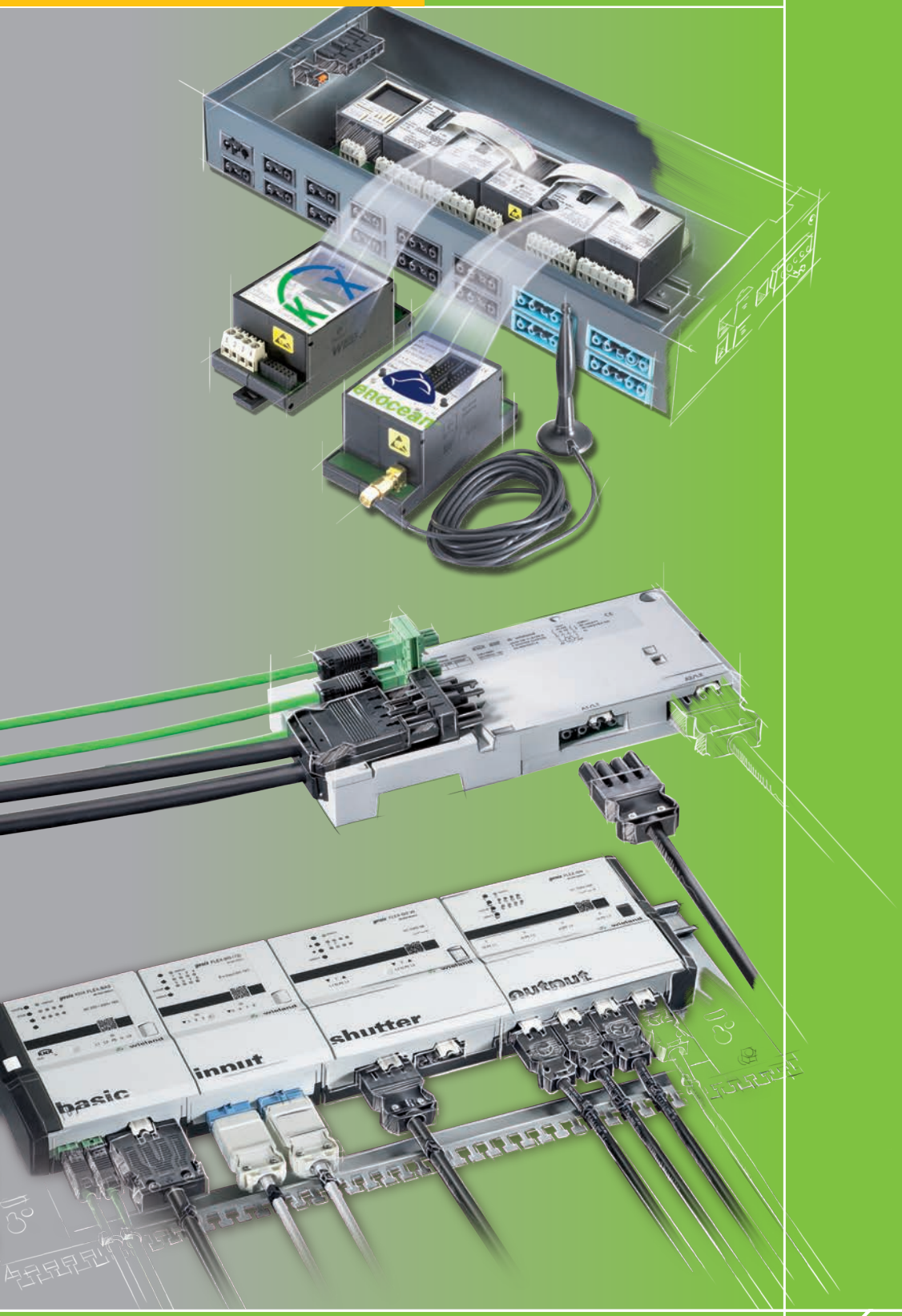
gesis® ELECTRONIC

wieland



gesis® ELECTRONIC

Decentralized building automation via plug & play

Catalog 2016


enocean®
STANDARD MOTOR INTERFACE
KNX®
DALI
product design award 2014
DESIGN PLUS
powered by: light+building
gesis® FLEX in combination with gesis® NRG
40 YEARS gesis®
basic
innut
shutter
outnut
wieland
enocean

Room automation with Wieland.

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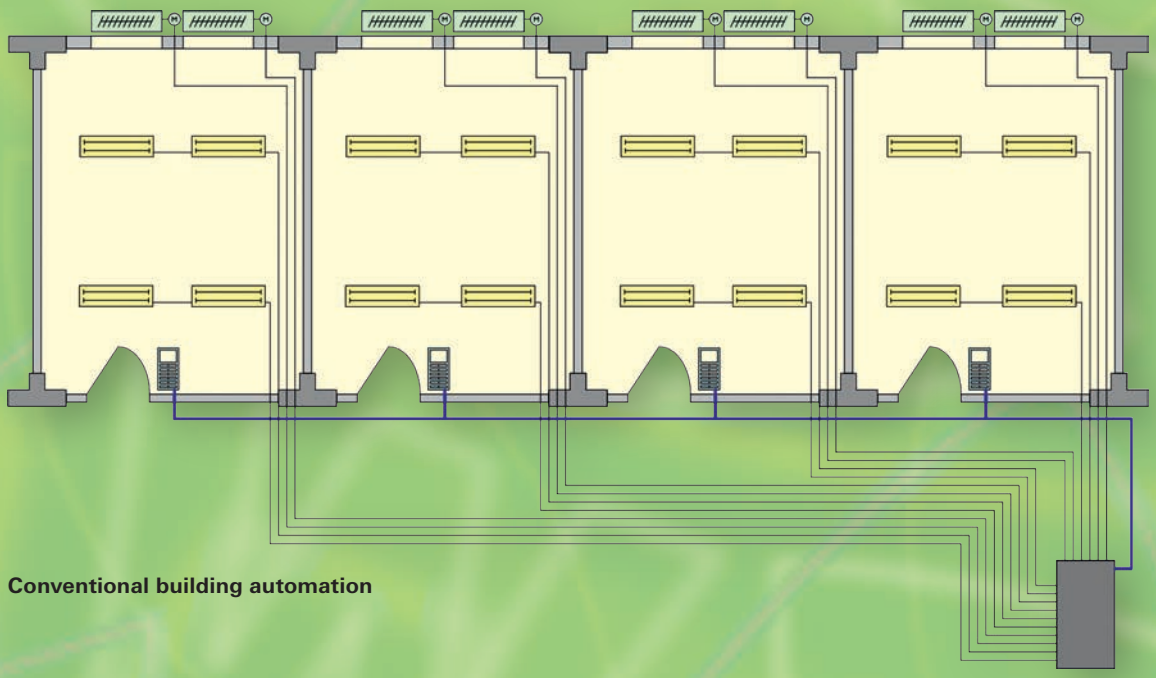
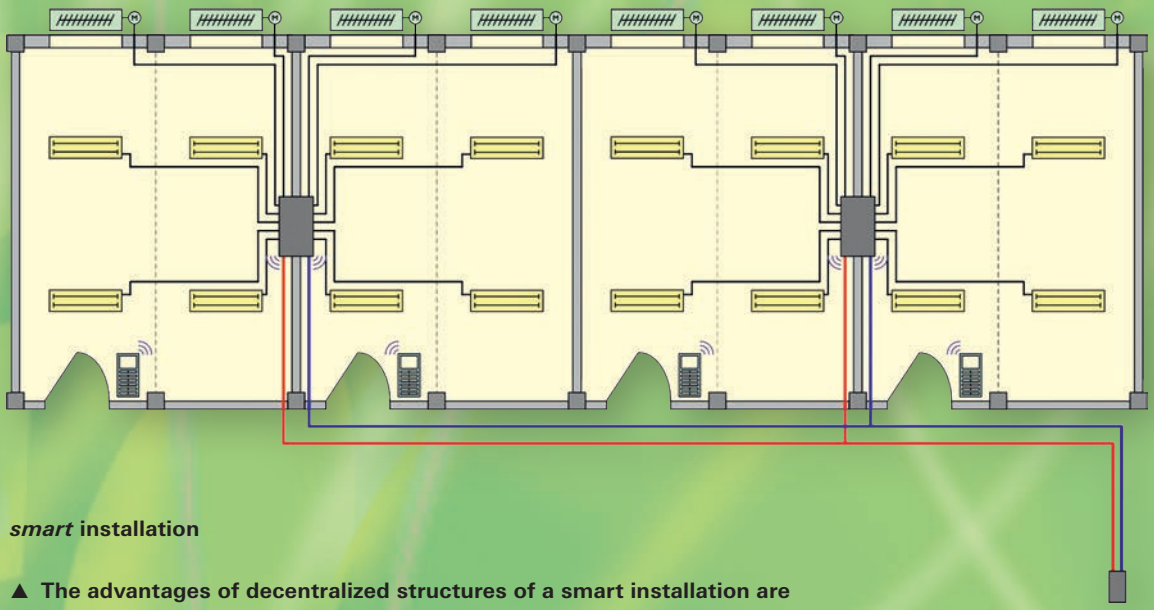


Conventional building automation



***smart* installation**

▲ **The advantages of decentralized structures of a smart installation are evident and further increase the space efficiency of a building.**

***gesis*® FLEX**
the flat, modular KNX system for room automation with EnOcean, DALI and SMI interface

***gesis*® EIB V**
flat, pluggable KNX actuators for limited space

***gesis*® RM**
the modular, project-specific system for KNX and radio

gesis® ELECTRONIC – pluggable energy efficiency
Advantages of distributed building automation

Building automation systems reduce the primary energy consumption of a building. *smart* installation concepts additionally implement the basic idea of a bus-based system by placing the automation components close to the consumers.

In combination with pluggability this leads to a flexible system whose functionality can be adapted quickly and easily to a change of use throughout the lifecycle of a building.

Consistent implementation can also improve the space efficiency of a building due to smaller utility rooms.

Advantages of distribution:

- smaller sub-distribution/utility rooms
- considerably reduced wiring expenses
- reduced demand for copper
- safety (in part fully functional during a bus failure)
- adaptable to change of use
- structured cabling

Advantages of pluggability:

- less prone to errors
- safe installation
- industrially pre-assembled quality
- flexible
- reusable
- faster installation
- structured cabling

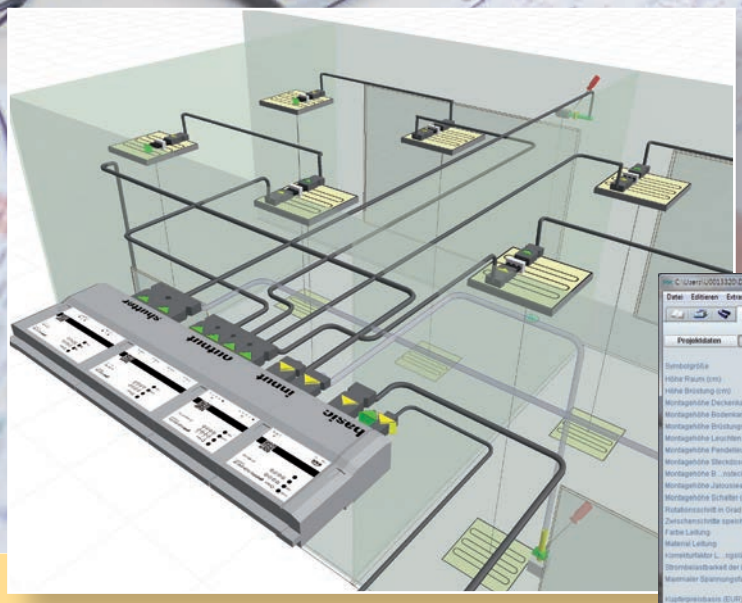
Conclusion:

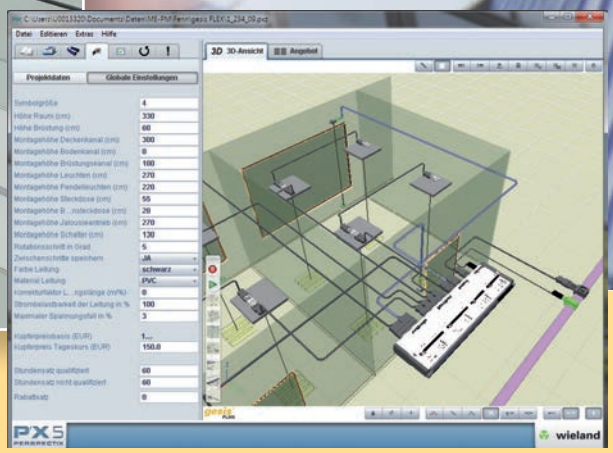
Reduced energy consumption and costs in construction phase and lifecycle of a building.

gesis® RC
radio technology without batteries for wireless sensors

Installation column
Room installation and automation in one system

RST®
Waterproof electronic for outdoor use





gesis®PLAN
3D display of the design.

The **gesis**®PLAN demonstration and planning software is a tool for conveniently designing and calculating pluggable electrical installations with **gesis**®. The software supports specialist planners as well as system integrators, architects and clients in the electrical design of buildings.

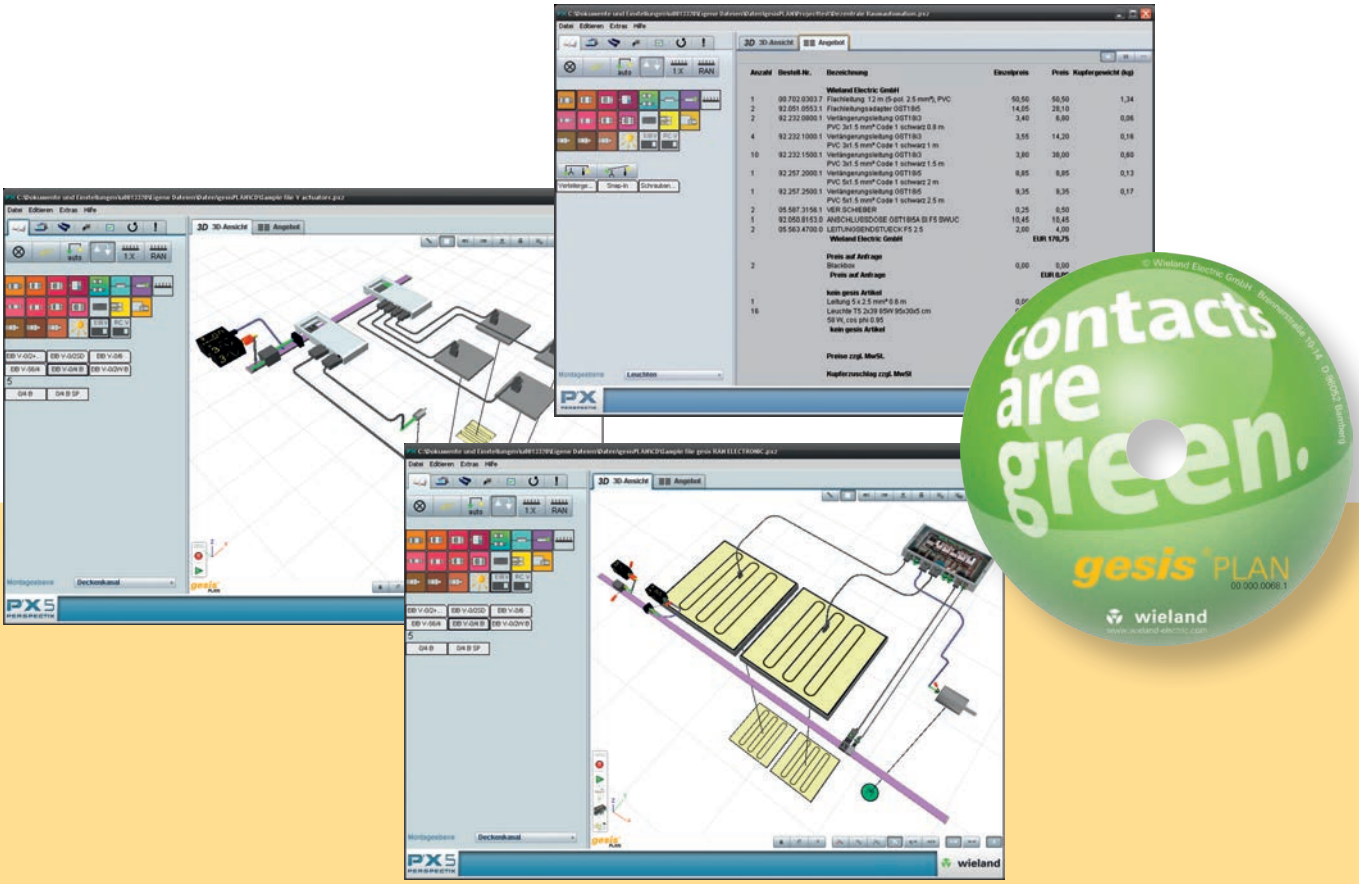
Features:

- Import of DWG/DXF drawings or JPG/PNG graphics
- Free positioning of consumers (lamps, sockets and sunblinds, etc.)
- Component library with all **gesis**® pluggable systems
- **gesis**®ELECTRONIC components, **gesis**®RAN distributor units
- **gesis**®NRG flat cables
- Check of the permitted currents, voltage drops or selectivity
- Item list with precisely calculated cable lengths and price details
- No expert knowledge needed by the use of software wizards

Area of application:

- planning aid for all kinds of functional buildings
- Usable for new buildings and building renovation
- For all installation levels

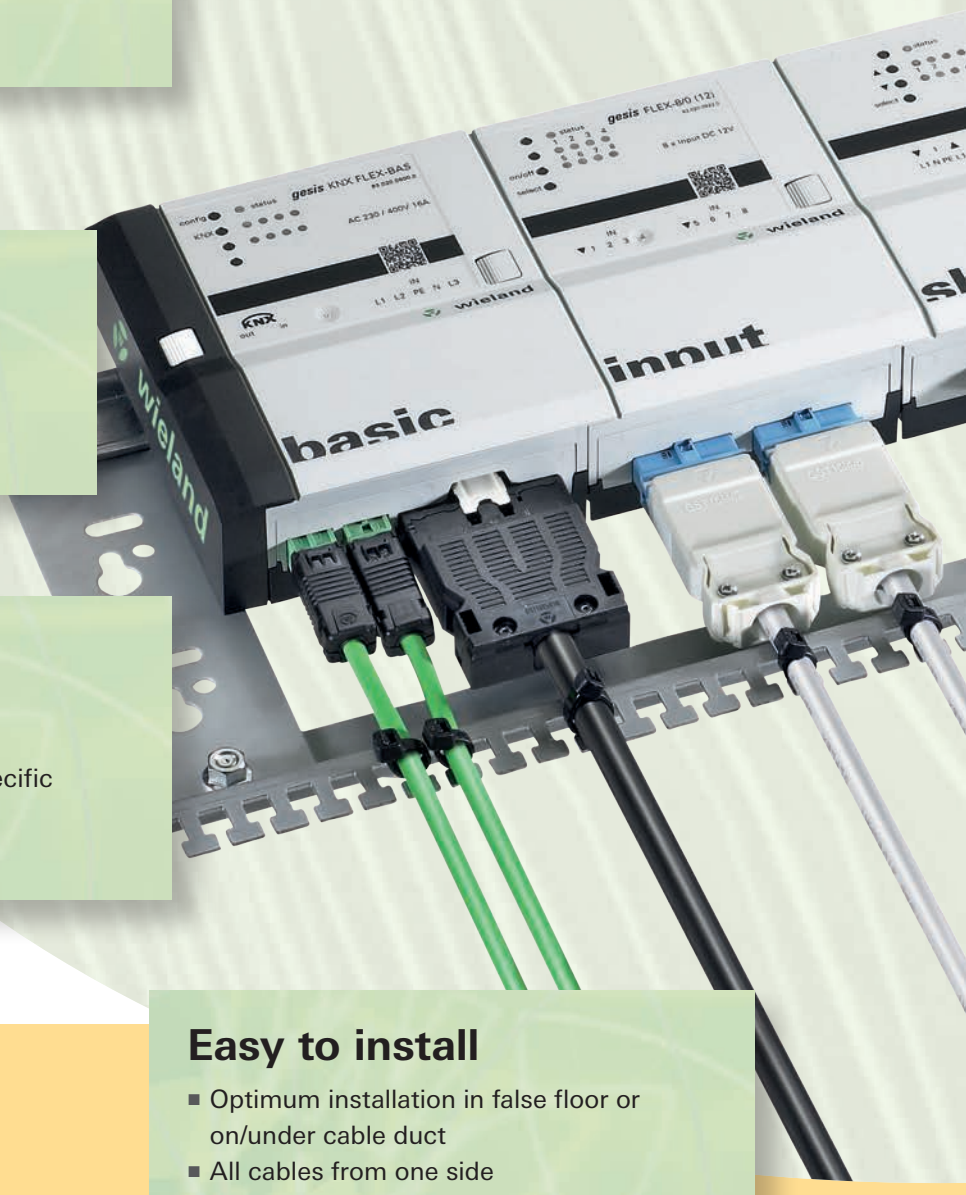
Many years of experience amassed by Wieland Project Support could be used for the development. It is possible to plan not only individual rooms, but also stories and entire buildings.



gesis® FLEX
The design makes all the difference

Compact
- Flat design
- Fits into any installation space (floor, wall, ceiling)
- Easy integration into new and renovated buildings

Versatile
- 15 different extension modules available
- EnOcean and SMI Gateway
- Fan coil control
- Power supply for DC supply



Modular
- Only required functions are installed
- Only one physical address
- 6 extension modules per base module, optional assignment

Easy to engineer
- Modular planning
- Standardized functions
- Standard modules – no project-specific products
- No wiring plans required

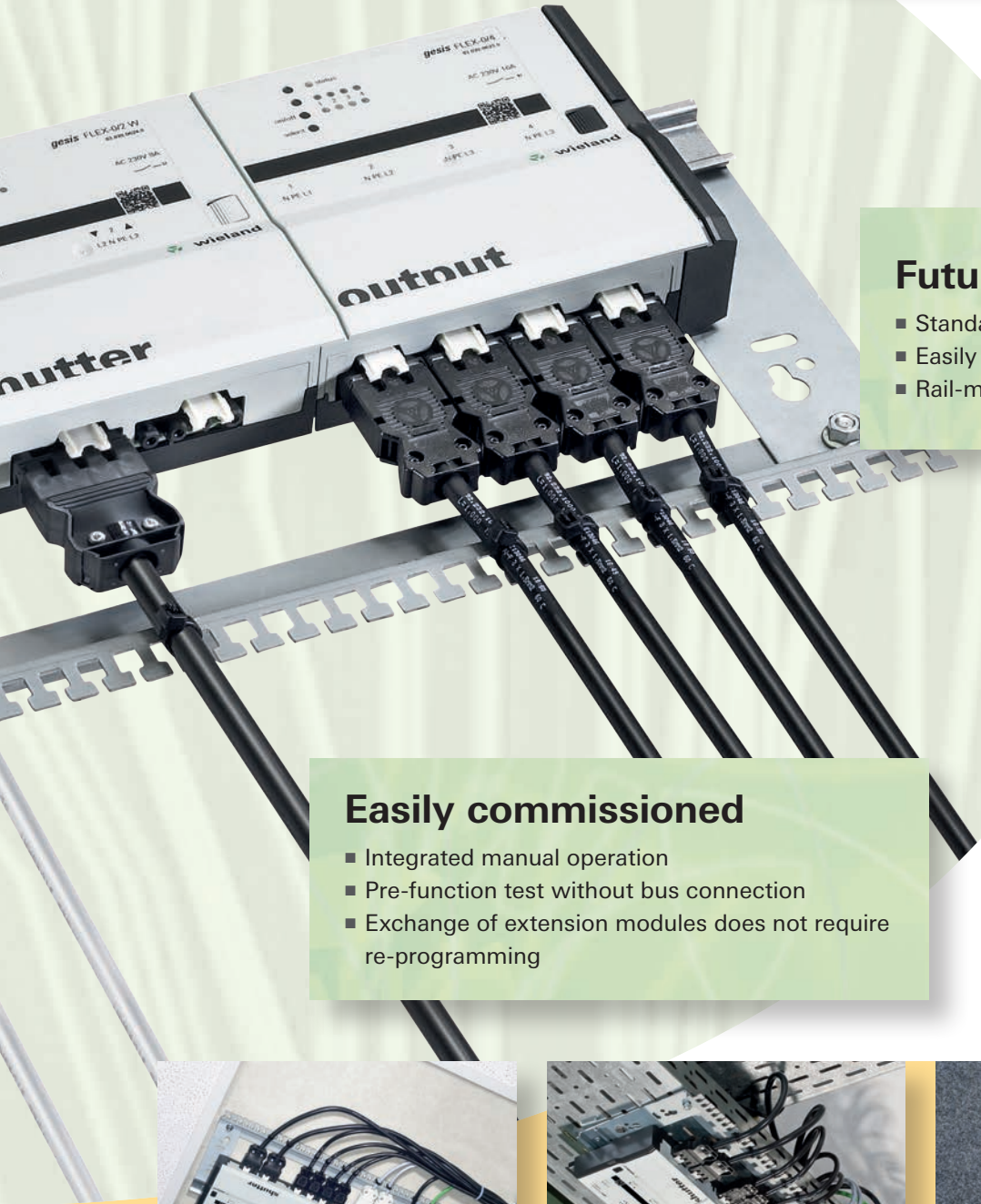
Easy to install
- Optimum installation in false floor or on/under cable duct
- All cables from one side
- Quick mounting accessories

Pluggable

- 100 % pluggable modular system
- Pluggable input/output cables
- Quick and error-free installation

Decentralized

- Significantly reduced cable lengths
- Full functionality during bus failure
- Smaller sub-distribution / utility rooms

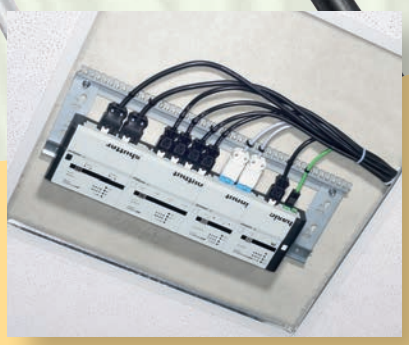


Future-proof

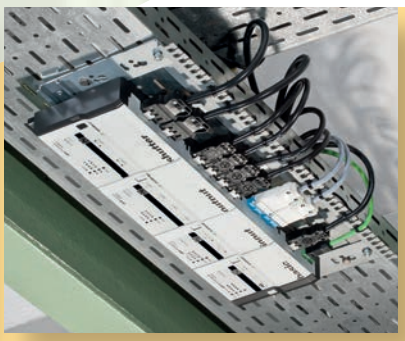
- Standardized systems
- Easily extendable due to pluggability
- Rail-mounted devices can be integrated

Easily commissioned

- Integrated manual operation
- Pre-function test without bus connection
- Exchange of extension modules does not require re-programming



Ceiling



Cable tray

Floor

Data for the *gesis*® FLEX series

Mains connection:	230 V AC or 400 V AC, depending on the base or feed module	
Bus connection:	KNX TP	
Connection type:	all electrical connections are pluggable	
Module dimensions:		
Comment:	Different dimensions see product part	
Height (vertically from the top edge of the top-hat rail)		
	all except DIN rail	44 mm
Width (crossways to the top-hat rail)		
	Normal	149 mm
Length (along the top-hat rail)		
	narrow housing	95 mm mounted
	wide housing	130 mm mounted
	side covers	approx. 30 mm in total
Installation		
without top-hat rail	on flat surfaces	
with top-hat rail	TH35 (recommended TH35x7,5)	
with mounting frame	see product part	

		83.020.0600.0 / ...1	83.020.0601.0 / ...1	83.020.0610.0 / ...1	83.020.0611.0 / ...1	83.020.0622.0 / ...1	83.020.0623.0 / ...1	83.020.0624.0 / ...1	83.020.0626.0 / ...1	83.020.0627.0 / ...1	83.020.0630.0 / ...1	83.020.0631.0 / ...1	83.020.0632.0 / ...1	83.020.0633.0 / ...1	83.020.0634.0 / ...1	83.020.0636.0 / ...1	83.020.0637.0 / ...1	83.020.0628.0 / ...1	83.020.0635.0 / ...1	83.020.0638.0 / ...1	83.020.0639.0 / ...1	83.020.0640.0 / ...1	83.020.0660.0	83.020.0661.0	83.020.0662.0	83.020.0663.0
Functions	**gesis FLEX Modular**																									
	KNX Connection	x	x															x								
	Base module for x extension modules	6	6																							
	Extension module for Base module					x	x	x	x	x	x	x	x	x	x	x	x									
	3-phase mains feed	x		x																						
	1-phase mains feed		x		x														x	x						
	Mains power supply through upstream module					x	x	x	x		x	x	x		x	x	x				x	x	x	x	x	x
	Binary input 12-V SELV					8																				
	Switching output 230V 16A						4									3										
	Switching output 230V 16A C-load								4																	
	Sunblind output 230V AC 8A							2							2*											
	Sunblind output 24V DC 3A**									2							2*									
	DALI outputs for each of 16 ballasts										4															
	Semiconductor output AC 230V 0.5A											4	4*													
	Semiconductor output DC 24V 0.5A**													4*												
	gesis FLEX stand-alone																									
	EnOcean - KNX gateway channels																	32								
	SMI gateway / number of motors																		8							
	Fan coil																									
	Fan connector 3-step																			1						
	Valve actuation 2-point or permanently																			1	1					
	Auxiliary relay 230V																				1					
	Binary input																				1					
	Temperature sensor input																				1					
	gesis FLEX add-on / auxiliary functions																									
	Power supply unit 24V DC 30W																					1				
	Installation DIN rail 4 module widths																						x	x	x	x
	Fitting cable diameter 5 - 9 mm																							1		1
	Fitting cable diameter 7 - 13 mm																							2		2
	Hinged lid																								x	x

Note:
For products with .1 on the end of the order number are corresponding male plugs enclosed.

* With secured outputs

** Externals 24 V DC power supply voltage necessary

Application example: schools

Requirements

School renovations often have to be completed in the shortest time. Using pluggable installations combined with pluggable room automation devices is especially practical here. In classrooms, room automation involves controlling blinds and lighting using conventional buttons. The electrothermal actuators of the radiator valves need to be controlled via semiconductors. In addition, the blind and lighting circuits have to be fused separately.

