• Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)	2 MW
Bus connection	Integrated choke
	Via bus terminal
	Via data rail

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1120-1AB02	**N 120/02**

14

Line/backbone coupler

N 140/..3

- For data exchange between two KNX bus lines with telegrams of up to 64 byte
- For use as line coupler for connecting a line to the main line or as backbone coupler for connecting a main line to the backbone line or as repeater for connecting two segments of the same line, with electrical isolation of the two bus lines
- Loadable filter table for control of the data exchange between the two bus lines
- Additional loadable filter table for telegrams with LTE addressing
- Detection of a communication fault on the lower-level line and signaling to the higher-level line
- 3 LEDs for display of availability and receipt of a telegram per line
- Power supply from the main line
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Line/backbone coupler for data rail

N 140/03

Bus connection to the line and to the main line via bus terminal

Dimension width (1 MW = 18 mm)	1 MW
Bus connection	Via bus terminal
	Via data rail

The data rail must be ordered separately. See chapter System Products and Accessories - data rails.

	Stock No.	Product No.
	5WG1140-1AB03	**N 140/03**

Line/backbone coupler

N 140/13

With bus connection to the line via contact system for data rail and to the main line via bus terminal

| Dimension width (1 MW = 18 mm) | 2 MW |
| Bus connection | Via bus terminal |

	Stock No.	Product No.
	5WG1140-1AB13	**N 140/13**

IP router

N 146/02

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Power consumption at 24 V DC 57 mA
- Power supply for the electronics via "Power over Ethernet" according to IEEE 802.3af
- Integrated bus coupling units
- Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- Line coupler function (Routing)
- 4 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

| Dimension width (1 MW = 18 mm) | 2 MW |

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1146-1AB02	**N 146/02**

14

N 148/22	**IP interface**

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Power consumption at 24 V DC, 57 mA
- Power supply for the electronics via "Power over Ethernet" according to IEEE 802.3af
- Integrated bus coupling units, Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- 4 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   2 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1148-1AB22	**N 148/22**

N 146/02	**IP router**

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Power consumption at 24 V DC 57 mA
- Power supply for the electronics via "Power over Ethernet" according to IEEE 802.3af
- Integrated bus coupling units
- Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- Line coupler function (Routing)
- 4 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   2 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

14

	Stock No.	Product No.
	5WG1146-1AB02	**N 146/02**

IP controller

N 350E01

- LEDs for indicating that the device is ready-to-run, KNX communication, IP communication
- LC-Display
- Electronics powered via an external nominal 24 V AC/DC power supply unit
- Integrated bus coupling units
- Bus connection via bus terminal
- Ethernet connection via RJ45 socket
- Plug-in terminal block for the connection of an external power supply unit
- Supports KNXnet/IP
- 1 Interface functions (Tunneling)
- 1 Interface functions (object server)
- Integrated real-time clock weekly scheduling program for 100 scheduled entries/Astro function
- Yearly time switching functions
- 200 Event entries
- 30 Logic gates
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1350-1EB01	**N 350E01**

IP viewer

N 151/01

Interface converter between a KNX and an IP network, with the following simultaneously executable functions:
- As a WebServer for monitoring and control of up to 40 states and values transmitted via the KNX network, which can be displayed on up to 5 image pages of a PC connected to the IP network using Internet Explorer 6.0, 7.0, 8.0 or Firefox 3.0 (for other browsers, see documentation at www.siemens.com/gamma-td)
- For the parameterization of a KNX system using ETS3.0f/ETS4
- For communication between the KNX network and a ComBridge Studio visualization software
- Special WEB page for the multilanguage adaptation of the presentation of an image page and a special WEB page for firmware upgrades
- Ethernet interface for connection to the IP network using the Internet Protocol
- RJ45 socket for connection to Ethernet 10 Mbits/s
- 2 LED displays for indication of ready-to-run state and for IP communication
- Integrated bus coupling units
- KNX bus connection via bus terminal
- Electronics powered via an external 24 V AC/DC power supply unit
- Connection of external power supply unit via an extra-lowvoltage terminal
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   4 MW

The external 24 V AC/DC power supply unit must be ordered separately (e. g. 4AC2402).

	Stock No.	Product No.
	5WG1151-1AB01	**N 151/01**

Accessories for IP line and IP backbone couplers

Product Title	Stock No.	Product No.
Electronic power supply units	4AC2402	**4AC2402**

14

S 192/01	**Cover strip, for mounting rails, length 242 mm**

- For covering free data rail segments (in accordance with the SELV regulations for safety extra-low voltage)
- For snapping onto standard mounting rails, separable, RAL 7035
- Length 13.5 MW (1 MW = 18 mm)

Dimension width (1 MW = 18 mm)   13.5 MW

	Stock No.	Product No.
	5WG1192-8AA01	**S 192/01**

S 193/01	**Bus terminal, 2-pole, 4 plug-in connectors, red/dark gray**

- For connection of bus devices to the bus cable
- For connection of up to 4 bus cables
- Comprising two engaged clamp parts + (red) and - (dark gray), each with 4 screwless plug-in terminals per clamp part for solid conductors, $\varnothing$ 0.6 mm...0.8 mm

Dimension width (1 MW = 18 mm)

	Stock No.	Product No.
	5WG1193-8AB01	**S 193/01**

S 190/01	**Overvoltage protection, as fine protection for bus devices**

- For the overvoltage fine protection of bus devices
- For inserting in a bus device instead of a 193 bus terminal or for direct connection to a bus terminal
- For surge protection through connection of the yellow/green ground conductor to the next grounding point
- 2 socket contacts (1 mm $\varnothing$) for insertion in bus devices
- 2 solid wires (0.8 mm $\varnothing$) for connection to the bus terminal
- A solid wire (0.75 mm2) for surge protection
- Rated voltage 24 V DC
- Rated current 6 A
- Rated discharge surge current 5 kA
- Protection level 350 V

Dimensions (W x H x D)   11.6 x 10.5 x 11.1 mm

	Stock No.	Product No.
	5WG1190-8AD01	**S 190/01**

14

Data rail without connector for TH35-7.5 standard mounting rail, flat

190/..1

- For sticking (self-adhesive) in an EN 60715, TH35-7.5 flat standard mounting rail
- For interconnecting modular installation devices via their contact system

Range overview 190/..1

Product Title	Dimension width (1 MW = 18 mm)	Stock No.	Product No.
Data rail without connector, for TH35-7.5 mounting rail flat, length 214 mm, (for max. 12 MW)	12 MW	5WG1190-8AB01	**190/01**
Data rail without connector, for TH35-7.5 mounting rail flat, length 243 mm, (for max. 13 MW)	13 MW	5WG1190-8AB11	**190/11**
Data rail without connector, for TH35-7.5 mounting rail flat, length 277 mm, (for max. 15 MW)	15 MW	5WG1190-8AB21	**190/21**
Data rail without connector, for TH35-7.5 mounting rail flat, length 324 mm, (for max. 18 MW)	18 MW	5WG1190-8AB31	**190/31**
Data rail without connector, for TH35-7.5 mounting rail flat, length 428 mm, (for max. 24 MW)	24 MW	5WG1190-8AB41	**190/41**
Data rail without connector, for TH35-7.5 mounting rail flat, length 464 mm, (for max. 26 MW)	26 MW	5WG1190-8AB51	**190/51**

14

190/..2   **Data rail with connector for TH35-7.5 standard mounting rail, flat**

- For sticking (self-adhesive) in an EN 60715, TH35-7.5 flat standard mounting rail
- 2 bus terminals (red/dark gray) for bus voltage
- 2 low-voltage terminals (white/yellow) for unchoked voltage
- For interconnecting modular installation devices via their contact system
- For connecting data rails to each other and to a bus cable

Range overview 190/..2

Product Title	Dimension width (1 MW = 18 mm)	Stock No.	Product No.
Data rail with connector, for TH35-7.5 mounting rail flat, length 214 mm, (for max. 11 MW)	11 MW	5WG1190-8AB02	**190/02**
Data rail with connector, for TH35-7.5 mounting rail flat, length 243 mm, (for max. 12 MW)	12 MW	5WG1190-8AB12	**190/12**
Data rail with connector, for TH35-7.5 mounting rail flat, length 277 mm, (for max. 13 MW)	13 MW	5WG1190-8AB22	**190/22**
Data rail with connector, for TH35-7.5 mounting rail flat, length 324 mm, (for max. 17 MW)	17 MW	5WG1190-8AB32	**190/32**
Data rail with connector, for TH35-7.5 mounting rail flat, length 428 mm, (for max. 23 MW)	23 MW	5WG1190-8AB42	**190/42**
Data rail with connector, for TH35-7.5 mounting rail flat, length 464 mm, (for max. 25 MW)	25 MW	5WG1190-8AB52	**190/52**

14

Data rail without connector for TH35-15 standard mounting rail, deep 190/..3

- For sticking (self-adhesive) in an EN 60715, TH35-15 deep standard mounting rail, mounting rail size 24 mm
- For interconnecting modular installation devices via their contact system

Range overview 190/..3

Product Title	Dimension width (1 MW = 18 mm)	Stock No.	Product No.
Data rail without connector, for TH35-15 mounting rail deep, length 214 mm, (for max. 12 MW)	12 MW	5WG1190-8AB03	**190/03**
Data rail without connector, for TH35-15 mounting rail deep, length 243 mm, (for max. 13 MW)	13 MW	5WG1190-8AB13	**190/13**
Data rail without connector, for TH35-15 mounting rail deep, length 277 mm, (for max. 15 MW)	15 MW	5WG1190-8AB23	**190/23**
Data rail without connector, for TH35-15 mounting rail deep, length 324 mm, (for max. 18 MW)	18 MW	5WG1190-8AB33	**190/33**
Data rail without connector, for TH35-15 mounting rail deep, length 428 mm, (for max. 24 MW)	24 MW	5WG1190-8AB43	**190/43**
Data rail without connector, for TH35-15 mounting rail deep, length 464 mm, (for max. 26 MW)	26 MW	5WG1190-8AB53	**190/53**

14

190/..4	**Data rail with connector for TH35-15 standard mounting rail, deep**

- For sticking (self-adhesive) in an EN 60715, TH35-15 deep standard mounting rail, mounting rail size 24 mm
- 2 bus terminals (red/dark gray) for bus voltage
- 2 low-voltage terminals (white/yellow) for unchoked voltage
- For interconnecting modular installation devices via their contact system
- For connecting data rails to each other and to a bus cable

Range overview 190/..4

Product Title	Dimension width (1 MW = 18 mm)	Stock No.	Product No.
Data rail with connector, for TH35-15 mounting rail deep, length 214 mm	11 MW	5WG1190-8AB04	**190/04**
Data rail with connector, for TH35-15 mounting rail deep, length 243 mm	12 MW	5WG1190-8AB14	**190/14**
Data rail with connector, for TH35-15 mounting rail deep, length 277 mm	13 MW	5WG1190-8AB24	**190/24**
Data rail with connector, for TH35-15 mounting rail deep, length 324 mm	17 MW	5WG1190-8AB34	**190/34**
Data rail with connector, for TH35-15 mounting rail deep, length 428 mm	23 MW	5WG1190-8AB44	**190/44**
Data rail with connector, for TH35-15 mounting rail deep, length 464 mm	25 MW	5WG1190-8AB54	**190/54**

14

Counters

15

7KT PAC KNX expansion modules for connecting PAC1500 counters to KNX

<div align="right">7KT1900</div>

The 7KT1 900 KNX communication module can be parameterized upwards of ETS 3.0 and provides the following values via communication objects:
- Active power (phase 1, 2, 3 and sum)
- Reactive power (phase 1, 2, 3 and sum)
- Can be retrofitted to already installed E-counters
- Data transmission between the counters and the expansion modules is implemented via the IrDA infrared interface
- Status indication by LED on the module
- Bus-powered electronics
- Integrated bus coupling units
- Bus connection via bus terminal

Dimension width (1 MW = 18 mm)   1 WM

	Stock No.	Product No.
	7KT1900	**7KT1900**

7KT PAC1500 single-phase counters

<div align="right">7KT153..</div>

- Compliant with the new counter standard EN 50470 (Part 1 and 3)
- Easy-to-read LCD display
- Versions calibrated in accordance with the new Measuring Instruments Directive 2004/22/EC (MID) can be used for invoicing purposes
- Exact recording thanks to accuracy class 1 (for active energy).
- Rated control supply voltage Un = 230 V AC
- Voltage range 184 ... 276 V
- Rated frequency fn 50 Hz
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   2 MW

Range overview 7KT153..

Product Title	Stock No.	Product No.
7KT PAC1500 single-phase counters for direct connection, 80 A, double rate	7KT1531	**7KT1531**
7KT PAC1500 single-phase counters for direct connection, 80 A, double rate, calibrated version	7KT1533	**7KT1533**

15

7KT154..	**7KT PAC1500 three-phase counters**
	• Compliant with the new counter standard EN 50470 (Part 1 and 3)
	• Easy-to-read LCD display
	• Versions calibrated in accordance with the new Measuring Instruments Directive 2004/22/EC (MID) can be used for invoicing purposes
	• Exact recording thanks to accuracy class 1 (for active energy).
	• Rated control supply voltage Un = 230 V AC
	• Voltage range 184 … 276 V
	• Rated frequency fn 50 Hz
	• Modular installation devices for mounting on TH35 EN 60715 mounting rail

Range overview 7KT154..

Product Title	Dimension width (1 MW = 18 mm)	Stock No.	Product No.
7KT PAC1500 three-phase counters for direct connection, 80 A, double rate	4 MW	7KT1543	**7KT1543**
7KT PAC1500 three-phase counters for direct connection, 80 A, double rate, calibrated version	4 MW	7KT1545	**7KT1545**
7KT PAC1500 three-phase counters for transformer connection, 5 A, double rate	4 MW	7KT1540	**7KT1540**
7KT PAC1500 three-phase counters for transformer connection, 5 A, double rate, calibrated version	4 MW	7KT1542	**7KT1542**
7KT PAC1500 three-phase counters for direct connection, 125 A, double rate	4 MW	7KT1546	**7KT1546**
7KT PAC1500 three-phase counters for direct connection, 125 A, double rate, calibrated version	4 MW	7KT1548	**7KT1548**

15

Radio System KNX RF – GAMMA wave / Synco living

16

Radio system KNX RF - GAAMA wave / Synco living
Overview and selection guides
GAMMA wave und Synco living in combination

1 **Central apartment unit**
The heart and brain of the system. From here you can control all different functions for up to 12 rooms quickly and easily and monitor them via the display.

2 **Room unit / room temperature sensor**
The room unit measures the room temperature and allows the settings entered into the central apartment unit, such as temperature and operating parameters, to be adjusted for individual rooms. The comfort settings can be extended at the push of a button.

The room temperature sensor measures the room temperature and communicates this by radio to the central apartment unit.

3 **Radiator control actuator**
Receives the pre-set desired temperature for this room by radio signal from the central apartment unit and regulates room temperature by adjusting the radiator valve.
It can also be regulate up to 5 additional radiators per room, thereby ensuring an even temperature between radiators.

4 **Heating circuit controller / multi-controller / consumption data interface**
Compares the actual values and setpoints for each room communicated to the central apartment unit via RF and regulates the temperature by adjusting the valve settings of the heat distributer.

For precontrol of up to 2 independent hydraulic room groups (e.g. radiators, floor heating) or control of ventilation plant with up to 3 stages.

