The BUS system

In a BUS system, the connection between the sensors or the command devices and the actuators that pilot the electrical users is made via a dedicated line, separate from the power one. This system is characterised by the functional-type association between its elements.

In fact, unlike the traditional electrical installation (where each function requires its own, dedicated circuit) the BUS system uses a common line in order to exchange information (commands, statuses), while the power line is connected solely to the loads; this characteristic simplifies the structure of the system, making it flexible and allowing modifications without the need for long interventions to remake the electrical connections.

In addition, the special BUS structure makes the implementation of dedicated group commands extremely simple and fast (e.g. the simultaneous switching on or off of various devices, or the creation/modification of scenes).



The KNX Easy system

The KNX Easy system is based on KNX technology – the European standard for Home and Building Automation. Apart from the conformity with the KNX standard, the KNX Easy devices guarantee extremely easy configuration, thanks to the programming software Easy Controller for PC, developed by Gewiss. From the functional viewpoint, the system allows the management of lighting, the movements of roller shutters/curtains, the creation of scenes, climate control, and the management of operations upon receiving technical alarms (gas leaks, water leaks, wind alarms). In addition, thanks to the special devices, it is possible to interface the system with the wireless commands of the Chorus RF range, or control the burglar alarm system. It is also possible to manage the entire system, both from local or by remote, via internet, thanks to the HAPPY HOME app for smartphone and tablet.

The KNX Easy devices

The KNX Easy devices are divided into sensors or command elements (e.g. push-button panels, input modules, RF interfaces) and actuators (e.g. relay actuators, dimmers, engine command actuators, etc.).

The power supply voltage (29V DC SELV) for their operation is supplied directly via BUS. The actuator modules also have output contacts to manage the power. The BUS connection is made by means of special coupling terminals, in a simple, quick and safe way. Up to 4 BUS cables can be connected to each terminal, to create the cut-outs.



System architecture

The KNX Easy devices are connected to each other by means of BUS line, via which information is exchanged (commands, statuses, etc.). The network structure may display linear, star and tree configurations, along with hybrid configurations that include any combination of these three within a single line.



Command devices and actuators can be combined to create a specific function. The BUS line is also used to power the devices.

A BUS line may contain up to 64 KNX Easy devices. Every BUS line must necessarily envisage a BUS power supply (not included in the calculation of the maximum number of devices).

If a higher number of KNX Easy devices is required, it is possible to create an architecture containing several lines, where each additional line has a line coupler device (GW 90 708 A) for repeater and electric decoupling purposes. It is possible to add up to 3 repeaters, so a total maximum number of 256 Easy devices (positioned on 4 distinct BUS lines). Each line must have its own BUS power supply.

If it is necessary to use more devices, it is possible to configure the system using the ETS software.



Max 64 KNX devices per each line (possibility to expand the line to a max. number of 256 devices by means of line repeters).

Distances between the elements on a BUS line

- The maximum length of the line, between the BUS power supply unit and the furthest BUS device, must not exceed 350m.
- The maximum length of the line between two BUS devices is 700m.
- A BUS line can be up to 1000m long.

In the case of an architecture containing several lines, these distances are valid for each single BUS line.

Configuration of the devices and start-up

Easy Controller is the software for PC used to set and commissioning of a KNX Easy Home Automation system (programmation in E-Mode). The sw tool and the user guide are free downloadable from the Software area in www.gewiss.com. During the configuration steps, the connection between the KNX bus and the PC can be made by means of the KNX/IP - WLAN interface (GW90839), the KNX/IP interface (GW90767AP), the KNX/IP router (GW90707) or the KNX/ USB interfaces (GW90706B, GW90706S).



Once the sw installation (Easy Controller) has been completed, it is necessary to configure the KNX devices.

They are automatically recognised and represented in the software via a tree structure showing a progressive numbering, a Gewiss product code, and a brief description. It is possible to modify the name of the device (giving it a new name); display only the input channels (sensors) or only the output ones (actuators) thanks to a filter; and expand or compress the visualisation. The software allows the quick localisation of the channels of the actuators in the system, so they can be directly commanded via the PC. The system is configured via the creation of functions between the device channels, which are selected by actions (pressing the push-buttons) carried out directly on the devices. The channels can also be selected directly from the PC however.

Easy Controller Software - Progetto Easy 1*	- • 🗙
Project Project Information Virtual Devices Devices Eunctions Diagnostic Settings Vi	iew ?
Contractions Office (Virtual Devices Devices Functions	
Scan KNX via USB Inessuna- Connect Disconnect	
Virtual Devices	× Functions &
b 1 GW 00834 Push button interface 4 ch	Name Ministra bita
2. GW 90834 Push button interface 4 ch.	
3. GW 90834 Push button interface 4 ch.	Sensors
4. GW 90834 Push button interface 4 ch.	4 1. GW 90834 Push button interface 4 ch.
5. GW 1x767 Shutter actuator	1. CH_Generic_PB_1/2_Info_4
6. GW1x767 Shutter actuator	
7. GW 1x767 Shutter actuator	
9. GW 908364 Switching actuator 164X	
10. GW 90836A Switching actuator 16AX	
11. GW 90836A Switching actuator 16AX	
12. GW 90836A Switching actuator 16AX	
	Actuators
	9. GW 90836A Switching actuator 16AX
	1. CH_Light_Actuator_Scene
Filter: All Advanced view Expand All	
Overwite name when duplicating project	< Previous Next > Write Cancel
Serv	ver Connected

The totality of the functions created forms a project, which can be saved in a file on the PC. The functions can be modified with the same ease with which they were created, for example after adding new devices or to change the value of a parameter. It is possible to associate not only a name with each project, but also certain characteristic data that identify the system.

The Easy Controller sw also allows:

- the upload of an existing installation;
- the recognition of devices with an address other than the default (factory-set) one;
- the duplication of a project on an identical installation, without having to recreate the functions;
- the Off-Line programmation (from relase 2.0 or later).

By activating the "advanced" mode, it is possible to see (for each device):

- the physical address;
- the list of communication objects and their relative group address;
- the values of the application parameters.

The Easy Controller includes a test and diagnosis function permitting you to display the data exchanged between the devices, and make a quick analysis of the traffic on the KNX BUS (useful in the event of malfunctioning).



SYSTEM DEVICES

POWER SUPPLIES			
	GW 90 709	GW 90 710	
Maximum current supplied	320mA	640mA	
Max. no. of BUS devices which can be powered	The max no. of devices that can be poweredThe max no. of devices that can be powered is calculatedis calculated on the basis of their consumptionon the basis of their consumption		
Input power supply voltage	230V ac +6%/-10%, 50Hz	230V ac +6%/-10%, 50Hz	
Output voltage	30V dc +/- 2V	30V dc +/- 2V	
No. of DIN modules	4 4		
Operating temperature	-5÷45 °C		
Connection to the BUS	Via coupling terminal, 2 pin Ø 1mm		
Common specifications	Protection against short circuiting Coil to suppress disturbances from the integrated power supply line Push-button to reset the connected BUS devices		





Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2

INTERFACES FOR PC				
	GW 90 706 S KNX/USB stick interface	GW 90 706 B KNX/USB interface	GW 90 707 KNX/IP router	GW 90 767 KNX/IP interface
Power supply	Via the USB port of the PC	Via the USB port of the PC	12/24V ac/dc (or PoE)	12/24V ac/dc (or PoE)
PC type of connection	A-type USB connector	B-type USB port	RJ45 LAN port - 10Mbit/s	RJ45 LAN port - 10Mbit/s
No. of DIN modules	-	1	2	2
Display elements	Green LED: USB connection Green LED: data traffic	Green LED: connection to PC Yellow LED: data traffic	Green LED: KNX signal Green LED: LAN signal Red LED: programming phase	Green LED: KNX signal Green LED: LAN signal Red LED: programming phase
No. of connections at the same time	1	1	5	5
Length of the connection cable to the PC	A-type male-female USB extension (15cm length)	5m max.	-	-
Notes	For the connection of a PC with a USB port to the KNX bus	For the connection of a PC with a USB port to the KNX bus	The KNX/IP network router also allows telegrams to be sent between different lines, via a LAN (IP) acting as a quick backbone line. To be configured with ETS	For the connection of a PC via LAN to the KNX bus. To be configured with ETS
Operating temperature		-5÷45 °C		
Connection to the BUS	Removable screw terminals	Pernovable screw terminals Via counting terminal 2 nin Ø 1mm		

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2, EN61000-6-2, EN61000-6-3



GW 90 706 S







GW 90 767 AP

KNX/IP - WIRELESS INTERFACE		
Power supply	External 9V DC (from the plug power supply unit included)	
Power absorbed	< 800mW	
WiFi connection	SMA connector for external WiFi antenna	
Transmission protocol	IEEE 802.11b/g	
BUS connection	Screw terminals	
Operating temperature	-5 to +45°C	
Dimensions (LxHxD)	135x67x35mm (excluding antenna)	
Display elements	1 green LED for signalling device status (RUN)	
	1 green LED for signalling network status (WLAN)	
	1 green LED for BUS signalling (KNX)	
	1 red LED for programming physical address	



KNX/IP wireless interface GW 90 839

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN61000-6-2, EN61000-6-3, EN50090-2-2



SYSTEM SUPERVISION

HAPPY HOME

HAPPY HOME is the App designed by Gewiss to manage (command and visualisation), from local or by remote, of KNX or KNX Easy HomeGBuilding Automation systems, for smartphone and tablet developed on Android or iOS.