Realization

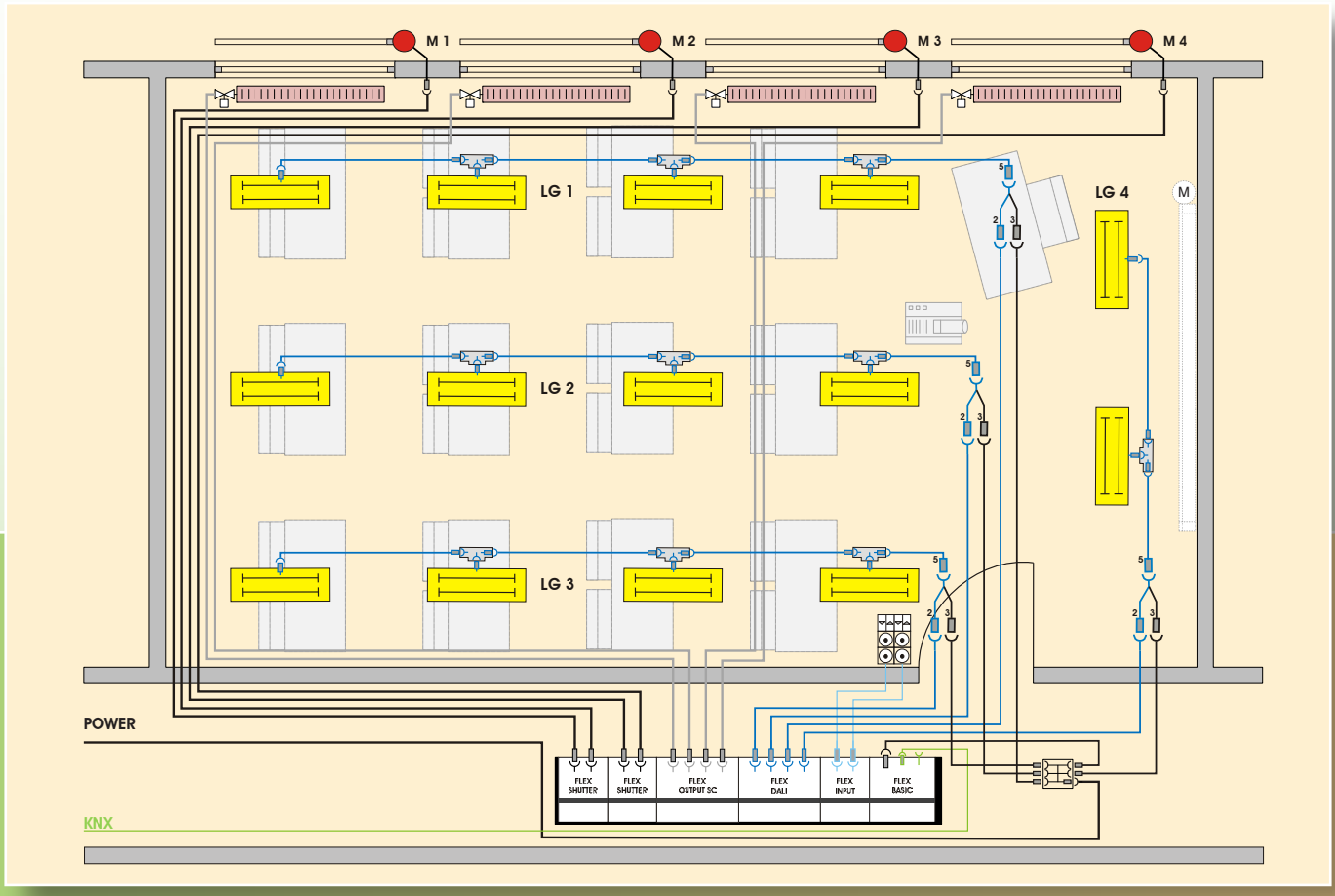
The modular KNX system ***gesis***®FLEX uses conventional buttons, controls the blinds and links the DALI luminaires to the KNX. The heating is controlled by a KNX room temperature controller, the valves are switched via a semiconductor switch. ***gesis***®FLEX enables the lighting and blind circuit to be controlled separately via an additional intermediate power supply.

Used automation devices:

1 x base module, 1-phase	gesis KNX FLEX-BAS SP
1 x binary input, 8-fold	gesis FLEX-8/0 (12)
1 x DALI output 4x16-fold	gesis FLEX-0/4 DA
1 x semiconductor switch	gesis FLEX REG-0/4 H
1 x intermediate power supply	gesis FLEX-MS SP
2 x blind output	gesis FLEX-0/2W
1 x room temperature controller	gesis KNX RTR SP

Used connection elements:

- Three-phase to one-phase distribution block (GST18i5 to GST18i3) for the power supply system to the base module and the mains supply to the DALI luminaires
- Y-conductor for bundling the DALI signal from the ***gesis***®FLEX system and the mains supply
- Standard conductors and connectors from the GST18, GST15 and BST 14 systems



Feeds 1-phase or 3-phase

3-phase:

The base modules and intermediate feeds are designed for 3-phase 230/400V connection. This is necessary for connecting high loads to the extension modules. If various feeds should be used, this can be achieved via an intermediate feed. The outputs of the extension modules are hard-wired to the fed outer conductors. E.g. switching output 4-fold output A1 – L1; A2 – L2; A3 – L3; A4 – L3.

1-phase:

Feeds with 1-phase mains connection are used if the connected power is low. The through-wiring within a ***gesis***®FLEX arrangement is always designed as 3-phase. Single-phase feed modules bridge the three live conductors. The connected extension modules are thereby connected to an outer conductor. E.g. switching output 4-fold output 1 – 4 on the connected outer conductor.

With or without plug set

Without plug set:

The ***gesis***®FLEX series offers pluggable electrical connections throughout. The corresponding plugs come from different ***gesis***® product lines depending on their use.
If a pluggable electrical installation is planned for the entire building project and therefore industrially prefabricated ***gesis***® cables are also used, the model without accompanying connectors is recommended.

With plug set:

If the devices are operated in single applications or a universally pluggable electrical installation is not planned, then choose the model with a plug set. You will receive the devices including all the connectors required for connection. These have a screw or spring connection and are suitable for all common cable types.

KNX base modules 3-phase feed

Type	Std. Pack	Part No.
gesis KNX FLEX-BAS without plug set	10	83.020.0600.0
gesis KNX FLEX-BAS Z with plug set	1	83.020.0600.1 1 mains feed 5-pole GST18i5, black 1 bus feed 2-pole, BST14i2, green

The 3-phase supplied KNX base module with flat surface mounted housing, which can be fitted on DIN rails for decentralized installation, supports 6 expansion modules. They support all the common inputs and outputs, and they provide extensive room automation with only one physical address. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains	230/400 V; 3 x 16 A
Bus	KNX TP1
Outputs	
Mains and bus connection	to next module
Dimensions	length: 117 mm with left cover width: 149 mm incl. plug lock height: 44 mm without mounting rail
Installation	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

KNX base modules 1-phase feed

Type	Std. Pack	Part No.
gesis KNX FLEX-BAS SP without plug set	10	83.020.0601.0
gesis KNX FLEX-BAS SP Z with plug set	1	83.020.0601.1 1 mains feed 3-pole GST18i3, black 1 bus feed 2-pole, BST14i2, green

The 3-phase supplied KNX base module with flat surface mounted housing, which can be fitted on DIN rails for decentralized installation, supports 6 expansion modules. They support all the common inputs and outputs, and they provide extensive room automation with only one physical address. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains	230 V; 16 A
Bus	KNX TP1
Outputs	
Mains and bus connection	to next module
Dimensions	length: 117 mm with left cover width: 149 mm incl. plug lock height: 44 mm without mounting rail
Installation	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

Power supply module 3-phase

Type	Std. Pack	Part No.
gesis FLEX-MS without plug set	10	83.020.0610.0
gesis FLEX-MS Z with plug set	1	83.020.0610.1 1 mains feed 5-pole GST18i5, black

The 3-phase power supply module with flat surface mounted housing, which can be fitted on DIN rails for decentralized installation, allows a mains supply separate from the base module within a modular system. This means that the output loads can be split over different fuse circuits. It can be integrated in the system as often as required. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains	230/400 V; 3 x 16 A
Bus	from preceding module
Outputs	
Mains and bus connection	to next module
Dimensions	length: 95 mm (mounted) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Installation	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

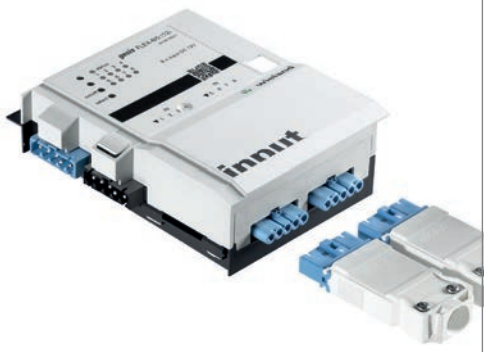
Power supply module 1-phase

Type	Std. Pack	Part No.
gesis FLEX-MS SP without plug set	10	83.020.0611.0
gesis FLEX-MS SP Z with plug set	1	83.020.0611.1 1 mains feed 3-pole GST18i3, black

The 1-phase power supply module with flat surface mounted housing, which can be fitted on DIN rails for decentralized installation, allows a mains supply separate from the base module within a modular system. This means that the output loads can be split over different fuse circuits. It can be integrated in the system as often as required. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains	230 V; 16 A
Bus	from preceding module
Outputs	
Mains and bus connection	to next module
Dimensions	length: 95 mm (mounted) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Installation	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

Binary inputs 8-fold



Type	Std. Pack	Part No.
gesis FLEX-8/0 (12) without plug set	10	83.020.0622.0
gesis FLEX-8/0 (12) Z with plug set	1	83.020.0622.1 2 plugs, each for 4 inputs 5-pole GST15i5, light blue

The 8-fold binary input 12 VDC, for connecting potential-free contacts, with flat surface mounted housing which can be fitted on in DIN rail for decentralized installation, is managed by the base module. It receives mains and bus supply from the upstream module. The extensive parameter set enables different automation functions. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains and bus connection	from preceding module
Outputs	
Mains and bus connection	to next module
Inputs	8 (2x4), non-isolated 12 V SELV
Dimensions	length: 95 mm mounted (105 mm with left cover) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Installation	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

DALI output 4-fold

Type	Std. Pack	Part No.
gesis FLEX-0/4DA without plug set	10	83.020.0630.0
gesis FLEX-0/4DA Z with plug set	1	83.020.0630.1 4 plugs, GST15i2, pastell blue

The DALI output 4-fold for four separate controlled broadcast channels each for 16 DALI ballasts, with flat surface mounted housing which can be fitted on DIN rails for decentralized installation, is managed by the base module. It receives mains and bus supply from the upstream module. The extensive parameter set enables different automation functions. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation. All necessary plugs are enclosed.

Infeed	
Mains and bus connection	from preceding module
Outputs	
Mains and bus connection	to next module
DALI outputs	4, for each of 16 DALI EVGs all DALI EVGs connected to one output work in Broadcast mode
DALI plug system	GST15i2, pastel blue, female connector in the module
Dimensions	length: 130 mm mounted (140 mm with left cover) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Installation	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension modules from the ***gesis*®** FLEX series Y-conductor DALI+mains power, see page 23 mounting frame, see page 26 plug-in connectors, see page 84

Switching outputs 4-fold, standard and C-load

Type	Std. Pack	Part No.
gesis FLEX-0/4 Standard, without plug set	10	83.020.0623.0
gesis FLEX-0/4 Z Standard, with plug set	1	83.020.0623.1
gesis FLEX-0/4P C-Load, without plug set	10	83.020.0626.0
gesis FLEX-0/4P Z C-Load, with plug set	1	83.020.0626.1

The 4-fold relay output 230 VAC/16 A, with flat surface mounted housing which can be fitted on DIN rails for decentralized installation, is managed by the base module. It receives mains and bus supply from the upstream module. The extensive parameter set enables different automation functions. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains and bus connection	from preceding module
Outputs	
Mains and bus connection	to next module
Relay output	
Standard (83.020.0623.x)	230V / 16A ohmic load
C-load (83.020.0626.x)	230V / 16A max. 140 mF
plug system in eache case	GST 18i3, black, female connector in the module
Dimensions	length: 130 mm mounted (140 mm with left cover) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	base and extension modules from the ***gesis***® FLEX series mounting frame, see page 26 Connector, see from page 84

Switching output 3-fold, emergency lighting

Type	Std. Pack	Part No.
gesis FLEX 0/3 EL without plug set	10	83.020.0636.0
gesis FLEX 0/3 EL Z with plug set	1	83.020.0636.1

The 3-fold relay output for emergency light 230 VAC/16 A with flat surface mounted housing which can be fitted on DIN rails for decentralized installation, is managed by the base module. It receives mains and bus supply from the upstream module. The pluggable 4-pole output provides neutral, earth, permanent and switched phase. The extensive parameter set enables different automation functions. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains and bus connection	from preceding module
Outputs	
Mains and bus connection	to next module
Relay output	3, non-isolated 230V/16A 4-pole exported with N, PE, switched and switched off outer conductor
plug system	GST 18i4, pebble grey, female connector on module
Dimensions	length: 130 mm mounted (140 mm with left cover) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Installation	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension modules from the ***gesis***® FLEX series mounting frame, see page 26 plug-in connectors, see page 84

Shutter output 2-fold AC, with and without fuse

Type	Std. Pack	Part No.
gesis FLEX-0/2W standard, without plug set	10	83.020.0624.0
gesis FLEX-0/2W Z standard, with plug	1	83.020.0624.1
gesis FLEX 0/2W F with fuse, without plug set	10	83.020.0634.0
gesis FLEX 0/2W F Z with fuse, with plug set	1	83.020.0634.1

The 2-fold shutter output 230 V/8 A, with flat surface mounted housing which can be fitted on in DIN rail for decentralized installation, is managed by the base module. It receives mains and bus supply from the upstream module. The parameter set enables different automation functions. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains and bus connection	from preceding module
Outputs	
Mains and bus connection	to next module
Blind outputs	per 2 separated controllable
Standard	230VAC / 8A
with fuse	230V / 3A miniature fuse 5x20mm 3.15 AT per output
Plug system	GST 18i4, black, female connector in the module
Dimensions	length: 130 mm mounted (140 mm with left cover) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

Blind output 2-fold DC, with and without fuse

Type	Std. Pack	Part No.
gesis FLEX-0/2W DC standard, without plug set	10	83.020.0627.0
gesis FLEX-0/2W DC Z standard, with plug	1	83.020.0627.1
gesis FLEX 0/2W DC F with fuse, without plug set	10	83.020.0637.0
gesis FLEX 0/2W DC F Z with fuse, with male	1	83.020.0637.1

The 2-fold shutter output 24 V DC/3 A, with flat surface mounted housing which can be fitted on in DIN rail for decentralized installation, is managed by the base module. It receives the internal supply from the upstream module. The 24V supply is externally. The parameter set enables different automation functions. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains and bus connection	from preceding module
Power supply system for blind drives	24VDC, 6 A, GST14i2, light blue, male connector in the module
Fuse	6, 3A miniature fuse 5x20mm, in the input circuit
Outputs	
Mains and bus connection	to next module
Blind outputs	per 2 separated controllable
Standard	DC after input voltage / 3 A
with fuse	as standard, however with 6.3 AT fuse in the power supply system
plug system	GST15i2, light blue, female connector in the module
Dimensions	length: 95 mm mounted (105 mm with left cover) Width: 149 mm incl. male lock height: 44 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, systemcompatible mounting frame or flat mounting surface
Accessories	base and extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 connector, see from page 84

Semiconductors AC 230V, with and without fuse

Type	Std. Pack	Part No.
gesis FLEX 0/4 HL AC without fuse, withou plug set	10	83.020.0631.0
gesis FLEX 0/4 HL AC Z without fuse, with male	1	83.020.0631.1
gesis FLEX 0/4 HL AC F with fuse, without plug set	10	83.020.0632.0
gesis FLEX 0/4 HL AC F Z with fuse, with plug set	1	83.020.0632.1

The 4-fold semiconductor output 230 VAC/0.5 A, with flat surface mounted housing which can be fitted on DIN rails for decentralized installation, is managed by the base module. It receives its main and bus supply from the upstream module. The extensive parameter set enables different automation functions. The manual operation level allows functional testing without prior system integration. The electrical connections are pluggable in accordance with IEC 61535, separate automation and installation. Each output of 83.020.0632.x is fused with a 0.5 AT fine-wire-fuse.

Infeed	
Mains and bus connection	from preceding module
Outputs	
Mains and bus connection	to next module
Semiconductor outputs	4, non-isolated 230V/0,5A 2-pole exported with N and switched off outer conductor
Hedge for 83.020.0632.0/1	0.5 AT, miniature fuse 5x20mm
Plug system	GST15i2, black, female connector in the module
Dimensions	length: 130 mm mounted (140 mm with left cover) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	base and extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

Semiconductor output DC 24V, electronically protected

Type	Std. Pack	Part No.
gesis FLEX 0/4 HL DC without plug set	10	83.020.0633.0
gesis FLEX 0/4 HL DC Z with plug set	1	83.020.0633.1

The 4-fold semiconductor output 24 VDC/0.5 A output, with flat surface mounted housing which can be fitted on DIN rails for decentralized installation, is managed by the base module. Each output is electronically fused. Bus and power supply are from the upstream module, the 24 VDC has to be fed separately. The extensive parameter set enables different automation functions. The manual operation level allows functional testing without prior system integration. The electrical connections are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains and bus connection	from the upstream module (main will be looped-through)
DC supply	24V DC, external
Plug system DC-supply	GST15i2, light blue, male connector in the module
Outputs	
Mains and bus connection	to next module
Semiconductor outputs	4, non-isolated 24VDC/0,5A 2-pole exported with + / -
Protection	electronically against overload and short-circuit
Plug system	GST15i2, light blue, female connector in the module
Dimensions	length: 130 mm mounted (140 mm with left cover) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	base and extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

KNX-EnOcean Gateway

Type	Std. Pack	Part No.
gesis FLEX-ENO32 without plug set	10	83.020.0628.0
gesis FLEX-ENO32 Z with plug set	1	83.020.0628.1 Female and male, BST14i2 (KNX)

The bi-directional gateway for 32 channels is an autonomous KNX device in the AP housing that can be mounted on the mounting rail for decentralized installation. The gateway is oriented towards the EnOcean Equipment Profiles (EEP). Besides the commissioning software, convenient manual operation via a display is also available. The ETS application has, in addition, an extensive logic/ control range. The KNX connection is designed to be pluggable. For 83.020.0628.1, the male set is included.

Infeed	
Bus connection KNX	BST14i2, green male connector in the module
EnOcean signals	32 channels, can be switched to bi-directional, all current EEPs
Output	
Bus connection KNX	BST14i2, green female connector in the module
EnOcean signals	32 channels, can be switched to bi-directional, all current EEPs
Dimensions	Length: 126 mm (can be mounted on ***gesis***®FLEX modules) Width: 144 mm height: 44 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	base and extension module from the ***gesis***®FLEX series mounting frame, see page 26 connector, see from page 84

KNX-SMI Gateway

Type	Std. Pack	Part No.
gesis KNX FLEX SMI8 without fuse, withou plug set	10	83.020.0635.0
gesis KNX FLEX SMI8 Z without fuse, with male	1	83.020.0635.1

The 1-phase powered KNX SMI Gateway in shallow AP housing mountable on rails for decentralized installation can control up to 8 SMI drives. The 5-pole output to the connection of SMI motors includes SMI +/- as well as L, N and PE. The extensive set of parameters allows various automation functions. The electrical connections to the KNX - Bus and consumers, pluggable to IEC 61535, separate automation and installation.

Infeed	
Mains	230V / 16A
Plug system	GST18i3, black, male connector in the module
Bus	KNX TP1
Plug system	BST14i2, green, male connector in the module
Outputs	
KNX bus	KNX TP1 (connected from bus input)
Plug system	BST14i2, green, female connector in the module
SMI connection 5-pole	
Mains output	230V/16A (L,N, PE)
SMI signal	for 8 SMI drive systems according SMI standard I+ / I-
Plug system	GST18i5, pastel blue, female connector in the module
Dimensions	Length: 160mm (along the top-hat rail) Width: 149mm (crossways to the top-hat rail) Height: 44mm (without top-hat rail)
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	base and extension modules from the ***gesis***®FLEX series mounting frame, see page 26 Connector, see from page 84

Fan coil basic module

Type	Std. Pack	Part No.
gesis KNX FLEX-FC without plug set	10	83.020.0638.0
gesis KNX FLEX-FC Z with plug set	1	83.020.0638.1

The 1-phase supplied FanCoil base module with flat surface mounted housing which can be fitted on DIN rails for decentralized installation controls one valve for cooling/heating pipes and an fan with three speed level. The function can be extended with an extension module. The extensive parameter set enables different automation functions. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	
Mains	230V, 16A (GST15i3, black, male in the module)
Hedge in the module	5AT, miniature fuse 5x20mm
Bus	KNX TP1 (BST14i2, green, male in the module)
Outputs	
Bus	KNX TP1 (BST14i2, green, female connector in the module)
Fan	3-stage (GST15i5, black, female in the module)
Valve actuation	
constant controlled	0-10V control output and 24VDC
or 2-piece controlled	24VDC, pulse-widthmodulated
Plug system	in each case GST15i3, brown, female in the module
Extension module	***gesis*®** FLEX fan coil extension module
Dimensions	Length: 160mm (along the top-hat rail) Width: 149mm (crossways to the top-hat rail) Height: 44mm (without
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	extension module ***gesis*®** FLEX FC-EM (optional) mounting frame, see page 26 plug-in connectors, see page 84

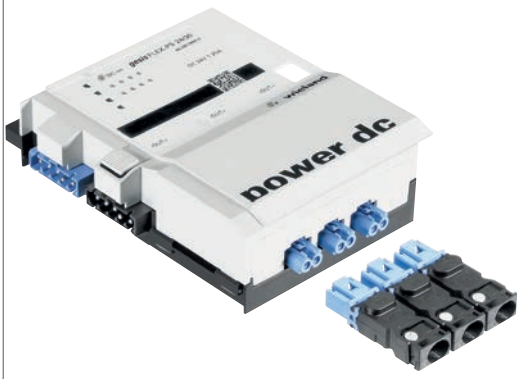
Fan coil extension module

Type	Std. Pack	Part No.
gesis FLEX-FC EM without plug set	10	83.020.0639.0
gesis FLEX-FC EM Z with plug set	1	83.020.0639.1

The extension module for the fan coil base module with flat surface mounted housing which can be fitted on DIN rails for decentralized installation controls one valve for cooling/heating pipes and an auxiliary relays. In addition it has one binary and one temperature sensor input. The extensive parameter set, commissioned in the base module, enables different automation functions. The manual operation level allows function tests without prior system integration. The electrical connections, which are pluggable in accordance with IEC 61535, separate automation and installation.

Infeed	from the fan coil basic module
Input	
Temperature sensor	NTC 6K8 B25/100 = 4200K
Plug system	GST15i2, light blue, female connector in the module
Binary input	for potential-free contacts generates signal voltage 24VDC
Plug system	GST15i2, light blue, female connector in the module
Outputs	
Valve actuation	
constant controlled	0-10V control output and 24VDC power supply
or 2-piece controlled	24VDC, pulse-widthmodulated
Plug system	in each case GST15i3, brown, female in the module
Additional relay	230V, 5A (GST15i3, black, female in the module)
Dimensions	Length: 290mm (incl. basic module and end caps) Width: 149mm (crossways to the top-hat rail) Height: 44mm (without
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	basic module ***gesis*®** KNX FLEX FC (necessary) mounting frame, see page 26 plug-in connectors, see page 84

Power pack 24V DC, 30W

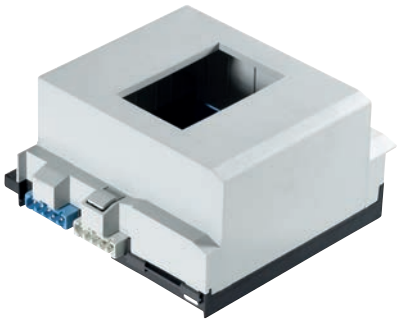


Type	Std. Pack	Part No.
gesis FLEX-PS 24/30 without fuse, without plug set	10	83.020.0640.0
gesis FLEX-PS 24/30 Z without fuse, with male	1	83.020.0640.1

The power supply 24 VDC/30W with flat surface mounted housing which can be fitted on DIN rails for decentralized installation and added to the system. It receives mains from the upstream module and supplies the following modules with mains and the internal bus. The output is wired parallel to three 2-pole connectors.

Infeed	
Mains and bus connection	from preceding module
Outputs	
Mains and bus connection	to next module
DC output	24VDC, 1,25A 2-pole (wired parallel to three 2-pole connectors) Switch-off at load > 33W (switch on at hiccup mode)
Plug system	GST15i2, light blue, female connector in the module
Dimensions	length: 95 mm mounted (105 mm with left cover) width: 149 mm incl. plug lock height: 44 mm without top-hat rail
Installation	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	base and extension modules from the ***gesis*®** FLEX series mounting frame, see page 26 plug-in connectors, see page 84

System housing REG for 4TE

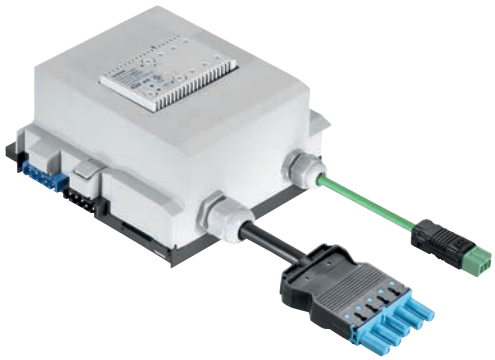


Type	Std. Pack	Part No.
gesis FLEX-REG4 Empty housing without screw fittings, without cover	1	83.020.0660.0
gesis FLEX-REG4 V Empty housing with screw fittings, without cover	1	83.020.0661.0
gesis FLEX-REG4 D Empty housing without screw fittings, with cover	1	83.020.0662.0
gesis FLEX-REG4 DV Empty housing with screw fittings and cover	1	83.020.0663.0

The system-compatible housing module for DIN rail surface mounting for decentralized installation can be used to install DIN rail mounted devices according to DIN 43880 with up to four module width. Mains and bus supply are passed from upstream to downstream module. Main supply can be internally gripped. Depending on the variant, a clear cover to protect the internal device is mounted, cable glands already integrated or on site contributed.

Installation option	rail-mounted devices according to DIN 43880
height / width / depth	90 mm (crossways to the top-hat rail) / 4 module widths (72 mm) / open to the top
Infeed	mains from the preceding module can be tapped internally
Cable entry	for cable diameter 5 - 9 mm 1 x; 7 - 13 mm 2 x
Dimensions	Length: 130 mm mounted Width: 140 mm without screw fittings 173 mm with screw fittings Height: 80 mm without top-hat rail 94 mm with transparent protective cover, without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, system-compatible mounting frame or flat mounting surface
Accessories	module of the ***gesis*®** FLEX series mounting frame, see page 26

DALI Gateway *gesis*®FLEX REG



Type	Std. Pack	Part No.
gesis FLEX-REG 0/64 DA housing device	1	G0.000.0666.8 gesis FLEX REG4 without transparent cover Siemens / DALI Gateway N 141/02

The DALI Gateway (SIEMENS, DALI Gateway N141/02) is an independent KNX device, the surface mounted housing can be fitted on DIN rails for decentralized installation. It may take up to 64 DALI ECGs individually and in control groups. It can be linked to the ***gesis***®FLEX system. The module receives its power supply from an upstream ***gesis***®FLEX module. The KNX connection is pluggable. All connections to the DALI devices are pluggable according to IEC 61535 and separate automation and installation.

Connections	all connections pluggable with approx. 30cm conductor length
KNX Connection	BST14i2 male connector on the module
Mains connection	230 / 400 V from the upstream ***gesis***®FLEX module
DALI	1 x GST18i5 pastel blue
Functions:	
DALI	64 DALI actuators with > 8kOhm input impedance individual and group addressing emergency lighting activation possible
Manual operating level	button for Broadcast operation
Dimensions (excluding conductors)	length: 130 mm mounted width: 173 mm included screwed joints height: 80 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, systemcompatible mounting frame or flat mounting surface
Accessories	modules from the ***gesis***®FLEX series mounting frame, see page 26

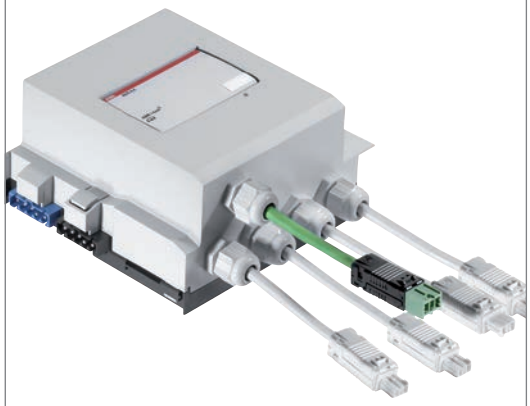
Switch-/dimming output *gesis*®FLEX REG

Type	Std. Pack	Part No.
gesis FLEX-REG 0/2 SD housing device	1	83.020.0667.0 gesis FLEX REG4 without transparent cover ABB SD/S2.16.1

The switch-/dimming output (ABB SD/S2.16.1) is an independent KNX device, the surface mounted housing can be fitted on DIN rails for decentralized installation. It can connect two separate groups of luminaires with dimmable electronic ballasts and dimming by means of 1-10V signal. It can be linked to the ***gesis***®FLEX system. The module receives its power supply from an upstream ***gesis***®FLEX module. The KNX connection is pluggable. All connections to the luminaires are pluggable according to IEC 61535 and separate automation and installation.

Connections	All connections pluggable with approx. 30cm conductor length
KNX Connection	BST14i2 male connector on the module
Mains connection	230 / 400 V from the upstream ***gesis***®FLEX module
Luminaire connection	2 x GST18i5 pastel blue
Functions	
Control output 1-10V	max 100 mA, typical 50 dynamic EVGs
Switching output	230 V AC / 16 A AC1 or 10 A AX
Manual operating level	button for Broadcast operation
Dimensions (excluding conductors)	length: 130 mm mounted width: 173 mm included screwed joints height: 80 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, systemcompatible mounting frame or flat mounting surface
Accessories	modules from the ***gesis***®FLEX series mounting frame, see page 26

Analog input *gesis*®FLEX REG

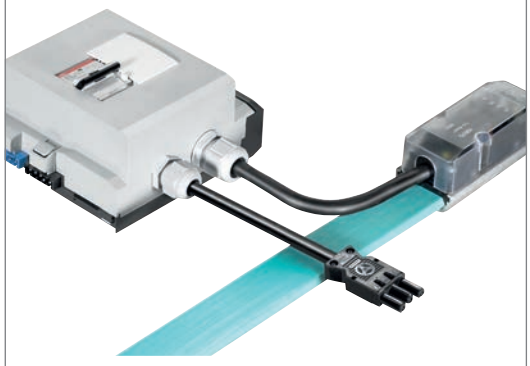


Type	Std. Pack	Part No.
gesis FLEX REG 8/0 AE housing device	1	G0.000.0667.0 gesis FLEX REG4 without transparent cover ABB AE/S4.2

The 4-fold analog input (ABB AE/S4.2) is an independent KNX device, the surface mounted housing can be fitted on DIN rails for decentralized installation. It can capture four analog input signals from commercially available sensors. It can be linked to the ***gesis***®FLEX system. The module receives its power supply from an upstream ***gesis***®FLEX module. The KNX connection and all connections to the sensors are pluggable and separate automation and installation.