The consumption data interface collects consumption meter data of heat/cool, electicity, water and gas

5 **Web server**
Connects the home automation system to the internet, allowing you to access and operate the system from a remote location and remotely read the consumption data and smart phone App.

6 **Socket outlet switches**
For remote control of electrical appliances. Operated via central apartment unit, a handheld remote control unit or external button, all via KNX RF.

7 **Weather sensor**
Acquires the outside temperature and atmospheric pressure and communicates this via RF to the central apartment unit.

8 **Lighting and blind control**
Wireless and therefore convenient control of lighting and blinds − centrally, locally in the room, or as a scene.

Naturally, the components can also be operated automatically, e.g. via time programs or simulation of presence.

9 **Door/window contact**
Monitors the status of windows, doors and gates and transmits the relevant data to the central apartment unit.

In the case of deviations from the norm, the system can alert you in a variety of ways, increases comfort.

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16

More information about Synco living see www.siemens.com/syncoliving

Radio system KNX RF GAMMA wave / Synco living
Overview and selection guides
GAMMA wave and Synco living in combination

Enjoy all the advantages of a modern building management system without the need for additional cable installation the GAMMA wave radio system makes it possible. Sensors, actuators, etc, do not require any additional cable installation. This means that this type of radio transmission is particularly suitable for renovation work, the expansion of existing systems and all types of new installations. And all complete with absolutely failsafe and problem-free transmission.

Furthermore:
GAMMA wave is a unique bi-directional radio system – this means that the products and components can be both transmitter and receiver.
And:
GAMMA wave is based on the uniform standard for building management systems KNX in the 868.3 MHz range.

Synco living – Saving energy with attractive home automation

The home automation system Synco™ living enables ultra-convenient and demand-oriented adjustment and control of heating, ventilation and air-conditioning systems, as well as lighting, shutter/blinds and much, much more. This can save up to 30 % in heating energy, as well as reduce the CO_2 emissions of your home. With Synco living, you can achieve energy efficiency class A acc. to EN 15232.
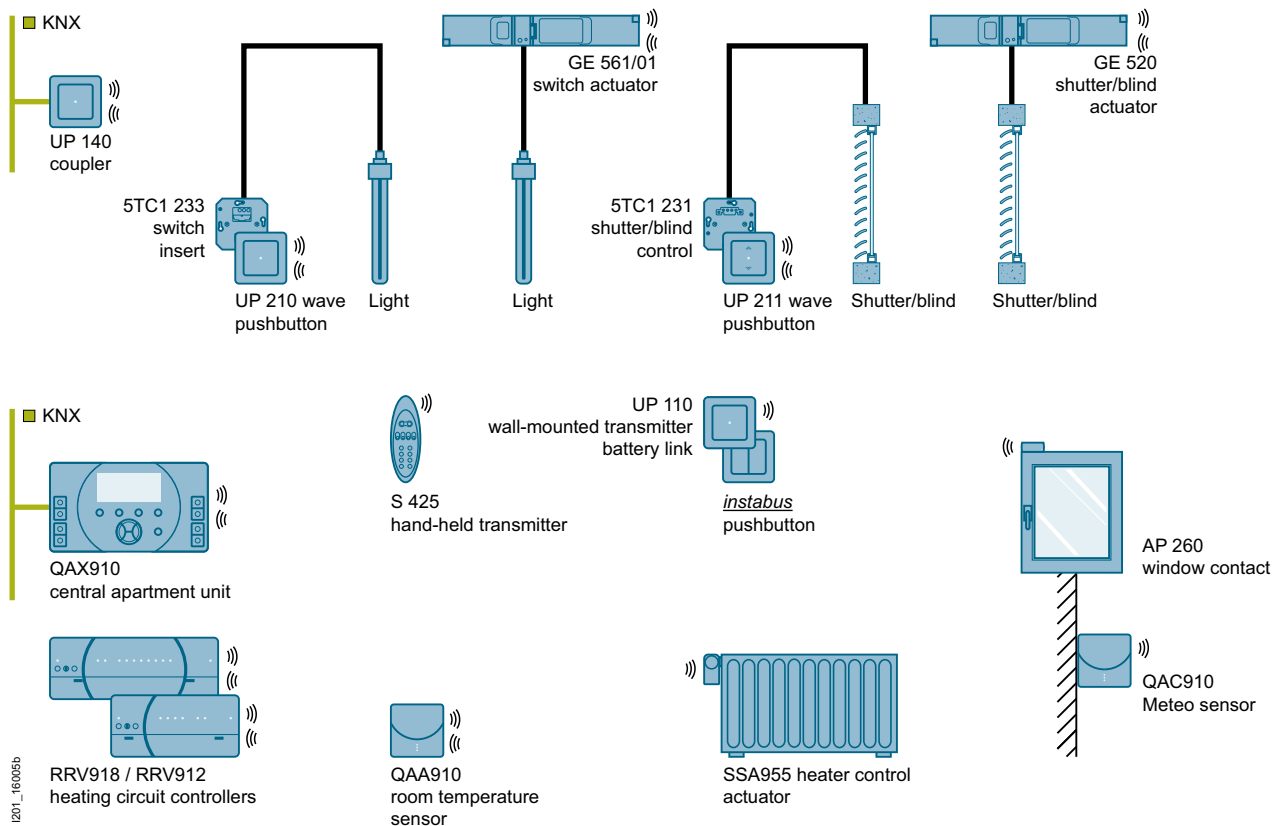
The equipment range's pioneering technology makes it ideal for the renovation or conversion of room control functions in existing buildings.

These products offer simple installation and commissioning, thus enabling the wireless remote control of switching, dimming and shutter/blind/scene functions.

The system operates in the 868.3 MHz fail-safe frequency band that is reserved for safety and system applications. A sensor can control an unlimited number of actuators within its range (e. g. closed residential unit).

As well as wave pushbuttons for lighting control and wave shutter/blind pushbuttons for shutter/blind control, the range includes numerous wall-mounted transmitters, hand-held transmitters, door/window contacts and smoke detectors.

The wave pushbuttons and wave shutter/blind pushbuttons must be used in combination with universal dimmer sys inserts, switch sys inserts or shutter/blind control sys inserts. This enables the local operation and remote control of the inserts contained in these product lines, as well as the remote control of additional KNX RF universal dimmers or switching or sys shutter/blind control inserts.
The _instabus_ pushbuttons (single or double) must be plugged into the wave wall-mounted transmitters as an operator interface. In accordance with their intended purpose, pushbutton rockers enable the remote control of universal dimmer sys inserts, switch sys inserts or shutter/blind control sys inserts, which are equipped with wave pushbuttons or wave shutter/blind pushbuttons.

The device contact units are fitted with fixing claws and have a maximum mounting depth of 32 mm. This greatly facilitates mounting standard flush-mounting switch boxes.

16

Radio system KNX RF - GAMMA wave / Synco living
Overview and selection guides
Installation with GAMMA wave

GAMMA wave flush-mounting combinations

Operator interfaces	sys pushbut-tons[1]	UP 210 wave pushbutton	sys shutter/blind pushbuttons[1]	UP 211 wave shutter/blind pushbutton	*instabus* push-buttons, single, double
Device inserts					
Universal dimmer sys inserts	■	■			
sys switching inserts	■	■			
Shutter/blind control sys inserts			■	■	
UP 110 wall-mounted transmitters "Batterie" wave					■
UP 110 wall-mounted transmitters 230 V wave					■
UP 560 wall-mounted transmitters "Aktor" 230 V wave					■

[1] See Chapter DELTA Control and Regulation Devices Switching/Pushbutton control/ Dimming / Shutter/blind controls.

Previously

Lighting and shutter/blind control of a conventional installation

Example of a conventional installation with lighting and electrically operated shutters/blinds.
• Light (C) can only be switched with switch (A)
• Light (D) can only be switched with switch (B)
• Shutter/blind (E) can only be moved with switch (G)
• Shutter/blind (F) can only be moved with switch (H)

Disadvantages

• Inflexible
• No convenience (each light must be switched individually)
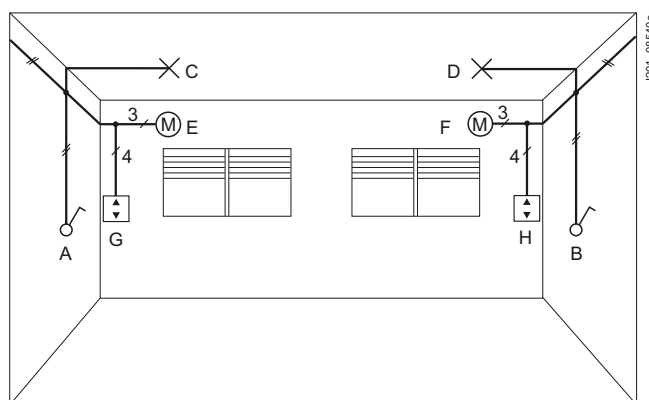
Now

Lighting and shutter/blind control with GAMMA wave ("bi-directional" radio system)

Modification of the installation for shared operation of lighting and shutters/blinds from various operating points.
Replacement of conventional switch inserts (A, B) with
• Universal dimmer sys inserts
• DELTA UP 210 wave pushbuttons

Replacement of conventional shutter/blind switches (G, H) with
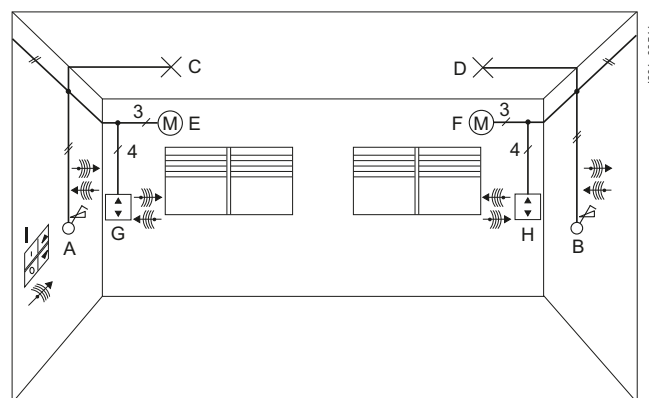• Shutter/blind control sys inserts
• DELTA UP 211 wave shutter/blind pushbuttons

With this switch you can:
• Dim lights C and D from A and/or B
• Operate shutters/blinds E and F from G and/or H

For additional operation of the lights and shutters/blinds
• A UP 110 wall-mounted transmitter "Batterie" wave (I) with mounted double *instabus* pushbutton must be installed

Advantages

• Flexible
• Greater operational ease
• Supports group formation
• Few devices required/lower costs
• Simple and clean retrofitting – no structural alterations required

16

Radio system KNX RF - GAMMA wave / Synco living
Overview and selection guides
Synco living

HVAC products - low energy consumption thanks to efficient products

A wide range of HVAC products - optimally coordinated

The Siemens HVAC product range offers a comprehensive assortment of products for every kind of application. The components are optimally coordinated with each other. You benefit not only from minimal installation and running costs, but also from the fact that all our products are extremely failsafe.

Intelligent convenience - for both indoor environment and operation

Easy-to-use components that offer maximum convenience. Adjust your living environment intuitively, quickly and accurately to your needs - no tedious learning curve.

Commissioning software tools

Synco products are commissioned using the software tool ACS. Synco devices use LTE, a protocol specifically for Synco devices. Communication is also implemented via the KNX bus cable. Synco devices can be operated together with GAMMA _instabus_ devices using the same KNX bus cable. If you also want to send data between the GAMMA _instabus_ (KNX S-mode) and the Synco devices, the data exchange for both product groups is configured using ETS.

A wealth of experience, high quality standards and simple handling

Siemens has now been promoting HVAC control technology for more than 60 years. In this time, it has acquired broad application expertise and skills in this specialist field. As a result, and thanks to a rigorous quality management system, Siemens HVAC products offer the highest quality, efficiency and reliability. They also reflect an in-depth knowledge of the HVAC market, building automation and their processes: furthermore, the components are particularly simple to install, commission and maintain.

For further information on
ACS: www.siemens.com/synco
ETS: www.knx.org

16

Radio System – GAMMA wave / Synco living KNX-RF
Display and operation units
Pushbuttons

Pushbutton wave, single, i-system

UP 210H

Dimensions (W x H x D)   55 x 55 x 13 mm

Range overview UP 210H

Product Title	Stock No.	Product No.
Pushbutton wave, DELTA i-system, titanium white	5WG3210-2HB11	**UP 210H11**
Pushbutton wave, DELTA i-system, aluminum metallic	5WG3210-2HB31	**UP 210H31**

The matching design frame must be ordered separately. See chapter Radio System - GAMMA wave / Synco living KNX RF.
The sys switching insert and universal dimmer sys inserts must be ordered separately.

Pushbutton wave, single, shutter/blind, i-system

UP 211H

Dimensions (W x H x D)   55 x 55 x 13 mm

Range overview UP 211H

Product Title	Stock No.	Product No.
Pushbutton wave shutter, DELTA i-system, titanium white	5WG3211-2HB11	**UP 211H11**
Pushbutton wave shutter, DELTA i-system, aluminum metallic	5WG3211-2HB31	**UP 211H31**

The matching design frame must be ordered separately. See chapter Radio System - GAMMA wave / Synco living KNX RF.
The sys switching insert and universal dimmer sys inserts must be ordered separately.

16

Display and operation units
Pushbuttons

UP 221/1

Pushbutton, single, neutral, i-system

Pushbutton with one pair, horizontal operation and per pushbutton selectable function toggle.

Dimensions (W x H x D)	55 x 55 x 11 mm

Range overview UP 221/1

Product Title	Stock No.	Product No.
Pushbutton, single, neutral, titanium white	5WG1221-2AB11	**UP 221/11**
Pushbutton, single, neutral, aluminum metallic	5WG1221-2AB31	**UP 221/31**

The matching design frame must be ordered separately.
The required bus coupling unit (BCU1/2) must be ordered separately.

UP 222/1

Pushbutton, double, neutral, i-system

Pushbutton with two pairs, horizontal operation and per pushbutton selectable function toggle.

Dimensions (W x H x D)	55 x 55 x 11 mm

Range overview UP 222/1

Product Title	Stock No.	Product No.
Pushbutton, double, neutral, titanium white	5WG1222-2AB11	**UP 222/11**
Pushbutton, double, neutral, aluminum metallic	5WG1222-2AB31	**UP 222/31**

The matching design frame must be ordered separately.
The required bus coupling unit (BCU1/2) must be ordered separately.

16

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2014

Radio System – GAMMA wave / Synco living KNX-RF
Display and operation units
Pushbuttons

Pushbutton wave, single, DELTA style   UP 210G..

Dimensions (W x H x D)   68 x 68 x 16.5 mm

Range overview UP 210G..

Product Title	Stock No.	Product No.
UP 210 pushbutton wave, titanium white	5WG3210-2GB11	**UP 210G11**
UP 210 pushbutton wave, platinum metallic	5WG3210-2GB41	**UP 210G41**

The matching design frame must be ordered separately.
The required bus coupling unit (BCU1/2) must be ordered separately.

Pushbutton wave, single, DELTA style   UP 211G

Dimensions (W x H x D)   68 x 68 x 16.5 mm

Range overview UP211G

Product Title	Stock No.	Product No.
Pushbutton wave shutter, titanium white	5WG3211-2GB11	**UP 211G11**
UP 211 pushbutton wave shutter, platinum metallic	5WG3211-2GB41	**UP 211G41**

The matching design frame must be ordered separately.
The required bus coupling unit (BCU1/2) must be ordered separately.