The KNX system access element is the KNX/IP interface (GW90767AP), with two separate modes:

- local (domestic LAN WiFi network)
- remote (via the internet, also using a VPN tunnel)

Each KNX/IP interface can manage up to 5 simultaneous system connections (for higher values, additional KNX/IP interfaces are needed).

The application allows to manage the here below functions:

- Lighting (On/off, dimmer, DALI, RGB)
- Roller shutters
- Venetian blinds
- Configuration and executing of scenarios
- Temperature and humidity adjustment in each room
- Visualisation of energy consumption
- Control of the burglar alarm
- ECO function (for lights, dimmers, roller shutters, venetian blinds, relays)
- Screen notifications
- Visualisation of IP cameras

The app is free downloadable from Play Store Android, Samsung Galaxy Apps e App Store.







NAXOS touch-screen panels - wall-mounting

The NAXOS panels are 4.3" colour touch screen multifunctional terminals, designed for the control and the management of the Home Automation and the video entryphone systems:

- NAXOS DOMO, with KNX command and visualisation function,
- NAXOS COMBI, with video entryphone + KNX command and visualisation function

The panels are available in white and black colours and are suitable for wallmounting.

NAXOS DOMO and NAXOS COMBI can be configured with the Easy Controller sw to carry out the following functions:

- sending of ON/OFF commands to activate/deactivate loads, with the relative display of the status,
- sending of commands to regulate light intensity (for dimmers, also RGB type),
- sending of commands for moving roller shutters/curtains,
- sending of commands to set the temperature adjustment: HVAC mode (Comfort/Precomfort/Economy) or Setpoint,
- sending of commands of set the type of operation (Heating/Cooling),
- timed thermostat function (to be used in combination with a KNX temperature sensor),
- sending of commands for storage and creation of scenes,
- hourly or weekly timer,
- irrigation management,
- logic functions,
- management of independent inputs and outputs,
- energy management (electricity, gas, water),
- load control,
- burglar alarm management.

The panels include also clock alarm and screen saver functions.

The NAXOS COMBI panel allows, in addition, to carry out the following functions:

- recording and listening to audio messages,
- video mail.
- office function,
- indoor video entryphone monitor (City Vision range),
- interaction between video entryphone and KNX events.

Reference standards: Electromagnetic Compatibility Directive 2004/108/CE, EN50428, EN50090-2-2, EN60669-2-1



NAXOS DOMO GW 10 961 WH - GW 12 961 BK



Display 16:9 touch screen 4.3' 1.

Touchscreen pen housing 2.



NAXOS COMBI GW 10 962 WH - GW 12 962 BK



- 4.3" touch screen 16:9 display 4.
- 5. Touchscreen pen housing

TECHNICAL DATA			
	GW 10 961 WH - GW 12 961 BK	GW 10 962 WH - GW 12 962 BK	
Power supply	14÷24 Vdc local (12÷16 Vac local) (e.g.: GW 19 305)		
Current consumption	0,48A at 12Vac - 0,36A at 16Vac	0,75A (1,5A peak) 12Vac - 0,5A (1,1A peak) 16Vac	
	0,20A at 18Vdc - 0,15A at 24Vdc	0,31A (0,81A peak) 18Vdc - 0,23A (0,58A peak) 24Vdc	
Control elements	1 miniature button key for programming		
Display elements	Display 16:9 wide screen 4.3", 480x272 pixel, touch screen		
	Red LED for p	rogramming	
Operating temperature	5 - 40°C		
Relative humidity	max 93% (no condensation)		
Installation	Wall-mounting		
Current absorbed by BUS	10mA max		
Protection degree	IP20		
Dimensions (LxHxD)	163x106x31,5mm	203x108x31mm	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm		

Dimension tables



NAXOS COMBI



For technical information contact the Technical Assistance Service or visit gewiss.com

Γ

COMMAND DEVICES

Easy 2- and 4-channel contact interface

The Easy 2- and 4-channel contact interfaces allow you to connect respectively up to 2 or 4 voltage-free and independent input contacts (push-buttons, switches, sensors, etc.) and to send the relative commands to actuator devices by means of the KNX BUS via which they are connected to the Home Automation system. The interfaces are powered from the BUS line. The voltage (SELV) necessary for scanning the contacts is supplied by the interfaces themselves. The devices are equipped with 2 or 4 outputs to connect any low consumption signalling LEDs (e.g. GW 10 886, GW 10 887, GW 10 888, GW 10 889, GW 10 890) to be used to indicate the status of the commanded load. The Easy 2- and 4-channel contact interfaces contact interface can be positioned:

- inside standard flush-mounting boxes, behind the electromechanical modules;
- inside the supports of the Chorus range, using the blanking module GW 10 751, GW 12 751 or GW 14 751;
- inside junction boxes.

Each of the inputs can be configured with the Command devices to create your choice of one of the following functions:

- sending of ON/OFF commands (cyclical switchover or front management),
- sending of timed activation commands,
- sending of commands for movements of curtains and roller shutters (with single or double push-button),
- sending of commands for adjusting light intensity with single or double push-button (for dimmers),
- sending of priority commands,
- sending of commands for setting temperature adjustment modes (Comfort/Economy/Auto/OFF),
- sending of commands for storage and creation of scenes,
- managing of light signalling,

or it can be used as an alarm input, to be connected - for example - to a wind or rain sensor.



GW 90 833

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC. EN50428. EN50090-2-2



GW 90 834 A





4. Connection cables



5.	Fixing slot
TECHN	ICAL DATA

Power supply	Via KNX BUS
	29V DC SELV
Current absorbed by BUS	5mA max + 1mA for every LED connected (max. total 9mA)
Contact scanning voltage	3.3V DC
LED outputs	Voltage: 3.3V DC
	Max current: 1mA
Control elements	1 miniature button key for programming
Display elements	1 red LED for programming
Operating temperature	-5 to +45°C
Contact connection	AWG26 fitted cables - length 300mm
Extension of connection cables	Cable length max 10m (braided cable)
Dimensions (LxHxD)	38x38x13mm (38x38x19mm with rib)
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm



Easy 6-channel push-button panel module with interchangeable symbols - flush mounting

The Easy 6-channel push-button panel module with interchangeable symbols (flush-mounting) is a command device with 6 channels used - on their own or combined - to perform the functions of ON/OFF, dimmer control, roller shutter control, scene management, priority and timed commands on a KNX bus. The device is fed by the bus line and each channel has a RGB LED for night-time localization or display of the controlled load status. The device is provided with a buzzer for touch signalling, and a proximity sensor whose function is to increase the level of backlighting when the user approaches the glass plate. The push-button panel module is inside the standard flush-mounting boxes, mounted on the Chorus range supports in the space taken up by three modules. Each of the 6 channels of the push-button panel can be configured with the Easy Controller sw to carry out one of the following functions as chosen:

- sending of ON/OFF commands (cyclical switchover or edge management)
- sending of timed activation commands
- sending of commands for movements of curtains and roller shutters (with single or double push-button)
- sending of commands for adjusting light intensity with single or double push-button (for dimmers)
- sending of commands for storage and creation of scenes

To be completed with the Chorus ICE Touch KNX glass plates, italian standard, white (GW 16 946 CB), black (GW 16 946 CN), titanium (GW 16 946 CT) or with the test plate (GW 16 950) for commissioning. The plates have 6 capacitive touch areas.