Connections	All connections pluggable with approx. 30 cm conductor length
KNX Connection	BST14i2 male connector on the module
Mains connection	230 V from the upstream ***gesis***® FLEX module
Analog inputs	4 x BST14i3 white
Functions	
Input	Parameterizable sensor type
Input resistance for voltage detection	> 50 kOhm
Input resistance for current detection	260 Ohm
Dimensions (excluding conductors)	length: 130 mm mounted width: 173 mm included screwed joints height: 80 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, systemcompatible mounting frame or flat mounting surface
Accessories	modules from the ***gesis***® FLEX series mounting frame, see page 26 connector, see from page 84

FI/LS combination *gesis*®FLEX REG



Type	Std. Pack	Part No.
gesis FLEX-REG FI_LS housing device	1	G0.000.0667.3 gesis FLEX REG4 without transparent cover ABB DS201 B16 0,03A

The RCCB/MCB combination with the flat cable tap for Wieland 10 mm² flat cable is used for decentralized fuse, the surface mounted housing can be fitted on DIN rails for decentralized installation. It can be mechanically linked to the ***gesis***®FLEX system and forwards ***gesis***®FLEX bus and mains to downstream module. The fused output is pluggable according to IEC 61535 and separates automation and installation.

Connections	
Input	Flat cable adapter 10mm² Wieland 92.050.8353.0 Tap-off L1 on flat cable adapter, can be modified to L2/L3
Connection cable input	1.5 m / 4 mm²
Nominal current	16 A
Leakage current IΔn	30 mA
Circuit breaker characteristics	B
Output	1 x GST18i3 black
Manual operating level	Button for Broadcast operation
Dimensions (excluding conductors)	length: 130 mm mounted width: 173 mm included screwed joints height: 80 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, systemcompatible mounting frame or flat mounting surface
Accessories	modules from the ***gesis***® FLEX series mounting frame, see page 26 connector, see from page 84

System extensions mains

Type	Std. Pack	Part No.
Mains extension 0.5 m	1	91.257.0500.2
Mains extension 1.0 m	1	91.257.1000.2

The mains extension for the flat surface-mounted module system for decentralized installation, which can be mounted on a mounting rail, may have a length of no more than one meter in the system. It locks automatically upon insertion. The mechanical coding means that the mains connection cannot be confused with the bus connection.

Mains extension

Nominal voltage	230/400 V
Nominal current	3 x 16 A
Connector system	GST15i5 white

Installation connecting and locking on the ***gesis*®** FLEX modules

System extensions bus

Type	Std. Pack	Part No.
Bus extension 0.5 m	1	99.400.9999.8
Bus extension 1.0 m	1	99.401.9999.8

The extension of the internal bus for the flat surface-mounted module system for decentralized installation, which can be mounted on a mounting rail, may have a length of no more than one meter in the system. It locks automatically upon insertion. The mechanical coding means that the mains connection cannot be confused with the bus connection.

Mains extension

Nominal voltage	50 V
Nominal current	10 A
Connector system	GST15i5 light blue

Installation connecting and locking on the ***gesis*®** FLEX modules

Y-cable for DALI applications

Type	Std. Pack	Part No.
PVC cable 0.5 m	1	99.404.9999.8
Halogen-free cable 0.5 m	1	99.405.9999.8

DALI Y connection cable, one male connector for feed in power GST 18i3 - Code 1, black and DALI GST15i2 - code 2, pastel blue to a common female part GST18i5 - code 2, pastel blue for DALI wiring, length 0.5m.

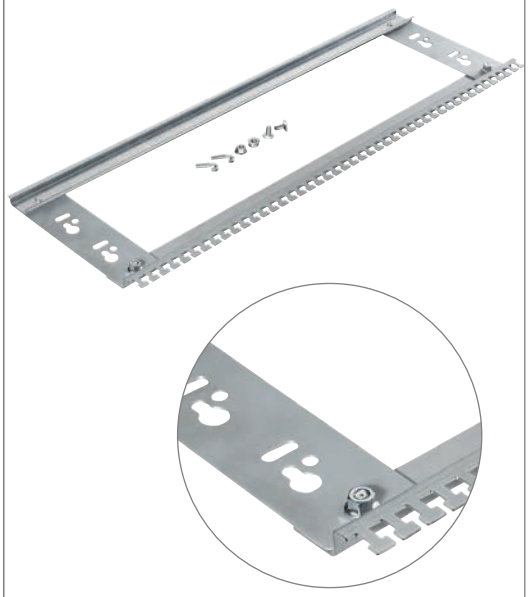
Power supply unit 24 V, 2.4 A *gesis*®FLEX REG

Type	Std. Pack	Part No.
gesis FLEX REG PS24-2.5 housing device	1	G0.000.0667.2 gesis FLEX REG4 without transparent cover Wieland switched-mode power supply wipos PB1 24-2.5

The power supply is used to supply 24 V DC consumers, the surface mounted housing can be fitted on DIN rails for decentralized installation. It is not suitable as a KNX power supply. It can be linked to the ***gesis***®FLEX system. The module receives its power supply from an upstream ***gesis***®FLEX module. The output is pluggable according to IEC 61535 and separates automation and installation.

Connections	All connections pluggable with approx. 30 cm conductor length
Mains connection	230 from the upstream ***gesis***® FLEX module
Output voltage	24 V DC (adjustable to 28 V DC)
Output current	2.5 A
Dimensions (excluding conductors)	length: 130 mm mounted width: 173 mm included screwed joints height: 80 mm without top-hat rail
Mounting	surface-mounted on TH35 mounting rail, systemcompatible mounting frame or flat mounting surface
Accessories	modules from the ***gesis***® FLEX series mounting frame, see page 26 connector, see from page 84

Mounting frame



Type		Std. Pack	Part No.
Mounting frame	40 cm	1	Z5.524.1410.0
	50 cm	1	Z5.524.1510.0
	60 cm	1	Z5.524.1610.0
	70 cm	1	Z5.524.1710.0
	80 cm	1	Z5.524.1810.0
	90 cm	1	Z5.524.1910.0
	100 cm	1	Z5.524.2010.0

The mounting aid for the flat surface-mounted module system for decentralized installation, which can be mounted on a mounting rail, simplifies installation on cable support systems, ceilings, or walls. It accommodates up to six modules and has attachments for all incoming/outgoing cables. The hole pattern and supplied screws enable quick assembly.

Installation	in cable duct with accompanying flat-head screws on mesh cable trays with accompanying clip bolts screw fastening to other substrates
Mounting rail	TH35 integrated
Attachment of the cables	with cable ties to the hammer head profile
Dimensions	width: see above height: 230 mm depth: 15 mm

Number of modules and suggested length of the mounting frame

Base module + covers + installation	Binary input or intermediate feed	Switching, sunblind or DIN rail housing	Mounting frame length in cm	Order number
195 mm	95 mm	130 mm		
1	0	1	40	Z5.524.1410.0
1	0	2	50	Z5.524.1510.0
1	0	3	60	Z5.524.1610.0
1	0	4	80	Z5.524.1810.0
1	0	5	90	Z5.524.1910.0
1	0	6	100	Z5.524.2010.0
1	1	0	40	Z5.524.1410.0
1	1	1	50	Z5.524.1510.0
1	1	2	60	Z5.524.1610.0
1	1	3	70	Z5.524.1710.0
1	1	4	90	Z5.524.1910.0
1	1	5	100	Z5.524.2010.0
1	2	0	40	Z5.524.1410.0
1	2	1	50	Z5.524.1510.0
1	2	2	70	Z5.524.1710.0
1	2	3	80	Z5.524.1810.0
1	2	4	100	Z5.524.2010.0
1	3	0	50	Z5.524.1510.0
1	3	1	60	Z5.524.1610.0
1	3	2	80	Z5.524.1810.0
1	3	3	90	Z5.524.1910.0
1	4	0	60	Z5.524.1610.0
1	4	1	70	Z5.524.1710.0
1	4	2	90	Z5.524.1910.0
1	5	0	70	Z5.524.1710.0
1	5	1	80	Z5.524.1810.0

Covers

Type	Std. Pack	Part No.
Set with two covers	1	99.061.9999.9

The covers serve to close ***gesis*®** FLEX devices or device arrangements on the left and right sides. They are included with base modules. If, for example, a ***gesis*®** FLEX housing is operated in isolation or only via Feed in Module, we recommend the use of protective caps.

Mounting Connecting and locking on the ***gesis*®** FLEX modules

Recommendation: Space for labels

***gesis*®** FLEX devices offer enough space to place documentation on the device between labels. We recommend A4 label sheets with individual labels up to a dimension of 30x 90 mm. Manufacturers often offer templates or proprietary software tools that permit effective labeling.

Example:
Avery customized label 70 x 26.7 mm, 30 pieces on A4 sheet
Art. no. Avery customized label 3489

gesis® RM

KNX-modular devices for flexible and decentralized installation

Versatile

- 11 different extension modules
- DALI, EnOcean coupling to KNX

Modular

- Only required functions are installed
- Only one physical address
- Functions freely selectable

Configuration

- To be installed in a decentralized ***gesis***®RAN distributor
- From the tender text to the distribution plan, you receive everything from Wieland

Mounting

- On mouting rail TH35 in a housing
- or directly in the ***gesis***®RAN distributor

Compact

- Heights under 55 mm inclusive of housing possible
- Dimensions and connection variants of the housing selectable

Connections selectable

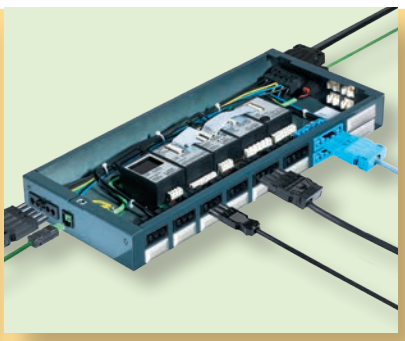
- Installed in a housing the connection type is pluggable or self-connection selectable

Decentralized

- Downsized cable lengths and quantities
- Clear management
- Small sub-distributors, technical rooms

Built-in in individual distributors

- Distributors (*gesis*® RAN) according to customers requirements
- Dimensions freely selectable
- Installations individual
- Wiring and distribution plans are supplied



***gesis*® RM**
The modular, project-specific system for KNX and radio control

Common data of the *gesis*®RM device series

Dimensions (length/width/height in mm)	
Width in the direction of the DIN rail (MW)	49mm (2.7 MW)
Height	100mm
Depth incl. mounting rail TS 35x7.5	52mm
Degree of protection	IP00 Due to degree of protection IP00 the devices must be installed inside a ***gesis***® distribution box or a similar housing.
Housing	halogen-free
Housing color	black
Installation type	on TH 35 mounting rail
Software	The extension modules are managed exclusively in the base module
KNX	Product database for ETS available at www.wieland-electric.com

		KNX base module 83.020.0400.0	Power supply unit 1-fold 83.020.0401.0	Power supply unit 2-fold 83.020.0421.0	Binary input 8-fold 83.020.0402.0	Radio input 16-fold 83.020.0408.0	Switching output 4-fold 83.020.0403.0	Sunblind output 2-fold 230 V 83.020.0404.0	Sunblind output 2-fold 24 V DC 83.020.0407.0	Switching/dimming output, 2-fold 83.020.0405.0	Universal dimmer 2-fold 83.020.0409.0	DALI output 2-fold 83.020.0410.0	Semiconductor output 4-fold wide range 83.020.0406.0	Semiconductor output AC 83.020.0411.0	Semiconductor output DC 83.020.0412.0
Functions	Management of x extension modules (slots on the base module)	4													
	Supply for x base modules		1	2											
	x slots occupied				1	2	1	1	1	1	1	1	1	1	1
	Binary inputs				8										
	Radio inputs					2 x 8									
	Switching outputs, 16 A (relay)						4								
	Sunblind outputs 230 V 5 A							2							
	Sunblind outputs 24 V DC 5 A								2						
	Switching/dimming output 230 V / 1 – 10 V									2					
	Universal dimmer 2 x 250 V A RLC load										2				
	DALI output broadcast 2 x 8 EBs											2			
	Semiconductor output 24 – 230 V AC/DC 0.5 A												4		
	Semiconductor output 230 V AC 0.5 A													4	
	Semiconductor output 24 V DC 0.5 A														4
Voltage/ supply	Auxiliary voltage / supply 230 V														
	Auxiliary voltage 12 V RM power supply														
Screw terminals	0.14 – 1.5 mm² solid (inputs)														
	0.14 – 1.0 mm² solid (inputs)														
	0.14 – 4.0 mm² solid														
	0.14 – 2.5 mm² fine stranded														
Antenna connection	SMA socket														

Office with heating/cooling system with gesis® EIB RM

Requirements for each office

- two switched lighting circuits
- one sunblind
- one heating valve (24 V, 2-point control)
- one cooling valve (24 V, 2-point control)
- window position detection
- push-buttons and room temperature controllers with direct bus capability
- separate incoming supply for lighting and sunblinds

Realization

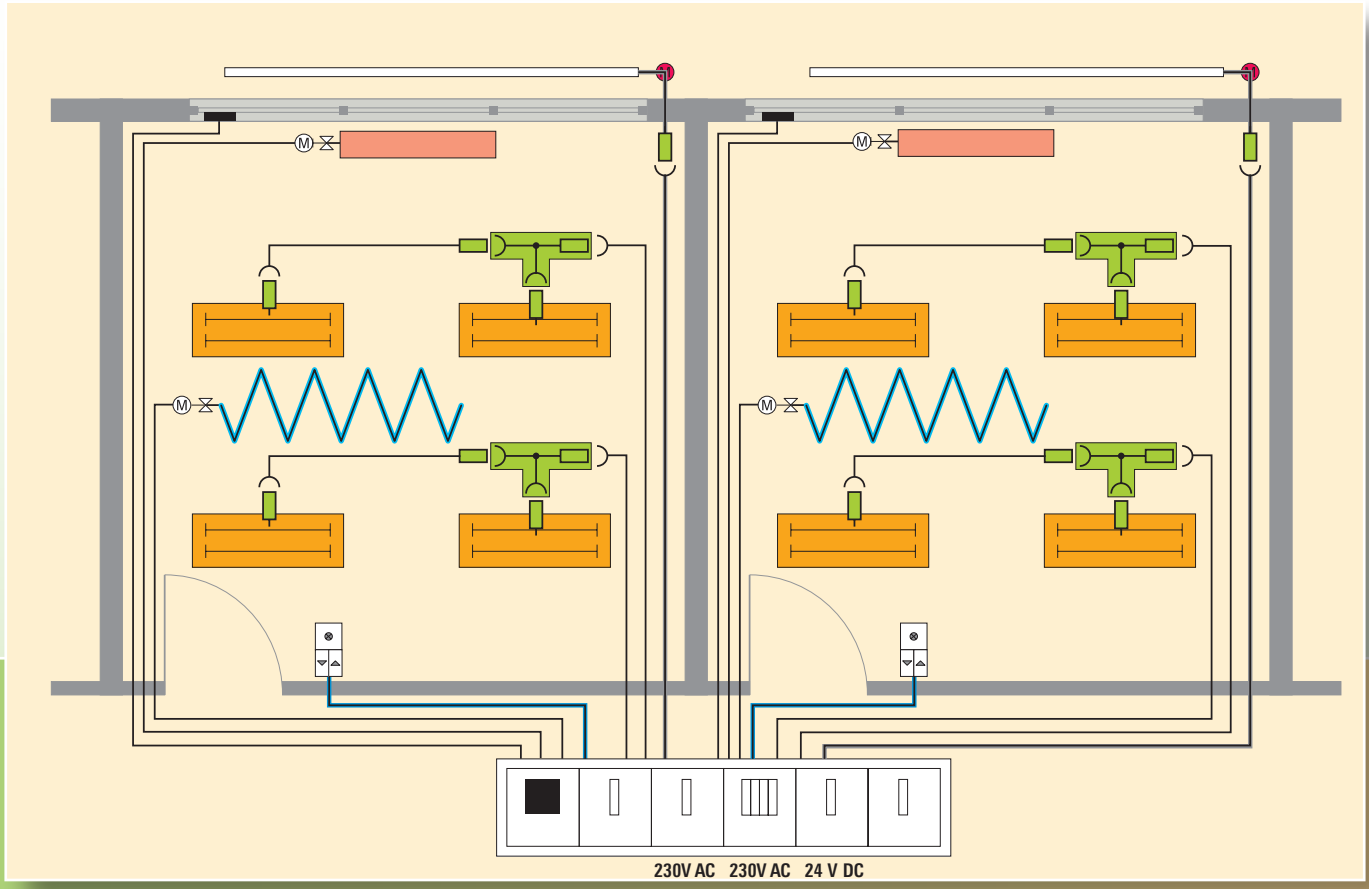
Two offices are controlled with one gesis®RAN distribution unit equipped with the following modules:

1 x base module KNX	gesis EIB RM2-BAS
1 x switching application 4-fold lighting	gesis RM-0/4
1 x sunblind output 2-fold	gesis RM-0/2W SI
1 x semiconductor switching output 4-fold heating/cooling valves	gesis RM-4HL
1 x binary input 8-fold window contacts	gesis RM-8/0 (12)

Installation of the modules inside a customized gesis®RAN.

Note

The binary input still has six available input contacts. These can be used, for example, for conventional push-buttons to control the sunblinds directly at the window.



KNX RM base module

The KNX RM base module manages up to four extension modules. The extension modules are connected with a flat cable to the base module; the flat cable is supplied with the extension modules. Regardless of the number of extension modules, the module counts as one physical address.

Type	Part No.
gesis EIB RM2-BAS	83.020.0400.3
Infeed:	
Supply	12 V DC from gesis RM-PS
Bus	KNX TP 1
Outputs:	four slots for flat cables to the extension modules
Accessories:	gesis RM-PS

Power supply unit for one base module

One base module can be connected to the power supply unit. The power supply unit supplies the base module and, through it, the connected extension modules, too.

Type	Part No.
gesis RM-PS	83.020.0401.0
Infeed:	
Supply	230 V AC
Output:	12.5 V DC SELV / 160 mA for one base module

Power supply unit for 2 base modules

Two base modules can be connected to the power supply unit. The base module and, through it, also the extension modules are supplied with energy.

Type	Part No.
gesis RM-PS 12/5	83.020.0421.0
Infeed:	
Supply	230 V AC
Output:	12.5 V DC SELV / 400 mA for two base modules

Extension module binary input 8-fold

Eight independent potential-free contacts can be connected to the binary input. The scanning voltage of 12 V DC is provided by the module.

Type	Part No.
gesis RM-8/0 (12)	83.020.0402.0
Infeed:	
Supply	230 V AC
Base module	pluggable flat cable on the front panel
Inputs:	
Quantity	8, for potential-free contacts max. cable length 100 m each
Scanning voltage	12 V DC SELV, provided by the module
Accessories:	RM base module

Extension module radio input EnOcean 2 x 8-fold

The radio input can manage 2 groups of eight inputs each. One slot per group is required on the base module. The radio sensors (e.g. push-buttons) are assigned directly on the module without any additional software (EnOcean learn mode).

Type	Part No.
gesis RM-16/0 (RC)	83.020.0408.0
Infeed:	
Base module	pluggable flat cable on the front panel
Inputs:	2 x 8, EnOcean sensors a total of 170 EnOcean telegrams can be programmed for the 16 inputs
Accessories:	RM base module antenna with SMA plug; we recommend the Wieland antenna 83.020.0503.0

Antenna for EnOcean devices with external antenna

The 868.6 MHz antenna is suitable for connection to Wieland ***gesis*** devices with a SMA socket. The black antenna can be fastened with a magnetic foot and has a 2.5 m connection cable.

Type	Part No.
Antenna	83.020.0503.0
Antenna – 868.3 MHz antenna – fastened with magnetic foot – incl. approx. 2.5 m connection cable and SMA plug	

Extension module binary output 4-fold

The 4-fold switching output has four independently controllable relays. Strict isolation of the relay outputs enables connection of various phase conductors.

Type	Part No.
gesis RM-0/4	83.020.0403.0
Infeed:	
Supply	switching voltage for the outputs
from the base module	pluggable flat cable on the front panel
Outputs:	4, potential-free contacts 230 V; 16 A ohmic load
Accessories:	RM base module

Extension module 2-fold sunblind output

The 2-fold sunblind output for 230 V motors with two directions of rotation can directly position the sunblind and the slat angle for each of the two outputs separately. Fusing of the outputs inside the module considerably facilitates troubleshooting in the case of a short circuit inside the sunblind circuit.

Type	Part No.
gesis RM-0/2W SI	83.020.0404.0
Infeed:	
Supply	230 V AC (switching voltage for outputs)
from the base module	pluggable flat cable on the front panel
Outputs:	
Quantity	2, for potential-free change-over contacts with neutral center position
Fuse	230 V / 5 AT integrated in the device for the two outputs together
Accessories:	RM base module

Extension module sunblind output 2-fold for 24 V DC drives

The 2-fold sunblind output for 24 V DC motors with two directions of rotation (pole reversion) can optionally position the two outputs separately. Fusing of the outputs inside the module considerably facilitates troubleshooting in the case of a short circuit inside the sunblind circuit.

Type	Part No.
gesis RM-0/2W DC	83.020.0407.0
Infeed:	
Supply	24 V DC (switching voltage for outputs)
from the base module	pluggable flat cable on the front panel
Outputs:	
Quantity	2, potential-free with pole reversion
Fuse	5 AT integrated in the device for both outputs together
Rated voltage	6 – 24 V DC
Accessories:	RM base module

Extension module 2-fold switching/dimming output

The switching/dimming actuator has two isolated outputs with one switching and one control output each. Strict isolation of the outputs enables connection of various phase conductors.

Type	Part No.
gesis RM-0/2SD	83.020.0405.0
Infeed:	
Supply	230 V AC for supply of the electronic 230 V AC (Switching voltage for outputs)
from the base module	Pluggable flat cable on the front panel
Outputs:	2
Main power supply	potential-free contacts for 230 V; 16 A
Control output	1 – 10 V, max. 50 mA (passive)
Accessories:	RM base module

Extension module 2-fold universal dimmer

The universal dimmer has two isolated outputs. Both outputs can automatically be adapted to the dimming behavior of the connected load (R, L, C). Mixed loads per output are not possible.

Type	Part No.
gesis RM-0/2D	83.020.0409.0
Infeed:	
Supply	230 V AC (main supply voltage to be dimmed)
from the base module	pluggable flat cable on the front panel
Outputs:	2 0 – 230 V AC, max. 250 V A each R, L, C load (self-recognition)
Accessories:	RM base module

Extension module 2 x 8-fold DALI actuator

The DALI output has two isolated output circuits. These are used as a master and control the maximum of 8 connected electronic ballasts via broadcast commands. Error feedback is possible for each output.

Type	Part No.
gesis RM-0/2DA	83.020.0410.0
Infeed:	
Supply	230 V AC
from the base module	pluggable flat cable on the front panel
Outputs:	2, DALI as master max. 8 DALI EBs each (16 mA) commands as broadcast
Accessories:	RM base module

Extension module 4-fold semiconductor output universal

The semiconductor output is used to control four isolated circuits, for example, for electrothermal valves. As it is capable of switching 24 V to 230 V AC or DC, it is ideally suited to avoiding planning mistakes.

Type	Part No.
gesis RM-0/4 (HL)	83.020.0406.0
Infeed:	
Supply	switching voltage for the outputs
from the base module	pluggable flat cable on the front panel
Outputs:	4, semiconductor outputs 230 V AC or 24 V DC, max. 0.5 A per output
Accessories:	RM base module

Extension module 4-fold semiconductor output AC

The semiconductor output is used to control four isolated circuits, for example, for electrothermal valves. The switching voltage is 230 V AC.

Type	Part No.
gesis RM-0/4 HL AC	83.020.0411.0
Infeed:	
Supply	switching voltage for the outputs
from the base module	pluggable flat cable on the front panel
Outputs:	4, semiconductor outputs 12 – 230 V AC, max. 0.5 A per output
Accessories:	RM base module

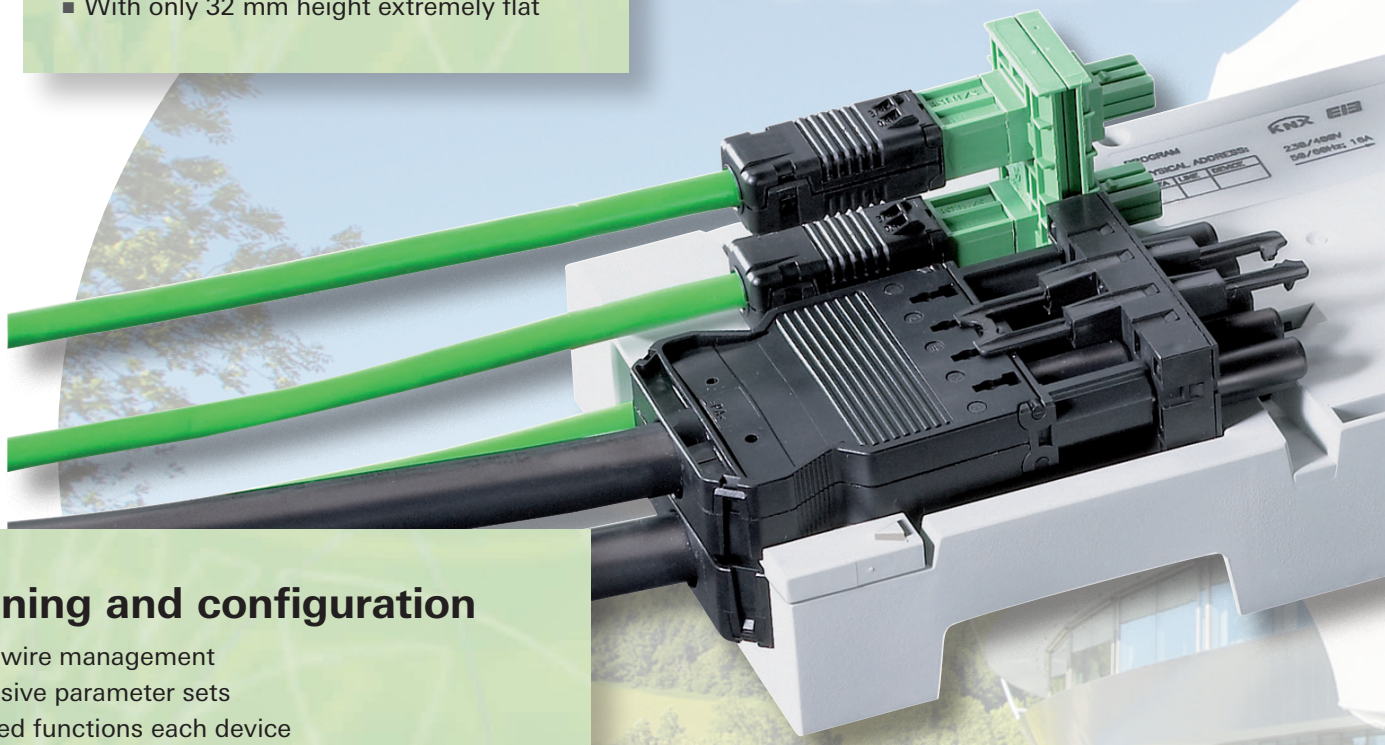
Extension module 4-fold semiconductor output DC

The semiconductor output is used to control four isolated circuits, for example, for electrothermal valves. The switching voltage is 24 V DC.