16

Radio System – GAMMA wave / Synco living KNX-RF
Display and operation units
Pushbuttons

| UP 285.. | **Pushbutton, single, neutral, DELTA style** |

Pushbutton with one pair, vertical operation and per pushbutton selectable function toggle.

Dimensions (W x H x D)   68 x 68 x 14 mm

Range overview UP 285..

Product Title	Stock No.	Product No.
Pushbutton, single, neutral, titanium white	5WG1285-2AB11	**UP 285/11**
Pushbutton, single, neutral, platinmetallic	5WG1285-2AB41	**UP 285/41**

The matching design frame must be ordered separately.
The required bus coupling unit (BCU1/2) must be ordered separately.

| UP 286.. | **Pushbutton, double, neutral, DELTA style** |

Pushbutton with two pairs, vertical operation and per pushbutton selectable function toggle.

Dimensions (W x H x D)   68 x 68 x 14 mm

Range overview UP 286..

Product Title	Stock No.	Product No.
Pushbutton, double, neutral, titanium white	5WG1286-2AB11	**UP 286/11**
Pushbutton, double, neutral, platinmetallic	5WG1286-2AB41	**UP 286/41**

The matching design frame must be ordered separately.
The required bus coupling unit (BCU1/2) must be ordered separately.

| 5TG.. | **Blanking cover plate** |

Range overview 5TG..

Product Title	Dimensions (W x H)	Stock No.	Product No.
Blanking cover plate, titanium white	55 x 55 mm	5TG2558	**5TG2558**
Blanking cover plate, aluminum metallic	55 x 55 mm	5TG1250	**5TG1250**
Blanking cover plate, titanium white	68 x 68 mm	5TG1330	**5TG1330**

16

Radio System – GAMMA wave / Synco living KNX-RF
Display and operation units
Remote controls

KNX RF remote handheld transmitter   S 425..

- 4 preselection pushbuttons and 4 pushbutton pairs for wireless operation of 16 different room functions
- Separate pushbutton pair for a central function (e. g. central on/off)
- Configurable function per pushbutton pair: switch, switch and dim, shutter/blind control, store and call up scenes
- Radio transmitter: 868.3 MHz
- The 2 batteries of type LR03/AAA (1.5 V) required for operation are included in delivery

Dimensions (W x H x D)   55 x 154 x 24 mm

Range overview S 425..

Product Title	Stock No.	Product No.
Hand-held transmitter wave, black, with 17 channels	5WG3425-7AB21	**S 425/21**
Hand-held transmitter wave, silver, with 17 channels	5WG3425-7AB71	**S 425/71**

The 2 batteries of type LR03/AAA (1.5 V) required for operation are included in delivery.

16

Radio System – GAMMA wave / Synco living KNX-RF
Output devices
Binary output devices

5TC123..

Dimensions (W x H x D)   71 x 71 x 32 mm

Range overview 5TC123..

Product Title	Stock No.	Product No.
Switch insert sys, flush mounting, Rated operational power 25...250 VA	5TC1232	**5TC1232**
Switch insert sys, flush mounting, Rated operational power 15...500 VA	5TC1233	**5TC1233**

The instabus pushbuttons must be ordered separately. See chapter Radio System - GAMMA wave / Synco living KNX RF.

UP 560/01

Transmitter actuator 230 V wave

- For the wireless operation of up to 2 different room functions and for the control of actuators via KNX-RF
- 10-pole plug-in connector for plugging in an instabus pushbutton, single or double, as operator interface
- Adjustable function; switching, switching and dimming, shutter/blind control and scene control
- Short and long button press for on/off, brighter/darker for dimming or up/down and adjustment of slats for shutter/blind control
- Storage and call up of up to four scenes
- With integrated switch actuator with relay contact, rated for 230 V AC, 6 A (resistive load), with option for setting whether load should be permanently switched on or off (normal mode) or whether actuator should operate in timer mode with an adjustable on period of 1, 5 or 15 minutes
- KNX-RF transmitter/receiver for 868.3 MHz
- Electronics powered via 230 V AC
- Commissioning using six DIL switches located on the front panel – no additional aids required
- For mounting in an installation box (Ø 60 mm, depth: 40 mm) with screw or claw fixing

Dimensions (W x H x D)   71 x 71 x 32 mm

	Stock No.	Product No.
	5WG3560-2AB01	**UP 560/01**

The instabus pushbuttons must be ordered separately. See chapter Radio System - GAMMA wave / Synco living KNX RF.

16

Radio System – GAMMA wave / Synco living KNX-RF
Output devices
Switch actuators and Socket outlet switches

Switch actuator wave 2x AC 230 V, 16 A
GE 561/01

- 2 x 230 V AC, 16 A
- KNX-RF transmitter/receiver for 868.3 MHz
- One relay contact per output
- Contact rated operational voltage, 230 V AC
- Rated current 16 A at p.f. = 1
- With option for setting whether load should be permanently switched on or off (normal mode) or whether actuator should operate in timer mode with an adjustable on period of 1...60 minutes
- Electronics powered via 230 V AC
- Commissioning using a pushbutton located on the top – no additional aids required
- Modular installation device

Dimensions (W x H x D)   274.5 x 42 x 32 mm

	Stock No.	Product No.
	5WG3561-4AB01	**GE 561/01**

Switch actuator wave 2 x AC 230 V, 16 A, with converter EnOcean
GE 561/11

- KNX-RF transmitter/receiver for 868.3 MHz
- Converter of EnOcean radio to KNX-RF for the control of KNX radio actuators over EnOcean radio pushbuttons
- Control of internal actuator channels via KNX and/or EnOcean radio pushbuttons
- One relay contact per output
- Contact rated operational voltage, 230 V AC
- Rated current 16 A at p.f. = 1
- With option for setting whether load should be permanently switched on or off (normal mode) or whether actuator should operate in timer mode with an adjustable on period of 1...60 minutes
- Electronics powered via 230 V AC
- Commissioning using a pushbutton located on the top – no additional aids required
- Modular installation device

Dimensions (W x H x D)   274.5 x 42 x 32 mm

	Stock No.	Product No.
	5WG3561-4AB11	**GE 561/11**

For more products, see Chapter Radio system – EnOcean.

Outlet switch wave
S 564/11

- For plugging into a grounding contact socket outlet
- Switchable SCHUKO socket outlet integrated in the intermediate connector
- Integrated actuator for on/off switching of SCHUKO socket outlet, relay contact rated for 230 V AC, 16 A (resistive load)
- Can also be controlled via up to 10 KNX sensors and be integrated into up to 16 KNX scenes
- Pushbutton for local operation and commissioning – no additional aids required
- LED to indicate the operation/switching state
- KNX-RF transmitter/receiver 868.3 MHz
- Powered over socket outlet
- Titanium white

Dimensions (W x H x D)   72 x 128 x 74 mm

	Stock No.	Product No.
	5WG3564-7AB11	**S 564/11**

16

Radio System – **GAMMA wave / Synco living KNX-RF**
Input devices
Binary input devices

AP 261/11	**Binary input wave, with battery, titanium white**

- For detecting the state of an external contact connected to the sensor and transmission of the state as on/off information to an actuator with KNX radio communication
- Additional reed contact integrated in the device, activated through the solenoid included in delivery, and electrically connected in series to the external contact
- 4 plug-in terminals for wire cross-sections of 0.14 ... 0.5 mm2 (solid or finely stranded) for connection of the external contact and to allow a wire jumper to be used to set, whether monitoring is to cover internal contact only, external contact only, or both contacts
- KNX-RF transmitter for 868.3 MHz
- Electronics powered by a lithium battery (1/2 AA 3.6 V), with a battery service life of approx. 5 years, with signaling of battery status every 24 hours, and with an LED that flashes every 10 seconds to indicate that the battery needs replacing
- Commissioning using a pushbutton located on the front of the sensor – no additional aids required
- Comprising one mounting plate for screw or adhesive fastening, clip-on radio sensor with integrated reed contact and trigger solenoid
- Titanium white

Dimensions (W x H x D)   87 x 36 x 27 mm

	Stock No.	Product No.
	5WG3261-3AB11	**AP 261/11**

Battery included in delivery.

16

Lighting

Universal dimmer insert sys, flush mounting

5TC1230

- For switching and dimming different electronic loads
- Operation by UP 210 wave button (radio)
- 2-Leitertechnik
- Automatic load detection
- Lamp friendly soft start
- Storing and switching on at one brightness value
- Memory value retained even after power failure
- Electronic short-circuit protection and overtemperature protection
- On elimination of the short circuit/cooling, automatic return to normal mode
- Extension unit operation by conventional pushbuttons
- Rated voltage: 230 V AC, 50 Hz (2-wire system)
- Only mixed loads between incandescent lamp ratings and electric transformers are permissible
- Connected load
- Incandescent lamp rating: 50...420 W
- Magnetic transformers: 50...420 VA
- Electronic transformers: 70...420 VA
- Installation in switch and socket boxes with (60 mm Ø, 40 mm deep) according to DIN 49073-1, Claw fixing or screw fixing

Dimensions (W x H x D)   71 x 71 x 32 mm

The UP 210 wave pushbutton with KNX-RF communication must be ordered separately. See chapter Display and Operation Units. Battery included in delivery.

	Stock No.	Product No.
	5TC1230	**5TC1230**

16

Sun protection, anti-glare protection, utilization of daylight

GE 520/01	**Venetian blind actuator wave 1x AC 230 V, 6 A**

- 1 x 230 V AC, 6 A
- KNX-RF transmitter/receiver for 868.3 MHz
- For control of a sun protection drive with AC motor for 230 V AC and electromechanical limit switches
- Electrically interlocked relays for reversing direction of rotation
- Relay contacts designed for rated voltage 230 V AC, 6 A
- Electronics powered via 230 V AC
- Commissioning using a pushbutton located on the top – no additional aids required

Dimensions (W x H x D)   274.5 x 42 x 32 mm

	Stock No.	Product No.
	5WG3520-4AB01	**GE 520/01**

5TC1231	**Shutter control insert sys**

- For controlling a blind or shutter motor with mechanical or electronic limit switches
- Operation by sys shutter/blind pushbuttons and UP 211 wave shutter/blind pushbuttons (radio)
- Two electrically interlocked relays, minimum switchover time of 1 s
- Group and central controls through a combination of several sys shutter/blind control inserts
- "Wind alarm" safety function can be implemented through the secondary input "UP"
- Multiphase operation (i.e. different phases at the main and extension unit) is possible
- Bridging of voltage interruptions 0.2 sec
- Relay on period at STEP command: 100 ms
- Max. relay on period: 120 s
- Conventional shutter/blind pushbuttons (5TA2 114) or switches (5TA2 154) can be connected through secondary inputs
- Rated voltage: 230V~, 50 Hz (N conductor required)
- Connected load: max. 1 motor 1000 VA (8 A resistive load)
- For mounting in an installation box (Ø 60 mm, depth: 40 mm) with screw or claw fixing

Dimensions (W x H x D)   71 x 71 x 32 mm

Matching frames must be ordered separately. UP 211 wave shutter/blind pushbuttons must be ordered separately.

	Stock No.	Product No.
	5TC1231	**5TC1231**

AP 260/11	**Door/window contact wave with battery, titanium white**

- For detecting the state (closed/open) of a door or window via the reed contact integrated in the device, with actuation of the reed contact through the supplied magnet for attachment to the moving part of the door or window
- Connection for an external floating contact
- 4 plug-in terminals for wire cross-sections (solid or finely stranded) of 0.14...0.5 mm2 for connection of the external contact and to allow setting via a wire jumper, whether monitoring is to cover internal contact only, external contact only, or both contacts
- KNX-RF transmitter for 868.3 MHz
- Electronics powered by a lithium battery (1/2 AA 3.6 V), with a battery service life of approx. 5 years, with signaling of battery status every 24 hours, and with an LED that flashes every 10 seconds to indicate that the battery needs replacing
- Commissioning using a pushbutton located on the front of the sensor – no additional aids required
- Surface mounting
- Comprising one mounting plate for screw or adhesive fastening, clip-on radio sensor with integrated reed contact and trigger solenoid

Dimensions (W x H x D)   87 x 36 x 27 mm

Battery included in delivery.

	Stock No.	Product No.
	5WG3260-3AB11	**AP 260/11**

16

Radio System – GAMMA wave / Synco living KNX-RF
Gateways, interface converters
KNX/KNX-RF

Coupler wave / instabus, i-system   UP 140H..

- For coupling GAMMA wave with GAMMA instabus
- Coupling of a total of up to 50 GAMMA wave sensor channels with GAMMA instabus actuator channels or GAMMA instabus sensor channels with GAMMA wave actuator channels
- Pushbutton rocker, single with intermediate position
- Vertical operation
- ETS3 and higher supports configuration of the functions: switching, switching and dimming, shutter/blind control and scene control
- Short and long button press for on/off, brighter/darker for dimming or up/down and adjustment of slats for shutter/blind control
- Storage and call up of up to two scenes
- 1 LED for the indication of telegram transmissions
- KNX-RF transmitter/receiver for 868.3 MHz
- 10-pole plug for plugging onto a UP 114 bus coupling unit, version BCU 2.1. or higher

Dimensions (W x H x D)   55 x 55 x 13 mm

Range overview U 140..

Product Title	Stock No.	Product No.
Coupler wave / instabus, titanium white	5WG3140-2HB11	**UP 140H11**
Coupler wave / instabus, aluminum metallic	5WG3140-2HB31	**UP 140H31**

The UP 114/02 bus coupling unit must be ordered separately. See chapter System Products and Accessories - Bus coupling units and accessories. The matching design frame must be ordered separately. See chapter Display and Operation Units.

16

Radio System – *GAMMA wave / Synco living KNX-RF*
Gateways, interface converters
EnOcean/KNX-RF

GE 561/11	**Switch actuator wave 2 x AC 230 V, 16 A, with converter EnOcean**

- KNX-RF transmitter/receiver for 868.3 MHz
- Converter of EnOcean radio to KNX-RF for the control of KNX radio actuators over EnOcean radio pushbuttons
- Control of internal actuator channels via KNX and/or EnOcean radio pushbuttons
- One relay contact per output
- Contact rated operational voltage, 230 V AC
- Rated current 16 A at p.f. = 1
- With option for setting whether load should be permanently switched on or off (normal mode) or whether actuator should operate in timer mode with an adjustable on period of 1...60 minutes
- Electronics powered via 230 V AC
- Commissioning using a pushbutton located on the top – no additional aids required
- Modular installation device

Dimensions (W x H x D)   274.5 x 42 x 32 mm

For more products, see Chapter Radio system – EnOcean.

	Stock No.	Product No.
	5WG3561-4AB11	**GE 561/11**

16

Transmitter

UP 110..

- For the wireless operation of up to 2 different room functions and for the control of actuators via KNX-RF
- 10-pole plug-in connector for plugging in an instabus pushbutton, single or double, as operator interface
- Adjustable function; switching, switching and dimming, shutter/blind control and scene control
- Short and long button press for on/off, brighter/darker for dimming or up/down and adjustment of slats for shutter/blind control
- Storage and call up of up to four scenes
- KNX-RF transmitter/receiver for 868.3 MHz
- Commissioning over four DIL switches located on the front panel – no additional aids required
- For mounting in an installation box (Ø 60 mm, depth: 40 mm) with screw or claw fixing

Range overview UP 110..

Product Title	Dimensions (W x H x D)	Stock No.	Product No.
Transmitter battery wave	71 x 71 x 24 mm	5WG3110-2AB01	**UP 110/01**
Transmitter 230 V wave	71 x 71 x 32 mm	5WG3110-2AB11	**UP 110/11**

The instabus pushbuttons must be ordered separately.
Surface-mounting enclosures (where applicable) must be ordered separately.
UP110/01: Battery included in delivery.