Each channel can be personalised using a set of adhesive icons (included in the package).



GW A9 471

Reference standards: Low Voltage Directive 2014/35/EU Electromagnetic Compatibility Directive 2014/30/EU, EN50491, EN60669-2-5



1. Configurable RGB LEDs for status and night-time localisation

- 2. Bus terminals
- 3. LED for programming
- 4. Button key for programming







GW 16 946 CN



TECHNICAL DATA		
Power supply	Via KNX bus	
	29V dc SELV	
Current absorbed by bus	25mA max	
Control elements	1 miniature button key for programming	
Display elements	6 touch command areas with configurable RGB LED backlight	
	1 red LED for programming	
Operating temperature	-5 ÷ +45 °C	
Dimensions	3 Chorus modules	
Connection to the bus	Coupling terminal, 2 pins Ø 1mm	

Easy 6-channel touch push-button panel module - flush mounting

The Easy 6-channel push-button panel module for flush-mounting is a touch control device with 6 channels, used on their own or together, to send the relative commands to actuator devices by means of the KNX BUS via which it is connected to the Home Automation system.

The touch detection areas consist of capacitive sensors, one for each channel. The devices are also equipped with a temperature sensor and buzzer to signal touching. The device is fed by the bus line and each channel has two LEDs (amber/blue) for night-time localisation and display of the controlled load status. The push-button panel module is inside the standard flush-mounting boxes, mounted on the Chorus range supports in the space taken up by three modules. Each of the 6 channels of the push-button panel can be configured with the Easy Controller sw to carry out one of the following functions as chosen:

- sending of ON/OFF commands (cyclical switchover or front management),
- sending of timed activation commands,
- sending of commands for movements of curtains and roller shutters (with single or double push-button),
- sending of commands for adjusting light intensity with single or double push-button (for dimmers),
- sending of commands for storage and creation of scenes.

To be completed with the Chorus ICE touch KNX plates, italian standard, with 2, 4 or 6 symbols, white (GW 16 962 CB, GW 16 964 CB or GW 16 966 CB), black (GW 16 962 CN, GW 16 964 CN or GW 16 966 CN) or titanium (GW 16 962 CT, GW 16 964 CT or GW 16 966 CT).



Easy 6-channel push-button panel - flush mounting

The Easy 6-channel push-button panel for flush-mounting is a command device with 6 channels, used on their own or together, to send the relative commands to actuator devices by means of the KNX BUS via which it is connected to the Home Automation system.

Each device has 3 tilting push-buttons (each of which manages two channels) and is equipped by a temperature sensor.

The device is fed by the bus line and each channel has two LEDs (amber/green) for night-time localisation and display of the controlled load status. The push-button panel is inside the standard flush-mounting boxes, mounted on the Chorus range supports in the space taken up by three modules.

Each of the 6 channels of the push-button panel can be configured with the Easy Controller sw to carry out one of the following functions as chosen: - sending of ON/OFF commands (cyclical switchover or front management),

- sending of timed activation commands,
- sending of commands for movements of curtains and roller shutters (with single or double push-button),
- sending of commands for adjusting light intensity with single or double push-button (for dimmers),
- sending of commands for storage and creation of scenes.



GW 10 753 - GW 12 753 - GW 14 753

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2, EN60669-2-1



1. LED for status and night-time localisation

2. Bus terminal

Programming LED
 Programming key





TECHNICAL DATA		
Power supply	Via KNX BUS	
	29V dc SELV	
Current absorbed by BUS	10mA max	
Control elements	1 miniature button key for programming	
	3 tilting push-buttons	
Display elements	1 red LED for programming	
	6 amber/green led for night-time localisation or display of the controlled load status	
Operating temperature	-5 ÷ +45 ℃	
Dimensions	3 Chorus modules	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

Easy 6-channel push-button panel with 1-channel actuator - flush mounting

The Easy 6-channel push-button panel with 1-channel actuator for flush-mounting is a command device with 6 channels, used on their own or together, to send the relative commands to actuator devices by means of the KNX BUS via which it is connected to the Home Automation system. Each device has 3 tilting push-buttons (each of which manages two channels).

The device is fed by the bus line and each channel has two LEDs (amber/green) for night-time localisation and display of the controlled load status.

Each of the 6 channels of the push-button panel can be configured with the Easy Controller sw to carry out one of the following functions as chosen:

- sending of ON/OFF commands (cyclical switchover or front management),

- sending of timed activation commands,
- sending of commands for movements of curtains and roller shutters (with single or double push-button),
- sending of commands for adjusting light intensity with single or double push-button (for dimmers),
- sending of commands for storage and creation of scenes.

On the device there is a 1-channel actuator (10A relay) to carry out one of the following functions:

- activations and deactivation of loads (ON/OFF),

- execution of timed commands,
- execution of priority commands,

- scene management (with local storage of the status associated to a certain scenario).

By default, channel 1 of the push-button panel acts as a local actuator command. If channel 1 of the push-button is associated with a function via the Easy Controller sw, the local actuator command function is disabled.

The push-button panel is inside the standard flush-mounting boxes, mounted on the Chorus range supports in the space taken up by three modules.



GW 10 754 - GW 12 754 - GW 14 754

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50428, EN50090-2-2, EN60669-2-1



1. LED for status and night-time localisation

- 2. Bus terminal
- Programming LED
 Programming key
- Programming
 NO output
- KO outpu
 Common
- NC output





TECHNICAL DATA		
Power supply	Via KNX BUS 29V dc SELV	
Current absorbed by BUS	10mA max	
Control elements	1 miniature button key for programming - 3 tilting push-buttons	
Display elements	1 red LED for programming	
	6 amber/green led for night-time localisation or display of the controlled load status	
Output contacts	1 NO/NC 10A(AC1) 230V ac - Incandescent lamps (230V ac): 1500W - Halogen lamps (230V ac): 1500W Loads controlled by electronic transformers: 600VA - Uncompensated fluorescent lamps: 400VA - Energy efficient lamps (compact fluorescent): 8x23W For compensated fluorescent lamps and all other loads not indicated here, you are advised to use a support relay	
Operating temperature	-5 ÷ +45 °C	
Dimensions	3 Chorus modules	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

NOTE: in case the bus voltage fails, the actuator doesn't change the status of its output contact. Anyway, the behaviour can be changed entering a specific procedure. For technical information contact the Technical Assistance Service or visit gewiss.com

Technical Information

Easy 6-channel push-button panel with roller shutter actuator - flush mounting

The Easy 6-channel push-button panel with roller shutter actuator for flush-mounting is a command device with 6 channels that can be used on their own or together, to send the relative commands to actuator devices by means of the KNX BUS via which it is connected to the Home Automation system. Each device has 3 tilting push-buttons (each of which manages two channels).

The device is fed by the bus line and each channel has two LEDs (amber/green) for night-time localisation and display of the controlled load status.

Each of the 6 channels of the push-button panel can be configured with the Easy Controller sw to carry out one of the following functions as chosen: - sending of ON/OFF commands (cyclical switchover or front management),

- sending of timed activation commands,
- sending of commands for movements of curtains and roller shutters (with single or double push-button),
- sending of commands for adjusting light intensity with single or double push-button (for dimmers),
- sending of commands for storage and creation of scenes.
- On the device there is a 1-channel 6A roller shutter actuator to carry out one of the following functions:
- execution of commands for moving the roller shutters (ascent, descent, stop),
- execution of commands for moving the venetian blinds (ascent, descent, stop, slat adjustment),
- execution of priority commands,
- management of alarm signalling (arriving, for instance, from a wind sensor),

- scenes management (with local storage of the position associated with a particular scene).

By default, channels 1 and 2 of the push-button panel act as a local actuator command. If channel 1 or channel 2 of the push-button is associated with a function via the Easy Controller sw, the local actuator command function is disabled for both channels.

The push-button panel is inside the standard flush-mounting boxes, mounted on the Chorus range supports in the space taken up by three modules.