Type	Part No.
gesis RM-0/4 HL DC	83.020.0412.0
Infeed:	
Supply	switching voltage for the outputs
from the base module	pluggable flat cable on the front panel
Outputs:	4, semiconductor outputst 24 V DC, max. 0.5 A per output
Accessories:	RM base module

gesis® EIB V
KNX device series – flat and 100% pluggable

Easy to install
- Direct decentralized installable
- Integrated locking device
- With only 32 mm height extremely flat



Planning and configuration
- Clear wire management
- Extensive parameter sets
- Defined functions each device

Compact and robust
- Fits direct under cable ducts without space requirement in this height
- Can be applied in low, elevated floors
- Only 32 mm high

Open system

- KNX-TP with simple wire structures
- KNX is world-wide standardized
- Interoperability all manufacturers by KNX

Simple and error-free

- 100% pluggable electrical connections
- No faulty connection possible
- Fits in many, also low, installation spaces

Decentralized

- Downsized cable lengths and quantities
- Clear wire management
- Small sub-distributors, technical rooms

Common data of the *gesis*® EIB V device series

Dimensions (length/width/height in mm)	255/112/32 (71 incl. combined distribution block)
Degree of protection	IP 20
Housing	halogen-free
Housing color	light gray similar to RAL7035
Installation type	surface mount with screw fastening
Electrical connections	only pluggable
Connectors and cables	see the product range of the pluggable electrical installation system *gesis*®
Certification	KNX-certified
Software	Product database for ETS at www.wieland-electric.com

			83.020.0212.0	83.020.0212.4	83.020.0213.0	83.020.0213.4	83.020.0214.0	83.020.0221.0	83.020.0221.4	83.020.0222.4	83.020.0225.0	83.020.0225.4
Functions		Switching output	1	1			6				4	4
		Sunblind output	2	2				2	2	2		
		Internal fuse 5 AT								■		
		Switching/dimming output			2	2						
Connector/connection*)	Main supply input	Three-phase, 5-pole (GST 18i5 black)	■		■		■	■			■	
		Single-phase, 3-pole (GST 18i3 black)		■		■			■	■		■
	KNX input	2-pole BST green	■		■		■	■	■	■	■	
		2-pole BST green spaced		■		■						■
	Output	3-pole GST 18i3 black	■	■							■	■
		4-pole GST 18i4 black	■	■				■	■	■		
		5-pole GST 18i5 black					■					
		5-pole GST 18i5 pastel blue			■	■						

*) See the product range of the pluggable electrical installation system gesis CON

Room installation

Requirements for each office

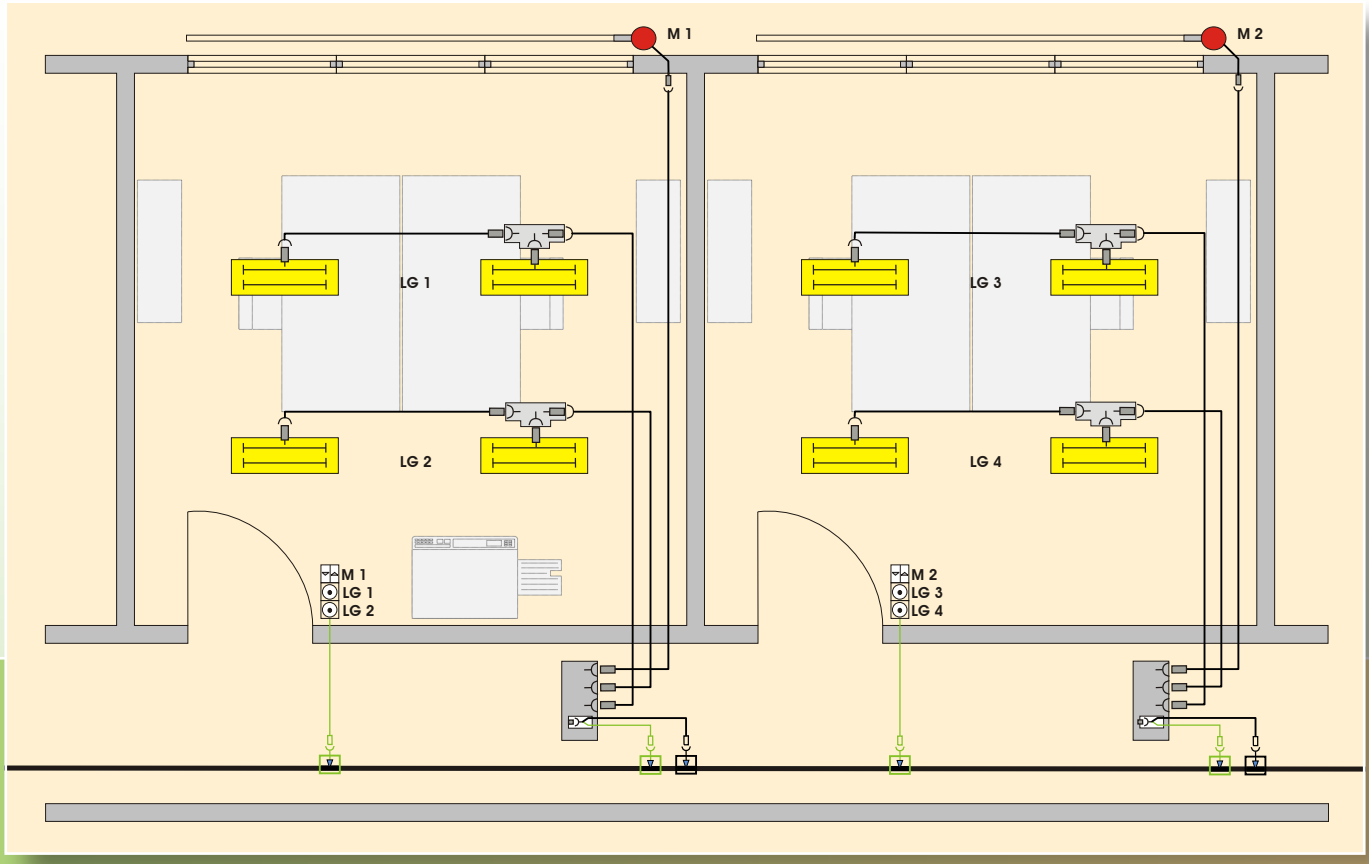
Realization

The offices will be continuously with a flat cable 5 + 2-pole (main and bus) on the window side and with a flat cable 2-pole (door side) installed.
The combined actuatuor and the push-button interfaces will be connected with short pre-assembled cables and flat cable adapters to the flat cable 5 + 2-pole.
Alternatively, preassembled round cables and distribution blocks can be used for main power and bus supply.

Connection components used

Automation devices used

2 x combined actuators	gesis EIB V-0/2+1W
2 x KNX push-button interfaces, 4-fold	gesis KNX TA 4/4



2-fold sunblind output for complex sunblind controls

Type	Part No.
gesis EIB V-0/2W B Three-phase main supply connection	83.020.0221.0 (output A1 → L1; A2 → L2)
gesis EIB V-0/2W B SP Single-phase main supply connection	83.020.0221.4 (3-pole)
gesis EIB V-0/2W F SP Single-phase main supply connection Internal fuse 5 AT	83.020.0222.4 (3-pole) 5 AT for both outputs together

The sunblind output for shutter automation features a very low profile, has a three or singe phase mains supply and two sunblind outputs. The software allows very comfortable and energy saving shutter automation. No additional housings are required for mounting e.g. in suspended ceilings or false floors. All electrical connections are pluggable. On of them has an internal miniature fuse (5AT) for both outputs in common.

Infeed:	
Mains	230/400 V AC, 16 A, GST18i3 or GST18i5 black, male connector in the module
KNX	KNX-TP1, BST14i2, green, male connector in the module
Outputs:	
Nominal voltage	230 V AC
Switching current	max. 16 A ohmic load
Plug system	GST18i4, black, female connector in the module

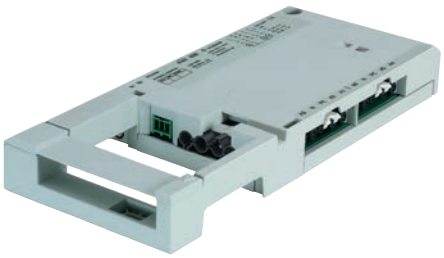
4-fold switching output with increased functionality

Type	Part No.
gesis EIB V-0/4 B Three-phase main supply connection	83.020.0225.0
gesis EIB V-0/4 B SP Single-phase main supply connection	83.020.0225.4 (3-pole)

The switching output features a very low profile, has a three or single phase mains supply and four outputs. No additional housings are required for mounting e.g. in suspended ceilings or false floors. All electrical connections are pluggable.

Infeed:	
Mains	230/400 V AC, 16 A, GST18i3, GST18i5 black, male connector in the module
KNX	KNX-TP1, BST14i2, green, male connector in the module
Outputs:	
Nominal voltage	230 V AC
Switching current	max. 16 A ohmic load
Plug system	GST18i3, black, female connector in the module

6-fold switching output



Type	Part No.
gesis EIB V-0/6 Three-phase main supply connection	83.020.0214.0 (output A1/A4 → L1; A2/A5 → L2; A3/A6 → L3)

The switching output features a very low profile, has a three phase mains supply and six outputs. No additional housings are required for mounting e.g. in suspended ceilings or false floor. All electrical connections are pluggable.

Infeed:	
Mains	230/400 V AC, 16 A, GST18i3, GST18i5 black, male connector in the module
KNX	KNX-TP1, BST14i2, green, male connector in the module
Outputs:	
Connection with	combined with three outputs in a 5 pole connector (e.g. A1, A2, A3, N, ground)
Nominal voltage	230 V AC
Switching current	max. 16 A ohmic load
Plug system	GST18i5, black, female connector in the module

Combined actuator with 2-fold switching and 1-fold sunblind output

Type	Part No.
gesis EIB V-0/2+1W Three-phase main supply connection	83.020.0212.0 (output A1 → L1; A2 → L2; A3 → L3)
gesisEIB V-0/2+1W SP Single-phase main supply connection	83.020.0212.4 (3-pole)

The combined output features a very low profile, has a three or single phase mains supply, two switching and one sunblind output. No additional housings are required for mounting e.g. in suspended ceilings or false floors. All electrical connections are pluggable.

Infeed:	
Mains	230/400 V AC, 16 A, GST18i3, GST18i5 black, male connector in the module
KNX	KNX-TP1, BST14i2, green, male connector in the module
Outputs:	
Rated voltage	230 V AC
Switching current-switching output A1, A2	max. 16 A ohmic load
Plug system	GST18i3, black, female connector in the module
Switching current-sunblind output A3	max. 8 A ohmic load
Plug system	GST18i4, black, female connector in the module

2-fold switching/dimming output

Type	Part No.
gesis EIB V-0/2SD Three-phase main supply connection	83.020.0213.0 (output A1 → L1; A2 → L2)
gesis EIB V-0/2SD SP Single-phase main supply connection	83.020.0213.4 (3-pole)

The switch- dimming output features a very low profile, has a three or singel phase mains supply and two outputs for signal dimming 1-10V with switched 230V. No additional housings are required for mounting e.g. in suspended ceilings or false floors. All electrical connections are pluggable.

Infeed:	
Mains	230/400 V AC, 16 A, GST18i3, GST18i5 black, male connector in the module
KNX	KNX-TP1, BST14i2, green, male connector in the module
Outputs:	
Rated voltage	230 V AC
Switching current	max. 16 A ohmic load
Control output	1 – 10 V / max. 50 mA (passive)
Plug system	GST18i5, pastel blue, female in the module

gesis® KNX
System devices, sensors and more

Energy efficiency
- KNX is the backbone of the efficiency of buildings
- To 35% savings of electrical energy*
- To 70% savings of heating energy*

Range of applications
- Light, sunblind and room control
- Smart meetering
- Automation, visualization, remote access, ...
- Energy optimization

Widespread
- More than 400 manufacturers from different areas of application
- Approx. 50.000 partners in more than 135 countries
- Approx. 360 certificated schools in 59 countries
- Syllabus in various training areas

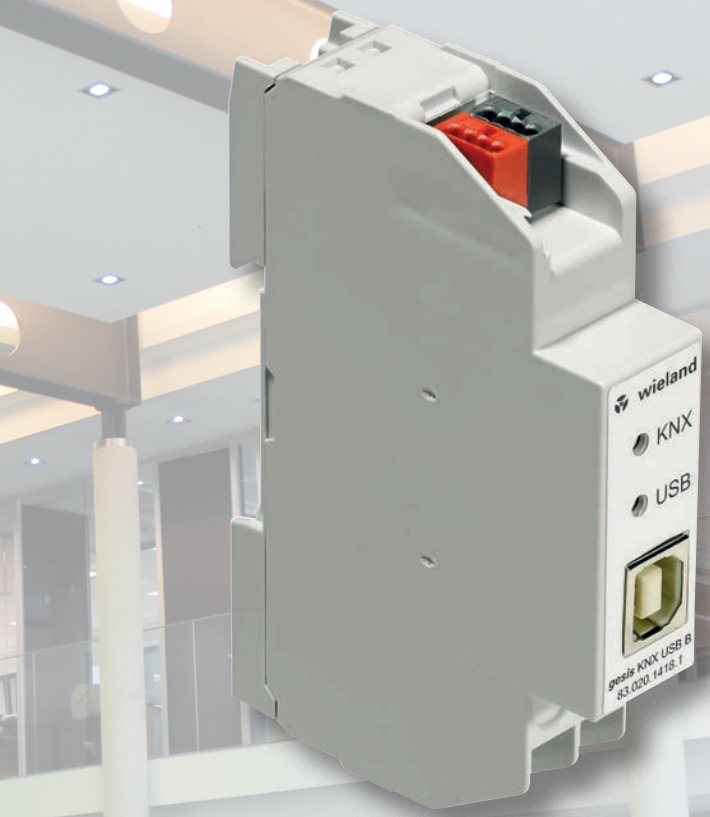
Standardized system
- KNX is the worldwide standard for home and building automation
- European standard EN 50090
- Worldwide standard ISO/IEC 14543

contacts are green.

***Results from the scientific study of the university Biberach of real buildings about 2 years**

Interoperability

- The best from every manufacturer to use
- Simple integration different products
- A manufacturer neutral software (ETS) for commissioning
- A high number of competitors ensures for competition.
- Future security by neutrality



Simple

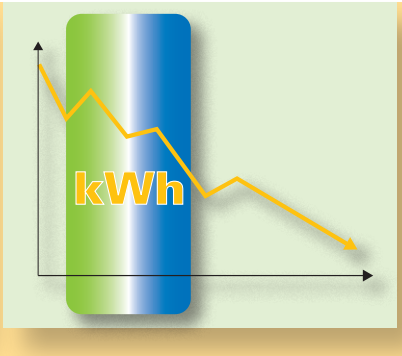
- Products of different manufacturers are useable in one system
- Clear installation structures for all building sizes
- Developed and proven for electrical installation

Future security

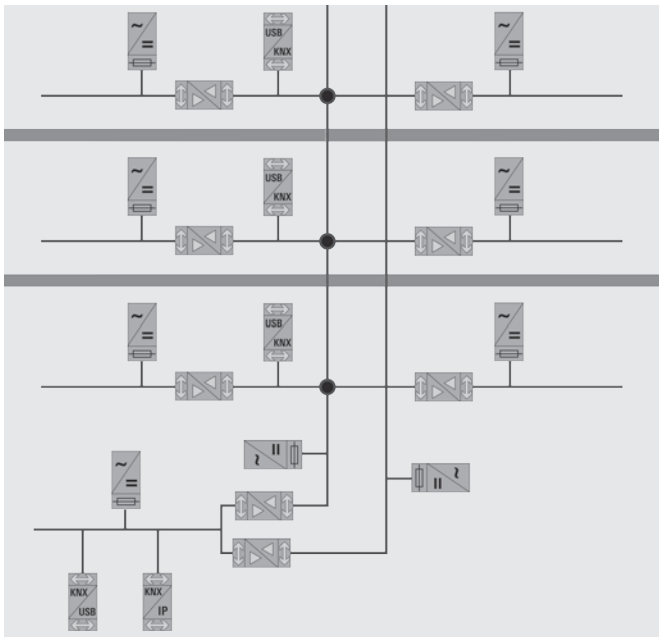
- More than 400 manufacturers are working interoperable together
- Worldwide standard system
- Million of times proven
- Operates all common and modern media

Further informations

- www.knx.org
- National KNX organization www.knx.org – community – national groups



Application example



General

The internationally standardized system for home and building automation functions with multivendor devices and can be used by all trades. It is therefore excellently suited to satisfying the desire for continuously optimized power utilization in buildings.

The system has no central control. It starts with a line with max. 64 bus devices and can be extended throughout various sections up to a system with more than 14,000 bus nodes. Thus it is suitable both for small and for very large buildings.

Radio, Powerline and Twisted-Pair are available as transmission media. Due to the system characteristics the Wieland devices exclusively function with the Twisted-Pair technology on KNX side.
See the following pages describing the devices for the following topics.

		F0.000.0034.5 / F0.000.0034.6	F0.000.0034.7	F0.000.0034.8 / F0.000.0034.9	F0.000.0017.3	F0.000.0032.0	F0.000.0032.7	F0.000.0032.1	F0.000.0032.6	F0.000.0032.3	F0.000.0032.4	F0.000.0032.5	F0.000.0038.3	F0.000.0038.4	F0.000.0038.5	83.020.1413.0	83.020.1414.0	83.020.1415.0	83.020.1416.0	83.020.1417.0	83.020.1418.0
	KNX voltage supply / mA															160	320	640			
	KNX interfaces																				
	USB <-> TP																				■
	Line/backbone coupler TP/TP																		■		
	IP Router TP / LAN IP																			■	
	DALI Gateway DALI / TP				■																
	Presence detectors and constant light																				
	Motion detection																				
	Standard room thermostat	q	r	r																	
	Fan coil room thermostat					■															
	Fan coil output						■														
Valve actuators	Continuous, direct KNX-TP connection							■													
	2-point electrothermal / voltage								24	230											
	Adapter ring VAxx										78	80									
	Push-button linkages / number of inputs												2	4	6						
Type of installation	DIN rail installation / MW				4											4	4	4	2	2	2
	On / in outlet socket					■	■						■	■	■						
	Installation hole, 64 mm diameter																				
	at heating / cooling valve							■	■	■	■	■									
Voltages	KNX				■	■	■	■					■	■	■	■	■	■	■	■	■
	230 V									■						■	■	■			
	24 V								■											■	
	DALI				■																

Office with heating/cooling system and constant light control

Requirements

The heating and cooling function of each room is to be controlled separately. A window contact is to be integrated into the system for energy-optimizing control. The lighting is dimmed with an presence detector and the room temperature is optimized. The conventional push-buttons for controlling light and sunblinds can be integrated into the building automation via push-button interfaces.

Realization

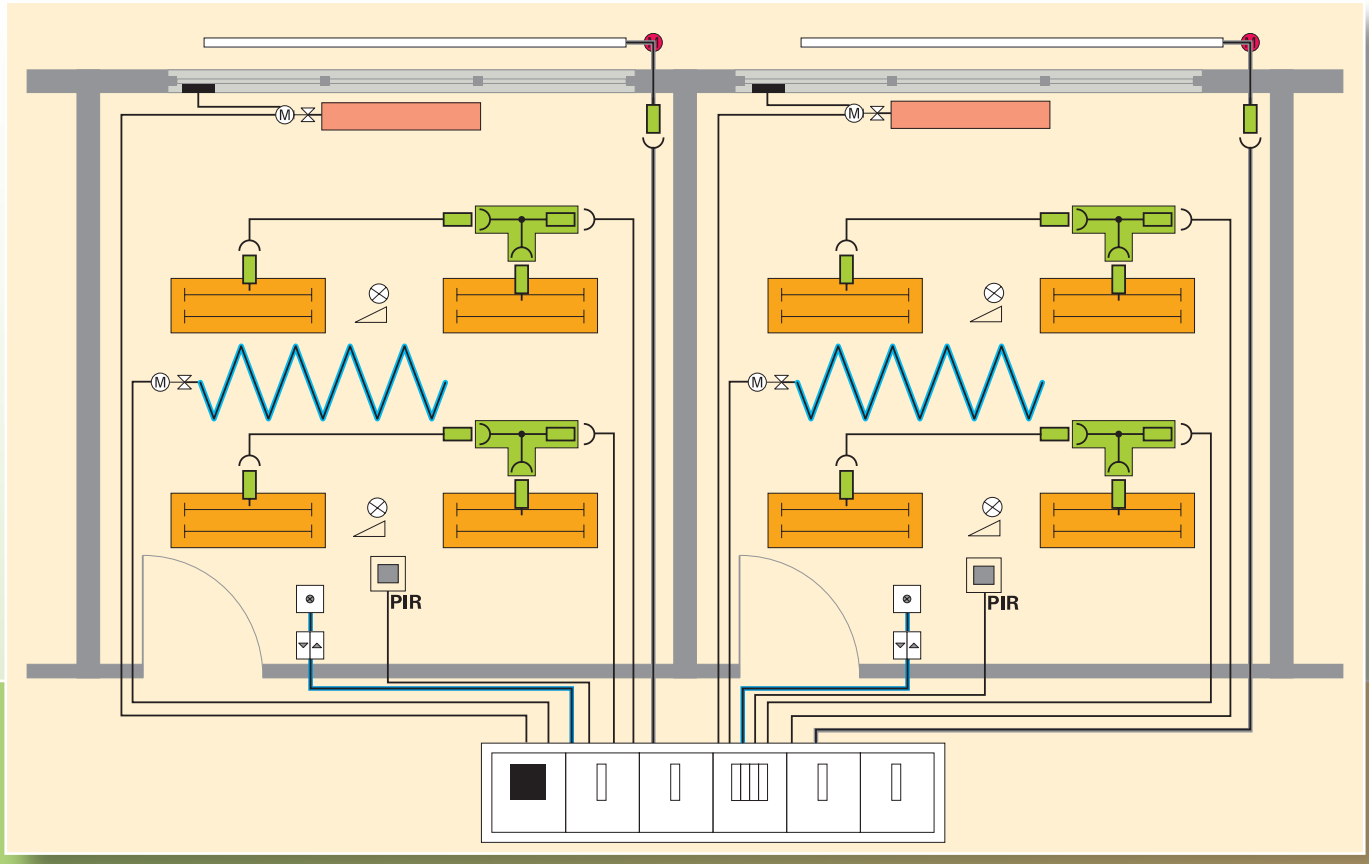
The necessary sensors are installed in each office. The drives for the control valves are connected directly to the KNX. The outputs for the lighting and the sunblinds from the ***gesis***® EIB RM series are used and installed decentrally with a ***gesis***® RAN for two offices each.

The following modules are required for that:

2 x room thermostats	gesis KNX RTR SP
2 x presence detectors	gesis KNX P PSU
2 x push-button interfaces 6-fold	gesis KNX TA 6/4 B
4 x continuous actuator with binary input	gesis KNX TH S
1 x base module KNX	gesis EIB RM2-BAS
1 x voltage supply	gesis RM-PS
2 x switching/dimming output	gesis RM-0/2 SD
1 x sunblind output	gesis RM-0/2 SI

Note

The controls can be modified from a central point (e.g. night mode, weekend mode). Additionally, the set values for the heating/cooling valves can be evaluated centrally to achieve perfect regulation of the primary heaters/coolers.



Power supply unit KNX 160 mA

Power supply unit for KNX TP1 networks with integrated choke and a rated current of 160 mA. The DIN rail mount device for distribution unit installation supplies KNX devices on shorter lines. The voltage is tapped off a terminal block at the front of the housing.

Type	Part No.
gesis KNX PS160	83.020.1413.0
Electrical data:	
Infeed	120 to 230 V AC
Output voltage	29 V DC SELV
Output current	160 mA
Bus connection	terminal block
Choke	integrated
Mechanical data:	
Installation	DIN rail mount device for TH 35
Width	4 MW (72 mm)

Power supply unit KNX 320 mA

Power supply unit for KNX TP1 networks with integrated choke and a rated current of 320 mA. The DIN rail mount device for distribution unit installation supplies KNX devices on standard lines. The voltage is tapped off a terminal block at the front of the housing.

Type	Part No.
gesis KNX PS320	83.020.1414.0
Electrical data:	
Infeed	120 to 230 V AC
Output voltage	29 V DC SELV
Output current	320 mA
Bus connection	terminal block
Choke	integrated
Mechanical data:	
Installation	DIN rail mount device for TH 35
Width	4 MW (72 mm)

Power supply unit KNX 640 mA

Power supply unit for KNX TP1 networks with integrated choke and a rated current of 640 mA. The DIN rail mount device for distribution unit installation supplies KNX devices of a standard line and includes an output for the unchoked voltage through a second terminal block at the front of the housing. The unchoked voltage is tapped off a terminal block at the front of the housing.

Type	Part No.
gesis KNX PS640	83.020.1415.0
Electrical data:	
Infeed	120 to 230 V AC
Output voltage	29 V DC SELV
Output current	640 mA
Bus connection	terminal block
Choke	integrated
Unchoked voltage	on terminal block
Mechanical data:	
Installation	DIN rail mount device for TH 35
Width	4 MW (72 mm)

USB interface

The interface is used to create a bidirectional connection between a PC and the KNX installation bus. The USB connection is electrically isolated from the KNX bus. The interface is compatible with the ETS (Engineering Tool Software), from ETS3 and higher, and is also supported by various visualization programs.

Type	Part No.
gesis KNX USB	83.020.1418.1
Electrical data:	
Infeed KNX	through the line
Bus connection KNX	terminal block
Infeed USB	via PC
Connection USB	USB socket type B, max. 5 m
Mechanical data:	
Installation	DIN rail mount device for TH 35
Width	1 MW (18 mm)

Line/backbone coupler

The line/backbone coupler is used to couple lines and backbones; it can be used as a line amplifier, too. Both the primary and the secondary lines are connected via terminal blocks.

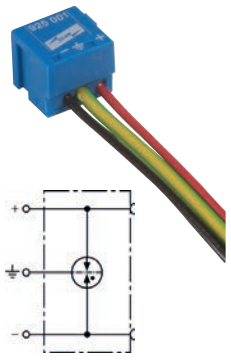
Type	Part No.
gesis KNX LK	83.020.1416.0
Electrical data:	
Primary line	DC 24 (for device supply)
Secondary line	DC 24 V
Mechanical data:	
Installation	DIN rail mount device for TH35
Width	2 MW (36 mm)

IP router

The KNX IP router enables telegram routing between various lines through a LAN (IP) used as a fast backbone. This way the device replaces the KNX line coupling unit. In parallel, the KNX IP router can be used as an interface for bus access via IP. The IP address can be assigned via a DHCP server or through manual configuration (ETS).

Type	Part No.
gesis KNX IP-R	83.020.1417.0
Electrical data:	
Infeed	12 – 24 V AC or 12 – 30 V DC alternatively Power-over-Ethernet
Power consumption	< 800 mW
Connection – infeed	screw terminals
Bus connection	terminal block
Ethernet connection	LAN socket RJ45
Mechanical data:	
Installation	DIN rail mount device for TH35
Width	2 MW (36 mm)

Surge arrester KNX TP



The type 2 arrester with KNX certification for KNX-TP systems has been tested according to EN 61643-21. It can directly replace the terminal block on KNX devices. The 200 mm earthing conductor is connected directly to the device.

Type	Part No.
gesis KNX OVP	F0.000.0008.3
Electrical data:	
Arrester class	type 2
Rated/continuous voltage	24 V/45 V (for KNX TP)
KNX connection	spring contact (as terminal, directly pluggable to KNX device) cables Ø 0.8 mm/200 mm long
Ground connection	cables 0.75 mm²/200 mm long
Mechanical data:	
Arrester in mm	12 x 11 x 11
Cables	length approx. 200 mm

KNX connection module

The KNX connection module enables a simple tap of the KNX TP1 network in distribution units. The system integrator can access the network with the connection module, without removing field covers and therefore without interfering with the electrical installation.

Type	Part No.
gesis KNX REG AM	F0.000.0033.8
Electrical data:	
KNX	Twisted Pair (SELV)
Nominal current	3 A
Connection type	terminal block (under distributor cover) pluggable to outside (BST 14i2)
Mechanical data:	
Installation	on TH35 e.g. in distributors
Width	2 pitch units (36 mm)
Accessories:	
Connectors	BST 14i2 e.g. 93.422.0553.1

Presence detector

Presence detector for ceiling mounting with integrated bus coupling and mixed light measurement with a quadratic detection range (360°). With two/three outputs for controlling light groups, constant light control or switching, and two presence outputs for HLK control.

Type	Part No.
gesis KNX P PSU	F0.000.0034.5
gesis KNX P PPU	F0.000.0034.6

Electrical data:	
Infeed	KNX TP1
Bus coupling	Integrated
Detection range	Horizontal 360°, vertical 120°
Mixed light measurement	5 Lux - 3000 lx (gesis KNX P PPU)
Maximum detection range	Mounting height 3.5 m: 8 m x 8 m (PSU), 10 m x 10 m (PPU) Mounting height 2.5 m: 6 m x 6 m (PSU), 8 m x 8 m (PPU)
Detection range of a seated person	Mounting height 3.0 m: 5 m x 5 m (PSU), 7 m x 7 m (PPU) Mounting height 2.5 m: 4 m x 4 m (PSU), 6 m x 6 m (PPU)
Ambient temperature	0 °C … +50 °C
Mechanical data:	
Mounting	Flush-mounted box 72 mm (bore hole 73 mm)
Dimensions (visible)	Diameter 110 mm, height 37 mm (PSU), 42 mm (PPU)
Protection type	IP 20 (in installed state IP40)

Presence detector

Presence detector for ceiling mounting with integrated bus coupling and mixed light measurement with a round detection range (360°). With two outputs for controlling light groups, constant light control or switching, and two presence outputs for HLK control.

Type	Part No.
gesis KNX P RPU	F0.000.0034.7

Electrical data:	
Infeed	KNX TP1
Bus coupling	Integrated
Detection range	Horizontal 360°, vertical 120°
Mixed light measurement	30 Lux - 3000 lx
Maximum detection range	Mounting height 3.5 m: 24 m diameter Mounting height 2.5 m: 23 m diameter
Detection range of a seated person	Mounting height 3.0 m: 8 m diameter Mounting height 2.5 m: 7 m diameter
Ambient temperature	-15 °C … +50 °C
Mechanical data:	
Mounting	Flush-mounted box 72 mm (bore hole 73 mm)
Dimensions (visible)	Diameter 110 mm, height 46 mm
Protection type	IP 20 (in installed state IP40)

Motion detector

Motion detector for ceiling mounting with integrated bus coupling and mixed light measurement with a round detection range (360°). With a brightness-dependent output for controlling light groups, and a presence output for HLK control.

Type	Part No.
gesis KNX M MSD	F0.000.0034.8
gesis KNX M MPU	F0.000.0034.9

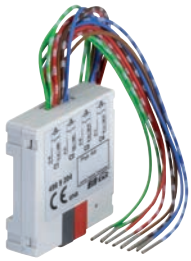
Electrical data:	
Infeed	KNX TP1
Bus coupling	Integrated
Detection range	Horizontal 360°
Mixed light measurement	30 Lux - 3000 lx
Detection range of a person walking across	Mounting height 3.5 m: Diameter 8 m (MSD), 24 m (MPU) Mounting height 2.5 m: Diameter 7 m (MSD), 23 m (MPU)
Detection range of a person walking to the front	Mounting height 3.0 m: Diameter 4 m (MSD), 8 m (MPU) Mounting height 2.5 m: Diameter 3 m (MSD), 7 m (MPU)
Ambient temperature	-15 °C … +50 °C
Mechanical data:	
Mounting	MSD: in ceiling cutout with 62 - 70 mm diameter MPU: on flush-mounted box 72 mm (bore hole 73 mm)
Dimensions (visible)	MSD: Diameter 74 mm, height 23 mm MPU: Diameter 110 mm, height 46 mm
Protection type	IP 20 (in installed state IP40)

Push-button interface, 2-fold

The 2-fold push-button interface is a binary input/ output device. It can be installed together with conventional push-buttons/ switches in in-wall outlet boxes. This way all switching programs can be integrated into KNX systems. The inputs can be configured as outputs for LEDs.

Type	Part No.
gesis KNX TA 2/2 B	F0.000.0038.3
Electrical data:	
Infeed	KNX TP1
Inputs	2 for potential-free contacts
Scanning voltage	3.3 V / 0.5 mA
Outputs	2 when configured as LED
Output current	low current 1mA (LED 1 mA types)
Operating temperature	-5 °C to +45 °C
Mechanical data:	
Installation	in in-wall outlet box
Cable length	25 cm, extendable to max. 5 m
Dimensions	37 x 37 x 10 mm

Push-button interface, 4-fold



The 4-fold push-button interface is a binary input/ output device. It can be installed together with conventional push-buttons/ switches in in-wall outlet boxes. This way all switching programs can be integrated into KNX systems. The inputs can be configured as outputs for LEDs.

Type	Part No.
gesis KNX TA 4/4 B	F0.000.0038.4
Electrical data:	
Infeed	KNX TP1
Inputs	4 for potential-free contacts
Scanning voltage	3.3 V / 0.5 mA
Outputs	4 when configured as LED
Output current	low current 1 mA (LED 1 mA types)
Operating temperature	-5 °C to +45 °C
Mechanical data:	
Installation	in in-wall outlet box
Cable length	25 cm, extendable to max. 5 m
Dimensions	37 x 37 x 10 mm

Push-button interface, 6-fold

The 6-fold push-button interface is a binary input/ output device. It can be installed together with conventional push-buttons/ switches in in-wall outlet boxes. This way all switching programs can be integrated into KNX systems. Four of the six inputs can be configured as outputs for LEDs.