Transmitter actuator 230 V wave

UP 560/01

- For the wireless operation of up to 2 different room functions and for the control of actuators via KNX-RF
- 10-pole plug-in connector for plugging in an instabus pushbutton, single or double, as operator interface
- Adjustable function; switching, switching and dimming, shutter/blind control and scene control
- Short and long button press for on/off, brighter/darker for dimming or up/down and adjustment of slats for shutter/blind control
- Storage and call up of up to four scenes
- With integrated switch actuator with relay contact, rated for 230 V AC, 6 A (resistive load), with option for setting whether load should be permanently switched on or off (normal mode) or whether actuator should operate in timer mode with an adjustable on period of 1, 5 or 15 minutes
- KNX-RF transmitter/receiver for 868.3 MHz
- Electronics powered via 230 V AC
- Commissioning using six DIL switches located on the front panel – no additional aids required
- For mounting in an installation box (Ø 60 mm, depth: 40 mm) with screw or claw fixing

Dimensions (W x H x D)   71 x 71 x 32 mm

	Stock No.	Product No.
	5WG3560-2AB01	**UP 560/01**

The instabus pushbuttons must be ordered separately. See chapter Radio System - GAMMA wave / Synco living KNX RF.

16

UP 141	Repeater wave

- For improving the KNX-RF communication through the single repetition of each correctly received KNX-RF telegram if KNX-RF telegrams are so dampened by several walls, ceilings or fixtures that an assigned receiver can no longer properly receive the KNX radio telegrams
- No teach-in to other KNX-RF devices required
- KNX-RF transmitter/receiver for 868.3 MHz
- Electronics powered via 230 V AC
- For mounting in an installation box (Ø 60 mm, depth: 40 mm) with screw or claw fixing
- Central threaded hole for screwing onto a blanking cover plate

Dimensions (W x H x D)	71 x 71 x 32 mm	
	Stock No.	Product No.
	5WG3141-2AB01	**UP 141**

Blanking cover plates must be ordered separately. See chapter Display and Operation Units.

16

Central apartment unit for HVAC and energy consumption data collection QAX903..

The central apartment unit serves as an operator and display unit for an apartment.
It manages individual room control (heating/cooling) of up to 12 rooms, comfort ventilation, precontrol, control of air conditioning equipment, and acquires the consumption data of heat, water, electricity and gas.

- Management of heating and cooling control for one apartment
- Suited for heating and cooling plants with central distribution (e.g. underfloor heating) and radiators with decentral connections
- Selection of operating mode, timer and holidays / special day function for the apartment
- Independent time switches and operating modes for 12 rooms
- Flow temperature control of 2 independent room groups including limitation (min. / max.) and maintained return temperature (high / low)
- Increase of economy room temperature setpoint and minimum flow temperature setpoint depending on the composite outside temperature
- Collection of heat / cooling requests from the individual rooms and forwarding the requests to the heat/cooling sources via wired bus, heat/cooling demand relay or DC 0...10 V output to the RRV912 or RRV934

- Absence function (heating, cooling, ventilation)
- Management of 3-stage ventilation plant via RRV934 multicontroller, incl. night cooling
- Control of air conditioners (split units) via universal outputs (locally and RRV91x) or via S-Mode (KNX TP1)
- Display of meteorological data
- Presentation of key data on info pages
- Remote access via Siemens web server OZW772.xx
- Intuitive and simple control with Android or IOS App
- Collection of meter data (heat / cool, electricity, water, gas) to support automated meter reading & billing

Operating voltage	AC 230 V
Power consumption	7 VA
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF) and KNX TP1 (wired bus)
Indoor wireless range	30 m
Display	Full graphic backlit display
Universal input, signal	Digital 0/1 LG-Ni1000
Universal inputs, number	1
Measuring range, temperature	0...120 °C
Relay output, switching voltage	AC 24...230 V NO - contact
Relay output, switching current	AC 0.02...2 (2) A
Relay outputs, number	1
Degree of protection	IP20D
Dimensions (W x H x D)	230 x 130 x 29.7 mm

Range overview QAX903..

Product Title	Stock No.	Product No.
Central apartment unit for HVAC and energy consumption data collection in German	S55621-H110	**QAX903-DE**

16

QAX913..	**Central apartment unit with energy consumption data collection**

The central apartment unit serves as an operator and display unit for an apartment.
It manages individual room control (heating/cooling) of up to 12 rooms, comfort ventilation, precontrol and DHW control, control of air conditioning equipment, and acquires the consumption data of heat, water, electricity and gas. Additional functions include the control of lights and blinds. Door and window contacts plus smoke detectors and water monitors can be integrated for monitoring purposes.

- Management of heating and cooling control for one apartment
- Suited for heating and cooling plants with central distribution (e.g. underfloor heating) and radiators with decentral connections
- Selection of operating mode, timer and holidays / special day function for the apartment
- Independent time switches and operating modes for 12 rooms
- Flow temperature control of 2 independent room groups including limitation (min. / max.) and maintained return temperature (high / low)
- Increase of economy room temperature setpoint and minimum flow temperature setpoint depending on the composite outside temperature
- Collection of heat / cooling requests from the individual rooms and forwarding the requests to the heat/cooling sources via wired bus, heat/cooling demand relay or DC 0...10 V output to the RRV912 or RRV934
- Absence function (heating, cooling, ventilation, lights) with simulation of presence (lights)
- DHW heating with time switch and selection of operating mode
- Management of 3-stage ventilation plant via RRV934 multicontroller, incl. night cooling
- Control of air conditioners (split units) via universal outputs (locally and RRV91x) or via S-Mode (KNX TP1)
- Operation of lights and blinds via 4 softkeys, time switch and events
- Monitoring door contacts, window contacts and smoke detectors
- Display of meteorological data
- Presentation of key data on info pages
- Wireless communication with the devices of GAMMA wave and Hager tebis TX product ranges
- Remote access via Siemens web server OZW772.xx
- Intuitive and simple control with Android or IOS App
- Collection of meter data (heat / cool, electricity, water, gas) to support automated meter reading & billing

Operating voltage	AC 230 V
Power consumption	7 VA
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF) and KNX TP1 (wired bus)
Indoor wireless range	30 m
Display	Full graphic backlit display
Universal input, signal	Digital 0/1
	LG-Ni1000
Universal inputs, number	1
Measuring range, temperature	0...120 °C
Relay output, switching voltage	AC 24...230 V
	NO - contact
Relay output, switching current	AC 0.02...2 (2) A
Relay outputs, number	1
Degree of protection	IP20D
Dimensions (W x H x D)	230 x 130 x 29.7 mm

16

Range overview QAX913..

Product Title	Stock No.	Product No.
Central apartment unit with energy consumption data collection in German	S55621-H111	**QAX913-DE**

Consumption data interface

WRI982

The consumption data interface collects consumption (meter) data and communicates these data using KNX RF directly to the central apartment unit (QAX913 or QAX903). Meters may be connected either via Impulse inputs or via M-Bus (wired). There is an additional interface for communication with the Synergyr central communication device, OW30, for the purpose system migration.

- M-Bus MiniMaster for up to 3 M-Bus meters
- 2 Impulse inputs for impulse meters
- BatiBus communication to Synergyr OZW30
- KNX RF communication to QAX913 or QAX903

Operating voltage	AC 230 V
Power consumption	7 VA
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF)
	BatiBus communication to Synergyr OZW30
Indoor wireless range	30 m
Degree of protection	IP30
Mounting	On DIN rail
	or with screws
Dimensions (W x H x D)	120 x 90 x 50 mm

	Stock No.	Product No.
	S55621-H112	**WRI982**

Room unit

QAW910

Wireless room unit.
The QAW910 is used for the operation and display of basic space heating functions. It also forwards the acquired room temperature to the central apartment unit QAX9.., either periodically or when changes occur. The room temperature is shown on the display of the QAW910.

- Operation and display of space heating functions
- Selection of room operating mode, timer function and room temperature setpoint readjustment
- Display of space heating function and status messages
- Acquisition of the room temperature
- Battery-powered by commercially available 1.5 V batteries (contained in the scope of delivery)
- Especially suited for:
- Renovation projects (old buildings, museums, churches, historical buildings, etc.)
- Difficult wall-mounting situations (sandstone, glass, etc.)
- Variable floor plans (different décors, furniture changes)
- New houses and buildings
- RF communication based on KNX standard (868 MHz, bidirectional)

Voltage supply	Mignon (2xAA) LR6
Battery life	3 years
Battery capacity	2.5 Ah
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF)
Indoor wireless range	30 m
Measuring range, temperature	0...50 °C
Display	Segment LCD
Display size	Resolution 0.1 °C
Degree of protection	IP40
Dimensions (W x H x D)	84 x 130 x 23.6 mm

	Stock No.	Product No.
	BPZ:QAW910	**QAW910**

16

OZW772..

Web server for KNX devices

Web server OZW772 allows for remote plant control and monitoring via the web.

- Operate web browser via PC/laptop and Smartphone
- Operate ACS (PC/laptop with ACS plant operating software)
- Connections: USB and Ethernet
- Display fault messages in the web browser
- Send fault messages to a maximum of 4 e-mail recipients
- Periodically send system reports to e-mail recipients
- Visualize the plants in the web browser based on standard plant diagrams and customized plant web pages
- Acquire and display consumption data
- Send consumption data file to 2 email recipients
- Function "Energy indicator" to monitor data points for energy-related limit values, or "Green limits"
- Web services for external applications via Web API (Web Application Programming Interface)
- Encrypted with https and TLS for emails
- Trend function with ACS790
- Direct commissioning with web browser or ACS service tool

Operating voltage	Power pack: AC 230 V
	Web server: DC 24 V
Communication	KNX TP1 (wire-Bus)
	Ethernet, RJ45 plug socket (shielded)
	USB V2.0 (universal serial bus)
Mounting	On DIN rails
	With Screws
Dimensions (W x H x D)	87.5 x 90 x 40 mm

Range overview OZW772..

Product Title	Stock No.	Product No.
Web server for 1 KNX device	BPZ:OZW772.01	**OZW772.01**

QAA910

Room temperature sensor

Wireless room temperature sensor for acquiring the room temperature.
During operation, the QAA910 forwards the acquired room temperature to the central apartment unit QAX9.., either periodically or in the case of changes.

- Battery-powered by commercially available 1.5 V batteries (contained in the scope of delivery)
- Especially suited for:
- Renovation projects (old buildings, museums, churches, historical buildings, etc.)
- Difficult wall-mounting situations (sanddstone, glass, etc.)
- Variable floor plans (different décors, furniture changes)
- New construction projects
- RF communication based on KNX standard (868 MHz, unidirectional)

Voltage supply	Mignon (2xAA) LR6
Battery life	3 years
Battery capacity	2.5 Ah
Communication	KNX RF-compatible, 868.3 MHz unidirectional (RF)
Indoor wireless range	30 m
Measuring range, temperature	0...50 °C
Degree of protection	IP40
Dimensions (W x H x D)	84 x 84 x 23 mm

	Stock No.	Product No.
	BPZ:QAA910	**QAA910**

16

Meteo sensor QAC910

Wireless sensor for acquiring outside temperature and atmospheric pressure.
In operation, the QAC910 forwards the acquired outside temperature and atmospheric pressure to the central apartment unit QAX9.., either periodically or when changes occur.

- Battery-powered by commercially available 1.5 V batteries (contained in the scope of delivery)
- Especially suited for:
- Renovation projects (old buildings, museums, churches, historical buildings, etc.)
- Difficult wall-mounting situations (sandstone, glass, etc.)
- Variable floor plans (different décors, other furniture)
- New houses or buildings
- RF communication based on KNX standard (868 MHz, unidirectional)
  2-Wire cable between meteo sensor and transmitter required

Voltage supply	Mignon (2xAA) LR6
Battery life	3 years
Battery capacity	2.5 Ah
Communication	KNX RF-compatible, 868.3 MHz unidirectional (RF)
Indoor wireless range	30 m
Measuring range, temperature	-50...50 ℃
Degree of protection	IP40
Additional info	Dimensions (W x H x D): Outside sensor: 80 X 92 x 50 mm RF transmitter: 84 x 84 x 23 mm

	Stock No.	Product No.
	BPZ:QAC910	**QAC910**

16

RRV912

Heating circuit controller, 2 heating circuits

RF-based heating circuit controller for up to 2 heating circuits and DHW heating.
In operation, the RRV912 maintains the required room temperature of the individual heating circuits.
The central apartment unit QAX9.. forwards the relevant data via RF.

- Suited for use in heating and cooling plants
- With central distributors (e.g. underfloor heating or soft steel piping system)
- For use with motorized radiator valves (e.g. with sill covers)
- Heating circuit control with 2- or 3-position actuators
- 2 universal relay outputs, e.g. for control of the room group pump and DHW heating
- 1 universal input, e.g. for connection of a DHW temperature sensor or an alarm
- 1 universal output DC 0...10 V for forwarding the heat / cooling demand signal
- RF communication based on KNX standard (868 MHz, bidirectional)

Operating voltage	AC 230 V
Power consumption	7 VA
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF)
Indoor wireless range	30 m
Control algorithm	2-position: PID, 3-position: PID
Triac output, switching voltage	AC 230 V
Triac output, switching current	30 mA
Triac outputs, number	2
Universal output, signal	DC 0...10 V
Universal output, current	max. DC 1 mA
Universal outputs, number	1
Universal input, signal	Digital 0/1
	LG-Ni1000
Universal inputs, number	1
Measuring range, temperature	0...120 °C
Relay output, switching voltage	AC 24...230 V
	NO - contact
Relay output, switching current	AC 0.02...2 (2) A
Relay outputs, number	2
Degree of protection	IP30
Mounting	On DIN rail
	With screws
Dimensions (W x H x D)	180 x 98 x 50 mm

	Stock No.	Product No.
	BPZ:RRV912	**RRV912**

16

Heating circuit controller, 8 heating circuits

RRV918

RF-based heating circuit controller for up to 8 heating circuits.
In operation, the RRV918 maintains the required room temperature of the individual heating circuits.
The central apartment unit QAX9.. forwards the relevant data via RF.

- Suited for use in heating and cooling plants
- With central distributors (e.g. underfloor heating or soft steel piping system)
- For use with motorized radiator valves (e.g. with sill covers)
- Connection facility for up to eight 2-position actuators
- 1 Universal relay output, e.g. for control of the room group pump and DHW heating
- 1 Universal input, e.g. for connection of a DHW temperature sensor or an alarm
- RF communication based on KNX standard (868 MHz, bidirectional)

Operating voltage	AC 230 V
Power consumption	7 VA
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF)
Indoor wireless range	30 m
Control algorithm	2-position PID
Triac output, switching voltage	AC 230 V
Triac output, switching current	30 mA
Triac outputs, number	8
Universal input, signal	Digital 0/1
	LG-Ni1000
Universal inputs, number	1
Measuring range, temperature	0...120 °C
Relay output, switching voltage	AC 24...230 V
	NO - contact
Relay output, switching current	AC 0.02...2 (2) A
Relay outputs, number	1
Degree of protection	IP30
Mounting	On DIN rail
	With screws
Dimensions (W x H x D)	245 x 98 x 50 mm

	Stock No.	Product No.
	BPZ:RRV918	**RRV918**

16

RRV934	**Multicontroller**

RF-based multicontroller for precontrol of up to 2 room groups or control of ventilation plant with up to 3 stages. All inputs and outputs are also suited for universal use. The relevant data are forwarded wirelessly by the central apartment unit QAX9...