GW 10 755 - GW 12 755 - GW 14 755

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50428, EN50090-2-2, EN60669-2-1



1. LED for status and night-time localisation

- 2. Bus terminal
- 3. Programming LED
- 4. Programming key
- 5. Relay output (UP)
- 6. Relay output (DOWN)
- 7. Common



TECHNICAL DATA		
Power supply	Via KNX BUS	
	29V dc SELV	
Current absorbed by BUS	10mA max	
Control elements	1 miniature button key for programming	
	3 tilting push-buttons	
Display elements	1 red LED for programming	
	6 amber/green led for night-time localisation or display of the controlled load status	
Output contacts	6A - 230V ac	
	Motors and gear motors, in compliance with EN60669-2-1	
Operating temperature	-5 ÷ +45 °C	
Dimensions	3 Chorus modules	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

NOTE: in case the bus voltage fails, the roller shutter or venetian blind will remain immobile when the voltage is restored, until a new movement command is given.



Easy 4-channel push-button panel - flush-mounting

The flush-mounting Easy 4-channel push-button panel allows you to send commands to other actuator devices by means of the KNX BUS, via which it is connected to the Home Automation system.

The push-button panel is powered from the BUS line and each channel is equipped with two LEDs for night-time localisation (amber LED) and the signalling of the commanded load status (green LED). The push-button panel is positioned inside the standard flush-mounting boxes, assembled in the supports of the Chorus range in the space occupied by two modules.

Each of the 4 push-buttons can be configured with the Easy Controller sw to create your choice of one of the following functions:

- sending of ON/OFF commands (cyclical switchover or front management),
- sending of timed activation commands,
- sending of commands for movements of curtains and roller shutters (with single or double push-button),
- sending of commands for adjusting light intensity with single or double push-button (for dimmers),
- sending of commands for storage and creation of scenes.

A set of icons, supplied with the device, allows the personalisation and the functional identification of the button keys.



GW 10 752 - GW 12 752 - GW 14 752

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50428, EN50090-2-2



TECHNICAL DATA		
Power supply	Via KNX BUS	
	29V DC SELV	
Current absorbed by BUS	max. 8mA	
Control elements	1 miniature button key for programming	
	4 command button keys	
Display elements	1 red LED for programming	
	4 green LEDs for signalling output status	
	4 amber LEDs for night-time localisation	
Operating temperature	-5 to +45°C	
Dimensions	2 Chorus modules	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

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2

Easy 8-channel RF receiver - flush-mounting

The flush-mounting Easy 8-channel radio receiver allows the command devices of the Chorus RF command and control system to communicate with a KNX system, allowing you to extend the KNX Easy Home Automation system with wireless command devices.

The receiver is seen by the KNX Easy system as an 8-channel input interface. Each channel can be combined with up to 4 different RF command sources (transmitters), thereby allowing you to manage a total of 32 push-buttons of remote controls and RF push-button panels, RF light-sensitive IR sensors, RF 2-channel input modules, etc. The receiver is powered from the BUS line. The front push-button is used during the configuration to generate the localisation commands of the Easy channels identified by the positions (1-8) of the rear rotary selector; in the same way, with the selector in these positions the radio receiver can learn the combinations with the RF command devices. The configuration status is shown by the front LED.

The device is positioned in standard flush-mounting boxes, assembled on the supports of the Chorus range in the space occupied by two modules.

Each channel of the KNX Easy BUS can be configured with the Easy Controller sw, to create your choice of one of the following functions:

- sending of ON/OFF commands,
- sending of timed activation commands,
- sending of commands for movements of curtains and roller shutters (with double push-button),
- sending of commands for adjusting light intensity with double push-button (for dimmers),
- sending of priority commands,
- sending of commands for storage and creation of scenes.



Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, R&TTE 99/05/EEC, EN50428, EN50090



1. Push-button for localisation of KNX Easy channels

- 2. Multipurpose LED
- 3. LED for programming
- 4. Push-button for programming
- 5. Rotary selector
- 6. BUS terminals



TECHNICAL DATA		
Power supply	Via KNX BUS	
	29V DC SELV	
Current absorbed by BUS	max. 15mA	
Control elements	1 miniature button key for programming	
	1 front push-button for KNX configuration	
	1 rotary selector, 10 positions:	
	0 – routine operation	
	1-8 - input learning/localisation	
	9 - cancelling	
Display elements	1 red LED for programming	
	1 multipurpose LED (red-green-yellow) for learning and localisation	
RF communication frequency	868 MHz	
Operating temperature	-5 to +45°C	
Dimensions	2 Chorus modules	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	



SENSORS

Easy light-sensitive IR movement detector - flush-mounting

The flush-mounting Easy light-sensitive movement detector allows you to send a timed activation command to actuator devices via the KNX BUS, according to the movements detected and the light intensity measured. The passive infrared (IR) sensor has an adjustable lens with fixed opening. The detector is powered from the BUS line and is frontally equipped with two local potentiometers for adjusting light sensitivity and for varying the cycle time (+/50% of the value set with the Easy Controller sw), and a green signalling LED that indicates the detection of movements and the consequent sending of messages on the BUS. The device is positioned in standard flush-mounting boxes, assembled on the supports of the Chorus range in the space occupied by two modules. The sensor can be configured with the Easy Controller sw to create the function of sending timed activation commands.

It is possible to parameterise device operation so as to only activate the movement detector if the actuator to be commanded is ON.

This mode allows, for example, the conventional switch-on of the lights (e.g. via a push-button), but guarantees automatic switch-off (once the movement sensor has been deactivated for that area).



Power supply	Via KNX BUS	
	29V DC SELV	
Current absorbed by BUS	max. 5mA	
Control elements	1 miniature button key for programming	
Display elements	1 red LED for programming	
	1 green LED for movement detection	
Measuring elements	1 PIR sensor (λ = 5-14 μm)	
	1 light-sensitive sensor (10-500 lux)	
Configuration elements	1 rotary potentiometer for adjusting light-sensitive sensor	
	1 rotary potentiometer for adjusting cycle time	
IR sensor cover	Max. distance: 10m	
	Vertical cover: 30°, adjustable	
	Horizontal cover: 105°, adjustable	
Operating temperature	-5 to +45°C	
Dimensions	2 Chorus modules	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

ACTUATORS

Easy 1-channel 16A actuator - flush-mounting

The flush-mounting Easy 1-channel 16A actuator allows you to activate/deactivate an electrical load via a 16A relay with 1 changeover output contact (1 NO/NC). The switchover command of the relay can arrive from command devices or sensors of the Home Automation system, via the KNX BUS, or be locally generated by the front push-button. The actuator is powered from the BUS line and is equipped with a green LED for signalling the output status. The device sends, on the BUS, information regarding the relay status (ON = NO contact closed, OFF = NO contact open) in the moment of switch-on or the receipt of a command, and in the event of manual action. The device is positioned in standard flush-mounting boxes, assembled on the supports of the Chorus range in the space occupied by two modules. The actuator can be configured with the Easy Controller sw to carry out the following functions:

- activation and deactivation of loads,
- execution of timed commands,
- execution of priority commands,
- scenes management (with local storage of the status associated with a particular scene).

The operating modes can be used simultaneously. This means, for instance, that the device can switch a light on and off, or automatically switch it on and off after a certain pre-established time, simply on the basis of the command received.



TECHNICAL DATA		
Power supply	Via KNX BUS - 29V DC SELV	
Current absorbed by BUS	max. 5mA	
Control elements	1 miniature button key for programming	
	1 push-button for local relay command (the push-button works only when the bus voltage is available)	
Display elements	1 red LED for programming - 1 green LED for signalling output status	
Output contact	1 NO/NC 16A (AC1) / 230V ac	
	Incandescent lamps (230V ac): 1500W - Halogen lamps (230V ac): 1500W	
	Loads piloted from electronic transformers: 600VA - Uncompensated fluorescent lamps: 400VA	
	Energy saving lamps (compact fluorescent): 8x23W	
	Use a support relay for the compensated fluorescent lamps and for all loads that are not indicated.	
Operating temperature	-5 to +45℃	
Dimensions	2 Chorus modules	
Section of load cables	max. 4mm²	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

NOTE: in case the bus voltage fails, the output contact will remain open when the voltage is restored.

Easy 4-channel 10A and 16AX actuators - from DIN rail

The Easy 4-channel 10A - from DIN rail (GW 90 835 B) and Easy 4-channel 16AX - from DIN rail (GW 90 836 B) allow to independently activate/deactivate up to 4 different electrical loads via 4 relays, each equipped with 1 NO output contact. The switchover command of the relay can arrive from command devices or sensors of the Home Automation system, via the KNX BUS, or be locally generated by the front push-buttons.