Type	Part No.
gesis KNX TA 6/4 B	F0.000.0038.5
Electrical data:	
Infeed	KNX TP1
Inputs	6 for potential-free contacts
Scanning voltage	3.3 V / 0.5 mA
Outputs	4 when configured as LED
Output current	low current 1 mA (LED 1 mA types)
Operating temperature	-5 °C to +45 °C
Mechanical data:	
Installation	in in-wall outlet box
Cable length	25 cm, extendable to max. 5 m
Dimensions	37 x 37 x 10 mm

KNX DALI gateway

The KNX DALI gateway N 141 is a KNX device with a DALI output for up to 64 DALI actuators (e.g. electronic ballasts with DALI interface). DALI sensors are not allowed to be connected to the output. All gateway functions are parameterized through the ETS.

Type	Part No.
DALI Gateway N141	F0.000.0017.3
Electrical data:	
Infeed – bus/main power supply	KNX TP1 / 110 – 240 V AC/DC max. 7 W
Bus connection	Terminal block and data rail
Output - DALI	approx. 16 V max. 64 DALI EBs
Mechanical data:	
Installation	DIN rail mount device for TH35
Width	4 MW (72 mm)

Room thermostat

Room thermostats with integrated KNX bus coupling unit for control and regulation of valve controls and heating actuators. Three integrated inputs can be used for conventional switches/push-buttons or even for external temperature sensors (optional), window contacts or presence signals.

Type	Part No.
gesis KNX RTR SP	F0.000.0032.0
Electrical data:	
Infeed	KNX TP1
Bus coupling unit	integrated
Setting range	10 °C to 28 °C
Measuring range	0 °C to 40 °C
Mechanical data:	
Installation	In in-wall outlet box 55 mm or surface mount
Dimensions	80 x 84 mm with a height of 27 mm
Degree of protection	IP 20

Constant valve control

This motor-driven KNX valve control with two binary inputs and valve stroke indicator can be mounted to customary valves using an adapter (supplied). A fully automatic valve stroke detection dynamically adapts the contact path to the valve used.

Type	Part No.
gesis KNX TH S	F0.000.0032.1
Electrical data:	
Infeed	KNX TP1
Valve stroke detection	Fully automatic
Operating temperature	0 °C to 50 °C
Mechanical data:	
Connection cable	approx. 1 m
Valve stroke	max. 7.5 mm; <20 s/mm; 120 N
Applicable valves	Danfoss RA, Heimeier, MNG, Schlösser from 3/93, Honeywess Braukmann, Dumser (distribution units), Reich (distribution units), Landis & Gyr, Oventropp, Herb, Onda
Degree of protection	IP 21
Dimensions	82 x 50 x 65 mm

Fan coil room thermostat

This room thermostat with integrated bus coupling unit is used to control fan coil systems. It integrates a manual button for selection of the operating modes Off and Auto as well as the fan position. The three available binary inputs can be configured freely.

Type	Part No.
gesis KNX RTR FC	F0.000.0032.7
Electrical data:	
Infeed	KNX TP1
Bus coupling unit	integrated
Setting range	10 °C to 28 °C
Measuring range	0 °C to 40 °C
Mechanical data:	
Installation	In in-wall outlet box 55 mm or surface mount
Dimensions	80 x 84 mm with a height of 27 mm
Degree of protection	IP 20

Valve control, 2-level control, 230 V

The electrothermal 2-level valve control for 230 V can be mounted to customary valves simply by using a valve adapter. Valve adapters are not included.

Type	Part No.
gesis TH P230	F0.000.0032.3
Electrical data:	
Operating voltage	230 V AC 50/60 Hz
Operating power	1.8 W
Starting current	300 mA for max. 200 ms, 250 mA for max. 2 min
Mechanical data:	
Connection cable	approx. 1 m
Pluggable with gesis	we recommend gesis MINI (GST15i2) pre-assembly on request
Closing/opening times	approx. 2.5 min (valve is closed without applying any power)
Valve stroke	4 mm; 100 N;
Adapter	order separately
Degree of protection	IP 54
Dimensions	60 x 44 x 61 mm
Comment:	Delivery without valve

Valve control, 2-level control, 24 V

The electrothermal 2-level valve control for 24 V can be mounted to customary valves simply by using a valve adapter. Valve adapters are not included.

Type	Part No.
gesis TH P24	F0.000.0032.6
Electrical data:	
Infeed	24 V 0 – 60 Hz
Operating power	1.8 W
Starting current	300 mA for max. 200 ms, 250 mA for max. 2 min
Mechanical data:	
Connection cable	approx. 1 m
Pluggable with gesis	we recommend gesis MINI (GST15i2) pre-assembly on request
Closing/opening times	approx. 2.5 min (valve is closed without applying any power)
Valve stroke	4 mm; 100 N;
Adapter	order separately
Degree of protection	IP 54
Dimensions	60 x 44 x 61 mm
Comment:	Delivery without valve

Valve adapter ring VA78

Valve adapter ring VA 78 for easy installation of the valve controls. The adapter ring is placed on the valve, and the valve control is snapped on.

Type	Part No.
gesis TH VA78	F0.000.0032.4
Mechanical data:	
Applicable valves	Danfoss RA

Valve adapter ring VA80

Valve adapter ring VA 80 for easy installation of the valve controls. The adapter ring is placed on the valve, and the valve control is snapped on.

Type	Part No.
gesis TH VA80	F0.000.0032.5
Mechanical data:	
Applicable valves	Onda, Schlösser built after 1992, Oventrop M30 x 1.5, Heimeier, Herb, Therm-Concept, Frank, Roth (distribution units), Dinotherm (distribution units)

gesis® RC
EnOcean devices with radio technology

Range of applications
- Light, sunblind and room control
- Smart meetering
- Couplings to KNX, BACnet, LON...
- Automation, visualization, remote access, ...
- Energy optimization

Widespread
- More than 100 manufacturing companies are using the standard
- Proven in over thousand buildings
- Proven beyond Europes borders

Radiostandard
- EnOcean manufacturers are using the interoperable EnOcean equipment profiles for information transfer.
- Standardized in the ISO/IEC 14543-3-10
- 868 MHz Europe-wide in accordance with R&TTE-specification EN 300220

Simplicity

- No flush-mounted boxes for push-buttons
- No cables for signal transmission
- Radio systems without software configurable Easy Mode

Energy Harvesting

- Batteryless senors
- Maintenance-free
- Environmentally friendly

Radio control

- No cable routing
- No chiselling work, UP-boxes necessary
- Simple retrofitting

Further informations

- EnOcean
  www.enocean.com
- EnOcean Alliance
  www.enocean-alliance.org

Data/radio technology

Technology	Use of the EnOcean protocol
Radio frequency	868.3 MHz
Range	
– Line-of-sight	Typically 30 m in aisles, up to 100 m in halls
– Plaster board/wooden walls	Typically 30 m through a maximum of 5 walls
– Brick/gas-aerated concrete walls	Typically 20 m through a maximum of 3 walls
– Reinforced concrete walls/ceilings	Typically 10 m through a maximum of 1 ceiling/wall
– Considerable limitations in the range (up to the shielding of the radio signal).	

All electrically conductive materials (mostly metals) between the transmitter and the receiver or near by impair the range.

Examples:
Insulating material on metal film; suspended ceilings as well as raised floors or panels made of metal or carbon fibers; lead glass or metal-plated glass; steel furniture; sensors mounted on metal, etc. Fire protection walls, stairwells, supply and elevator shafts or similar areas should be regarded as shields. Furthermore, the angle at which the radio signals hit the wall plays a major role. Depending on the angle the effective wall thickness, and thus the signal damping, changes. The signals should not hit the wall at a narrow angle, if possible. Wall niches should be avoided.

		Switching output, 4-fold 83.020.0500.0	Switching output, 4-fold 83.020.0500.2	Sunblind output, 2-fold 83.020.0501.1	Sunblind output, 2-fold 83.020.0501.2	Switching output, 4-fold IP68 83.020.0505.0	Switching output, 1-fold UP 83.020.0506.0	Window contact F0.000.0009.0	Gateway to KNX 83.020.0228.0	Binary input RM 83.020.0408.0	Handheld transmitter	Radio switch, multivendor	Radio switch	Hotel Card switch	Repeater F0.000.0024.5	Antenna 83.020.0503.0
Functions	Switching output	4	4			4	1									
	Sunblind output			2	2											
	Dimming output (R, C load)															
	Binary input									2x8						
	Radio input / channel								32							
	Window position							1								
	Pushbuttons (number of buttons /function)										1	2/4	2/4	1		
	Gateway to								KNX							
	Reception display / field intensity															
Properties	Pluggable connections with gesis®CON					RST										
	Screw terminals															
	External antenna															
	Surface mounting															
	Box mounting															
	DIN rail mounting															
	Frames from the Wieland product range													incl.		
	Frames from various suppliers															

Room installation with EnOcean push-buttons

Requirements for each office

- two switched lighting circuits
- an inboard glare protection
- No cabling option to the sensors

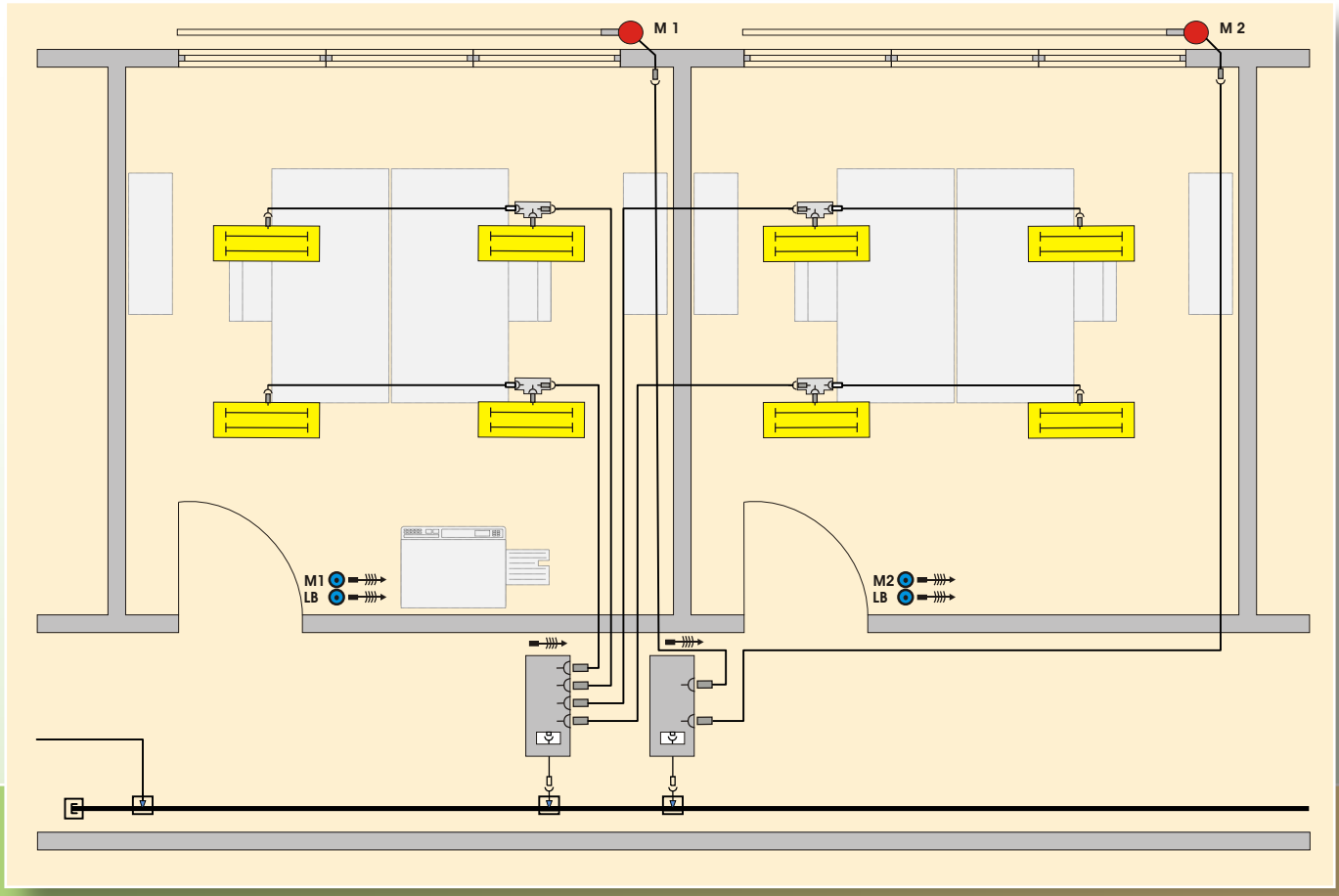
Remarks

If lighting and glare protection are controlled from a distance, then additional push-buttons will be on the corresponding outputs easily taught.

Realization

The switching outputs for the lighting and glare protection control each two office axis.

1 x Switching output 4-fold	gesis RC V-0/4 1PH
1 x sundblind output 2-fold	gesis RC V-0/2 W 1PH
2 x push-button 2-channel	non-proprietary up/down
2 x push-button 4-channel	non-proprietary I/O



EnOcean Gateway

Type	Std. Pack	Part No.
gesis FLEX-ENO32 without plug set	10	83.020.0628.0
gesis FLEX-ENO32 Z with plug set	1	83.020.0628.1 Female and male, BST14i2 (KNX)

Infeed	
Bus connection KNX	BST14i2, green male connector in the module
EnOcean signals	32 channels, can be switched to bi-directional, all current EEPs
Output	
Bus connection KNX	BST14i2, green female connector in the module
EnOcean signals	32 channels, can be switched to bi-directional, all current EEPs
Accessories	Base and extension modules from the ***gesis*®** FLEX serie

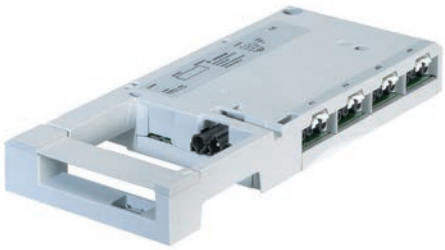
Radio input from the *gesis*®RM system

The radio input that has to be operated with a base module that conforms to the type of system can manage 2 groups of eight inputs each. One slot per group is required on the base module. The radio sensors (e.g. push-buttons) are assigned directly on the module without any additional software (EnOcean learning mode).

Type	Part No.
gesis RM-16/0 (RC)	83.020.0408.0

Infeed:	
Base module	pluggable flat cable on the front panel
Inputs:	2 x 8, EnOcean sensors a total of 170 EnOcean telegrams can be programmed for the 16 inputs
Accessories:	
Antenna	83.020.0503.0
KNX base module	83.020.0400.3

Switching output, 4-fold (discontinuation 2016)

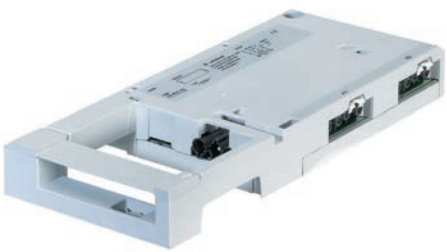


Output module with four relay outputs for switching four independent load groups with sensors that use EnOcean radio technology.

Type		Part No.
gesis RCV-0/4 1PH	1-phase main supply	83.020.0500.0
gesis RCV-0/4 B 1PH	1-phase main supply/antenna connection	83.020.0500.2

Infeed:	
Main power supply	230 V AC
Rated voltage	230 V AC (N, ground, switched phase conductor)
Switching current	16 A ohmic load
General data:	
Installation	surface mounting, fixing with screws
Degree of protection	IP 20
Dimensions (length/width/height)	254/112/32 mm

Sunblind output, 2-fold (discontinuation 2016)



Output module with two sunblind outputs for switching two independent sunblind motors with sensors that use EnOcean radio technology. In addition, each output has an alarm function.

Type		Part No.
gesis RCV-0/2WAL 1PH	1-phase main supply	83.020.0501.1
gesis RCV-0/2WAL B 1PH	1-phase main supply/antenna connection	83.020.0501.2

Infeed:	
Main power supply	230 V AC
Rated voltage	230 V AC, (N, ground, up, down)
Switching current	5 A ohmic load
General data:	
Installation	surface mounting, fixing with screws
Degree of protection	IP 20
Dimensions (length/width/height)	254/112/32 mm

Switching outputs for outdoors in IP 68

EnOcean switching output in the IP 68 surface housings for outdoor use features four 230 V relay. It can be programmed for 30 push-button pairs. All electrical connections are pluggable. Voltage and power supplies for LED and low-voltage halogen luminaires are available as accessories (See capter Outdoor installation p.78).

Type		Part No.
gesis RC RST-0/4	4 relay outputs, 1 feed-through wiring	83.020.0505.0
Infeed:		
Power input/output	230 V AC / 20 A connector, RST coding black	
Outputs:		
Quantity	1/4	
Connection type	connector RST coding black	
Rated voltage	230 V AC	
Switching capacity	6 A (max. two LED/LV halogen modules)	
General data:		
Degree of protection	IP 68 (all connections plugged or closed)	
Dimensions (length/width/height)	104/162/96 mm	
Mounting option	4 elongated holes	

Switching output with 1 channel

Single-channel output module with screw connections. The small design enables installation in in-wall outlet boxes or surface mount.

Type	Part No.
gesis RC UP-0/1	83.020.0506.0
Infeed:	
Power input	230 V AC screw clamp terminals
Outputs	
Quantity	1
Connection type	screw clamp terminals
Rated voltage	230 V AC
Switching capacity F0.000.0016.9	5 A ohmic load
General data:	
Installation	surface mounting, fixing with screws
Degree of protection	IP 30
Dimensions (length/width/height)	48/29/35 mm

EnOcean output

System ***gesis*** RC - Radio output 1-fold, surface mounted, pluggable. The radio controlled (EnOcean) output has an on wall housing. It has one relay output and up to 30 pairs of rockers from EnOcean switches that can be programmed in. It can be installed as an adapter between feed in cable and e.g. luminaries. The electrical connections are pluggable.

Type	Part No.
gesis RC ZW-0/1B	F0.000.0016.9
Power supply system:	
Mains	230 V AC / 16 A
Connection type	GST18i3 coding black, Male connector in the switching output
Outputs	
Number	1
Connection type	GST18i3 coding black, Female connector in the swichting output
Rated voltage	230 V AC / 50 Hz
Switching capacity	10 A ohmic load
General data:	
Mounting	surface mounted (plaster)
Protection type	IP 20
Dimensions in mm	108x70x35 (LxBxH) without connector

Antenna for EnOcean devices with external antenna

The 868.6 MHz antenna is suitable for connection to Wieland ***gesis*** devices with a SMA female connector. The black antenna can be mounted using a magnetic foot and has a 2.5 m connection cable.

Type	Part No.
Antenna	83.020.0503.0

Antenna
– 868.3 MHz antenna
– mounted with magnetic foot
– incl. approx. 2.5 m connection cable and SMA connector

Multivendor radio switch, 2/4 channels

Batteryless and maintenance-free radio switches with 2/4 channels for direct control of the actuators. The rockers in neutral center position are marked with I/O or Up/Down (△▼) symbols. These 55x55 mm switches enable installation in various designs of various manufacturers.

Type	Color	Part No.	Marking
Radio switch, 2 channels	white	F0.000.0005.6	I / 0
	anthracite	F0.000.0007.5	I / 0
	aluminum finish	F0.000.0007.6	I / 0
Radio switch, 2 channels	white	F0.000.0005.8	(△▼)
	anthracite	F0.000.0007.7	(△▼)
	aluminum finish	F0.000.0007.8	(△▼)
Radio switch, 4 channels	white	F0.000.0005.7	I / 0
	anthracite	F0.000.0007.9	I / 0
	aluminum finish	F0.000.0008.0	I / 0
Radio switch, 4 channels	white	F0.000.0005.9	(△▼)
	anthracite	F0.000.0008.1	(△▼)
	aluminum finish	F0.000.0008.2	(△▼)

– batteryless and maintenance-free
– for mounting on flat surfaces with screws or adhesive pads (included in delivery)
– the radio switches fit the following frames with 55mm installation size following vendors:
Berker: S1, B1, B3, B7 Glas
Gira: Standard 55, E2, Event, Esprit
Jung: A500, A plus
Merten: M-Smart, M-Arc, M-Plan

Multivendor radio switches with 2/4 channels (light) (I / 0)
– the rockers are imprinted with I/0 symbols

Multivendor radio switches with 2/4 channels (sunblind) (Up / Down) (△▼)
– the rockers are imprinted with Up/Down (△▼) symbols

Handheld radio transmitter, 4 channels

Batteryless and maintenance-free 4-channel handheld transmitter for direct control of the actuators.

Type	Color	Part No.
Handheld radio transmitter		
gesis RC B-04 WS S0 H	white	F0.000.0009.1
gesis RC B-04 SW S0 H	black	F0.000.0009.2
gesis RC B-04 SI S0 H	silver	F0.000.0009.3

Handheld radio transmitter
– Batteryless and maintenance-free
– Handheld remote control

Window contact

Batteryless and maintenance-free window contact with integrated power buffer for night operation.

Type	Part No.
gesis RC S-SRWSENFK	F0.000.0009.0

Supply:	
Solar cells	min. brightness 100 Lux (best from 400 Lux)
Power reserve	min. 14 hours fully charged
General data:	
Color	signal white similar to RAL 9003
Dimensions (length/width/height)	110/19/15 mm
Contact connector	magnet 23/14/6 mm
Installation	surface

Radio switch, 2/4 channels glossy with suitable frame

This push-button series features a glossy, smooth surface. The radio switches with 2 or 4 channels do not require batteries or maintenance. The rockers are in neutral central position and without marking with 1/0 or up/down symbols. The matching frames for these push-buttons can be found below.

Type	Color	Part No.	Marking
Radio switch, 2 channels *	pure white	F0.000.0025.0	I / 0
	pure white	F0.000.0025.2	(△▼)
	pure white	F0.000.0025.4	
	piano black	F0.000.0025.9	I / 0
	piano black	F0.000.0026.1	(△▼)
	piano black	F0.000.0026.3	
	aluminum	F0.000.0026.8	I / 0
	aluminum	F0.000.0027.0	(△▼)
	aluminum	F0.000.0027.2	
Radio switch, 4 channels **	pure white	F0.000.0025.1	I / 0
	pure white	F0.000.0025.3	(△▼)
	pure white	F0.000.0025.5	
	piano black	F0.000.0026.0	I / 0
	piano black	F0.000.0026.2	(△▼)
	piano black	F0.000.0026.4	
	aluminum	F0.000.0026.9	I / 0
	aluminum	F0.000.0027.1	(△▼)
	aluminum	F0.000.0027.3	

* 2 channels represent one rocker in neutral center position.
This function is defined in the receiver.
** 4 channels represent two rockers in neutral center position.
This function is defined in the receiver.

– glossy surface
– batteryless and mainentance-free
– for installation on flat surfaces with screws or adhesive pads (included in delivery)

Frame for installation of the 2/4-channel glossy radio switches. Suitable for vertical and horizontal mounting.

Hotel Card switch	white	F0.000.0024.6
Hotel Card switch	piano black	F0.000.0024.7
Hotel Card switch	aluminum	F0.000.0024.8

Energy self-sufficient Hotel Card switch for storage and simultaneous sending of an EnOcean telegram. Together with suitable actuators from the ***gesis*®** RC device series, the power supply of the room can be operated directly or the signal can be transmitted to the building automation.

Installation: surface, stick-on or screws
surface, on a standard in-wall outlet box

Dimensions:
Hotel Card 55 x 85 mm (standard dimensions)

Combination frame 1-fold	pure white	F0.000.0025.6
Combination frame 2-fold	pure white	F0.000.0025.7
Combination frame 3-fold	pure white	F0.000.0025.8
Combination frame 1-fold	piano black	F0.000.0026.5
Combination frame 2-fold	piano black	F0.000.0026.6
Combination frame 3-fold	piano black	F0.000.0026.7
Combination frame 1-fold	aluminum	F0.000.0027.4
Combination frame 2-fold	aluminum	F0.000.0027.5
Combination frame 3-fold	aluminum	F0.000.0027.6

The combination frames have to be ordered separately

Repeater, 2-level

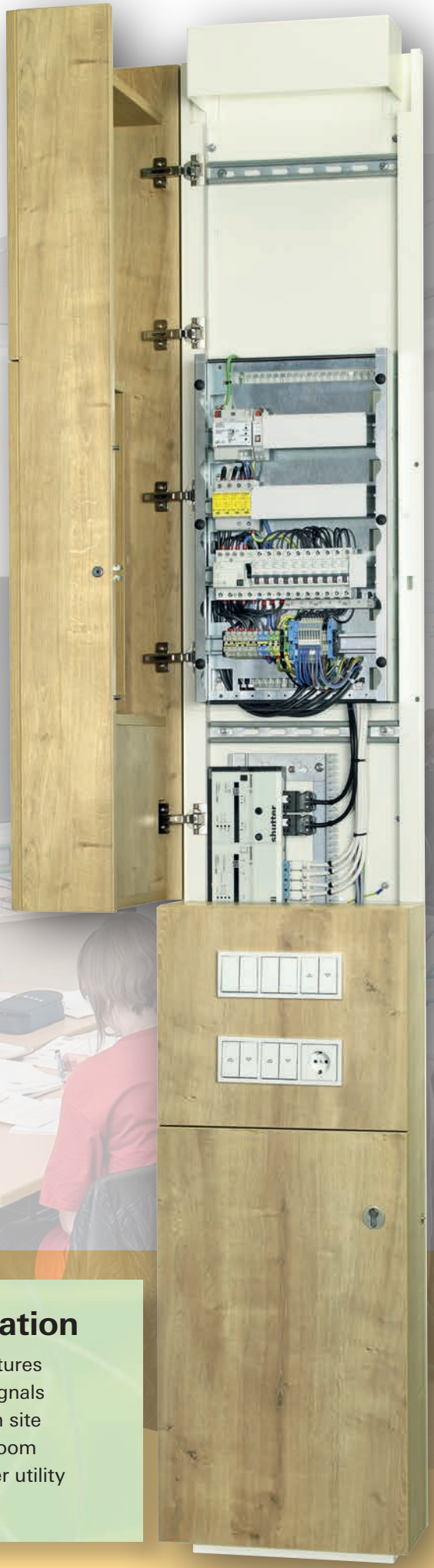
This repeater receives EnOcean telegrams and sends these as they are with maximum transmitting power, either in 1 or 2-level operation. This amplifies the radio signal twice at the maximum and enhances the radio range significantly.

Type	Part No.
Repeater	F0.000.0024.5

Power supply:
Rated voltage 230 V AC
Installation
Installation option in-wall outlet box or surface mount
fixing clip for a standard 60mm outlet socket
Dimensions
(height/width/installation depth) 48/50/35 mm

gesis® installation column

The design makes all the difference



Wide range of variants

- Decors and colors matching your furnishings
- Dimensions to suit your requirements
- Front fixtures to any specification
- Wood and steel corpus available

Robust and practical

- Wooden parts made of high-quality decor plates
- Visible steel parts powder-coated
- Modular design: rear wall – corpus – distribution unit panel
- Distribution unit panel can be detached for wiring
- Locked areas separated for operating and expert personnel

Simple planning

- Planning inputs / outputs
- Define installation column together with Wieland
- Distribution unit panel to any specification
- Generate neutral modification
- All installation and wiring plans included

Decentralized installation

- Creates simple, future-proof structures
- Loopthrough of energy and bus signals
- Fuse element (RCB, MCB, OVP) on site
- Room automation devices in the room
- Increase net floor area with smaller utility rooms

contacts are green.

Quick installation

- Prepared and ready for connection
- Pluggable outputs possible
- Mounted with a few screws
- Arrives at the building site individually tested
- Connect supplies and plug outputs

Ideal construction process

- Short installation time by high degree of prefabrication
- Preinstallation of the cables
- Prefabricate column and carry out system integration
- Mount with a few screws
- Connect supplies and plug outputs

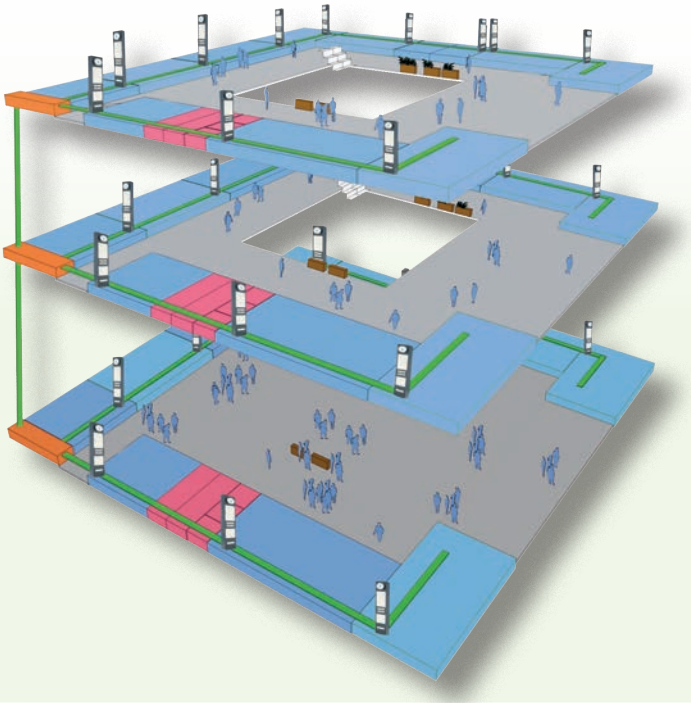
Secure the future

- Standardized system (KNX, EnOcean, DALI, SMI)
- Space reserved for retrofitting
- Simple repairs (particularly with the wood variant)
- Floor/ceiling connection in the rear wall

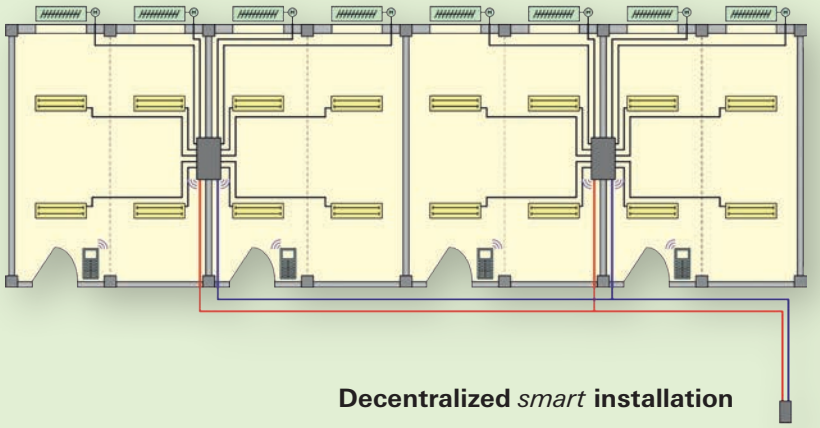
Our service

- Support with planning of the room automation and the installation column
- Prefabrication and delivery according to schedule
- All installation and distribution plans included

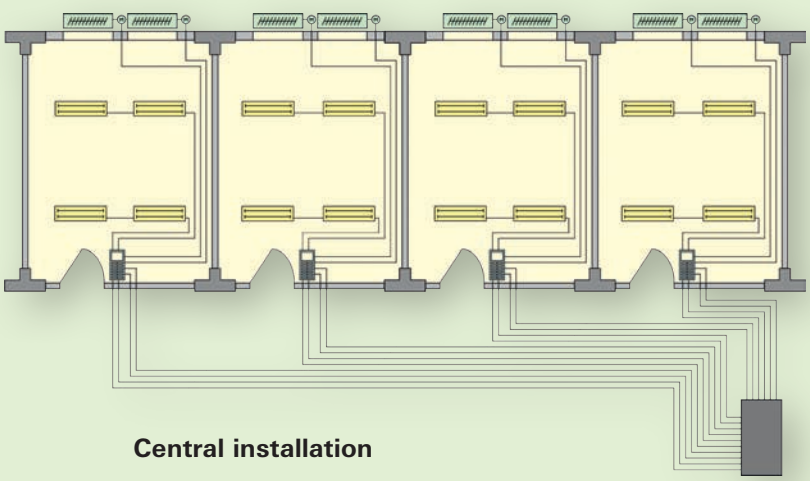
Decentralized installation
School with installation column



- Horizontal main supply as standard
- Vertical main supply with two lines per floor
  - the main fuses and the bus system devices remain in the main distribution unit
  - minimizes space required for the utility rooms
- Room automation is placed directly in the room



Decentralized *smart* installation



Central installation

Reference
Max Planck Secondary School Munich

Project:	Max Planck Secondary School, Munich
Tasks:	Decentralized building automation with installation columns within the scope of renovation measures to increase energy efficiency among other things.