- Suited for use in heating and cooling plants for precontrol of up to 2 room groups
- 2 primary controllers each with a DC 0...10 V actuator
- 1 primary controller with a DC 0...10 V actuator and 1 primary controller with a 3-position actuator Flow and return temperature limitation, optional control of room group pumps and DHW heating
- Suited for control of 3-stage ventilation plant incl. HR bypass, with impact from humidity, indoor air quality or CO_2- level, incl. fault monitoring
- Forwarding the heat / cooling demand signal to primary energy plant
- RF communication based on KNX standard (868 MHz, bidirectional)

Operating voltage	AC 230 V
Power consumption	7 VA
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF)
Indoor wireless range	30 m
Control algorithm	Precontroller: PI
Universal output, signal	DC 0...10 V
Universal output, current	max. DC 1 mA
Universal outputs, number	2
Universal input, signal	Digital 0/1
	LG-Ni1000
	DC 0...10 V
Universal inputs, number	4
Measuring range, temperature	0...120 °C
Relay output, switching voltage	AC 24...230 V
	NO - contact
Relay output, switching current	AC 0,02...2 (2) A
Relay outputs, number	4
Degree of protection	IP30
Mounting	On DIN rail
	With screws
Dimensions (W x H x D)	245 x 98 x 50 mm

	Stock No.	Product No.
	BPZ:RRV934	**RRV934**

16

RF repeater ERF910

Wireless RF repeater for extending plant.
In operation, the ERF910 repeats the RF telegrams from the devices attuned to it.

- Extending and ensuring RF coverage in the Siemens Synco living system
- Especially suited for:
- Renovation projects (old buildings, museums, churches, historical buildings, etc.)
- Difficult wall-mounting situations (sandstone, glass, etc.)
- Variable floor plans (different décors, furniture changes)
- New houses and buildings
- External power pack
- RF communication based on KNX standard (868 MHz, bidirectional)

Operating voltage	AC 230 V
Power consumption	0.2 VA
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF)
Indoor wireless range	30 m
Degree of protection	IP40
Dimensions (W x H x D)	84 x 84 x 23 mm

	Stock No.	Product No.
	BPZ:ERF910	**ERF910**

Water monitor QFP910

Wireless sensor for detecting water leaks.
The QFP910 sends its status (dry / water leak) to the Central Apartment Unit QAX913 periodically or if there is a change in status.

- Battery-powered by commercially available 1.5 V batteries (contained in the scope of delivery)
- External water leak sensor
- RF communication based on KNX standard (868 MHz, unidirectional)

Voltage supply	Mignon (2xAA) LR6
Battery life	3 years
Battery capacity	2.5 Ah
Communication	KNX RF-compatible, 868.3 MHz unidirectional (RF)
Indoor wireless range	30 m
Degree of protection	IP40
Dimensions (W x H x D)	84 x 84 x23 mm

	Stock No.	Product No.
	S55371-C100	**QFP910**

16

AFK914/C01	**Handheld control**

Handheld device for remotely operating predifined functions of the Central Apartment Unit QAX913

- Up to 4 different functions may be initiated, one for each of the four buttons
- The function of each button may be individually configured on the Central Apartment Unit
- Battery powered by commercially available lithium batteries, type CR2032 (contained in the scope of delivery)
- RF communication based on the KNX standard (868 MHz, bidirectional)
- Colored LEDs to indicate status and confirmation from the Central Apartment Unit

Voltage supply	Lithium button cell (1xCR2032)
Battery life	≥3 years (when operated 2.5 times per day)
Battery capacity	0.230 mAh
Communication	KNX RF-compatible, 868.3 MHz, bidirectional (RF)
Indoor wireless range	30 m
Degree of protection	IP41
Dimensions (W x H x D)	55 x 28 x 12 mm

	Stock No.	Product No.
	S55621-H105-C901	**AFK914/C01**

SSA955	**Radiator control actuator**

RF-based actuator for radiator valves.
The SSA955 controls the room temperature based on the data forwarded by the central apartment unit QAX9...

- Battery-powered by commercially available 1.5 V batteries (contained in the scope of delivery)
- Silent mode (e.g. for use in sleeping rooms)
- Automatic identification of valve stroke
- Parallel connection of multiple actuators possible
- Integrated temperature sensor
- For direct mounting with coupling nut (no tools required)
- Manual adjustment
- RF communication based on KNX standard (868 MHz, bidirectional)

Voltage supply	Mignon (3xAA) LR6
Battery life	3 years (2 years in silent mode)
Battery capacity	2.5 Ah
Communication	KNX RF-compatible, 868.3 MHz bidirectional (RF)
Indoor wireless range	30 m
Sound power level	Silent mode: <25 dB (A)
	Normal mode: <30 dB (A)
Stroke	2.5 mm
Positioning force	110 N
Medium temperature	1...110 °C
Measuring range, temperature	0...50 °C
Ambient temperature, operation	1...50 °C
Connecting thread	M30 x 1.5
Degree of protection	IP40
Mounting position	Upright to 90° inclined
Dimensions (W x H x D)	48 x 95 x 80.6 mm

	Stock No.	Product No.
	BPZ:SSA955	**SSA955**

16

Starter kit

KIT91..

Wireless starter kit for radiator application, consisting of:
- One QAW912 room unit - 2 heating zones
- One or 4 SSA955 radiator control actuators

The starter kit can be complemented by additional SSA955 - up to a total of 6

Communication	KNX RF-compatible, bidirectional, 868.3 MHz
Indoor wireless range	30 m

Range overview KIT91..

Product Title	Packaging unit	Stock No.	Product No.
Starter kit with room unit and 1 radiator control actuator	1 x QAW912 + 1 x SSA955	S55621-H103	**KIT911**
Starter kit with room unit and 4 radiator control actuators	1 x QAW912 + 4 x SSA955	S55621-H104	**KIT914**

16

www.siemens.com/gamma

2014

Radio System – EnOcean

17

EnOcean is ratified since March 2012 to an international standard based on the International Electrotechnical Commission (IEC) with ISO/IEC 14543-3-10. Batteryless sensors are independent of energy sources and therefore are completely maintenance-free and enormously flexible. The use of battery-less sensors therefore opens up new possibilities.

As a result of the flexible installation of maintenance-free products from Siemens with EnOcean technology, universal and individual solutions can be offered from a single room to an entire building complex without extra cables. With an EnOcean gateway, the integration of sensors for lighting, sun protection and air-conditioning applications into building automation systems is possible.
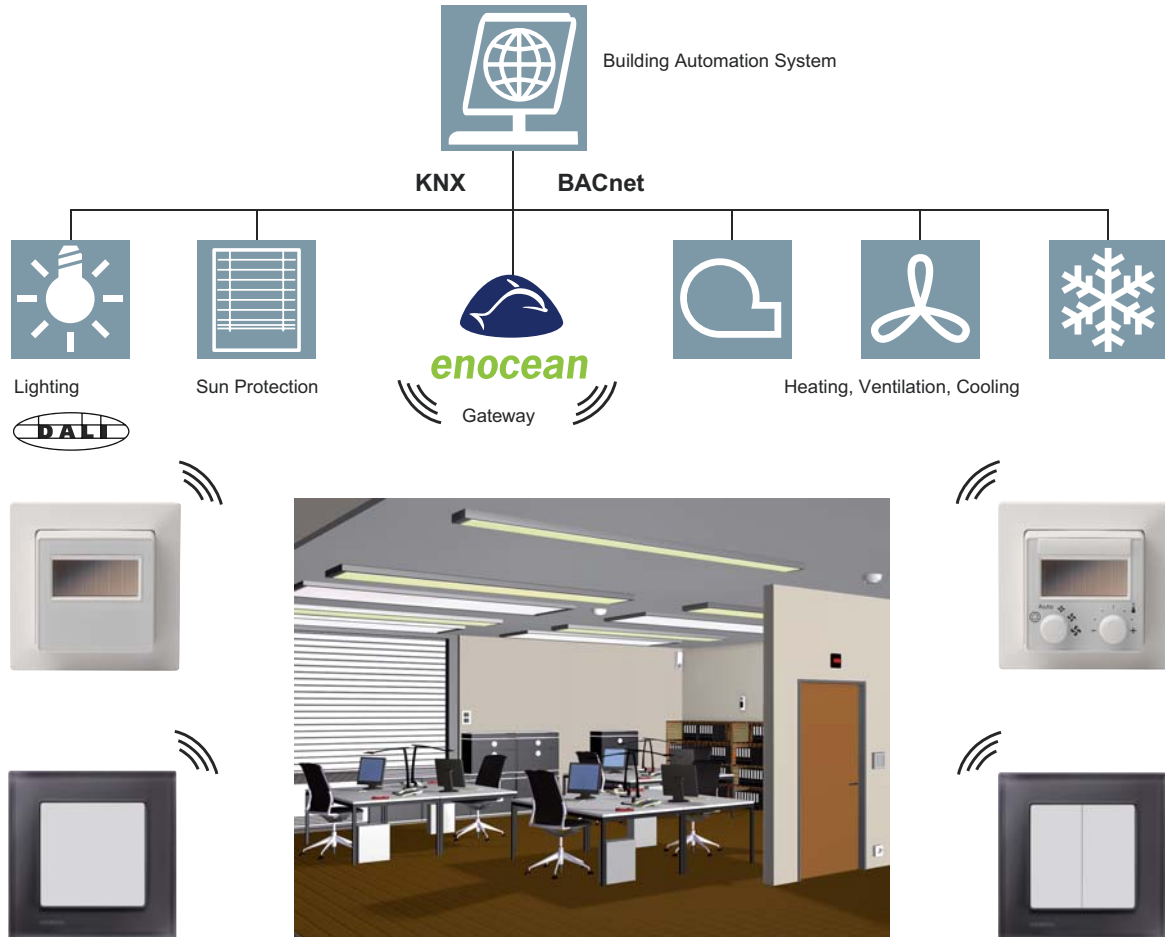
What are the benefits of EnOcean technology?

• Ecological, because no battery to dispose of and minimum radiant energy (less than with wired pushbuttons)
• Extensive energy savings
• Maintenance-free
• Short installation times
• Reduction in fire load
• Flexibility of the applications

Further information on EnOcean technology is available on the Internet at: www.siemens.com/enocean

Display and operation units

As a result of their flexible installation, the maintenance-free operating devices with EnOcean technology can be fitted anywhere without extra cables.An EnOcean gateway enables the integration of the operating devices for light, sun protection and HVAC applications in building automation systems.

Completely flexible

EnOcean operating devices can be mounted on any surface without cables. Simply screw or stick – done. The EnOcean operating devices can be combined with all DELTA miro and DELTA line frames.

Completely maintenance-free

The EnOcean operating devices are battery-free: It is not necessary to change batteries. The operating devices are therefore maintenance-free and environmentally friendly.

Further information on EnOcean technology is available on the Internet at: www.siemens.com/enocean

17-2

Wall transmitter, EnOcean,single, DELTA i-system

AP 221

- One or two centered rockers
- Vertical operation
- Energy generation at the button press by means of induction, without batteries, maintenance-free
- Up to 2 pushbutton functions per rocker
- Selectable function per pushbutton: Switching Over, Switching On, Switching Off, 8-bit value, 1 push-button dimming, 1 pushbutton sun protection control
- For the pushbutton pair selectable function Switching ON/OFF, 2-button dimming with stop telegram, 2-button sun protection control
- Radio telegram according to EnOcean standard at 868.3 MHz
- Transmitting power of max. 10 mW
- As surface-mounting unit for screwing or sticking

Dimensions (W x H x D)   55 x 55 x 7.3 mm
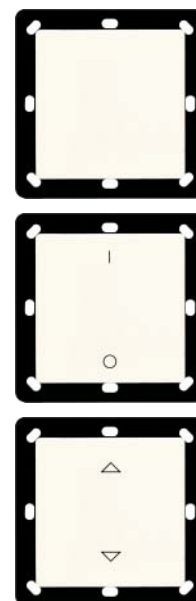
Range overview AP 221

Product Title	Stock No.	Product No.
Wall transmitter, EnOcean, titanium white	5WG4221-3AB10	**AP 221/10**
Wall transmitter EnOcean, aluminum metallic	5WG4221-3AB30	**AP 221/30**
Wall transmitter EnOcean, with I/O-symbols, titanium white	5WG4221-3AB11	**AP 221/11**
Wall transmitter EnOcean, with I/O-symbols, aluminum metallic	5WG4221-3AB31	**AP 221/31**
Wall transmitter EnOcean, with up/down-symbols, titanium white	5WG4221-3AB12	**AP 221/12**
Wall transmitter EnOcean, with up/down-symbols, aluminum metallic	5WG4221-3AB32	**AP 221/32**

The matching design frame must be ordered separately. See chapter Display and Operation Untis - Pushbuttons.

Display and operation units
i-system
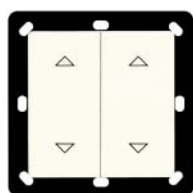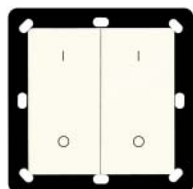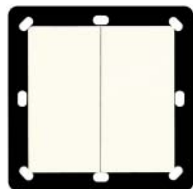
AP 222

AP222 Wall transmitter, EnOcean, double, DELTA i-system

- One or two centered rockers
- Vertical operation
- Energy generation at the button press by means of induction, without batteries, maintenance-free
- Up to 2 pushbutton functions per rocker
- Selectable function per pushbutton: Switching Over, Switching On, Switching Off, 8-bit value, 1 push-button dimming, 1 pushbutton sun protection control
- For the pushbutton pair selectable function Switching ON/OFF, 2-button dimming with stop telegram, 2-button sun protection control
- Radio telegram according to EnOcean standard at 868.3 MHz
- Transmitting power of max. 10 mW
- As surface-mounting unit for screwing or sticking

Dimensions (W x H x D)   55 x 55 x 7.3 mm

Range overview AP 222

Product Title	Stock No.	Product No.
Wall transmitter EnOcean, titanium white	5WG4222-3AB10	**AP 222/10**
Wall transmitter EnOcean, aluminum metallic	5WG4222-3AB30	**AP 222/30**
Wall transmitter EnOcean, with I/O-symbols, titanium white	5WG4222-3AB11	**AP 222/11**
Wall transmitter EnOcean, with I/O-symbols, aluminum metallic	5WG4222-3AB31	**AP 222/31**
Wall transmitter EnOcean, with up/down symbols, titanium white	5WG4222-3AB12	**AP 222/12**
Wall transmitter EnOcean, with up/down symbols, aluminum metallic	5WG4222-3AB32	**AP 222/32**

The matching design frame must be ordered separately. See chapter Display and Operation Untis - Pushbuttons.