The actuators are powered from the BUS line and are equipped with 4 front green LEDs for signalling the output status. The devices send, on the BUS, information regarding the relay status (ON = contact closed, OFF = contact open) in the moment of switch-on or the receipt of a command, and in the event of manual action. The modules are assembled on the DIN rail, inside the electric boards or junction boxes.

Each output channel of the actuators can be independently configured with the Easy Controller sw to carry out the following functions:

- activation and deactivation of loads,
- execution of timed commands,
- execution of priority commands,
- scenes management (with local storage of the status associated with a particular scene).

The operating modes can be used simultaneously. This means, for instance, that a single output channel can be used to switch a light on and off, or automatically switch it on and off after a certain pre-established time, simply on the basis of the command received.









Reference standards: Low Voltage Directive 2014/35/EU Electromagnetic Compatibility Directive 2014/30/EU, EN50491, EN60669-2-5

TECHNICAL DATA			
	GW 90 835 B	GW 90 836 B	
Power supply	Via KNX BUS -	29V DC SELV	
Current absorbed by BUS	max. 1	OmA	
Control elements	1 miniature button k	ey for programming	
	4 push-buttons for local relay command (the push-b	utton works only when the bus voltage is available)	
Display elements	1 red LED for programming		
	4 green LEDs for signalling output status		
Output contacts	4 NA 10A(AC1) 230V ac	4 NA 16AX 230V ac	
	Incandescent lamps (230V AC): 1500W	Incandescent lamps (230V ac): 3000 W	
	Halogen lamps (230V AC): 1500W Halogen lamps (230V ac): 3000 W		
	Loads piloted from electronic transformers: 600VA Loads piloted from toroidal transformers: 3000 W		
	Uncompensated fluorescent lamps: 400VA Loads piloted from electronic transformers: 2000		
Energy saving lamps (compact fluorescent): 8x23W Energy saving lamps (compact fluorescent): 80x		Energy saving lamps (compact fluorescent): 80x23W	
Use a support relay for the compensated fluorescent lamps Max. switchover current 16A (AC1), 16AX (140µF ref. EN		Max. switchover current 16A (AC1), 16AX (140µF ref. EN 60669-1)	
and for all loads that are not indicated. fluorescent loads with		fluorescent loads with maximum surge current 400A (200µs).	
Operating temperature	-5 to +45°C	-5 to +45°C	
Dimensions	4 DIN modules	4 DIN modules	
Dimension of load cables	max. 2.5mm ²	max. 2.5mm ²	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	Coupling terminal, 2 pins Ø 1mm	

NOTE: in case the bus voltage fails, the actuator doesn't change the status of its output contact. Anyway, the behaviour can be changed entering a specific procedure.

Easy 1-channel 6A roller shutter actuator - flush-mounting

The Easy flush-mounting 1-channel 6A roller shutter actuator allows you to command the movement of the roller shutters, curtains and motorised venetian blinds. The 2 output relays, one for ascent and one for descent, are interlocked to prevent damage to the associated motor.

The movement commands can arrive from command devices or sensors of the Home Automation system, via the KNX BUS, or be locally generated by the two front push-buttons. The actuator is powered from the BUS line and is equipped with 2 front green LEDs for signalling movements of the roller shutter under way (ascent / descent).

The device is positioned in standard flush-mounting boxes, assembled on the supports of the Chorus range in the space occupied by two modules. The actuator can be configured with the Easy Controller to carry out the following functions:

- execution of commands for moving the roller shutters (ascent, descent, stop),
- execution of commands for moving the venetian blinds (ascent, descent, stop, slat adjustment),
- execution of priority commands,
- management of alarm signalling (arriving, for instance, from a wind sensor),
- scenes management (with local storage of the position associated with a particular scene).

The operating modes can be used simultaneously.



GW 10 767 - GW 12 767 - GW 14 767

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50428, EN50090-2-2





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TECHNICAL DATA		
Power supply	Via KNX BUS	
	29V DC SELV	
Current absorbed by BUS	max. 8mA	
Control elements	1 miniature button key for programming	
	2 push-buttons for local relay command	
Display elements	1 red LED for programming	
	2 green LEDs for signalling output status	
Output contacts	6A - 230V AC	
	Motors and gear motors, in compliance with EN60669-2-1	
Operating temperature	-5 to +45°C	
Dimensions	2 Chorus modules	
Dimension of load cables	max. 4mm ²	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

NOTE: in case the bus voltage fails, the roller shutter or venetian blind will remain immobile when the voltage is restored, until a new movement command is given.

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EASY 2- and 4-channel 6A roller shutter actuators - from DIN rail

The Easy 2-channel 6A motor command actuator from DIN rail (GW 90 851), and the 4-channel 6A Easy version from DIN rail (GW 90 852), allow you to command respectively the movement of 2 motor groups (each of which may consist of up to 2 motors) (GW 90 851), or 4 independent motors for roller shutters, curtains and venetian blinds (GW 90 852). The 2 output relays - one for ascent and one for descent - are interlocked to prevent damage to the associated motor. The movement commands can arrive from command devices or sensors of the Home Automation system, via the KNX BUS, or be locally generated by the two front push-buttons. The actuators are powered from the BUS line and have 2 front green LEDs for each channel, to signal when the roller shutter is moving (ascent/ descent). The actuators can work in roller shutter or venetian blind mode, and can manage the consequential activation of alarm, priority and scene commands. The actuators can be configured with the Easy Controller sw to carry out the following functions:

- execution of commands for moving the roller shutters (ascent, descent, stop),
- execution of commands for moving the venetian blinds (ascent, descent, stop, slat adjustment),
- execution of priority commands,
- management of alarm signalling (arriving, for instance, from a wind sensor),
- management of scenes.



TECHNICAL DATA		
	GW 90 851	GW 90 852
Power supply	Via KNX BUS 29V DC SELV	
Current absorbed by BUS	max. 10mA	
Control elements	Button key for programming	Button key for programming
	4 push-buttons for local command	8 push-buttons for local command
Display elements	1 red LED (programming)	1 red LED (programming)
	4 green LEDs (status indicator)	8 green LEDs (status indicator)
Output contacts	4 NO of 8A (cosφ=1) - 250V AC	8 NO of 8A (cosφ=1) - 250V AC
	Motors and gear motors: 6A	Motors and gear motors: 6A
	in compliance with EN60669-2-1	in compliance with EN60669-2-1
Dimension of load cables	max. 4mm ²	
Dimensions	4 DIN modules	
Operating temperature	-5 to +45°C	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

NOTE: in case the bus voltage fails, the roller shutter or venetian blind will remain immobile when the voltage is restored, until a new movement command is given.

EASY 1-CHANNEL universal dimmer actuator - from DIN rail

The universal dimmer actuator is able to command and regulate incandescent lamps, inductive loads (HV halogen lamps via winding transformers), capacitive loads (LV halogen lamps via electronic transformers).

In the front part of the device there is a push-button to command the related load ON (100% light) and OFF (0% light).

- The actuator can be configured with the KNX Easy configurator to carry out the following functions:
- execution of commands for light intensity regulation,
- execution of commands for activation and deactivation (ON = 100% OFF = 0%),
- execution of timed activation commands,
- execution of priority and scene commands.

The operating modes can be used simultaneously.



TECHNICAL DATA		
Power supply	Via KNX BUS 29V DC SELV	
Current absorbed by BUS	max. 9mA	
Control elements	Button key for programming, push-button for manual command	
Display elements	1 red LED for programming	
	1 yellow LED (status indicator)	
Rated voltage	230V AC 50Hz	
Rated power	Incandescent lamps: 40-500W	
	Halogen lamps: 40-500W	
	Inductive/capacitive loads: 40 - 500 VA	
Dimension of load cables	max. 2.5mm ²	
Dimensions	4 DIN modules	
Operating temperature	-5 to +45°C	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

NOTE: in case the bus voltage fails, the device will bring the output to OFF (0%). When reset the output will return to the light intensity value in force before the voltage failure.

Easy 1- and 2-channel universal dimmer actuators - from DIN rail

The universal dimmer actuator Easy - DIN rail mounting, available in two versions 1 channel 500VA (GW A9 351) and 2 channels 300VA (GW A9 352), allows you to command and adjust incandescent lamps and 230V AC halogen lamps, inductive loads (low voltage halogen lamps, via winding transformers), capacitive loads (low voltage halogen lamps, via electronic transformers), dimmable 230V AC LED lamps and dimmable CFL lamps. The dimmer actuator is powered from the 230V AC line (taken from the 1 channel phase), which makes it possible to control the load locally also if the voltage on the KNX BUS is absent. The device has push-buttons and LEDs on the front for controlling and indicating the status of the outputs, for selecting the load type and a fault signalling LED. The dimmer actuator is used to switch the connected load on and off, adjust the degree of light intensity, perform timed commands, perform priority commands for forcing the output status, memorise and execute scenes.