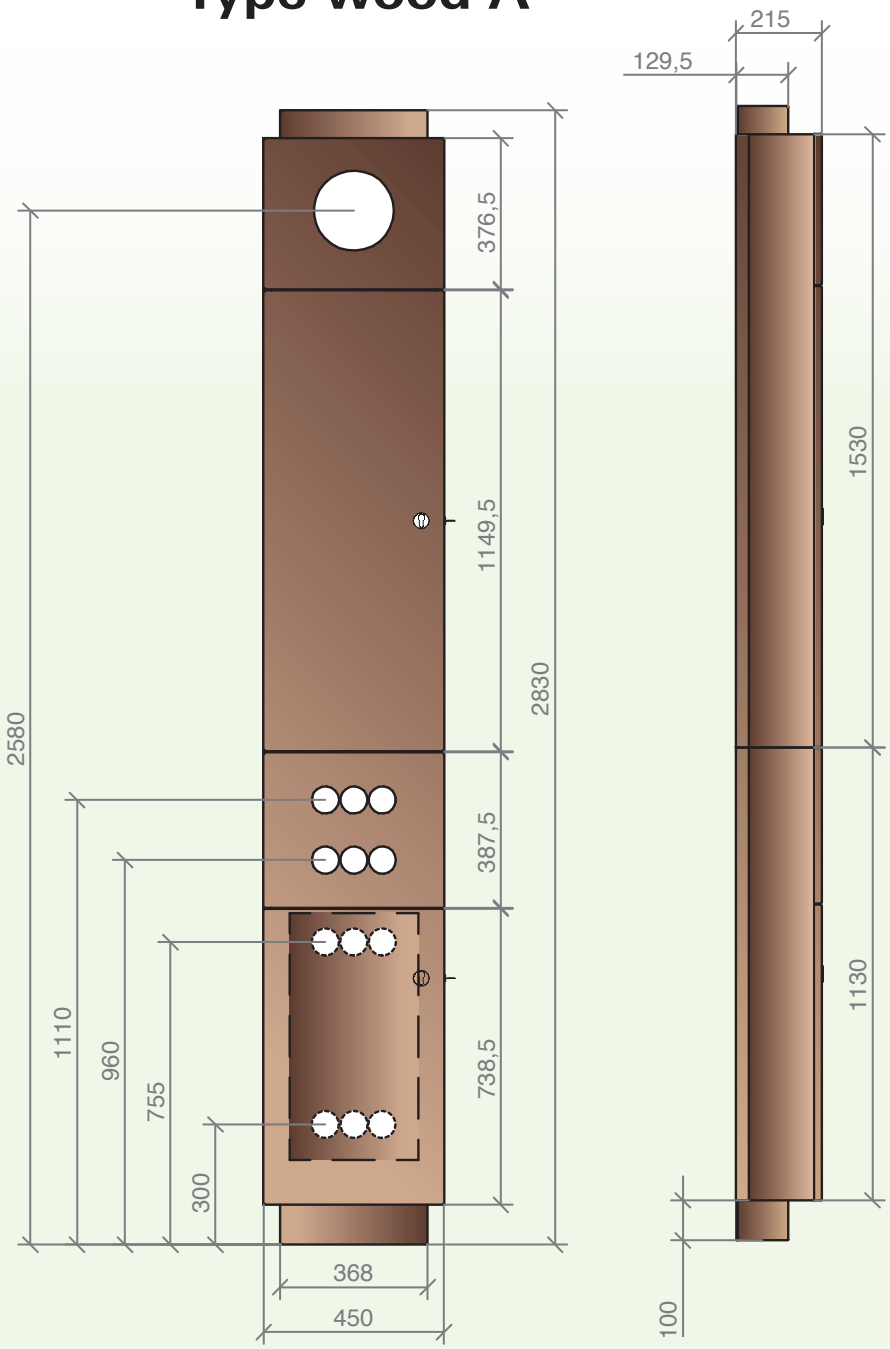
The school building was renovated regarding energy efficiency. Only school holidays were available to do that. The installation column was completely preassembled delivered and thus made it possible to finish the renovation within the 6 weeks of summer holidays.

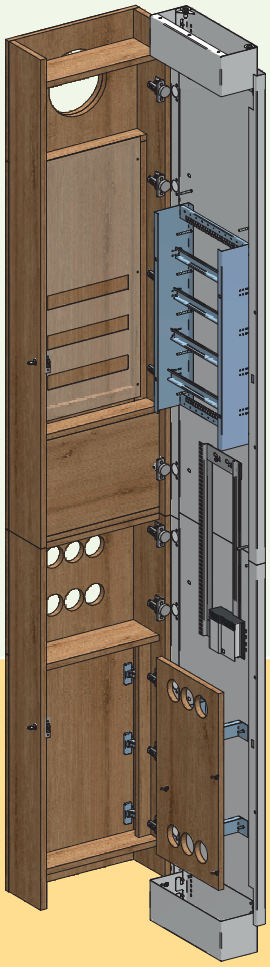
The following devices are used:

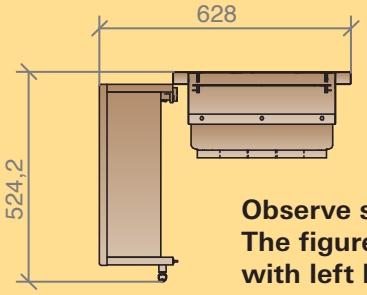
- installation column according to customer requirements fitted with:
  - FI/LS for all connections in the room
  - overvoltage protection
  - ***gesis*** ® EIB RM for sunblinds and lighting
  - ***gesis*** ® EIB RM for coupling of pushbuttons
  - loudspeakers, etc.
- occupancy sensors for constant light control

Columns with wooden corpus

Type wood A

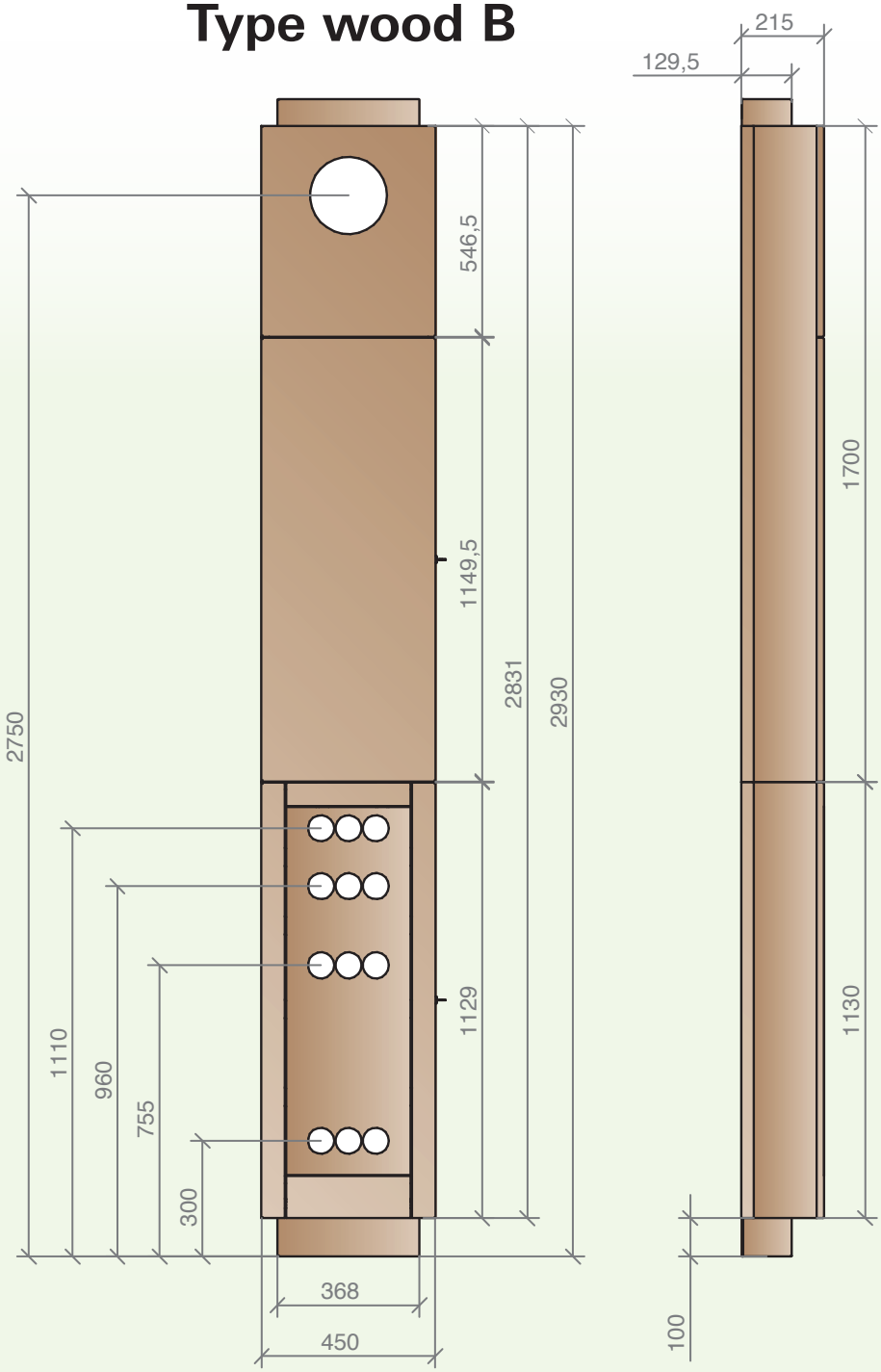


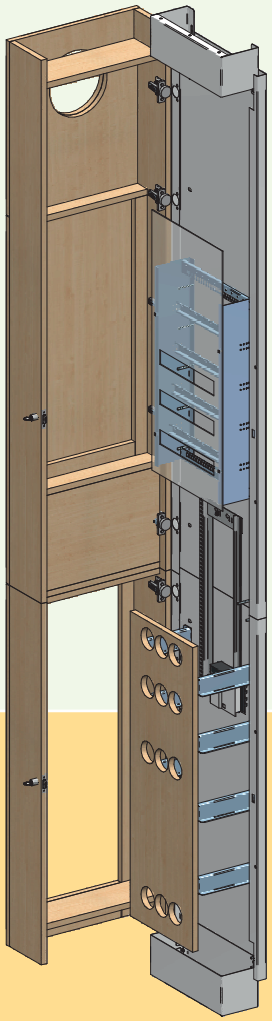




Observe swiveling area!
The figure shows the opening of the corpus with left hinge as an example.

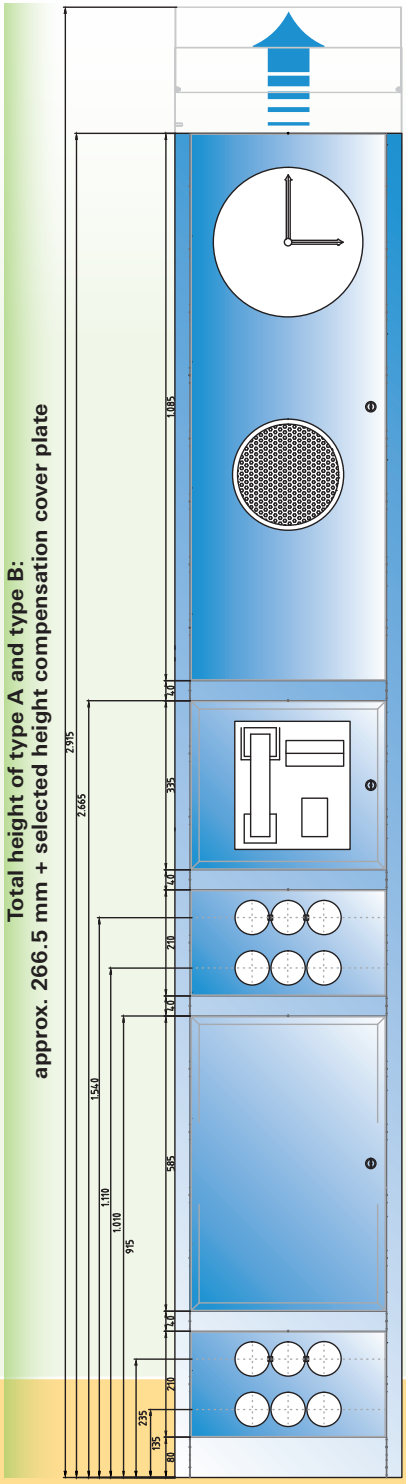
Type wood B





We offer columns that differ from these two standard models.
Please coordinate with your Wieland sales representative before ordering.

Standard column steel



Type A and type B height compensation cover plate:
- ☐ 170 – 250 mm
- ☐ 230 – 340 mm
- ☐ 320 – 470 mm
- ☐ 450 – 670 mm
- ☐ 690 – 970 mm

Upper mounting section Type A:
approx.
955 x 360 mm
Your fixtures:

Upper mounting section Type B:
approx.
575 x 360 mm
Your fixtures:

Type A: Upper door with recess for e.g. telephone, internal dimensions approx.
270 x 360 x 130 mm

Type B:
Upper door with mounting section behind it for 5 top-hat rails (5x16 module width) approx.
680 x 360 mm:
– 3 rail-mounted devices
– 2 for rail terminal blocks or similar

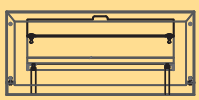
Type A and type B: Middle mounting section approx. 185 x 360 mm in two rows for e.g. a maximum of 2 x 4 hollow wall boxes

Type A and type B:
Bottom door with mounting section behind it for 4 top-hat rails, each 4x16 module width approx. 555 x 360 mm:
– 2 rail-mounted devices
– 2 for rail terminal blocks or similar

Your fixtures:

Type A and type B: Middle mounting section approx. 185 x 360 mm in two rows for e.g. a maximum of 2 x 4 hollow wall boxes

Type A and type B:
Fixed base approx. 160 x 450 mm



view from top
approx. 450 x 200 mm

Using our configuration aid you can quickly and safely query a calculation for your applications and send it to us. You will receive a first draft of the installation column according to the information given, which will then be refined together with you in further steps.

Configuration aid

Create your column from four strong types

Installation column configuration aid

Tick boxes or enter values

■ **Wood decors**
Installation column (housing)

Oak, natural ☐ Maple, honey ☐ Concrete, light ☐

More than 300 further decors on request

■ **Steel colors (similar RAL)**
Installation column (housing)

cream white (RAL 9001) ☐ light grey (RAL 7035) ☐ graphite black (RAL 9011) ☐

Other colors on request

■ **Door hinges wood / steel**

left: ☐ right: ☐

■ **Corpus wood hinge**

left: ☐ right: ☐

Electrical connections (from room to room)

■ **Power / bus signal**
Incoming supply
Distribution

	Power 1-pole	Power 3-pole	Cross-section	Bus signal
Incoming supply				
Distribution				

Protective devices

■ **Switches or contactors**
Main switch
Residual current circuit breaker (40 A, 30 mA)
Line circuit breaker (type B)

Number of poles: ☐ Nominal current: ☐

2-pole ☐ 4-pole ☐

10 A ☐ 16 A ☐

■ **Overvoltage protection**

Network, type 2: ☐ Network, type 3: ☐ Bus: ☐

Building automation KNX

■ **Number of binary inputs**

floating ☐ radio (EnOcean) ☐

■ **Lighting**
Type of lighting control
Number of groups

switched	DALI	1 – 10 V	0 – 230 V AC (RLC)
☐	☐	☐	☐

■ **Sunblind / blackout**
Type of control
Number and groups

AC	DC
☐	☐

■ **Heating control**
Type of regulation
Number of outputs
Voltage used

2-point	fan coil
☐	☐
☐	

Other

■ **Fixtures**
e.g. power supply units, system components, for bus topology

■ **Amount** (we will assume you need 10 pieces if this is left blank)

Project name: ☐

Amount/desired delivery date: ☐ ☐

Company: ☐

Contact person: ☐

Street/number: ☐ ☐

Postal code/city: ☐ ☐

Telephone/e-mail: ☐ ☐

Send via fax: +49 951 93 26-996 or e-mail
More information online, by e-mail at bit.ts@wieland-electric.com, by telephone: +49 951 93 24-996
We offer columns that differ from these four standard models.
Please coordinate with your Wieland sales representative before ordering.

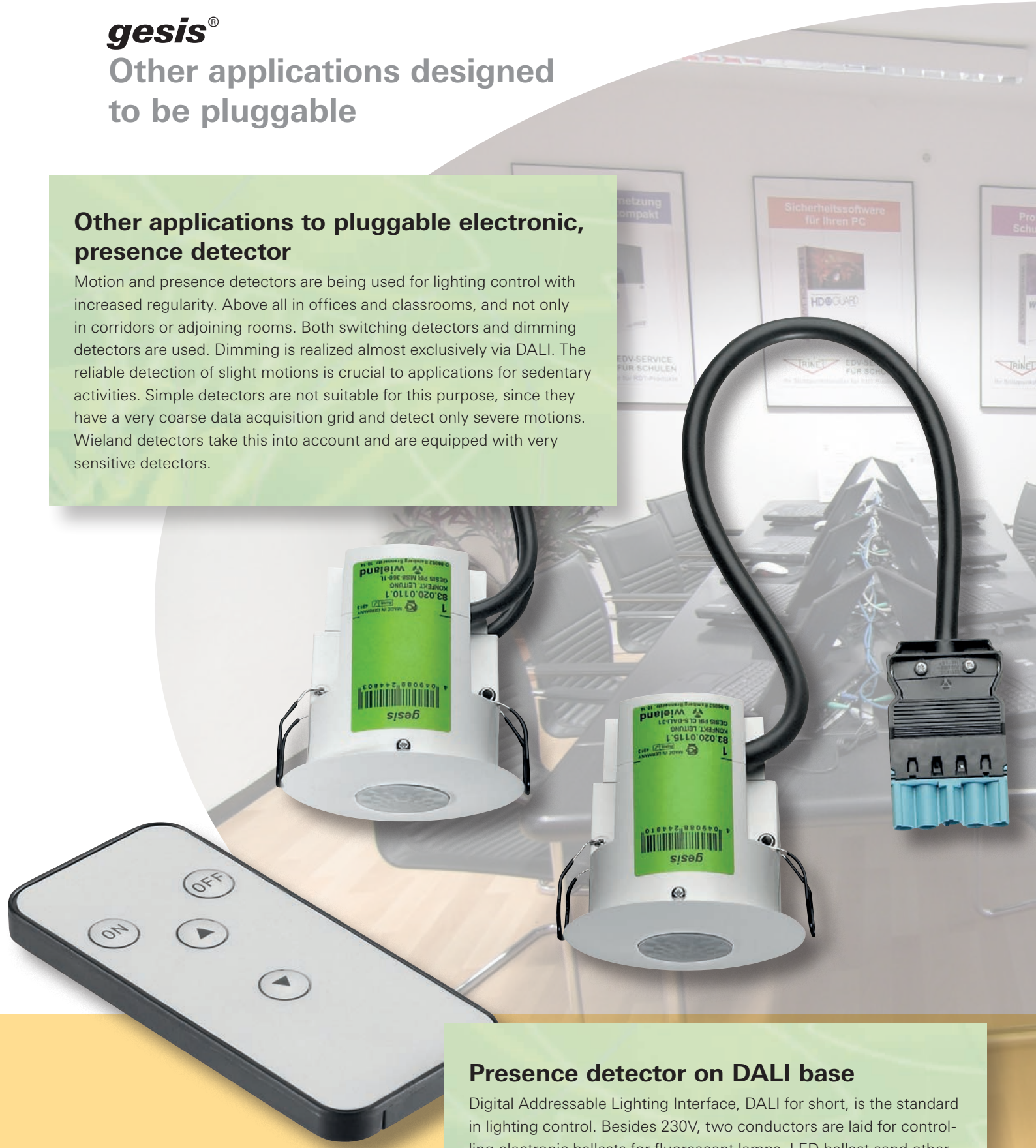
www.wieland-electric.com

gesis®

Other applications designed to be pluggable

Other applications to pluggable electronic, presence detector

Motion and presence detectors are being used for lighting control with increased regularity. Above all in offices and classrooms, and not only in corridors or adjoining rooms. Both switching detectors and dimming detectors are used. Dimming is realized almost exclusively via DALI. The reliable detection of slight motions is crucial to applications for sedentary activities. Simple detectors are not suitable for this purpose, since they have a very coarse data acquisition grid and detect only severe motions. Wieland detectors take this into account and are equipped with very sensitive detectors.

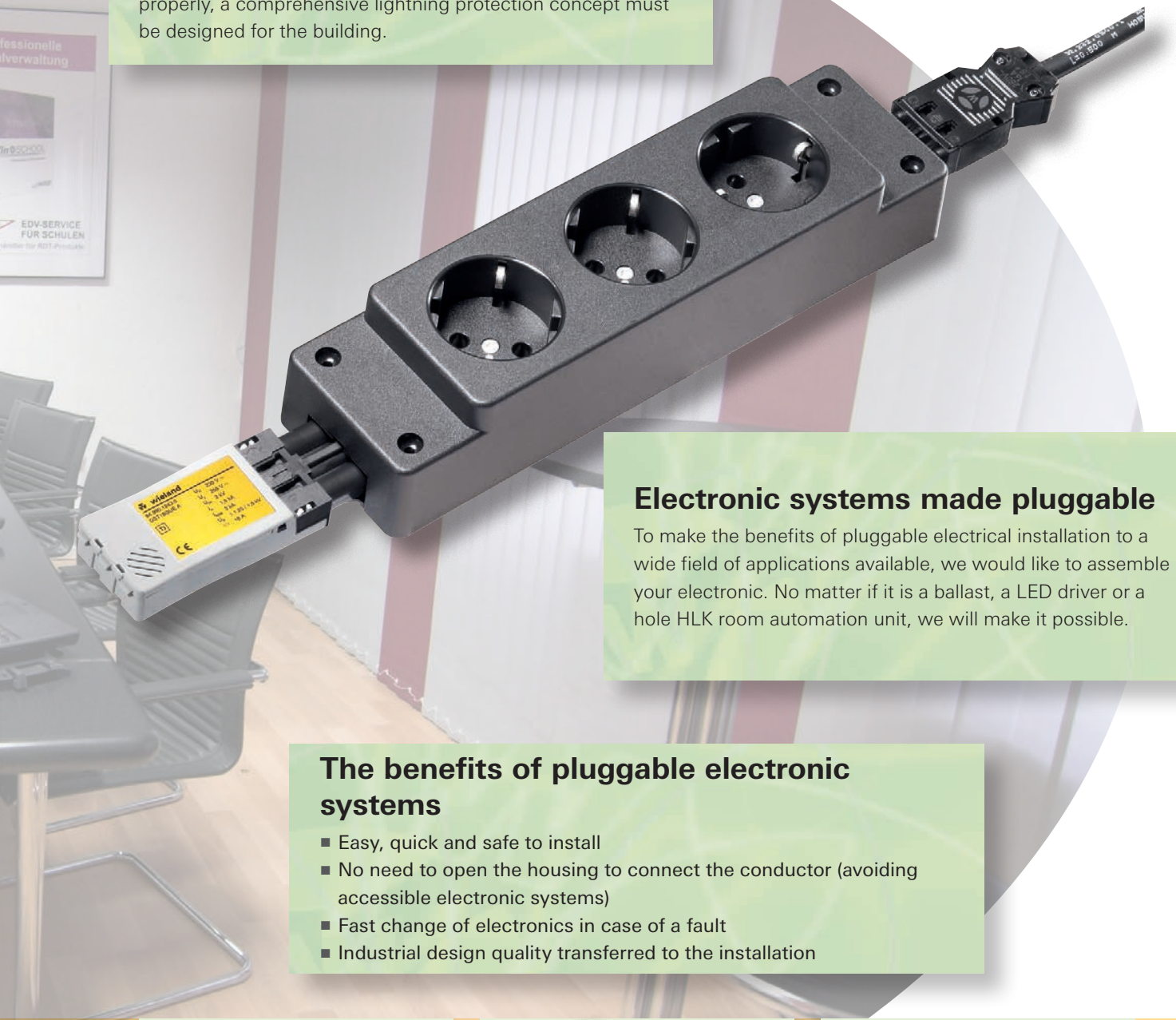


Presence detector on DALI base

Digital Addressable Lighting Interface, DALI for short, is the standard in lighting control. Besides 230V, two conductors are laid for controlling electronic ballasts for fluorescent lamps, LED ballast sand other applications. These are normally laid together with the power supply lines in one conductor. DALI is a conventional master/slave system. It controls and regulates, in dependence of brightness and motion, up to 64 DALI ballasts in three separate groups.

Overvoltage protection

Overvoltage protection is becoming increasingly important. The financial consequences come not from defective devices such as computers, but the outage costs caused by the defect. The ***gesis***® overvoltage protection is a Type 3 arrester which is used near to the end devices. For the protection against overvoltages caused by lightning flashes to work properly, a comprehensive lightning protection concept must be designed for the building.

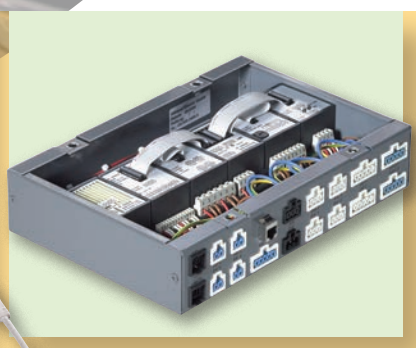


Electronic systems made pluggable

To make the benefits of pluggable electrical installation to a wide field of applications available, we would like to assemble your electronic. No matter if it is a ballast, a LED driver or a hole HLK room automation unit, we will make it possible.

The benefits of pluggable electronic systems

- Easy, quick and safe to install
- No need to open the housing to connect the conductor (avoiding accessible electronic systems)
- Fast change of electronics in case of a fault
- Industrial design quality transferred to the installation



Classrooms as an example

Requirements

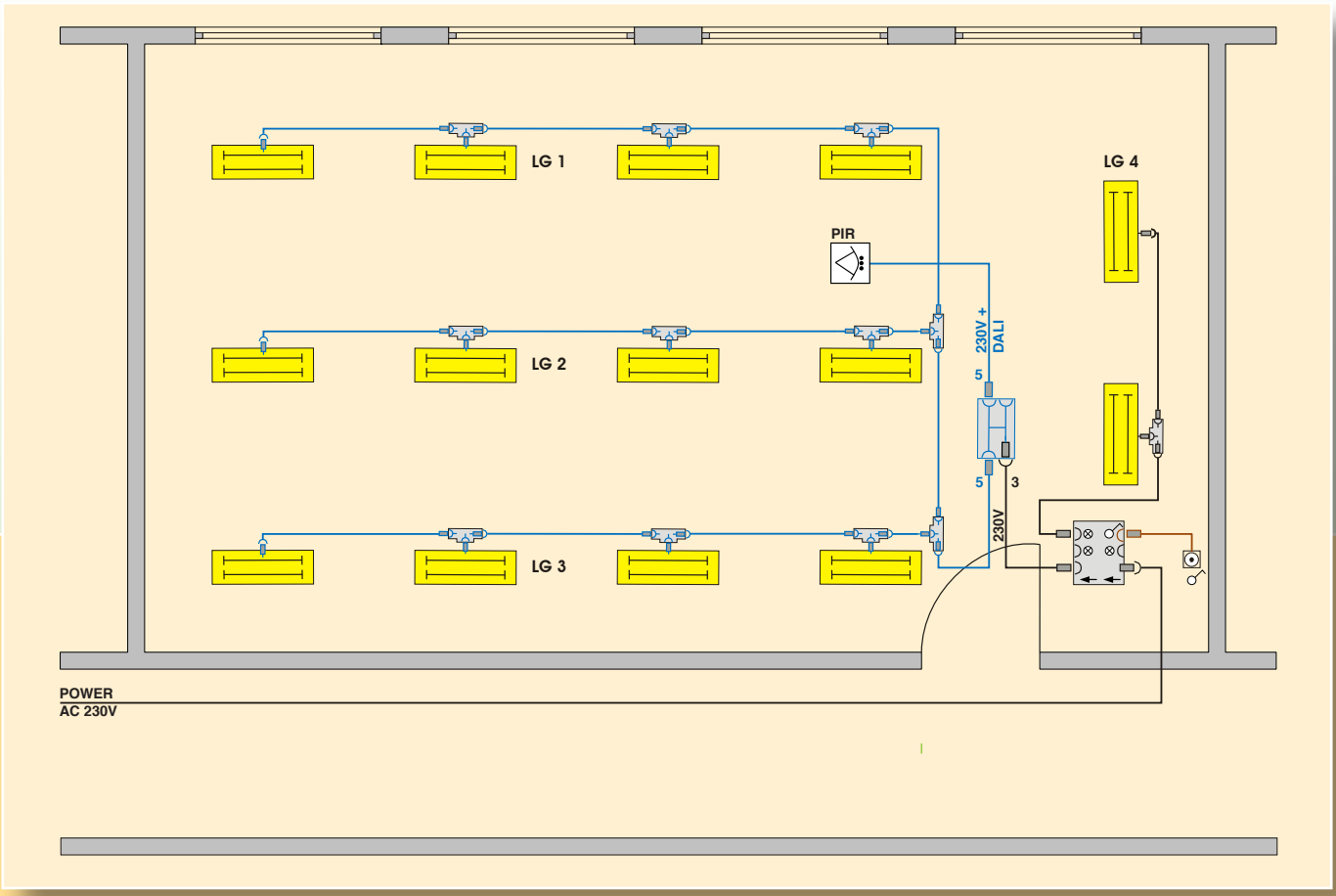
The lighting in classrooms has to be controlled in dependence of brightness and presence. The various elements of natural light between window side and corridor side must be noted and the light strips at various levels considered. The lighting must be activated by a fully-automated mechanism if required. The lighting levels are to be changed or switched on by force as and when necessary. In large rooms, where the range of one presence detector is inadequate, a second detector has to be used as a slave to the 1st detector.