17

Room unit with EnOcean interface

QAX95.4

- Acquisition of the room temperature
- Powered by solar cell
- A gateway is mandatory (EnOcean / KNX)
- Optional use of battery if light conditions are insufficient
- Including design frame DELTA line, titan white

For use with units from the following product ranges:
- RXB (together with gateway EnOcean/KNX, RXZ97.1/KNX)
- Devices with KNX Communication

Voltage supply	Solar cell
Measuring range, temperature	0...50 °C
Measurement accuracy	±0.4 K
Time constant	≤16 min
Degree of protection	IP30
Dimensions (W x H x D)	55 x 55 x 19 mm
Weight	0.05 kg

	Stock No.	Product No.
	S55623-H104	**QAX95.4**

Room unit with EnOcean interface, setpoint adjuster

QAX96.4

- Acquisition of the room temperature
- Room temperature setpoint adjustment
- Powered by solar cell
- A gateway is mandatory (EnOcean / KNX)
- Optional use of battery if light conditions are insufficient
- Including design frame DELTA line, titan white

For use with units from the following product ranges:
- RXB (together with gateway EnOcean/KNX, RXZ97.1/KNX)
- Devices with KNX Communication

Voltage supply	Solar cell
Measuring range, temperature	0...50 °C
Measurement accuracy	±0.4 K
Time constant	≤16 min
Setpoint readjustment range	±10 K
Degree of protection	IP30
Dimensions (W x H x D)	55 x 55 x 28 mm
Weight	0.05 kg

	Stock No.	Product No.
	S55623-H105	**QAX96.4**

17

QAX97.4

Room unit with EnOcean interface, setpoint adjuster, button and switch

- Acquisition of the room temperature
- Room temperature setpoint adjustment
- Freely-programmable button
- Step switch (2 stages)
- Powered by solar cell
- A gateway is mandatory (EnOcean / KNX)
- Optional use of battery if light conditions are insufficient
- Including design frame DELTA line, titan white

For use with units from the following product ranges:
- RXB (together with gateway EnOcean/KNX, RXZ97.1/KNX)
- Devices with KNX Communication

Voltage supply	Solar cell
Measuring range, temperature	0...50 °C
Measurement accuracy	±0.4 K
Time constant	≤16 min
Setpoint readjustment range	±10 K
Degree of protection	IP30
Dimensions (W x H x D)	55 x 55 x 28 mm
Weight	0.05 kg

	Stock No.	Product No.
	S55623-H106	**QAX97.4**

QAX98.4

Room unit with EnOcean interface, setpoint adjuster, button and switch for fan stages

- Acquisition of the room temperature
- Room temperature setpoint adjustment
- Freely-programmable button
- Step switch (5 stages)
- Powered by solar cell
- A gateway is mandatory (EnOcean / KNX)
- Optional use of battery if light conditions are insufficient
- Including design frame DELTA line, titan white

For use with units from the following product ranges:
- RXB (together with gateway EnOcean/KNX, RXZ97.1/KNX)
- Devices with KNX Communication

Voltage supply	Solar cell
Measuring range, temperature	0...50 °C
Measurement accuracy	±0.4 K
Time constant	≤16 min
Setpoint readjustment range	±10 K
Degree of protection	IP30
Dimensions (W x H x D)	55 x 55 x 28 mm
Weight	0.05 kg

	Stock No.	Product No.
	S55623-H107	**QAX98.4**

17

Radio frequency receiver with Gateway EnOcean/KNX

RXZ97.1/KNX

- Evaluation of up to 32 EnOcean channels
- With RXB, other EnOcean functions may also be integrated: switches, window contacts, motion detectors
- Other EnOcean functions (dimming, blinds, light sensors) can be realized in KNX systems
- Powered via KNX bus
- With internal antenna

Operating voltage	DC 24 V
Voltage supply	KNX bus
Power consumption	0.6 VA
Ambient temperature, operation	-5...45 °C
Ambient humidity, operation	5...93 % r.H.
Degree of protection	IP20
Dimensions (W x H x D)	71 x 71 x 27 mm
Weight	0.07 kg

	Stock No.	Product No.
	S55842-Z101	**RXZ97.1/KNX**

17

GE 561/11	**Switch actuator wave 2 x AC 230 V, 16 A, with converter EnOcean**

- KNX-RF transmitter/receiver for 868.3 MHz
- Converter of EnOcean radio to KNX-RF for the control of KNX radio actuators over EnOcean radio pushbuttons
- Control of internal actuator channels via KNX and/or EnOcean radio pushbuttons
- One relay contact per output
- Contact rated operational voltage, 230 V AC
- Rated current 16 A at p.f. = 1
- With option for setting whether load should be permanently switched on or off (normal mode) or whether actuator should operate in timer mode with an adjustable on period of 1...60 minutes
- Electronics powered via 230 V AC
- Commissioning using a pushbutton located on the top – no additional aids required
- Modular installation device

Dimensions (W x H x D)   274.5 x 42 x 32 mm

	Stock No.	Product No.
	5WG3561-4AB11	**GE 561/11**

17

Flexcon

18

DALI Controller-4 is a central element in any system. The DALI Controller-4 communicates with the DALI multi sensor and DALI quadruple pushbutton interface through the DALI line.The new Flexcon software is used to start the system. Download the software Flexcon
 at: www.siemens.com/flexcon
Supported by the room layout plan, the system is largely configured using drag&drop.

Functions

• Scene control
• Sequence control
• Constant light level control through light sensors
• Switching/dimming using operator buttons
• Switching through presence detectors
• Central OFF function
• Timer functions (stairwells, corridors, ...)

System description

• Controls four DALI lines with a single central controller (up to 256 electronic controlgears)
• Communicates with DALI sensors and DALI actuators
• DALI power supply integrated in the controller
• System is started with easy to use start-up software

More information about DALI and Flexcon
www.siemens.com/dali
www.siemens.com/flexcon

18

DALI Controller-4   **5TC83000**

- Light controller
- Start-up option using software via USB
- For communicating with electronic controlgears with DALI protocol according to IEC 62386
- Supported by 4 DALI lines according to IEC 62386
- Support 64 electronic controlgears per line
- For communicating with DALI quadruple pushbutton interface and DALI multi sensor for offices
- Supports a maximum of 64 input channels
- Switching and dimming of electronic controlgears according to IEC 62386
- Scene control
- Sequence control for scenes
- Timer mode
- Constant light level control
- Groups can be combined over all lines
- Integrated 230 V supply unit powers the electronics and 4 DALI lines
- LEDs for status display
- LED for displaying lamp faults on device
- Pushbuttons for local operation
- Plug-in terminals for connecting the DALI line, power supply and relay contacts
- Modular installation devices for mounting on TH35 EN 60715 mounting rail

Dimension width (1 MW = 18 mm)   9 MW

	Stock No.	Product No.
	5TC8300-0	**5TC83000**

DALI Multisensor office   **UP 141/51**

- Used as passive infrared detector for indoor ceiling installation
- Sensing range, horizontal 360 °, vertical approx. 80 °
- For monitoring an area with a diameter of approx. 4 m to approx. 7 m (depending on mounting and room height)
- LED on sensor head for display
- Used as brightness sensor
- Cone–shaped detection area, opening angle 90 °
- Measuring range 20 to 1000 lx
- Integrated DALI bus coupling unit for communicating with a central DALI controller
- Power supply through DALI line with 5 mA DALI bus load
- Plug-in terminals for connecting the DALI line
- For installation in suspended ceilings

Dimensions (Ø x H)   40 x 19 mm

	Stock No.	Product No.
	5WG1141-2AB51	**UP 141/51**

DALI Push button interface 4fold   **UP 141/71**

- Binary input device
- 4 inputs to connect installation buttons
- Supported actions per input
- Short button press
- Long button press
- Integrated DALI bus coupling unit for communicating with a central DALI controller
- Power supply through DALI line with 6 mA DALI bus load
- For flush-mounting wall or ceiling outlet installations with a 60 mm diameter and depth of 60 mm
- Plug-in terminals for connecting the DALI line
- Cable set for connecting pushbuttons

Dimensions (W x H x D)   43 x 43 x 11 mm

	Stock No.	Product No.
	5WG1141-2AB71	**UP 141/71**

18

DELTA Control and Regulation Devices

19

Motion detector tops

• Responds to heat motions and initiates a switching operation
• The lighting remains ON as long as motions are detected, otherwise it is switched off after the overrun time has elapsed
• The lighting is only switched on again after a locking time of 3 sec
• Only in combination with a motion detector insert
• Two different versions are available, depending on the required assembly height (1.10 or 2.20 m)
• Thanks to their modular design, tops and inserts can be freely combined
• The sensing range of a main unit can be extended by connecting a maximum of 10 motion detector extension units
• The number of connectable passive extension units is unlimited (e.g. pushbutton, 1 NO contact)
• Sensitivity is infinitely adjustable between 20 and 100 %

The comfort motion detector top also offers:

• Short-time duty setting, e.g. to control acoustic signal transducers (bells) for monitoring of an entry door
• The operating mode (continuous OFF/automatic/continuous ON) can be selected by means of a slide switch which can be secured in the automatic position

19

Device tops

Type	
Technical specifications	5TC115.. and 5TC15..K
Sensing angle	Approx. 180°
Mounting height [m]	1.10 m / 2.20 m (depending on the version)
Sensing range	
• 1.10 m lens / 2.20 m lens [m]	approx. 12 x 12
Number of lenses/ lens levels	
• 1.10 m lens	18 / 2
• 2.20 m lens	26 / 3
Rated voltage flush-mounting inserts	230 V AC, 50 Hz
Operating temperature [°C]	Approx. -20...+45
Overrun time	
• Motion detector tops	Approx. 2 min, non-adjustable
• Comfort motion detector top	Approx. 10 s...30 min
Locking time after switch-off [s]	Approx. 3 s
Brightness threshold value [Lux]	Approx. 0...80 / daytime operation
Sensitivity	Approx. 20...100 %
Dimensions (W x L) [mm]:	
• Width [mm]	i-system: 55 , style: 68
• Height [mm]	i-system: 55 , style: 68
Type of protection	IP20

The matching Inserts must be ordered separately, see DELTA Control and Regulation Devices - Motion detectors. The following table provides an overview.

Inserts

Type	5TC1500	5TC1501	5TC1502
Mechanical data			
Housing		Plastic	
Dimensions			
• Width [mm]		71	
• Height [mm]		71	
• Depth [mm]		32	
Installation	Installation in switch and socket boxes with 60 mm Ø, 40 mm deep according to DIN 49073-1		
Rated voltage	~230 V, 50/60 Hz	~230 V, 50/60 Hz	~230 V, 50/60 Hz N conductor required
Connected loads			
• Filament-lamp load [W]	40...400	2300	
• HV halogen lamps [W]	40...400	2300	
• Conventional transformers [VA]	max. 400	1000	
• Electronic transformers [W]		1500	
• Fluorescent lamps, uncorrected [VA]		1200	
• Fluorescent lamps, parallel corrected [VA]		920	
• Fluorescent lamps in duo connection [VA]		2300	
Short-circuit protection			
• Miniature fuse	T 1,6 H 250 V		
Extension units			
• Number of motion detector extension unit inserts		10	
• Number of mechanical pushbuttons		Unlimited	
Maximum cable length (in total) [m]		100	
Mounting type		Claw fixing, screw fixing	
Electrical safety			
• Degree of protection (acc. to EN 60529)		IP20	

19

DELTA Control and Regulation Devices
Overview and selection guides
DELTA reflex Motion detector, IP55

Electrical data	
Rated voltage	230 V AC +/-10 %, 50/60 Hz
• Power loss	Approx. 1 W
• Dusk sensor	From approx. 0.5 Lux brightness-independent operation
• Pulse mode	1 s ON / 9 s OFF
• Test mode	2 s brightness-independent operation
Switching capacity max.	
• Version 120°	
- Incandescent lamps	1000 CO
- Fluorescent lamps (inductive ballast)	8 x 58 W (uncorrected)
- Energy-saving lamps	4 unit
- Backup fuse	Max.10 A
• Version 290° and 290° IR	
- Incandescent lamps	2500 CO
- Fluorescent lamps (inductive ballast)	20 x 58 W (uncorrected)
- Energy-saving lamps	8 unit
- Backup fuse	Max. 10 A
Mechanical data	
Adjustment range of swivel arm	Max. 120°
Dimensions	
• Width [mm]	Motion detector: 180 Special base: 64
• Height [mm]	Motion detector: 86 Special base: 64
• Depth [mm]	Motion detector: 74 Special base: 105
Type of protection	IP55
Mounting height	2...4 m, ideal 2.50 m

19

DELTA Control and Regulation Devices
**Overview and selection guides**
Room temperature controllers

Type	5TC9200	5TC9201	5TC9202	5TC9203
Mechanical data				
Housing	Plastic			
Dimensions				
• Width [mm]	71			
• Height [mm]	71			
• Depth [mm]	32			
Installation	Installation in switch and socket boxes with 60 mm Ø, 40 mm deep according to DIN 49073-1			
Connecting terminals	Screwless			
Rated voltage	1/N ~230 V/240 V, 50 Hz, 10 A (4 A)			
Temperature range [°C]	5...30			5...50
Switching temperature difference [K]	Approx. 0,5			Approx. 1
Temperature reduction [K]	Approx. 5	Approx. 4	Approx. 5	
Mounting type	Claw fixing, screw fixing			
Electrical safety				
Degree of protection (acc. to EN 60529)	IP 30, with total insulation			

19

DELTA Control and Regulation Devices
Overview and selection guides
Switching / Pushbutton control/ Dimming / Shutterblind controls

Pushbutton sys

Electrical Data		
Power supply	Through the 230 V user interface (230 V AST) of the sys insertsittstelle (230-V-AST) der Einsätze sys	
Connections	10-pole contact strip (230 V AST) for connection to the system insert	
Mechanical Data		
Housing	Plastic	
Dimensions		
• Width [mm]	i-system DELTA profil DELTA style	55 65 68
• Height [mm]	i-system DELTA profil DELTA style	55 65 68
• Depth [mm]	i-system DELTA profil DELTA style	24 (incl. spring) 25 (incl. spring) 68 (incl. spring)
Mounting type	Is plugged onto the system insert	
Electrical safety		
Degree of protection (acc. to EN 60529)	IP20	

Universal dimmer sys inserts, shutter/blind control sys inserts, switch sys inserts

Mechanical Data	
Housing	Plastic
Abmessungen	
• Width [mm]	71
• Height [mm]	71
• Depth [mm]	32
Mounting type	Einbau in Gerätedosen 60 mm Ø, 40 mm tief nach DIN 49073-1
Extension units	Unlimited
Mounting type	Claw fixing, screw fixing
Electrical safety	
Degree of protection (acc. to EN 60529)	IP20
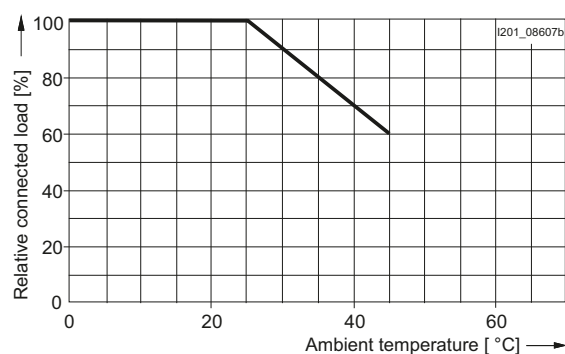
Warning:
Depending on the operating conditions the connected load must be reduced by 20 %
• For installation in wood, plasterboard, aerated concrete or hollow-walls
• For installation in multiple combinations or surface-mounting enclosures

19

Pushbutton sys, single   5TC130..

- Power supply through the 230 V user interface (230 V AST) of the sys inserts
- 10-pole contact strip (230 V AST) for connection to the system insert
- Design i-system

Dimensions (W x H x D)   55 x 55 x 24 mm

Range overview 5TC130..

Product Title	Stock No.	Product No.
Pushbutton sys, titanium white	5TC1301	**5TC1301**
Pushbutton sys, aluminum metallic	5TC1303	**5TC1303**

Pushbutton sys, single, shutter/blind actuators   5TC132..