The actuator can be configured with the Easy Controller sw to carry out the following functions:

- execution of commands for brightness adjustment,
- execution of commands for activation/deactivation of loads (ON=100% OFF=0%),
- execution of timed commands,

Riferimenti normativi:

Direttiva bassa tensione 2006/95/CE

Direttiva compatibilità elettromagnetica

2004/108/CE, EN50428, EN60669-2-5, EN50491

- execution of priority commands and scene management.



1. LED signalling the type of load (LOAD x)

- 2. Push-buttons for selecting the type of load (LOAD x)
- 3. Push-buttons for local channel command (CH x)
- 4. LED for channel status (CH x)
- 5. Fault signalling LED
- 6. LED for programming
- 7. Button key for programming
- 8. Terminal for connecting channel 1
- **9.** Terminal for connecting channel 2
- 10. Bus terminal

TECHNICAL DATA			
		GW A9 351 (1 channel)	GW A9 352 (2 channel)
Power supply		Via KNX BUS	29V DC SELV
Current absorbed by BUS		max	10mA
Control elements		Button key for programming, push-buttons for local channel command, push-buttons for selecting the type of load	
Display elements		1 red LED for programming LED for channel status LED signalling the type of load Fault signalling LED	
Rated voltage		230Vac (±10%), 50/60Hz	
Rated power (each channel)	- Incandescent and 230Vac halogen lamps - Low voltage halogen lamps with electronic transformers - Low voltage halogen lamps with ferromagnetic transformers - Dimmable 230Vac LED lamps - Dimmable CFL lamps	10-500W 10-500VA 10-500VA 3-150W 5-150W	10-300W 10-300VA 10-300VA 3-75W 5-75W
Dimension of load cables max. 2.5mm ²		.5mm²	
Dimensions		4 DIN modules	
Operating temperature		-5 ÷ +45 °C	
Connection to the BUS		Coupling terminal, 2 pins Ø 1mm	

NOTE: in case the bus voltage fails, each dimmer channel will switch to a 0% light intensity value. When the voltage is recovered, the dimmer applies at the output the value determined by the last command received.



EASY dimmer actuators for LED - from DIN rail

The EASY dimmer actuators for LEDs powered with continuous voltage (Vdc) - DIN rail mounted, are devices for adjusting the brightness for max. 4 single colour LEDs or LED RGB[W] strips and spotlights. They are available in two versions:

- CVD (constant voltage control) for controlling single colour or RGB[W] strips;
- CCD (constant current control) for controlling power LEDs (single colour or RGB[W]).

The dimmer actuators are powered by the BUS line and are equipped with 4 two-toned front LEDs that indicate the status of the outputs, 4 front control button keys for testing the outputs, 1 red LED for signalling any faults, 1 relay contact for controlling the network voltage of the LED auxiliary power supply, 4 independent output channels.

The dimmer actuators can be configured with the Easy Controller sw to perform one of the following functions:

- ON/OFF switching,
- RGB[W] relative brightness control,
- RGB[W] absolute brightness control,
- scenes.
- colour sequences and light sequences,
- priority command (forcing),
- timed switching (stair raiser light).







- 1. Channel status LED
- Channel test push-button 2.
- 3. Fault signalling LED
- 4. LED for programming
- 5. Button key for programming 6. Bus terminals
- 7.
- Relay contact terminals for LED power supply 8. LED auxiliary power supply terminals
- 9. Output channel terminals

Reference standards:

Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50428, EN50090-2-2, EN61347-1, EN61347-2-13



Wiring 1: with common anode connected to the dimmer



Wiring 2: with common anode connected directly to the LED auxiliary power supply



Wiring 2: with common anode connected directly to the LED auxiliary power supply

TECHNICAL DATA			
	GW 90 854	GW 90 855	
Power supply	Via KNX BUS 2	9V DC SELV	
Current absorbed by BUS	max. 1	DmA	
Auxiliary power supply	1224Vdc	1248Vdc	
Control elements	Button key for programming 4 front output test button keys		
Display elements 1 red p		ramming LED	
	1 red fault sig	nalling LED	
	4 two-toned output status signalling LEDs (1 for each channel)		
Maximum output current	Max 4A (the maximum current for the channel is		
	determined based on the type of wiring performed and	350-500-700mA for each output channel	
	the effective number of channels used)		
Actuation elements	1 6A relay contact for controlling the mains voltage of the LED auxiliary power supply		
	4 PWM outputs with constant voltage control	4 PWM outputs with constant current control	
Dimensions	4 DIN modules		
Operating temperature	-5 to +45°C		
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm		

NOTE: in case the bus voltage fails, the device switches all the output channels to OFF (0%).



TEMPERATURE ADJUSTMENT

Easy timed thermostat/programmer with humidity management - for flush-mounting

The Easy flush-mounting timed thermostat with humidity management is used to automatically manage (on a weekly basis) a humidification/dehumidification system alongside a temperature adjustment system, or to interact with the temperature adjustment system and the causes of humidity formation. The temperature and humidity are adjusted by commanding - on a KNX BUS - the KNX actuators that control the heating or air cooling elements, (including the fan coils) and the humidification/dehumidification elements. The timed thermostat can work in "autonomous" control mode, to autonomously manage the temperature adjustment system (or parts of it); when combined with the Easy flush-mounting thermostats (GW 10 765 H - GW 12 765 H - GW 14 765 H), it can work in "master" control mode to create multi-area temperature adjustment systems. The hourly profiles are defined on a weekly basis. An independent hourly profile can be programmed for each day of the week, with a 15 minute resolution and without any limit to the daily variations. If an hourly profile is configured to control the HVAC or Setpoint mode of an Easy flush-mounting temperature adjustment probe (GW 10 769 - GW 12 769 - GW 10 769 H - GW 12 769 H - GW 14 769 H) the profile parameters can be visualised. The device manages 3 different temperature levels (Teconomy, Tprecomfort, Tcomfort), and offers 5 operating modes (OFF / ECONOMY / PRECOMFORT / COMFORT / AUTOMATIC) that can be activated in heating or cooling mode. It is possible to select the control algorithm locally: at 2 points (with ON/OFF commands), PI proportional (with PWM-type control) or fan coil (3 speeds).

The device is provided with 1 relay output with NO/NC contact that can be used by the timed thermostat to command the heating and/or cooling solenoid valve, 1 input for a potential-free contact (for the window contact function) and 1 input for NTC external temperature sensor (e.g. protection sensor for underfloor heating).

With the Easy Controller sw it is possible to configure the output channels of the device, to carry out the following functions:

- ON/OFF command of actuators (for heating/cooling and to adjust fan coil speed),
- transmission of operating mode (OFF/ECONOMY/PRECOMFORT/COMFORT) and type (HEATING/COOLING) to the area thermostats/temperature sensors,
- transmission of current mode, type of operation and temperature measured to other KNX bus devices,
- 7 hourly profiles that can be freely configured (plus another 2 reserved for the timed thermostat).

The input channels can be configured for:

- setting of the mode and type of operation of the timed thermostat,
- scenes management (associating a scene with a mode and type of operation),
- management of the window opening contact for the temporary switching off of the device.



GW 10 764 H - GW 12 764 H - GW 14 764 H

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2, EN50428



Input for external temperature sensor

- Auxiliary input for potential-free contact Common for inputs
- Common for in
 NO Output

1.

2.

- 5. NC Output
- 6. Common for outputs



Bus terminal

11. Light intensity sensor

10. Fixing screw

9.

sensor (eg: GW 1x 762 H).