Realization

The DALI presence detector performs this task par excellence. As the DALI master, it can control up to 64 DALI ballasts in four groups. Three of these groups can be dimmed and one group, for the blackboard lighting, can be switched. Various offsets can be specified for the three dimming groups. As a result, the window side can be dimmed more than the corridor side when there is enough exterior light. The installation location of the sensor serves as a reference point. The lighting can be controlled manually via the remote at any time. If the sensor detection range is not adequate, another detector is quickly integrated into the pluggable installation as the slave. Just like the master sensor and the lights, it is simply integrated into the DALI line in parallel.

Used automation devices:

- 1 x DALI presence detector
- 1 x power supply GST18i5 socket in pastel blue for the local connection (in this case, only N, L and PE are connected).
- 1 x distributor with 1 E/3A GST18i5 pastel blue
- Depending on the number of lights, T-pieces GST18i5 pastel blue
- Pre-assembled conductors GST18i5, pastel blue in various lengths
- Lights with GST18i5 pastel blue connection



DALI presence detector, master

Type		Std. pack	Part no.
Master	gesis P CLS-DALI-31	1	83.020.0115.1

The DALI presence detector master is a DALI-based multi sensor (PIR) to control three lighting zones. In daylight-controlled mode the groups are dimmed with an adjustable offset to the reference zone. The connected 64 DALI-ballasts can be assigned to any of the zones. The extensive parameter settings like time delays or sensitivity can be commissioned with the suitable remote control. The lighting can be controlled via an IR remote control or automatically. All electrical connections are pluggable and provided with a pre-assembled 0.5m cable.

Infeed	230V/16A 50Hz
Plug system	GST18i5, pastel blue, male connector on the detector
DALI output	64 DALI ballasts unit connected Slaves as required connected (parallel to DALI EVGS)
Plug system	GST18i5, pastel blue, male connector on the detector together with the power supply system in a connector
Mounting	Ceiling mounting
Height	2.4 - 3m
Mounting opening	circular opening
Detection range	8-12m, depending on mounting height, round
Dimensions	
visible cover	Height 5mm, Ø 95mm,
Housings	Depth Ø 90mm,
Connection cable	0.5 m
Accessories	
for huge areas	Slave detector gesis P CLX-DALI-31 - 83.020.0116.1
IR remote control	83.020.0122.1 (optional)
IR remote control commissioning	83.020.0122.0 (necessary)
Plug system	as required from the product series GST18i5, pastel blue

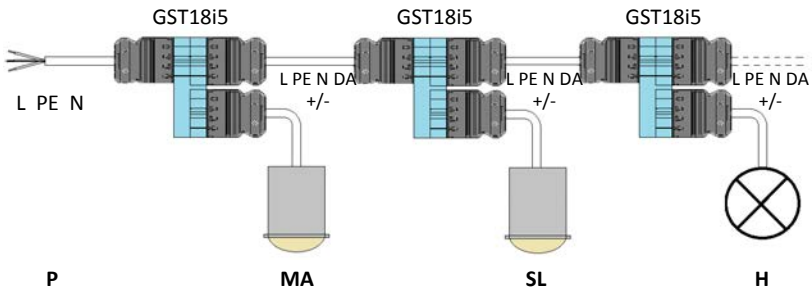
DALI presence detector, slave

Type		Std. pack	Part no.
Slave	gesis P MS-DALI-SL		83.020.0116.1

The DALI presence detector slave is a DALI-based multi sensor (PIR) to increase the detection area of a DALI presence detector master (gesis P CLS-DALI-31). He is installed to the DALI system in parallel to the master. All electrical connections are pluggable and provided with a pre-assembled 0.5m cable.

Infeed	from the DALI master
Plug system	GST18i5, pastel blue, male connector on the detector
DALI output	only presence report to the master
Plug system	GST18i5, pastel blue, male connector on the detector together with the power supply system in a connector
Mounting	Ceiling mounting
Height	2.4 - 3m
Mounting opening	circular opening
Detection range	8-12m, depending on mounting height, round
Dimensions	
visible cover	Height 5mm, Ø 95mm,
Housings	Depth Ø 90mm,
Connection cable	0.5 m
Accessories	
DALI master	gesis P CLS-DALI-31 - 83.020.0116.1 (necessary)
IR remote control	83.020.0122.1 (optional)
IR remote control commissioning	83.020.0122.0 (necessary)
Plug system	as required from the product series GST18i5, pastel blue

DALI detector, further information



	Function	Input/output	
		Type	male
			GST18 Code2
P	Infeed	Only 230 V	5-pole pastel blue
MA	Master	230 V DALI	
SL	Slave		
H	DALI luminaire		

Power supply system:
Power is supplied to the system via a female connector, GST18i5, pastel blue, to which only L, N and PE is connected. The DALI signal is supplied from the master to the DALI installation.

Through-wiring:
The through-wiring is completely 5-pole. All stations and detectors are connected in parallel.

Switching presence detector

Master with direct luminaire connection (MA)
83.020.0110.1

Type	Std. pack	Part no.
Master		
switching with direct luminaire connection (MAa)		
gesis P MS8-360-1L	1	83.020.0110.1
for connection to a switching distributor (MAb)		
gesis P MS8-360-1Lb	1	83.020.0110.2
Accessories switching distributor (SV)		92.030.0153.1
for connection of a slave		
gesis P MS8-360-1LSL	1	83.020.0110.3

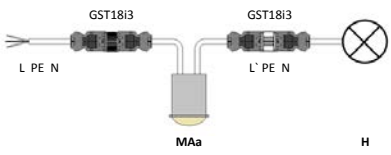
The switching presence detector master is a multi sensor (PIR) to control one lighting group. The lighting group can be controlled by an IR remote control or automatically. The supply is realized via a connection cable with black GST18i3 male plug. Depending on the application the output is provided with a different type of connector, see table below.

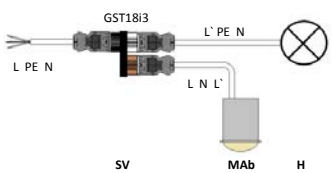
Slave		
with direct luminaire connection (SLaq)		
gesis P MS8-360-SLb	1	83.020.0111.1
for connecting further slaves (SLSL)		
gesis P MS8-360-SLSL	1	83.020.0112.1

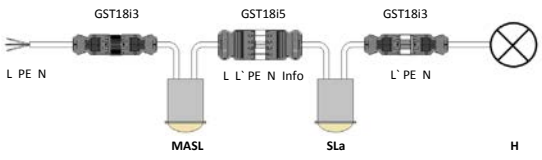
The slave reports, with adjustable sensitivity, the master only the presence of persons. The decision and execution of the switching action takes place in the master. Depending on the application the output is provided with a different type of connector, see table below.

Infeed	230V/16A 50Hz, GST18i3, black, male connector on the detector
Output	
Switching current	10A ohmic load
Switching load	max, 140 µF (165A/20ms)
Mounting	Ceiling mounting,
Height	2.4 - 3m
Mounting opening	circular opening Ø 85mm / max 30mm ceiling thickness
Detection range	8-12m, depending on mounting height, round
Dimensions	
visible cover	Height 5mm, Ø 95mm,
Housings	Depth Ø 90mm,
Connection cable	0.5 m
Accessories	
IR remote control	83.020.0122.1 (optional)
IR remote control commissioning	83.020.0122.0 (necessary)
Plug system	as required from the product series GST18i5, pastel blue

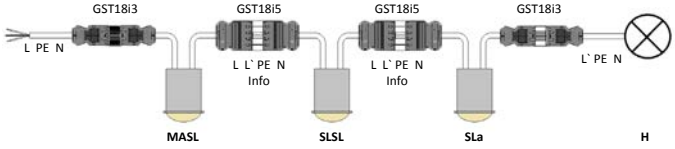
Switching presence detector, further information







	Function	Input		Output	
		Type	male	Type	female
			GST18		GST18
MAa	Master	230 V	3-pole black	230 V	3-pole white
MAb	Master		3-pole brown	Contained in the input	
MASL	Master		3-pole black	to the slave	5-pole white
SLa	Slave	from the master or slave	5-pole black	230 V	3-pole white
SLSL	Slave			to the slave	5-pole white
SV	Cross connect				
H	Luminaire				



IR transmitter for commissioning and operating the presence and motion detector

Type	Std. pack	Part no.
Commissioning gesis PIR IR B-21 IPD	1	83.020.0122.0

This remote control is required for setting the presence detector functions, e.g. delay times, lighting levels or the assignment of DALI groups. It can be used for any number of detectors.

IR transmitter for operation

Type	Std. pack	Part no.
Operation gesis PIR IR B-04 IPD	1	83.020.0122.1

This remote control permits the user to operate the assigned presence or movement detectors, and hence temporarily change the dimming value, for example.

gesis® overvoltage protection Type 3

Type	Std. pack	Part no.
Optical defect indicator	1	84.990.1242.0
Acoustic defect indicator	1	84.990.1243.0

Connectors	GST18i3, Code 1, black
	Type 3 according to EN 61643-11+A11
Worker classification	Class 3 according to IEC 61643-1
Ue	255 V / 50 Hz
Max. fusing	16 A gl/gG (B 16 A)
Ambient temperature	–25° C … +40° C

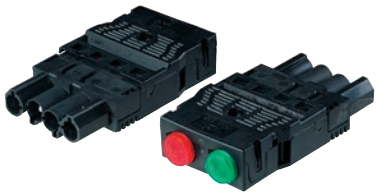
Service plug, 3-pole, signal light 230 V

Type	Std. pack	Part no.
GST18I3 S 1H SW	1	92.002.5153.1

The service plug from the product line GST1i3, Code 1, white can be used for function test of e.g. switching outputs from the ***gesis***®ELECTRONIC product range. It is equipped with a red 230V signal light connected to N and L to signal the pending voltage. It must not be used to determine the absence of voltage.

Display	red glow lamp (between N and L)
Voltage	230 V AC
Connectors	3-pole, GST18i3, Code1, white
Application	function test, not be used to determine the absence of voltage

Service plug, 4-pole, 2 signal lights 230 V



Type	Std. pack	Part no.
GST18I4 S 2H SW	1	92.002.5253.1

The service plug from the product line GST18i4, Code 1, black can be used for function test of e.g. shutter outputs from the ***gesis***®ELECTRONIC product range. He is equipped with a red and a green 230V signal light connected to pin 1 and N (green) and pin 2 and N (red) to signal the pending voltage. It must not be used to determine the absence of voltage.

Display	two glow lamps green glow lamp (between pin 1 and N) red glow lamp (between pin 2 and N)
Voltage	230 V AC
Connectors	4-pole, GST18i4, Code1, black
Application	function test, not be used to determine the absence of voltage

Service plug, 5-pole, 1 signal light 230 V

Type	Std. pack	Part no.
GST18I5 S 1H PB	1	92.002.5353.0

The service plug from the product line GST1i5, Code 2, pastel blue can be used for function test of e.g. DALI or 1-10V signal dimming outputs from the ***gesis***®ELECTRONIC product range. It is equipped with a red 230V signal light connected to N and L to signal the pending voltage. It must not be used to determine the absence of voltage.

Display	red glow lamp (between L and N)
Voltage	230 V AC
Connectors	5-pole, GST18i5, Code 2, pastel blue
Application	function test, not be used to determine the absence of voltage

Service plug, 5-pole, 4 push buttons 50 V

Type	Std. Pack	Part No.
GST15I5 S 4S LB	1	91.002.5453.0

The service plug from the product line GST15i5, Code 3, light blue can be used for function test of e.g. 24VDC binary inputs from the ***gesis***®ELECTRONIC product range. It is equipped with four normally open push buttons connected to the common pin 5 and the pins 1/2/3/4. The button can only be used for voltages <50 V (SELV FELV).

Button	four
contact type	Normally open contact
assignment	common PIN 5 to PIN 1/2/3/4
Voltage	<50V (SELV, FELV)
Connectors	5-pole, GST15i5, Code 3, light blue
Application	function test, simulation from potential-free contacts

With *gesis*® pre-assembled electronic

Electronic transformer

Primary side mains voltage, secundary side low voltage (SELV)

Power supply system with GST18i3

Lighting side with ST16 2-pole low voltage

Presence detector

both sides are driving mains voltage

Power supply system GST18i3 male connector

Lighting side with GST18i3 female connector

Downlight

Primary side mains voltage, secundary side low voltage (SELV)

Power supply system with *gesis*®MICRO code 1, white, for 230 V

Lighting side with *gesis*®MICRO code 2, light blue, up to50 V

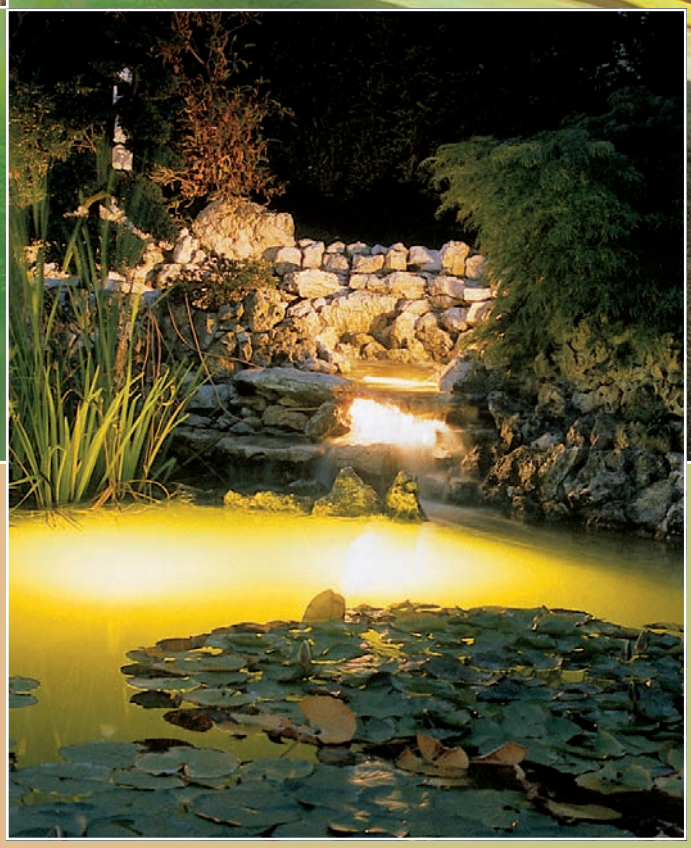
Room automation device installed in *gesis*®RAN IP 54

Connection with *RST*® plug connectors for preserving the high class of protection

Room automation device installed in *gesis*®RAN IP 20

Connection with *gesis*® connectors from various product series

Outdoor installation



RST® – plug & play outdoors
Water-tight electronics.

■ The challenge

Expert operation plays a major role, particularly for electrical installations outdoors. Difficult installation conditions and extreme time pressure often lead to errors, loss of protection and finally to the failure of the system.

■ The solution

As a complete installation system, ***RST***® is optimally adapted to these increased requirements. It is very flexible in its application and has proven technology at its disposal. Luminaires can thus be delivered in a pre-assembled design. They only have to be plugged in on-site. The connectors are also touch-safe when they have not yet been plugged in; they provide a locking device against accidental loosening.
The possibility of connecting almost all customary cable types (including underground cables) as well as the IP 68 and IP 69K protection degree make the ***RST***® connector a strong partner for outdoor lighting.

■ Optimization

The system becomes even more versatile with ***gesis***® RC ***RST***® switching outputs with integrated EnOcean radio technology. The outputs for 230 V can switch 6 A at maximum and can be controlled with standard EnOcean key functions. Two LED drivers from the system family can be connected to each switched output. A transmission frequency of 868.3 MHz and EnOcean radio technology are used.

Benefits of the *RST*® device series

- **Quick IP68 installation with pluggable connections**
- **Safe installation as devices do not have to be opened to connect them**
- **Easy installation with pre-assembled devices and cables**
- **Easy operation due to use of EnOcean radio technology**
- **Comprehensive as LED drivers are available in the system housing**

Common data

Type of protection	IP65, IP66, IP67, IP68 (3 m; 2 h), IP69K all IP protection degrees are only valid for plugged cables or closed connections
Connector	only from the series **RST20i2** and **RST20i3**
Dimensions	
high housing	104/162/96 mm
flat housing	104/162/58 mm
Housing	thermoplastic PA 66 halogen-free
Housing color	black

Data/radio technology

Technology	using the EnOcean protocol
Radio frequency	868.3 MHz
Range	
– Line-of-sight	typically 30 m in corridors, up to 100 m in halls
– Plaster board/wooden walls	typically 30 m through max. 5 walls
– Brick/gas-aerated concrete walls	typically 20 m through max. 3 walls
– Reinforced concrete walls/ceilings	typically 10 m through max. 1 floor/wall
– Considerable limitations in the range	(up to the shielding of the radio signal)

All electrically conductive materials (mostly metals) between the transmitter and the receiver or nearby impair the range.

	Switching application EnOcean 4-fold 83.020.0505.0	Switching application EnOcean 1-fold 83.020.0504.0	Switching application EnOcean 1-fold 83.020.0504.1	LED constant voltage supply 12V 83.020.0900.0	LED constant voltage supply 24V 83.020.0901.0	LED constant voltage supply 350 mA 83.020.0902.0	LED constant voltage supply 700 mA 83.020.0903.0	Low voltage halogen transformer 83.020.0904.0
Outputs (enOcean controlled)	4	1	1					
Outputs switching in parallel			2					
230 V Through-wiring	1	1		1	1	1	1	1
LED outputs 12 V/12 W				1				
LED outputs 24 V/12 W					1			
LED outputs 350 mA/12 W						1		
LED outputs 700 mA/12 W								
Low voltage halogen output 21 V/20–70 W								1
RST 20i3 black for power								
RST 20i2 brown for low voltage								
RST 20i2 gray for low voltage								

*) See the product range of the pluggable electrical installation system ***gesis***® CON

Garden installation with *RST*®

Requirements

Switching various spotlights in a hotel garden. The individual switching groups are to be controlled via radio as there is only one supply line. Furthermore, trained personnell shall be able to easily modify the system.

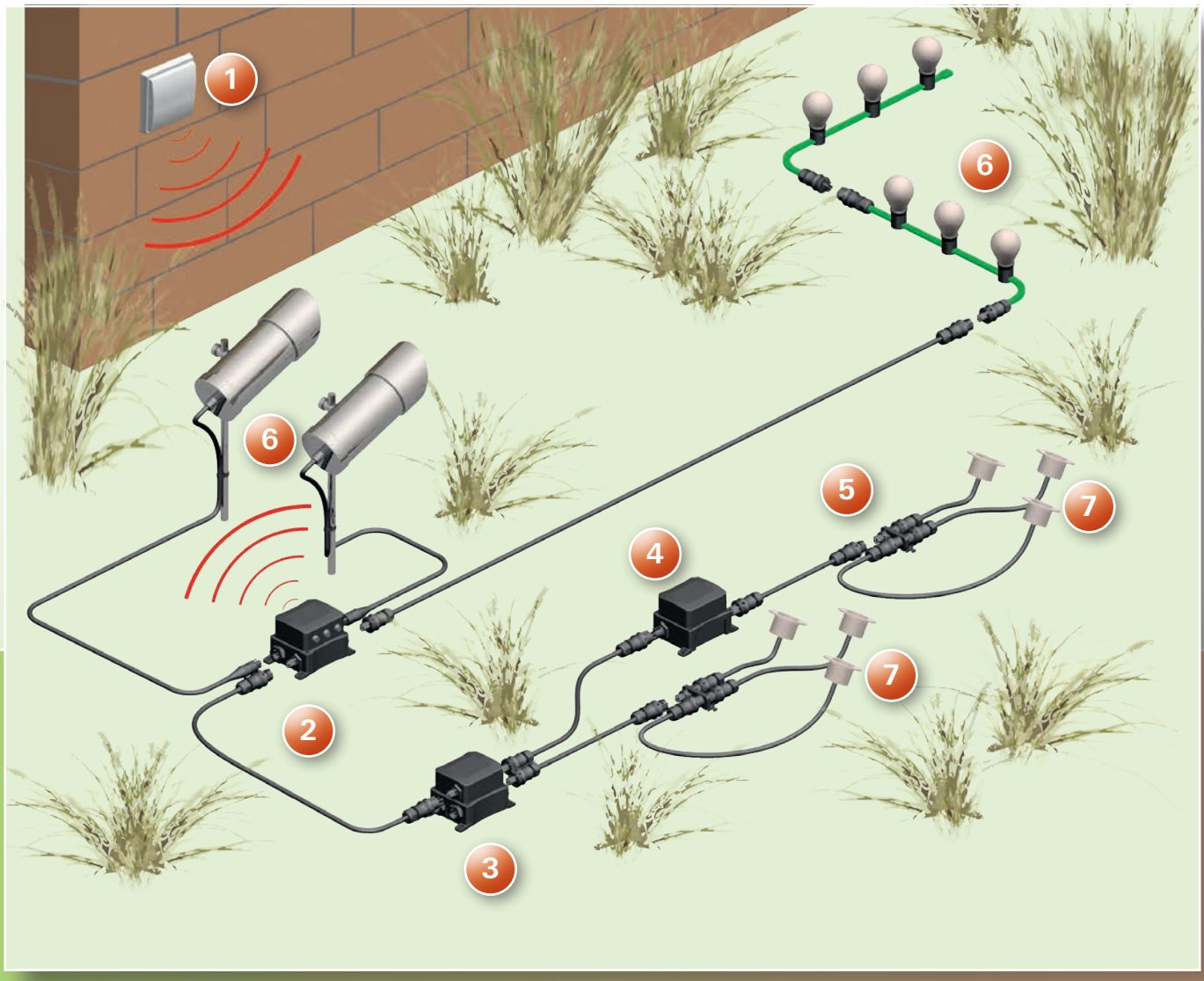
Realization

All components are pluggable. The ***RST***® connector system is used in order to meet the degree of protection required for electrical safety. The radio outputs are controlled with switches from indoors. To keep them in the same design as the other switches and sockets, multivendor switches and the corresponding design frames are used.

Wieland devices used

1	2 x push-buttons 4-channel	F0.000.0002.3
2	1 x EnOcean switching application 4-fold	83.020.0505.0
3	LED constant current supply 350 mA	83.020.0902.0
4	LED constant current supply 350 mA	83.020.0902.0
5	Distribution block for series connection	99.910.0000.7
6	Lighting 230 V with RST20i3 connection 230 V	
7	LED spotlight with RST20i2 connection max. 50 V	

The initial connection is made to a female connector for pre-assembly on-site. The connection cables in various lengths are also pre-assembled. Connections not used are closed with covers.



Switching application EnOcean 4-fold

EnOcean 4-fold switching outputs in the IP68 surface housings for outdoor use feature four 230 V relays. They can be programmed for 30 push-button pairs. All electrical connections are pluggable.

Type		Part No.
gesis RC RST-0/4	4 relay outputs, 1 feed-through wiring	83.020.0505.0
Incoming supply:		
Power input/output	230 V AC / 20 A connector RST 20i3 coding black	
Outputs:		
Quantity	4	
Connection type	connector RST20i3 coding black	
Rated voltage	230 V AC	
Switching capacity	6 A (max. two of the LED/LV halogen modules given below)	
General data:		
Type of protection	IP68 (all connections plugged or closed)	
Dimensions (length/width/height)	104/162/96 mm	
Installation option	4 elongated holes	

Constant power supply unit, 350 mA DC

Constant power supply unit 350 mA for connecting LEDs. Connections not used have to be closed.

Type		Part No.
gesis RST PSI 350/12 LED		83.020.0902.0
Incoming supply:		
Input power (male connector)	230 V AC/20 A RST20i3 poding black	
Output power (female connector)	230 V AC/20 A RST20i3 poding black	
Output LED (female connector)	350 mA DC/max. 12 W RST20i2 poding brown	
General data:		
Type of protection	IP68 (all connections plugged or closed)	
Ambient temperature	-25 °C to +55 °C	
Dimensions (length/width/height)	104/162/96 mm	
Installation option	4 elongated holes	
Electrical connections	pluggable with RST20i2 … 20i3	

Constant power supply unit, 700 mA DC

Constant power supply unit 700 mA for connecting LEDs. Connections not used have to be closed.

Type		Part No.
gesis RST PSI 700/12 LED		83.020.0903.0
Incoming supply:		
Input Power (male connector)	230 V AC/20 A RST20i3 coding black	
Output Power (female connector)	230 V AC/20 A RST20i3 coding black	
Output LED (female connector)	700 mA DC/max. 12 W RST20i2 coding brown	
General data:		
Type of protection	IP68 (all connections plugged or closed)	
Ambient temperature	-25 °C to +55 °C	
Dimensions (length/width/height)	104/162/96 mm	
Installation option	4 elongated holes	
Electrical connections	pluggable with RST20i2 … 20i3	

Constant voltage supply, 12 V DC

Constant voltage supply unit 12 V for connecting LEDs. Connections not used have to be closed.

Type		Part No.
gesis RST PSU 12/12 LED		83.020.0900.0
Incoming supply:		
Input power (male connector)	230 V AC/20 A RST20i3 coding black	
Output power (female connector)	230 V AC/20 A RST20i3 coding black	
Output LED (female connector)	12 V DC/max. 12 W RST20i2 coding pebble gray	
General data:		
Type of protection	IP68 (all connections plugged or closed)	
Ambient temperature	-25 °C to +55 °C	
Dimensions (length/width/height)	104/162/96 mm	
Installation option	4 elongated holes	
Electrical connections	pluggable with RST20i2 … 20i3	

Constant voltage supply, 24 V DC

Constant voltage supply unit 24 V for connecting LEDs.
Connections not used have to be closed.

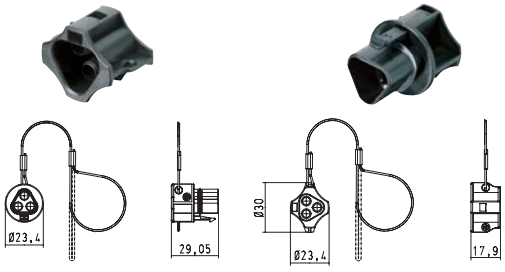
Type		Part No.
gesis RST PSU 24/12 LED		83.020.0901.0
Incoming supply:		
Input power (male connector)	230 V AC/20 A RST20i3 coding black	
Output power (female connector)	230 V AC/20 A RST20i3 coding black	
Output LED (female connector)	12 V DC/max. 12 W RST20i2 coding pebble gray	
General data:		
Type of protection	IP 68 (all connections plugged or closed)	
Ambient temperature	-25 °C to +55 °C	
Dimensions (length/width/height)	104/162/96 mm	
Installation option	4 elongated holes	
Electrical connections	pluggable with RST20i2 … 20i3	

Transformer for low-voltage halogen luminaires, 12 V AC

Power supply unit 12 V for connecting halogen luminaires.
Connections not used have to be closed.

Type		Part No.
gesis RST PSU 12/70 LVH		83.020.0904.0
Incoming supply:		
Input power (male connector)	230 V AC/20 A RST20i3 coding black	
Output power (female connector)	230 V AC/20 A RST20i3 coding black	
Output LV halogen (female connector)	12 V AC/20 – 70 W RST20i2 coding pebble gray	
Output LV halogen cable length	max. 2 m	
General data:		
Type of protection	IP 68 (all connections plugged or closed)	
Ambient temperature	0 °C to +45 °C (derating from 35 °C)	
Dimensions (length/width/height)	104/162/96 mm	
Installation option	4 elongated holes	
Electrical connections	pluggable with RST20i2 … 20i3	

Accessories: covers



The covers have to be used to close all unused inputs and outputs. Without these covers, only IP20 is achieved!

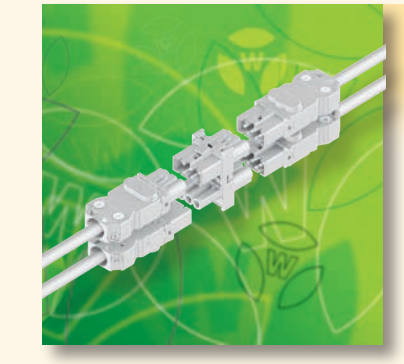
Type	Part No.
Suitable for all RST20i2 and RST20i3 codings	
For male connector captive against loss	99.416.6205.2
For male connector not captive against loss	05.564.4453.1
For female connector captive against loss	99.414.6205.2
For female connector not captive against loss	Z5.564.4553.1

gesis®

Over 40 years ago, one idea changed electrical installation. These days, this idea is a standard. Functional buildings are easily, quickly and safely installed with the 4 basic pluggable components: connectors, device connectors, pre-assembled cables and distribution blocks.

Features

- Prefabricated components can be plugged in easily in a time-saving manner
- Color and mechanical codings for a variety of applications
- Numerous components for a complete installation
- Many partners fit their products in the factory with GST18®

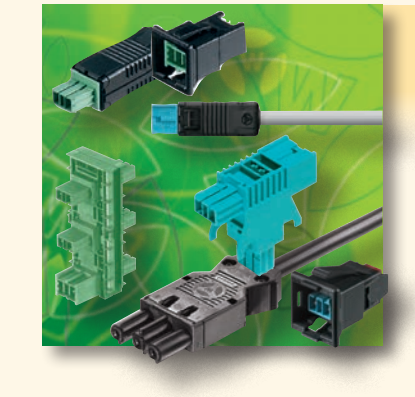


gesis®MINI

The little brother. Miniaturization is found in electrical installation as well. ***gesis***®MINI is up to a third smaller than ***gesis***® for comparable technical data and has a similar range of functions.

Features

- Complete and compact installation connector system with tiny dimensions
- The coding concept is similar to GST18®.
- Universally integrated locks simplify handling and make the connection safe and durable.

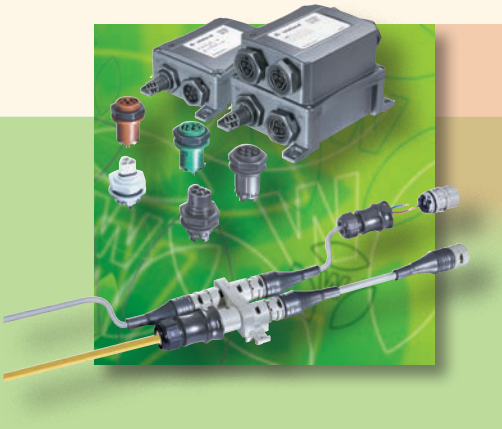


gesis®BSt

BST14 is the pluggable standard for building automation with KNX and the extension of the ***gesis***® idea to this area of electrical installation.