- Power supply through the 230 V user interface (230 V AST) of the sys inserts
- 10-pole contact strip (230 V AST) for connection to the system insert
- Dimensions (H x W x D): 55 x 55 x 24 mm
- Design i-system

Dimensions (W x H x D)   55 x 55 x 24 mm

Range overview 5TC132..

Product Title	Stock No.	Product No.
Pushbutton sys shutter/blind actuators, aluminum metallic	5TC1321	**5TC1321**
Pushbutton sys shutter/blind actuators, titanium white	5TC1323	**5TC1323**

Universal dimmer insert sys, flush mounting   5TC1230

- For switching and dimming different electronic loads
- Operation by UP 210 wave button (radio)
- 2-Leitertechnik
- Automatic load detection
- Lamp friendly soft start
- Storing and switching on at one brightness value
- Memory value retained even after power failure
- Electronic short-circuit protection and overtemperature protection
- On elimination of the short circuit/cooling, automatic return to normal mode
- Extension unit operation by conventional pushbuttons
- Rated voltage: 230 V AC, 50 Hz (2-wire system)
- Only mixed loads between incandescent lamp ratings and electric transformers are permissible
- Connected load
- Incandescent lamp rating: 50...420 W
- Magnetic transformers: 50...420 VA
- Electronic transformers: 70...420 VA
- Installation in switch and socket boxes with (60 mm Ø, 40 mm deep) according to DIN 49073-1, Claw fixing or screw fixing

Dimensions (W x H x D)   71 x 71 x 32 mm

The UP 210 wave pushbutton with KNX-RF communication must be ordered separately. See chapter Display and Operation Units. Battery included in delivery.

	Stock No.	Product No.
	5TC1230	**5TC1230**

19

5TC1231	**Shutter control insert sys**

- For controlling a blind or shutter motor with mechanical or electronic limit switches
- Operation by sys shutter/blind pushbuttons and UP 211 wave shutter/blind pushbuttons (radio)
- Two electrically interlocked relays, minimum switchover time of 1 s
- Group and central controls through a combination of several sys shutter/blind control inserts
- "Wind alarm" safety function can be implemented through the secondary input "UP"
- Multiphase operation (i.e. different phases at the main and extension unit) is possible
- Bridging of voltage interruptions 0.2 sec
- Relay on period at STEP command: 100 ms
- Max. relay on period: 120 s
- Conventional shutter/blind pushbuttons (5TA2 114) or switches (5TA2 154) can be connected through secondary inputs
- Rated voltage: 230V~, 50 Hz (N conductor required)
- Connected load: max. 1 motor 1000 VA (8 A resistive load)
- For mounting in an installation box (Ø 60 mm, depth: 40 mm) with screw or claw fixing

Dimensions (W x H x D)   71 x 71 x 32 mm

Matching frames must be ordered separately. UP 211 wave shutter/blind pushbuttons must be ordered separately.

	Stock No.	Product No.
	5TC1231	**5TC1231**

5TC1233	**Switch insert sys, flush mounting, Rated operational power 15...500 VA**

- Connected load
- Incandescent lamp load 15 W...500 W
- Conventional transformers (except toroidal-core transformers) 15...500 VA
- Toroidal-core transformers 15...250 VA
- Electronic transformers 15...500 VA

Dimensions (W x H x D)   71 x 71 x 32 mm

The UP 210 wave pushbutton with KNX-RF communication must be ordered separately.

	Stock No.	Product No.
	5TC1233	**5TC1233**

19

Motion detector top

5TC15..

- Sensing angle approx. 180°
- Mounting height 1,10/ 2,20 m (depending on the version)
- Sensing range: approx. 12 x 12 m
- Number of lenses/ lens levels
- 1,10-m-lens 18 / 2
- 2,20-m-lens 26 / 3
- Rated voltage flush-mounting inserts AC 230 V, 50 Hz
- Operating temperature approx. –20…+45 °C
- Overrun time approx. 2 min, non-adjustable
- Locking time after switch-off approx. 3 s
- Brightness threshold value approx. 0…80 Lux / daytime operation
- Sensitivity approx. 20...100 %
- Degree of protection IP20

Range overview 5TC15..

Product Title	Dimensions (W x H)	Stock No.	Product No.
Motion detector top, i-system/DELTA profil, mounting height 1,10 m, titanium white (similar to RAL 9010)	55 x 55 mm	5TC1503	**5TC1503**
Motion detector top, i-system/DELTA profil, Mounting height 2,20 m, titanium white (similar to RAL 9010)	55 x 55 mm	5TC1504	**5TC1504**
Motion detector top, i-system/DELTA profil, Mounting height 1,10 m, silver (similar to RAL 9006) bzw. aluminium metallic (similar to RAL 9006)	55 x 55 mm	5TC1507	**5TC1507**
Motion detector top, i-system/DELTA profil, mounting height 2,20 m, silver (similar to RAL 9006) bzw. aluminum metallic (similar to RAL 9006)	55 x 55 mm	5TC1508	**5TC1508**
Motion detector top, DELTA style, Mounting height 1,10 m, titanium white (similar to RAL 9010)	68 x 68 mm	5TC1537	**5TC1537**
Motion detector top, DELTA style, Mounting height 2,20 m, titanium white (similar to RAL 9010)	68 x 68 mm	5TC1542	**5TC1542**
Motion detector top, DELTA style, Mounting height 1,10 m, platinum metallic (similar to RAL 9007)	68 x 68 mm	5TC1537-1	**5TC1537-1**
Motion detector top, DELTA style, Mounting height 2,20 m, platinum metallic (similar to RAL 9007)	68 x 68 mm	5TC1542-1	**5TC1542-1**

An intermediate frame must be used for DELTA profil.

19

5TC15..K

Comfort motion detector top

- Sensing angle approx. 180°
- Mounting height 1,10/ 2,20 m (depending on the version)
- Sensing range: approx. 12 x 12 m
- Number of lenses/ lens levels
- 1,10-m-lens 18 / 2
- 2,20-m-lens 26 / 3
- Rated voltage flush-mounting inserts AC 230 V, 50 Hz
- Operating temperature approx. −20...+45 °C
- Overrun time approx. 10 s...30 min
- Locking time after switch-off approx. 3 s
- Brightness threshold value approx. 0...80 Lux / daytime operation
- Sensitivity approx. 20...100 %
- Degree of protection IP20

Range overview 5TC15..K

Product Title	Dimensions (W x H)	Stock No.	Product No.
Comfort motion detector top, i-system/DELTA profil, Mounting height 1,10 m, titanium white (similar to RAL 9010)	55 x 55 mm	5TC1505	**5TC1505**
Comfort motion detector top, i-system/DELTA profil, Mounting height 2,20 m, titanium white (similar to RAL 9010)	55 x 55 mm	5TC1506	**5TC1506**
Comfort motion detector top, i-system/DELTA profil, Mounting height 1,10 m, silver (similar to RAL 9006) bzw. aluminium metallic (similar to RAL 9006)	55 x 55 mm	5TC1510	**5TC1510**
Comfort motion detector top, i-system/DELTA profil, Mounting height 2,20 m, silver (similar to RAL 9006) bzw. aluminium metallic (similar to RAL 9006)	55 x 55 mm	5TC1511	**5TC1511**
Comfort motion detector top, DELTA style, Mounting height 1,10 m, titanium white (similar to RAL 9010)	68 x 68 mm	5TC1546	**5TC1546**
Comfort motion detector top, DELTA style, Mounting height 2,20 m, titanium white (similar to RAL 9010)	68 x 68 mm	5TC1551	**5TC1551**
Comfort motion detector top, DELTA style, Mounting height 1,10 m, Platinum metallic (similar to RAL 9007)	68 x 68 mm	5TC1546-1	**5TC1546-1**
Comfort motion detector top, DELTA style, Mounting height 2,20 m, Platinum metallic (similar to RAL 9007)	68 x 68 mm	5TC1551-1	**5TC1551-1**

An intermediate frame must be used for DELTA profil.

19

Motion detector relay inserts   5TC1500

- Flush-mounting insert for motion detector tops for switching
- Rated voltage 230 V AC, 50/60 Hz
- Connected loads
- Filament-lamp load 40...400 W
- HV halogen lamps 40...400 W
- Conventional transformers max. 400 VA
- Short-circuit protection
- Extension units
- 10 motion detector extension unit inserts
- Unlimited mechanical pushbuttons
- Maximum cable length (in total) 100 m
- Mounting type: claw fixing, screw fixing
- Installation in switch and socket boxes with 60 mm Ø, 40 mm deep according to DIN 49073-1
- Degree of protection IP20

Dimensions (W x H x D)   71 x 71 x 32 mm

	Stock No.	Product No.
	5TC1500	**5TC1500**

Motion detector triac insert   5TC1501

- Flush-mounting insert for motion detector tops for switching
- The lamps are switch on by means of a soft start
- Rated voltage 230 V AC, 50/60 Hz
- Connected loads
- Filament-lamp load 2300 W
- HV halogen lamps 2300 W
- Conventional transformers max. 1000 VA
- Electronic transformers 1500 W
- Fluorescent lamps, uncorrected 1200 VA
- Fluorescent lamps, parallel corrected 920 VA
- Fluorescent lamps in duo connection 2300 VA
- Extension units
- 10 motion detector extension unit inserts
- Unlimited mechanical pushbuttons
- Maximum cable length (in total) 100 m
- Mounting type: claw fixing, screw fixing
- Elektrische Sicherheit
- Installation in switch and socket boxes with 60 mm Ø, 40 mm deep according to DIN 49073-1
- Degree of protection IP20

Dimensions (W x H x D)   71 x 71 x 32 mm

	Stock No.	Product No.
	5TC1501	**5TC1501**

19

5TC1502	**Motion detector extension unit inserts**

- Flush-mounting insert for motion detector tops
- 3-wire extension unit, only in combination with a motion detector relay insert or a motion detector triac insert
- When motion is detected, a brightness-independent switching signal is sent to the main unit
- Minimum time between two switching signals is approx. 5 s
- Evaluation takes place in the top of the main unit
- Cannot be assigned to several main units
- Not suitable for the direct switching of loads
- The lamps are switch on by means of a soft start
- Rated voltage 230 V AC, 50/60 Hz
- Maximum cable length (in total) 100 m
- Mounting type: claw fixing, screw fixing
- Electrical safety
- Installation in switch and socket boxes with 60 mm Ø, 40 mm deep according to DIN 49073-1
- Degree of protection IP20

Dimensions (W x H x D)   71 x 71 x 32 mm

	Stock No.	Product No.
	5TC1502	**5TC1502**

19

DELTA reflex motion detector, IP55

5TC721..

- For surface-mounting on the wall or ceiling; the detector is plugged on when the wiring has been completed
- Range: 120° approx. 10 m / 290° ca. 16 m
- Comfortable two-button operation:
- Any brightness value can be saved
- Any overrun time between 5 s and 30 min can be saved
- Test mode for commissioning
- Switchover to brightness-independent mode and pulse mode
- Resetting of detector to 7 lux and 2 min delay time
- Rear view monitoring (only 290° types)
- Automatic range stabilization (290° types only)
- Automatic maloperation suppression
- Vacation function on 290° IR type
- Artificial light suppression (glare shield)
- Control via NC pushbutton
- Output: one NO contact, non-isolated

Dimensions (W x H x D)   180 x 86 x 74 mm

Range overview 5TC721..

Product Title	Stock No.	Product No.
DELTA reflex motion detector, IP55, 120°, titanium white (similar to RAL 9010)	5TC7210	**5TC7210**
DELTA reflex motion detector, IP55, 120°, anthracite (similar to RAL 7016)	5TC7211	**5TC7211**
DELTA reflex motion detector, IP55, 290°, titanium white (similar to RAL 9010)	5TC7212	**5TC7212**
DELTA reflex motion detector, IP55, 290°, anthracite (similar to RAL 7016)	5TC7213	**5TC7213**
DELTA reflex motion detector, IP55, 290°, (incl. 5TC7 902 IR remote control), titanium white (similar to RAL 9010)	5TC7214	**5TC7214**
DELTA reflex motion detector, IP55, 290°, (incl. 5TC7 902 IR remote control), anthracite (similar to RAL 7016)	5TC7215	**5TC7215**

Accessories for 5TC721..

Special base, accessory for AP 251 surface-mounting motion detectors, IP55, titanium white (similar to RAL9010)

5TC7900

- For outside or inside-angle mounting
- Cable entry surface or flush-mounted
- Titanium white

Dimensions (W x H x D)   88 x 64 x 105 mm

	Stock No.	Product No.
	5TC7900	**5TC7900**

Special base, accessory for AP 251 surface-mounting motion detectors, IP55, anthracite

5TC7901

- For outside or inside-angle mounting
- Cable entry surface or flush-mounted
- Anthracite

Dimensions (W x H x D)   88 x 64 x 105 mm

	Stock No.	Product No.
	5TC7901	**5TC7901**

19

5TC7902

IR remote control accessory for motion detectors AP 251 and 5TC721..

- Infrared remote control
- Range: Approx. 5 m
- Functions
- Vacation function / Presence
- Continuous on (4h) / Normal mode
- Test mode
- Programming of the currently measured brightness value and the overrun time of 5s to 30 min
- Direct selection of an overrun time of 10 min
- Switchover to brightness-independent mode and pulse mode
- Resetting of detector to 7 lux and 2 min delay time
- Power supply through CR2025 lithium button cell, included in delivery

Dimensions (W x H x D)   40 x 87 x 6 mm

	Stock No.	Product No.
	5TC7902	**5TC7902**

19

Room thermostat 1 NC contact   **5TC9200**

- Standard version with nighttime reduction
- For electric and warm water convectors, pumps and tank control
- Operates as two-position controller with thermal feedback
- If the temperature at the bimetal increases and the setpoint value is reached, the NC contact (heating contact) will switch off
- If the temperature at the bimetal drops below the selected setpoint value minus the hysteresis, the NC contact will switch on again
- The temperature range is shifted downward by approx. 5 K during temperature reduction control
- Screwless connecting terminals

Setpoint setting range	5...30 °C
Switch-off point	5...30 °C
Sensing element, temperature	Bimetal
Digital outputs	1-pin Potential-free NC contact
Digital output, switching voltage	AC 250 V
Digital output, switching current	10 (4) A
Mounting	For screw fixing Flush or wall-mounted conduit box
Degree of protection	IP30
Dimensions (W x H x D)	70 x 70 x 39 mm

	Stock No.	Product No.
	5TC9200	**5TC9200**

Room thermostat, 1 NO contact   **5TC9201**

- Standard version
- For electric and warm water convectors, pumps and tank control
- Operates as two-position controller with thermal feedback
- If the temperature at the bimetal increases and the setpoint value is reached, the NC contact (heating contact) will switch off and the NO contact (cooling contact) will close
- If the temperature at the bimetal drops below the selected setpoint value minus the hysteresis, the NC contact will switch on again
- Screwless connecting terminals
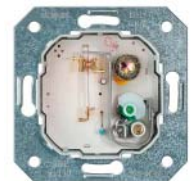
Setpoint setting range	5...30 °C
Switch-off point	5...30 °C
Sensing element, temperature	Bimetal
Digital outputs	1-pin Potential-free CO contact
Digital output, switching voltage	AC 250 V
Digital output, switching current	10 (4) A
Mounting	For screw fixing Flush or wall-mounted conduit box
Degree of protection	IP30
Dimensions (W x H x D)	70 x 70 x 39 mm