NOTE: the device does not have a built-in humidity sensor, so the

relative humidity value must be obtained from an external KNX

Power supply	Via KNX BUS 29V dc SELV
Backup power supply	N.2 AA-type 1.5V alkaline batteries (to be housed in the front part) to keep date and hour in case the bus voltage fails
Current absorbed by BUS	10mA
Control elements	1 miniature button key for programming
	4 front button keys
Display elements	1 RGB colour display with front light intensity sensor for adjusting the backlighting 1 red LED for programming
Output contacts	1 NO/NC 5A (cosφ=1) 250V ac
Inputs	1 input for potential-free contact (max. cable length 10m) 1 input for external temperature probe sensor (e.g. GW 10 800 - type NTC 10K)
Operating temperature	-5 ÷ +45°C
Dimensions	3 Chorus modules
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm

TECHNICAL DATA



Easy thermostat - for flush-mounting

The Easy flush-mounting timed thermostat with humidity management is used to manage a humidification/dehumidification system alongside a temperature adjustment system, or to interact with the temperature adjustment system and the causes of humidity formation. The temperature and humidity are adjusted by commanding - on a KNX BUS - the KNX actuators that control the heating or air cooling elements, (including the fan coils) and the humidification/dehumidification elements. The thermostat can work in "autonomous" control mode, to autonomously manage the temperature adjustment systems (or parts of it); when combined with the Easy flush-mounting timed thermostat (GW 10 764 H - GW 12 764 H - GW 14 764 H), it can work in "Slave" control mode to create multi-area temperature adjustment systems. The thermostat allows you to visualise and independently modify the operating parameters of up to 4 Easy flush-mounting temperature sensors (GW 10 769 - GW 12 769 H - GW 12 769 H - GW 14 769 H).

The device manages 3 different temperature levels (T_{economy}, T_{precomfort}, T_{comfort}), and offers 4 operating modes (OFF / ECONOMY / PRECOMFORT / COMFORT) that can be activated in heating or cooling mode. It is possible to select the control algorithm locally: at 2 points (with ON/OFF commands), PI proportional (with PWM-type control) or fan coil (3 speeds).

The device is provided with 1 relay output with NO/NC contact that can be used by the thermostat to command the heating and/or cooling solenoid valve, 1 input for a potential-free contact (for the window contact function) and 1 input for NTC external temperature sensor (e.g. protection sensor for underfloor heating).

With the Easy Controller sw it is possible to configure the output channels of the device, to carry out the following functions:

- ON/OFF command of actuators (for heating/cooling and to adjust fan coil speed),
- transmission of operating mode, type and temperature measured by other devices on the KNX bus,
- manage of remote devices with their own control logic (e.g. Easy termperature sensors).

The input channels can be configured for:

- setting of the mode and type of operation (e.g. from a master timed thermostat),
- scenes management (associating a scene with a mode and type of operation),
- management of the window opening contact for the temporary switching off of the device.

GW 10 765 H - GW 12 765 H - GW 14 765 H

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2, EN50428



- Common for inputs
- Auxiliary input for potential-free contact
 Input for external temperature sensor
- Input for exter
 NO Output
- 5. NC Output

sensor (eg: GW 1x 762 H).

- 6. Common for outputs
- Programming LED
 Programming kev
- Bus terminal
- 10. Light intensity sensor



NOTE: the device does not have a built-in humidity sensor, so the

relative humidity value must be obtained from an external KNX

Power supply	Via KNX BUS 29V dc SELV
Current absorbed by BUS	10mA
Control elements	4 front button keys 1 miniature button key for programming
Display elements	1 RGB colour display with front light intensity sensor for adjusting the backlighting 1 red LED for programming
Output contacts	1 NO/NC 5A (cosφ=1) 250V ac
Inputs	1 input for potential-free contact (max. cable length 10m) 1 input for external temperature probe sensor (e.g. GW 10 800 - type NTC 10K)
Operating temperature	-5 ÷ +45°C
Dimensions	2 Chorus modules
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm

TECHNICAL DATA



The Easy flush-mounting temperature adjustment probe is used, with the aid of an Easy timed thermostat (GW 10 764 H - GW 12 764 H - GW 14 764 H) or an Easy thermostat (GW 10 765 H - GW 12 765 H - GW 14 765 H), to manage the temperature of the environment where it is installed (or of another environment when used with an external temperature sensor). The probe is not equipped with its own visualisation and command elements, so it must be used with an Easy device (e.g. an Easy thermostat or an Easy timed thermostat) that can control its parameters (HVAC or Setpoint mode and operating type).

The device manages 3 different temperature levels (Teconomy, Tprecomfort, Tcomfort), and offers 4 operating modes (OFF / ECONOMY / PRECOMFORT / COMFORT) that can be activated in heating or cooling mode. It is possible to select the control algorithm locally: at 2 points (with ON/OFF commands), PI proportional (with PWM-type control) or fan coil (3 speeds). The device is provided with 1 input for a potential-free contact (for the window contact function) and 1 input for NTC external temperature sensor (e.g. protection sensor for underfloor heating).

With the Easy Controller sw it is possible to configure the output channels of the device, to carry out the following functions:

- ON/OFF command of actuators (for heating/cooling and to adjust fan coil speed),
- transmission of operating mode, type and temperature measured by other devices on the KNX bus.

The input channels can be configured for:

- setting of the mode and type of operation (e.g. from a master timed thermostat),
- scenes management (associating a scene with a mode and type of operation),
- management of the window opening contact for the temporary switching off of the device.



GW 10 769 - GW 12 769 - GW 14 769

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2, EN50428









- 1. Common for inputs
- 2. Auxiliary input for potential-free contact
- Input for external temperature sensor
 Programming LED
- Programming LED
 Programming key
- 6. Bus terminal
- 7. Signalling LED

IECHNICAL DATA		
Power supply	Via KNX BUS 29V dc SELV	
Current absorbed by BUS	5mA	
Control elements	1 miniature button key for programming	
Display elements	1 Signalling LED 1 red LED for programming	
Inputs	1 input for potential-free contact (max. cable length 10m) 1 input for external temperature probe sensor (e.g. GW 10 800 - type NTC 10K)	
Operating temperature	-5 ÷ +45℃	
Dimensions	1 Chorus module	
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm	

GEWIEE

Easy temperature/humidity sensor - flush mounting

The Easy flush-mounting temperature adjustment sensor with integrated temperature/humidity sensor is used, with the aid of an Easy timed thermostat (GW 10 764 H - GW 12 764 H - GW 12 764 H - GW 14 764 H) or an Easy thermostat (GW 10 765 H - GW 12 765 H - GW 14 765 H), to manage the temperature of the environment where it is installed (or of another environment when used with an external temperature/humidity sensor). The device is not equipped with its own visualisation and command elements, so it must be used with an Easy device (e.g. an Easy thermostat or an Easy timed thermostat) that can control its parameters (HVAC or Setpoint mode and operating type).

The device manages 3 different temperature levels (Teconomy, Tprecomfort, Tcomfort), and offers 4 operating modes (OFF / ECONOMY / PRECOMFORT / COMFORT) that can be activated in heating or cooling mode. It is possible to select the control algorithm locally: at 2 points (with ON/OFF commands), PI proportional (with PWM-type control) or fan coil (3 speeds). The device is provided with 1 input for a potential-free contact (for the window contact function) and 1 input for NTC external temperature probe sensor (e.g. protection sensor for underfloor heating).

With the Easy Controller sw it is possible to configure the output channels of the device, to carry out the following functions:

- ON/OFF command of actuators (for heating/cooling and to adjust fan coil speed),
- transmission of operating mode, type, temperature and relative humidity measured by other devices on the KNX bus.

The input channels can be configured for:

- setting of the mode and type of operation (e.g. from a master timed thermostat),
- scenes management (associating a scene with a mode and type of operation),
- management of the window opening contact for the temporary switching off of the device.



GW 10 769 H - GW 12 769 H - GW 14 769 H

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2, EN50428





Common for inputs

- 2. Auxiliary input for potential-free contact
- 3. Input for external temperature sensor
- Programming LED
 Programming key
- 6. Bus terminal
- 7. Signalling LED



IECHNICAL DATA				
Via KNX BUS 29V dc SELV				
5mA				
1 miniature button key for programming				
1 Signalling LED 1 red LED for programming				
1 input for potential-free contact (max. cable length 10m) 1 input for external temperature probe sensor (e.g. GW 10 800 - type NTC 10K)				
-5 ÷ +45°C				
1 Chorus module				
Coupling terminal, 2 pins Ø 1mm				

KNX/Easy temperature/humidity sensor - flush mounting

With the KNX/Easy flush-mounting temperature/humidity probe sensor with integrated temperature and humidity sensor, the temperature and humidity figures of the room where it is installed can be measured and sent by BUS. The device offers:

- temperature detection (measured, maximum, minimum);
- 4 temperature thresholds;
- calculation of the dew temperature;
- relative humidity detection (measured, maximum, minimum);
- 4 relative humidity thresholds;
- calculation of specific humidity;
- indication of the thermal well-being status.