Features

- Standardized KNX-listed connector interface
- All components for a complete, pluggable installation



RST 20i 2-pole to 5-pole

The RST system serves as safe and durable cabling with increased degree of protection. The types of protection IP65/67, IP68 (3m; 2h) and IP69K prevent ingress of e.g. water, dust, oil and soot. The RST system features various codings that are not plug-compatible with each other. This is ideal to keep different applications separate, ensuring correct polarity.

Features

- Quick, safe and easy installation
- Increased degree of protection (IP65/67, IP68 (3m; 2h) and IP69K)
- Comprehensive distribution unit and accessories program
- Pre-assembled cables save time at the construction site

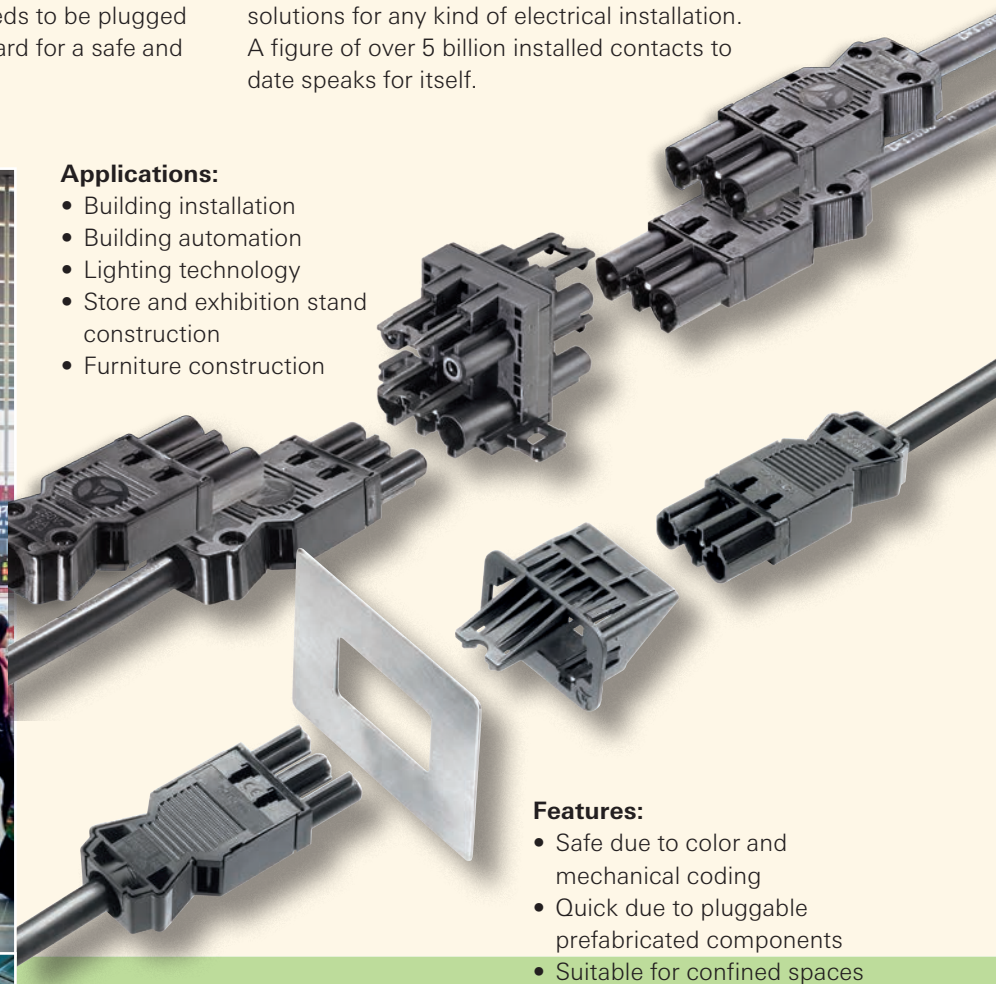
Facility Management – Simply Plug It.
And the Building Installation Is Perfect

gesis® – one name, one idea, an inimitable story of success! With its pluggable electrical installation technology, Wieland Electric has been setting new standards for 40 years. No wonder, since 70% less time and 30% lower costs continue to speak for themselves.

The benefits of the plug-and-play principle are apparent everywhere: No more cutting to length, stripping and threading into terminals: ***gesis***® system components are industrially pre-assembled and tested. Everything fits perfectly and only needs to be plugged together on site. ***gesis***® is the standard for a safe and error-free installation.

The ***gesis***® system includes connectors with pre-assembled cables and distribution blocks, radio-controlled switchgears, devices for remote building automation and pluggable distribution boxes for modern facility management, cables and flat cables as well as low-voltage systems.

gesis® is the ingenious principle for building installation technology – in high-rise buildings just as in family homes, and from the basement to the roof. The unique variety of over 5,000 components offers solutions for any kind of electrical installation. A figure of over 5 billion installed contacts to date speaks for itself.



Applications:
- Building installation
- Building automation
- Lighting technology
- Store and exhibition stand construction
- Furniture construction

Features:
- Safe due to color and mechanical coding
- Quick due to pluggable prefabricated components
- Suitable for confined spaces
- Comprehensive, coordinated product range

Information about these products:

0670.1 *gesis*®
Pluggable electrical installation for indoors

or at http://eshop.wieland-electric.com

Connector system in IP 20 format for

Outputs

GST 18i3, coding 1, black

Length m	Part No.
3-pole connection system 230 V AC L, PE, N **for example, relay output**	
gesis EIB V	
Combination actuator	83.020.0212.x
Switching output	83.020.0225.x
gesis RC	
Switching output	83.020.0500.x
gesis FLEX	
Switching output	83.020.0623.x
Switching output C-load	83.020.0626.0
Male, screw connection	
	
	92.932.3053.1
Test plug	92.002.5153.1
Male – free end 3 x 1.5 H05VV-F (PVC)	
	
1.0 to 8.0	92.232.1004.1 92.232.8004.1
Male – female 3 x 1.5 H05VV-F (PVC)	
	
1.0 to 8.0	92.232.1000.1 92.232.8000.1

Outputs

GST 18i4, coding 1, black

Length m	Part No.
4-pole connection system 230 V AC 1, PE, N, 2 **for example, sunblind ouput AC**	
gesis EIB V	
Sunblind output	83.020.0221.x
Sunblind output	83.020.0222.4
Combination actuator	83.020.0212.x
gesis RC	
Sunblind output	83.020.0501.x
gesis FLEX	
Sunblind output	83.020.0624.x
Sunblind output	83.020.0637.x
Male, screw connection	
	
	92.944.3053.1
Test plug	92.002.5253.1
Male – free end 4 x 1.5 H05VV-F (PVC)	
	
1.0 to 8.0	92.207.1004.1 92.207.8004.1
Male – female 4 x 1.5 H05VV-F (PVC)	
	
1.0 to 8.0	92.207.1000.1 92.207.8000.1

Outputs

GST 18i4, coding 2, pebble gray

Length m	Part No.
4-pole connection system 230 V AC 1, PE, N, 2 **for example, emergency lighting output**	
gesis FLEX	
Input 230 V	83.020.0636.x
Male, screw connection	
	
Test plug	92.944.3553.0
Male – free end 4 x 1.5 H05VV-F (PVC)	
	
1.0 to 8.0	92.207.1004.3 92.207.8004.3
Male – female 4 x 1.5 H05VV-F (PVC)	
	
1.0 to 8.0	92.207.1000.3 92.207.8000.3

Outputs

GST 18i5, coding 1, black

Length m	Part No.
5-pole connection system 230/400V AC 1, 2, PE, N, 3 **for example, relay output**	
gesis EIB V	
Switching output	83.020.0214.x
Male, screw connection	
	
	92.954.4053.1
Male – free end 5 x 1.5 H05VV-F (PVC)	
	
1.0 to 8.0	92.257.1004.1 92.257.8004.1
Male – female 5 x 1.5 H05VV-F (PVC)	
	
1.0 to 8.0	92.257.1000.1 92.257.8000.1

Connector system in IP 20 format for

Outputs

GST 18i5, coding 2, pastel blue

Length m — Part No.

5-pole connection system
230 V AC + signal (FELV)
L, N, PE, D2, D1 (D=signal)
e.g. DALI or SMI output incl. mains supply

gesis EIB V

Switching/dimming output	83.020.0213.x

Male, screw connection

	92.954.4453.0
Test plug	92.002.5353.0

Male – free end
5 x 1.5 H05VV-F (PVC)

1.0 to 8.0	92.257.1004.9 / 92.257.8004.9

Male – female
5 x 1.5 H05VV-F (PVC)

1.0 to 8.0	92.257.1000.9 / 92.257.8000.9

Outputs

GST 15i2, code 1, black

Length m — Part No.

2-pole connection system
230 V AC
L, N
e.g. 230 V semiconductor output

gesis FLEX

Semiconductor output	83.020.0631.x
Semiconductor output	83.020.0632.x

Male, screw connection

but in black

Cable diameter

6-7.7mm round	91.922.3053.1
3.5 - 6.5mm fl. Ltg.	91.922.2053.1

Male – free end
3x1,5 H05VV-F (PVC)

but in black

1.0 to 8.0	91.222.1004.1 / 91.222.8004.1

Male – female
3x1,5 H05VV-F (PVC)

but in black

1.0 to 8.0	91.222.1000.1 / 91.222.8000.1

Outputs

GST 15i2, code 2, pastel blue

Length m — Part No.

2-pole connection system
+/- signal (FELV)
D1, D2 (D=signal)
e.g. DALI output only signal

gesis EIB RM

DALI aktor	83.020.0410.0

gesis FLEX

DALI output	83.020.0630.0

Male, screw connection only DALI signal

	91.922.3453.0

Male – free end, only DALI signal
Male – female, only DALI signal,
2 x 1,5 H04VV-F (PVC)

M-f.e: 1.0 to 8.0	91.222.1004.9 / 91.222.8004.9
M-F: 1.0 to 8.0	92.222.1000.9 / 92.222.8000.9

Male – female, DALI + mains p.supply
PVC: 1,5 mm² H04VV-F
halogen free: 1,5 mm² H05Z1Z1-F

0.5 m PVC	99.404.9999.8
0.5 m halogen free	99.405.9999.8

Outputs

GST 15i2, coding 3, light blue

Length m — Part No.

2-pole connection system
+/- signal low-voltage
1, 2
e.g. 24 DC output

gesis EIB RM

Sunblind output	83.020.0407.0

gesis FLEX

Sunblind output	83.020.0627.x
Sunblind output	83.020.0637.x
DC power supply	83.020.0640.x
Fan coil extension module	
Temperature sensor	83.020.0639.x
Binary input	83.020.0639.x

Male, screw connection

Test plug	91.922.3353.0

Male – free end
2 x 1.5 H04VV-F (PVC)

1.0 to 8.0	91.222.1004.6 / 91.222.8004.6

Male – female
2 x 1.5 H04VV-F (PVC)

1.0 to 8.0	92.222.1000.6 / 92.222.8000.6

Connector system in IP 20 format for

Outputs

GST 15i3, code 1, black

Length m — Part No.

3-pole connection system 230 V AC L, PE, N

for example, relay output

gesis FLEX

Fan coil extension module 83.020.0639.x

Male, screw connection

but in black

91.932.3053.1

Male – free end 2 x 1,5 H04VV-F (PVC)

but in black

1.0 to 8.0 — 91.232.1004.1 to 91.232.8004.1

Male – female 3x1,5 H05VV-F (PVC)

but in black

1.0 to 8.0 — 91.232.1000.1 to 91.232.8000.1

Outputs

GST 15i3, code 4, brown

Length m — Part No.

3-pole connection system 230 V AC 1, 2, 3

e.g. valve output

gesis FLEX

Fan coil base module 83.020.0638.x
Fan coil extension module 83.020.0639.x

Male, screw connection

but in brown

91.932.3853.0

Male – free end 3x1,5 H05VV-F (PVC)

but in brown

1.0 to 8.0 — 91.232.1004.4 to 91.232.8004.4

Male – female 3x1,5 H05VV-F (PVC)

but in brown

1.0 to 8.0 — 91.232.1000.4 to 91.232.8000.4

Outputs

GST 15i5, code 1, black

Length m — Part No.

5-pole connection system 230/400V AC PE, N, 1, 2, 3

e.g. Fan Coil output

gesis FLEX

Fan coil base module 83.020.0638.x

Male, screw connection

but in black

91.952.4053.1

Male – free end 5x1,5 H05VV-F (PVC)

but in black

1.0 to 8.0 — 91.257.1004.1 to 91.257.8004.1

Male – female 5x1,5 H05VV-F (PVC)

but in black

1.. to 8,0 — 91.257.1000.1 to 91.257.8000.1

Inputs

GST 15i2, coding 3, light blue

Length m — Part No.

2-pole connection system +/- signal low-voltage 1, 2

e.g. binary input Fan Coil

gesis FLEX

Sunblind output 83.020.0607.0
Fan coil 83.020.0639.0

Male, screw connection

Test plug 91.922.3353.0

Male – free end 2 x 1.5 H04VV-F (PVC)

1.0 to 8.0 — 91.222.1004.6 to 91.222.8004.6

Male – female 2 x 1.5 H04VV-F (PVC)

1.0 to 8.0 — 92.222.1000.6 to 92.222.8000.6

Connector system in IP 20 format for

Inputs

GST 15i5, coding 3, light blue

Length m	Part No.
5-pole connection system	
50 V	
1, 2, 3, 4, 5	
e.g. binary input	
gesis FLEX	
Input	83.020.0622.0

Male, screw connection

	91.952.4353.0
Test plug	91.002.5453.0

Male – free end

	on request

Male – female

	on request

Infeed

GST 18i3, coding 1, black

Length m	Part No.
3-pole connection system	
230 V AC	
L, PE, N	
e.g. mains connections 1-phase	
gesis EIB V	
Combination actuator	83.020.0212.4
Switching/dimming output	83.020.0213.4
Sunblind output	83.020.0221.4
Sunblind output	83.020.0222.4
Switching output	83.020.0225.4
gesis RC	
Switching output	83.020.0500.x
Sunblind output	83.020.0501.x
gesis FLEX	
Base modules	83.020.0601.x
Feed modules	83.020.0611.x
SMI gateway	83.020.0635.x

Female, screw connection

	92.931.3053.1

Female – free end
3 x 1.5 H05VV-F (PVC)

1.0 to 8.0	92.232.1004.1 92.232.8004.1

Male – female
3 x 1.5 H05VV-F (PVC)

1.0 to 8.0	92.232.1000.1 92.232.8000.1

Infeed

GST 18i5, coding 1, black

Length m	Part No.
5-pole connection system	
230/400V AC	
1, 2, PE, N, 3	
e.g. mains connections 3-phase	
gesis EIB V	
Combination actuator	83.020.0212.0
Switching/dimming output	83.020.0213.0
Switching output	83.020.0214.0
Sunblind output	83.020.0221.0
Switching output	83.020.0225.0
gesis FLEX	
Base modules	83.020.0600.x
Feed modules	83.020.0610.x

Female, screw connection

	92.953.4053.1

Female – free end
5 x 1.5 H05VV-F (PVC)

1.0 to 8.0	92.257.1003.1 92.257.8003.1

Male – female
5 x 1.5 H05VV-F (PVC)

1.0 to 8.0	92.257.1000.1 92.257.8000.1

Infeed

GST 15i2, code 3, light blue

Length m	Part No.
2-pole connection system	
+/- signal low-voltage	
1, 2	
e.g. semiconductor output DC	
gesis FLEX	
Sunblind ouput DC	83.020.0627.x
Sunblind output DC	83.020.0637.x
Semiconductor output DC	83.020.0633.x

Female, screw connection

Cable diameter	
6-7.7mm round	91.921.3353.0
3.5 - 6.5mm fl. Ltg.	91.921.2353.0

Female – free end
3x1,5 H05VV-F (PVC)

1.0 to 8.0	91.222.1003.6 91.222.8003.6

Male – female 3
x1,5 H05VV-F (PVC)

1.0 to 8.0	91.222.1000.6 91.222.8000.6

Connector system in IP 20 format for

Infeed

GST 15i3, code 1, black

Length m	Part No.
3-pole connection system 230 V AC L, PE, N	
e.g. mains supply 1-phase	
gesis FLEX	
Fan coil base module	83.020.0638.x

Female, screw connection

but in black

91.931.3053.1

Female – free end 3x1,5 H05VV-F (PVC)

but in black

1.0 to 8.0	91.232.1003.1 91.232.8003.1

Male – female 3x1,5 H05VV-F (PVC)

but in black

1.0 to 8.0	91.232.1000.1 91.232.8000.1

Infeed

BST 14i2, coding 1, green

Length m	Part No.
2-pole connection system KNX TP1 (SELV voltage)	
+, -	
e.g. KNX power supply system base module	
gesis EIB V	
Combination actuator	83.020.0212.x
Switching/dimming output	83.020.0213.x
Switching output	83.020.0214.0
Sunblind output	83.020.0221.x
Sunblind output	83.020.0222.4
Switching output	83.020.0225.x
gesis FLEX	
Base modules	83.020.060x.x
EnOcean gateway	83.020.0628.x
SMI gateway	83.020.0635.x
Fan coil actuator	83.020.0638.x

Female, spring clamp connection

93.421.0553.1

Female – free end 2x2x0.8 FB-2Y(ST)2Y (PVC)

1.0 to 8.0	94.425.1003.7 94.425.8003.7

Male – female 2x2x0.8 FB-2Y(ST)2Y (PVC)

1.0 to 8.0	94.425.1000.7 94.425.8000.7

Forwarding

BST 14i2, code 1, green

Length m	Part No.
2-pole connection system KNX TP1 (SELV voltage)	
+, -	
z.B. KNX TP1 forwarding	
gesis FLEX	
Base modules	83.020.060x.x
EnOcean gateway	83.020.0628.x
SMI gateway	83.020.0635.x
Fan coil actuator	83.020.0638.x

Male, spring clamp connection

93.422.0553.1

Male - free end 3x1,5 H05VV-F (PVC)

1.0 to 8.0	94.425.1004.7 94.425.8004.7

Male – female 3x1,5 H05VV-F (PVC)

1.0 to 8.0	94.425.1000.7 94.425.8000.7

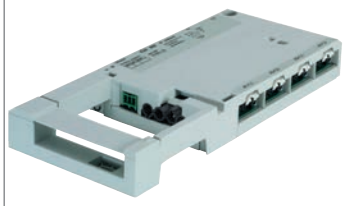
Interlock

GST 18i3 and GST 18i5

Length m	Part No.
Interlocking for power supply systems for the device series *gesis*® EIB V and *gesis*® RC V as well as flying lead	

All plug connections must be protected with a interlock against accidental loosening. For plug connection series GST18 i3, i4 and i5 it must be ordered separately.

For the series *gesis*® EIB V and *gesis*® RC V the feeds have to be locked.



white	05.587.3156.0
black	05.587.3156.1

Connector system *RST*® in IP 66/68 (3m; 2h)/69K format for

Infeed

Power supply 3-pole RST 20i3 black

Female, screw connection

Length m/Cable Ø	Part No.
6 – 10 mm	96.031.4053.1
10 – 14 mm	96.031.4153.1

Male, screw connection

Length m/Cable Ø	Part No.
6 – 10 mm	96.032.4053.1
10 – 14 mm	96.032.4153.1

Female – Male H07RN-F 2x15*)

Length m/Cable Ø	Part No.
1.0 to 8.0	96.222.1030.1 to 96.222.8030.1

Distribution block 1I/3O parallel

Length m/Cable Ø	Part No.
with mounting option	96.030.0153.0
without mounting option	96.030.0253.0

Outputs

Constant voltage system LED/NV halogen RST 20i2 gray

Female, screw connection

Length m/Cable Ø	Part No.
6 – 10 mm	92.021.4050.8

Male, screw connection

Length m/Cable Ø	Part No.
6 – 10 mm	96.022.4050.8

Female – Male H07RN-F 2x15*)

Length m/Cable Ø	Part No.
1.0 to 8.0	96.222.1032.8 to 96.222.8032.8

Distribution block 1I/3O parallel

Length m/Cable Ø	Part No.
with mounting option	96.020.0150.8
without mounting option	96.020.0250.8

Outputs

Constant power supply system LED RST 20i2 brown

Female, screw connection

Length m/Cable Ø	Part No.
6 – 10 mm	96.021.4051.4

Male, screw connection

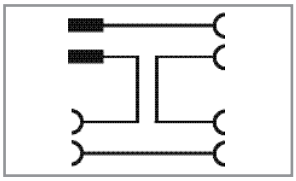
Length m/Cable Ø	Part No.
6 – 10 mm	96.022.4051.4

Female – Male H07RN-F 2x15*)

Length m/Cable Ø	Part No.
1.0 to 8.0	96.222.1032.4 to 96.222.8032.4

Note:
For LED applications with constant current supply, the luminaires have to be connected in series. The serial distribution block has been especially designed for this purpose. Outputs not used must be closed with the jumper plug.

Circuit diagram 1I/3O serial



Accessories

Covers RST 20i2 and RST 20i3

Female, cover, black

Length m	Part No.
not captive against loss	Z5.564.4553.1
captive against loss	99.414.6205.2

Male, cover, black

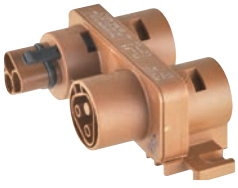
Length m	Part No.
not captive against loss	05.564.4453.1
captive against loss	99.416.6205.2

Jumper plug RST 20i2 brown

Note:
Only use jumper plug for serial distribution box 99.910.0000.7

Length m	Part No.
	96.537.0000.7

Distribution block 1I/3O serial



Length m	Part No.
with mounting option	99.910.0000.7

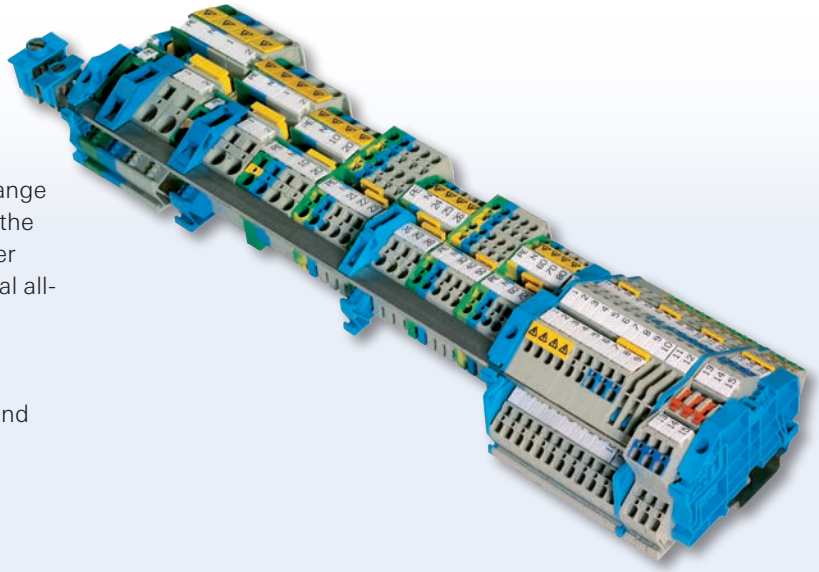
*) Other cables/designs available on request (see also catalog ***RST***®)

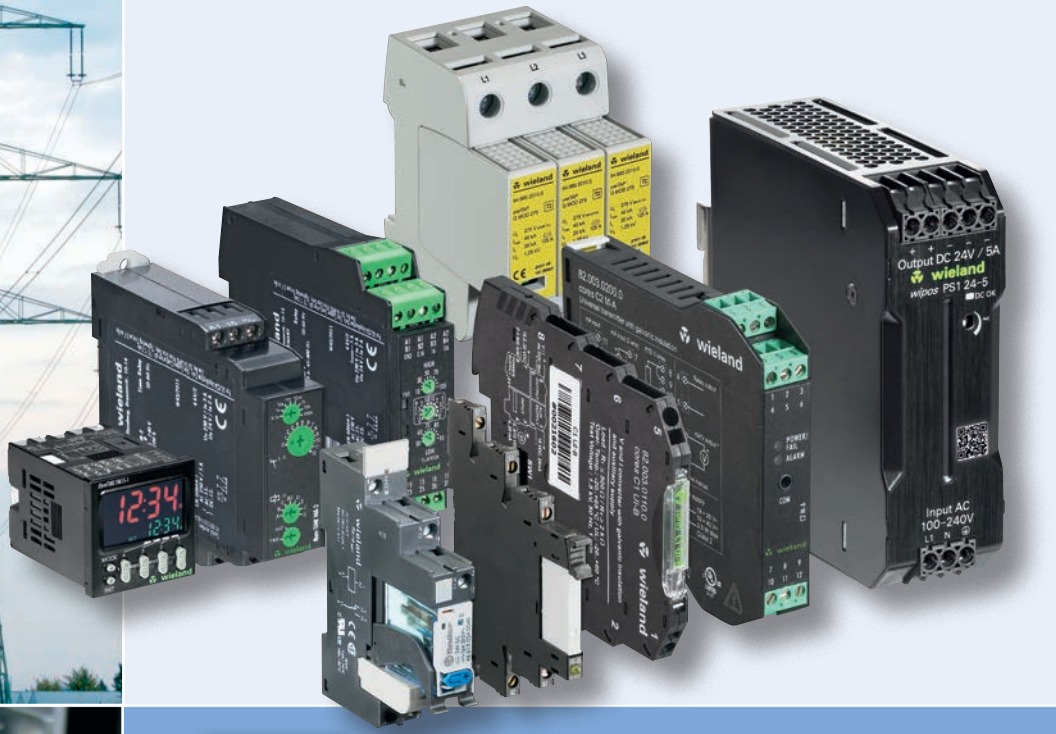
Other products for building installation
Mains power devices, overvoltage protection, DIN rail terminal blocks

Signal conditioning for control and our connection technology

Every time current flows and signals are processed, the ***interface*** products of Wieland Electric reveal their strength. Through the wide range of relays, the components for power supply, and the overvoltage protection units as well as the transfer and analog modules, your application will be a real all-rounder as well.

Set the signals with our ***interface*** technology and innovative DIN rail terminal blocks ***fasis*** BIT and ***selos*** BIT.





For more detailed product information:

0800.1 ***interface*** **– catalog**
Solutions for the control cabinet

0510.0 ***selos*** BIT **/** ***fasis*** BIT **– catalog**
DIN rail terminal blocks
for junction boxes

Protection against overvoltage

wietap systems are overvoltage arresters for voltage and signal coupling which protect electric and electronic systems against high-power overvoltage (e.g. in case of lightning strikes).

Features

- Discharge capacity of up to 100 kA, type 1 to 3
- Modules are pluggable, vibration and shock resistant acc. to EN 60968-2
- Energetically coordinated for all network systems
- Function/defect indication acc. to VDE 0100-534 for each path
- Fuse protection through follow current limitation

Reliable supply of control units

The ***wipos*** series contains current supplies which have a central function in the control cabinet. Their reliability has an important influence on the availability of machines or processes. Thus, a robust and proven power supply system is essential.

Features

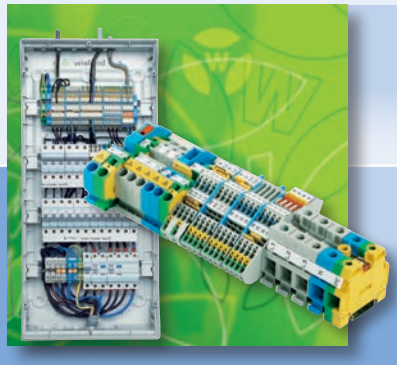
- Number of phases: 1 to 3 phases
- Rated voltage: 0.42 … 40 A
- Capacity: 100% up to +60 °C
- Series or parallel connection possible
- PFC technology

Network and remote maintenance technology

Our Ethernet switches provide a part of the Ethernet physical layer – no matter whether on a copper or FO basis. Within the automation technology, Ethernet connections are now the standard. The combination of VPN industrial routers (mobile radio or LAN-to-LAN) with the Wie-Service24 VPN Service Portal allows a global and future-proof online remote maintenance.

Features

- Redundant power supply
- Fast Ethernet and Giga Ethernet
- GSM, GPRS, EDGE, HSPA, LTE
- VPN server and routers for a configuration as simple as possible



DIN rail terminal blocks for installation distribution boards

The series ***fasis*** BIT and ***selos*** BIT are especially tailored to the requirements inside distribution boards. No matter whether you choose push-in, tension spring or screw connection – space-saving designs, service-friendly testability features and short installation times are the key characteristics of our BIT terminal blocks. All DIN rail terminal blocks are compliant with the erection rules for power installations and safe power supplies and are designed for use in public buildings.

Features and variants

- Flexible, universal and maintenance-free connections
- Flexible distribution of enery and potential
- Software support, planning and configuration

Index

Technical consultation and general information

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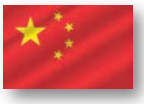

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Industrial technology

Solutions for the control cabinet

- DIN rail terminal blocks
  - Screw, tension spring or push-in connection technology
  - Wire cross sections up to 300 mm²
  - Numerous special functions
  - Software solutions interfacing to CAE systems
- Safety
  - Safe signal acquisition
  - Safety switching devices
  - Modular safety modules
  - Compact safety controllers
  - Application consulting and training
- Network engineering and fieldbus systems
  - Remote maintenance via VPN industrial router and VPN service portal
  - Industrial Ethernet switches
  - PLC and I/O systems, standard and increased environmental conditions
- Interface
  - Power supply units
  - Overvoltage protection
  - Coupling relays, semiconductor switches
  - Timer relays, measuring and monitoring relays
  - Analog coupling and converter modules
  - Passive interfaces

Solutions for field applications

- Decentralized installation and automation technology
  - Electrical installation for wind tower
  - Fieldbus interfaces and motor starters
- Connectors for industrial applications
  - Rectangular and round connectors
  - Aluminium or plastic housings
  - Degree of protection up to IP 69K
  - Current-carrying capacity up to 100 A
  - Connectors for hazardous areas
  - Modular, application-specific technology

PC board terminals and connectors

- Screw or spring clamp connection technology
- Spacings: 3.5 mm to 10.16 mm
- Reflow or wave soldering process

Building and installation technology

- Building installation systems
  - Main power supply connectors IP 20/IP 65 ... IP 69K
  - Bus connectors
  - Low-voltage connectors
  - Power distribution system with flat cables
  - Distribution systems
  - Room automation with KNX, ENOcean, SMI and DALI
  - DIN rail terminal blocks for electrical installations
  - Overvoltage protection

0700.1 K 06/16

contacts are green.