	Stock No.	Product No.
	5TC9201	**5TC9201**

19

DELTA Control and Regulation Devices
Room temperature controllers

5TC9202

Room thermostat, 3-position switch

- 3-position switch: automatic timing, constant day temperature, constant nighttime reduction
- For electric and warm water convectors, pumps and tank control
- The switch S1 can be used to preselect the temperature reduction between clock/day and night
- Operates as two-position controller with thermal feedback
- If the temperature at the bimetal increases and the setpoint value is reached, the NC contact (heating contact) will switch off
- If the temperature at the bimetal drops below the selected setpoint value minus the hysteresis, the NC contact will switch on again
- The temperature range is shifted downward by approx. 5 K during temperature reduction control
- Screwless connecting terminals

Setpoint setting range	5...30 °C
Switch-off point	5...30 °C
Sensing element, temperature	Bimetal
Digital outputs	1-pin Potential-free NC contact
Digital output, switching voltage	AC 250 V
Digital output, switching current	10 (4) A
Mounting	For screw fixing Flush or wall-mounted conduit box
Degree of protection	IP30
Dimensions (W x H x D)	70 x 70 x 39 mm

	Stock No.	Product No.
	5TC9202	**5TC9202**

5TC9203

Room thermostat, direct floor heating

- With remote sensor
- NO switching contact
- For regulating floor storage heating systems and electric floor heating systems with heating mats
- Comprising two parts: Controller (for setting the desired floor temperature) and remote sensor (in the floor for monitoring the set temperature)
- Rotary knob for setting the floor temperature
- If the temperature drops below this value, the controller will request heat; this is indicated optically by a red LED
- A nighttime reduction can be be activated via the connection (time switch); this is indicated by a green LED
- Temperature reduction approx. 5 K
- Screwless connecting terminals

Setpoint setting range	10...50 °C
Switch-off point	10...50 °C
Sensing element, temperature	Bimetal
Digital outputs	1-pin Potential-free NO contact
Digital output, switching voltage	AC 250 V
Digital output, switching current	10 (4) A
Mounting	For screw fixing Flush or wall-mounted conduit box
Degree of protection	IP30
Dimensions (W x H x D)	70 x 70 x 39 mm

	Stock No.	Product No.
	5TC9203	**5TC9203**

Cover plates for room thermostat, NC/CO

5TC9 2..01

Cover plates for room temperature controllers:
- With rotary button to set the temperature

Degree of protection | IP20
Dimensions (W x H x D) | 55 x 55 x 13 mm

Range overview 5TC92..01

Product Title	Stock No.	Product No.
Cover plates for room temperature controllers, NC/CO, titanium white	5TC9221	**5TC9221**
Cover plates for room temperature controllers, NC/CO, i-system, aluminum metallic	5TC9250	**5TC9250**
Cover plates for room temperature controllers, NC/CO, DELTA style, titanium white, incl. intermediate frame	5TC9256	**5TC9256**
Cover plates for room temperature controllers, NC/CO, DELTA style, platinum metallic, incl. intermediate frame	5TC9256-1	**5TC9256-1**

Cover plates for room thermostat, 3-position switch

5TC9 2..02

Cover plates for room temperature controllers:
- With rotary button to set the temperature
- With 3-position switch, possible positions: Automatic timing, Constant day temperature, Constant nighttime reduction

Degree of protection | IP20
Dimensions (W x H x D) | 55 x 55 x 13 mm

Range overview 5TC92..02

Product Title	Stock No.	Product No.
Cover plates for room temperature controllers, 3-position switch, i-system, titanium white	5TC9223	**5TC9223**
Cover plates for room temperature controllers, 3-position switch, i-system, aluminum metallic	5TC9252	**5TC9252**

19

5TC9 2..03	**Cover plates for room thermostat, direct floor heating**

Cover plates for room temperature controllers:
- With rotary button to set the temperature
- With On/Off switch
- Nighttime reduction indicated by a green LED
- Heating indicated by a red LED

Degree of protection   IP20
Dimensions (W x H x D)   55 x 55 x 13 mm

Range overview 5TC92..03

Product Title	Stock No.	Product No.
Cover plates for room temperature controllers, direct floor heating, titanium white	5TC9225	**5TC9225**
Cover plates for room temperature controllers, direct floor heating, aluminum metallic	5TC9254	**5TC9254**
Cover plates for room temperature controllers, direct floor heating, DELTA style, platinum metallic, incl. intermediate frame	5TC9261	**5TC9261**
Cover plates for room thermostat, direct floor heating, carbon metallic	5TC9255	**5TC9 255**
Cover plates for room thermostat, direct floor heating, electro white	5TC9224	**5TC9 224**
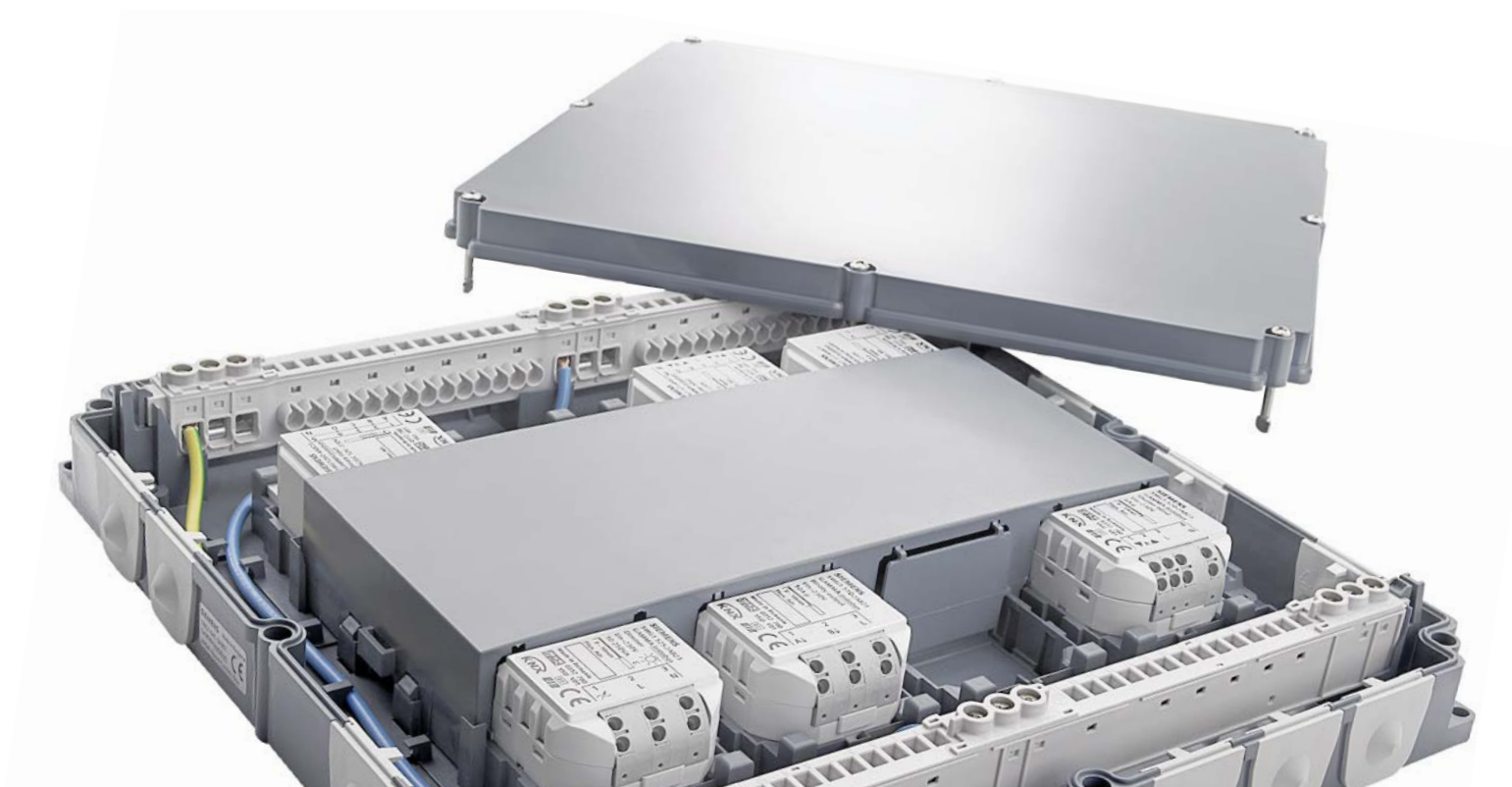
19

Appendix

GAMMA instabus Devices comply with UL standard

Broad spectrum

UL standards are used in North America, but also in several other countries. This is of particular importance to European exporters of electrical switchgear equipment for machines who export to the USA, as their products will only be accepted if they meet the relevant UL standards. UL 508A describes the design of control cabinets and implementation of integral components with reference to other pertinent UL standards where applicable. It therefore represents the basic standard for all electrical sys-tems used in North America. A wide range of GAMMA instabus devices comply with UL standards and are therefore suitable for implementation worldwide in both IEC/EN and UL applications within the framework of their specified use.

Further links:
www.ul.com for general UL information
www.ul.com/database for UL-listed devices
www.ul-europe.com for UL information concerning Europe
www.siemens.de/gamma for information on GAMMA products
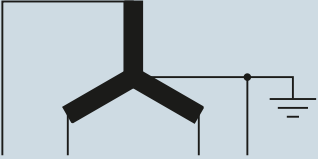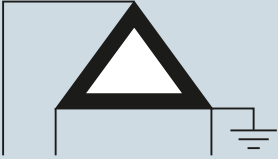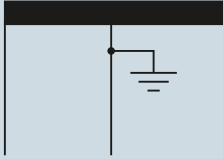
Overview of IEC – UL standards

■ IEC z.B.: EN, VDE, BS, NF
■ UL/CSA
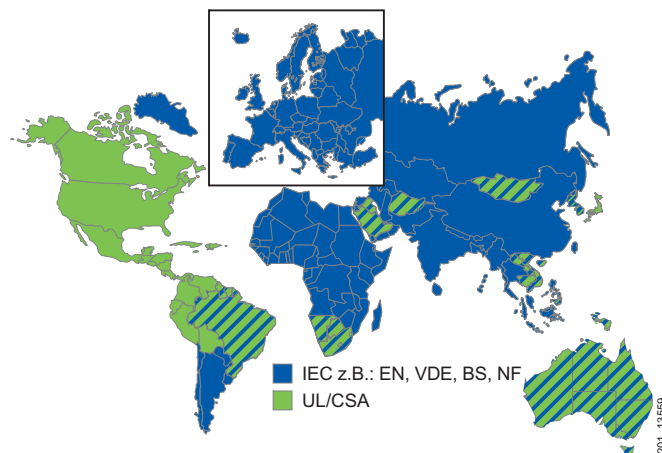
Worldwide application of EN/IEC or UL standards

Low-voltage systems in the USA

IWhile a variety of different systems are used in the USA, three-phase systems with 240 V and 480 V and 3- and 4-wire systems are the most common, with 208 V and 600 V playing a considerably smaller role. Residential buildings are primarily fitted with 120 to 240 V single-phase systems. A frequency of 60 Hz is standard in North America.

Industry and Commercial		Residential
Three-phase, 4 wires	Three-phase, 3 wires	Single-phase, 3 wires
Three-phase wye, 4 wires Caution: The PE must not be used for electricity. There is no PEN conductor => N = "Grounded Conductor" (white or gray), separate wires must be used for PE and N.	Three-phase delta, 3 wires, grounded corner	Single phase, 120 V/240 V, grounded midpoint
480 V Y/277 V[1]	240 V	240 V, phase conductor
600 V Y/347 V[1]	480 V	120 V to ground
240 V Y/131 V[1]	600 V	
208 V Y/120 V[1]		

[1] Y describes the "Solidly grounded circuit". The "Y" value specifies the voltage between the phases (e. g.480 V), the value after the slash specifies the voltage between the phase and the grounding (e.g. 277 V at 480 V voltage between the phases).

Explanation of UL symbols

All symbols and descriptions of UL symbols can be found on the Internet: www.ul.com/mark/art.htm

General information about UL can be found at: www.ul.com

20

Symbol	Application
UL symbol	**UL symbol** This is the most used UL symbol. If a product has this mark, it means that the device samples tested by UL have met the UL safety requirements. These requirements are largely based on the UL standards published by UL. This mark can be found on all types of devices, such as household appliances, computers, fuses, electrical switchgear, fire extinguishers, life belts and thousands of other devices.
c-UL symbol	**c-UL symbol** This mark applies to the Canadian market. Products with this mark have been examined by UL in accordance with Canadian safety directives, which differ in some points from the US directives.
c-UL US symbol	**c-UL US symbol** This symbol was introduced at the beginning of 1998. It means that the device bearing this mark complies with both UL and Canadian regulations.
UR symbol	**UR-, c-UR- und c-UR US symbol** Recognized component mark and Canadian recognized component mark These symbols are seldom seen by consumers as they are affixed to special components that are part of a larger system or product. These components may have technical or design restrictions.
c-UR symbol	The Component Recognition symbol can be on a large number of products, such as switches, power sup-plies, printed boards, switching devices and many other products. Products for Canada have an additional "c".
c-UR US symbol	The c UR US symbol was introduced in 1998 and means that the marked components meet both the UL and CSA regulations.

The "UL listed" symbol Ⓤ is applied to devices that can be in-stalled universally and without further instructions or any restric-tion of their respective applicability, e. g. contactors to UL 508, miniature circuit breakers to UL 489, energy management de-vices according to UL 916 ...

The "UL Recognized" symbol Ⓡ is intended for devices that may only be installed by experts as components, e. g. miniature circuit breakers to UL 1077, time switches to UL 917, SITOR fuses, ...

GAMMA instabus
UL listed according to UL 916
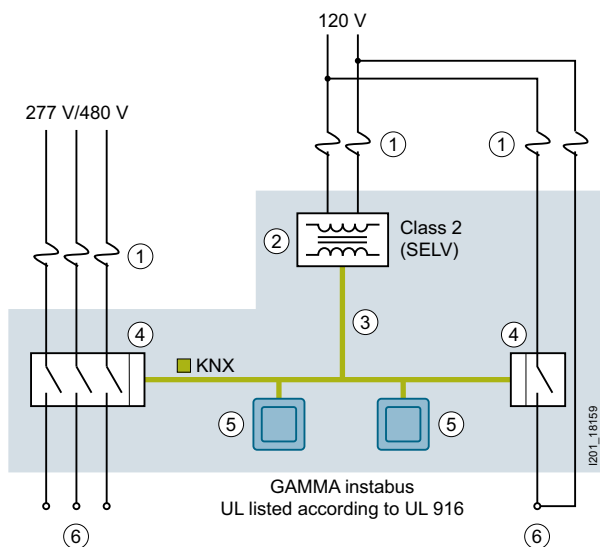
① Feeder protection
② Bus power supply
③ Bus line
④ Load switch
⑤ Wall switch
⑥ Load

5WG1 energy management devices ... according to UL 916

The UL 916 requirements cover energy management equipment rated 600 V or less intended for installation in accordance with the National Electrical Code NFPA 70. This primarily applies to devices for the control of electrical loads to achieve the desired use of electrical power. Such equipment controls electrical loads by responding to sensors and actuators.

All devices that are powered by the bus voltage or by an external < 30 V DC and < 1.5 A power supply, and that are not connected to voltages greater than 30 V AC/DC, meet the conditions of Class 2 equipment. These devices can be used as energy management equipment according to UL 916 (energy management equipment accessories).

20