The sensor is powered from the bus line. It has a front signalling LED and can be configured with both ETS and Easy Controller sw.



Reference standards: Low Voltage Directive 2006/95/CE Electromagnetic Compatibility Directive 2004/108/CE, EN50090-2-2, EN50428 Signalling LED
 Programming LED
 Programming key

4. Bus terminal

TECHNICAL DATA				
Power supply	Via KNX BUS 29V dc SELV			
Current absorbed by BUS	10mA max			
Control elements	1 miniature button key for programming			
Display elements	1 signalling LED 1 red LED for programming			
Measuring elements	Temperature - Measurement range: 0 °C+45 °C Relative humidity - Measurement range: 10-95%			
Operating temperature	-5 ÷ +45 ℃			
Dimensions	1 Chorus module			
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm			



Easy timed thermostat - wall-mounting

The Easy wall-mounting timed thermostat allows the automatic management, on a weekly basis, of the temperature profile inside the installation environment, by means of the command of actuators, to control heating/cooling elements connected to the Home Automation system, via KNX BUS. In addition, together with the KNX Easy thermostats (GW 10 763 - GW 14 763), it can be used to regulate the temperature in specific areas: in this configuration, the timed thermostat (master) sends the operating mode (set manually or corresponding to that of the temperature profile) via BUS to the combined thermostats (slave). The profile is programmed on a weekly basis, with hourly profiles that can be independently configured for each day of the week, with the resolution of 15 minutes and without limits on the number of daily variations. The device manages 3 different temperature levels (Teconomy, Tprecomfort, Tcomfort), and offers 5 operating modes (OFF / ECONOMY / PRECOMFORT / COMFORT / AUTOMATIC) that can be activated in heating or cooling mode.

It is possible to select the control algorithm locally: at 2 points with ON/OFF commands, or PI with PWM-type control. The device can be wall-mounted (using a flange fixed to the wall with wall plugs) or installed on a 3-module flush-mounting box.

With the Easy Controller sw it is possible to configure the output channels of the device, to carry out the following functions:

- ON/OFF command of actuators (max 2 for heating/cooling),
- transmission of operating mode (OFF/ECONOMY/PRECOMFORT/COMFORT) and type (HEATING/COOLING) by means of area thermostats,
- transmission of current mode, type of operation and temperature measured.

The input channels can be configured for:

- setting of the mode and type of operation of the timed thermostat,
- scenes management (associating a scene with a mode and type of operation),
- management of an input signalling (e.g. window opening contact) for the temporary switching off of the device,



GW 10 761 - GW 14 761

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2, EN60730-1





TECHNICAL DATA				
Power supply	Via KNX BUS 29V DC SELV			
Backup power supply	2 alkaline batteries (1.5V AAA) for updating date/time			
	in the event of an interruption in the BUS voltage			
Current absorbed by BUS	5mA			
Control elements	1 miniature button key for programming			
	10 push-buttons for command and configuration			
Display elements	1 LCD backlit display with LED			
	1 red LED for programming			
Operating temperature	-5 to +45°C			
Dimensions (LxHxD)	130 x 92 x 23mm			
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm			



The Easy wall-mounting thermostat allows you to manage temperature adjustment systems by commanding actuators connected to the Home Automation system, via KNX BUS, to control the fan coils or heating/cooling elements. The device manages 3 different temperature levels (Teconomy, Tprecomfort, Tcomfort), and offers 4 operating modes (OFF / ECONOMY / PRECOMFORT / COMFORT) that can be activated in heating or cooling mode. It is possible to select the control algorithm locally: at 2 points with ON/OFF commands, or PI with PWM-type control. The thermostat also allows you to control the fan coil speed. Apart from the stand-alone thermostat function, the device can be used with an Easy timed thermostat (GW 10 761, GW 14 761) to control the temperature in specific areas: in this case, it acts as a slave, following the operating mode of the timed thermostat and using set point values established locally. The device is wall-mounting, using a flange fixed to the wall with wall plugs, or superficially on a square or round flush-mounting box.

With the Easy Controller sw it is possible to configure the output channels of the device, to carry out the following functions:

- ON/OFF command of actuators (2 for heating/cooling, 3 to adjust fan coil speed),
- transmission of mode, type of operation and temperature measured.

The input channels can be configured for:

- setting of the mode and type of operation (e.g. from master timed thermostat),
- scenes management (associating a scene with a mode and type of operation),
- management of an input signalling (e.g. window opening contact) for the temporary switching off of the device,
- setting of the date and time, via the BUS.



GW 10 763 - GW 14 763

Reference standards: Low Voltage Directive 2006/95/EC Electromagnetic Compatibility Directive 2004/108/EC, EN50090-2-2, EN60730-1





TECHNICAL DATA				
Power supply	Via KNX BUS 29V DC SELV			
Backup power supply	Rechargeable battery (type ML1220 - 3V) for updating date/time			
	in the event of an interruption in the BUS voltage			
Current absorbed by BUS	5mA			
Control elements	5 front push-buttons			
	1 miniature button key for programming			
Display elements	1 LCD backlit display with LED			
	1 red LED for programming			
Operating temperature	-5 to +45°C			
Dimensions (LxHxD)	85 x 95 x 23mm			
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm			

KNX/Easy Thermo ICE thermostats - flush mounting

The KNX/Easy ICE thermostat - flush mounting with humidity control is used to manage a humidification/dehumidification system in parallel to a temperature adjustment system or to act on the temperature adjustment system in order to intervene on the causes of the formation of humidity. The temperature and humidity are adjusted by commanding - on a KNX BUS - the KNX actuators that control the heating or cooling elements (including the fan coils), and the umidification/dehumidification elements.

The thermostat can operate in "stand alone" control mode to autonomously manage the temperature adjustment system (or parts of it), whereas in combination with a master device (e.g.: a KNX timed thermostat) it is possible to operate in "slave" control mode and implement multizone temperature adjustment systems.

The device manages the temperature on three levels (Teconomy, Tprecomfort, Tcomfort) with 4 operating modes (OFF / ECONOMY / PRECOMFORT / COMFORT), both in heating and cooling. Locally or via bus it is possible to select 2 control stages: single stage with 2 points (ON/OFF command or 0%/100%), proportional PI (PWM type control or continuous) or fan coil (max. 3 speeds); dual stage with 2 points (ON/OFF command or 0%/100%). Includes 1 input for a potential-free contact (for the window contact function, or as a general input with command function on the bus) and 1 input for the external temperature NTC probe sensor (e.g. protection for floor-mounting heating) or, alternatively, as a second input for a potential-free contact.

The thermostat is equipped with a white LED backlit display with sensitive rear-projected areas on a glass plate. The device requires an external AC/DC power supply 12-24V and has an integrated sensor for detecting the room temperature (whose value is sent on the bus with a frequency that can be parameterised or following a temperature change) and a proximity sensor for activating back-lighting when a user approaches the device. The thermostat can be configured with ETS or Easy Controller sw.



GW 16 974 CB - GW 16 974 CN - GW 16 974 CT

NOTE: the device does not have a built-in humidity sensor, so the relative humidity value must be obtained from an external KNX sensor (eg: GW 1x 762 H).





- 1 AC/DC power supply 12-24V
- 2 Not used
- 3 AC/DC power supply 12-24V
- 4 Common wire for inputs
- 5 Auxiliary input for potential-free contact
- 6 Input for external temperature probe sensor (alternatively: auxiliary input for potential-free contact)
- 7 LED for programming
- 8 Button key for programming
- 9 Bus terminals



with external temperature probe sensor



with potential-free contact

TECHNICAL DATA			
Dewes supply	12-24Vac/dc - max. 500mA		
Power supply	Via KNX BUS 29V dc SELV		
Current absorbed by BUS	10mA		
Control elements	3 touch buttons		
	1 circular touch slider		
	1 button key for programming		
Display elements	LED backlit display		
	1 red LED for programming		
Inputs	1 input for window contact function or as potential-free contact (cable length max. 10m)		
	1 input for temperature external sensor (es: GW 10 800), type NTC 10K or as potential-free contact		
Measuring elements	1 integrated temperature sensor		
Temperature adjustment range	+5 ÷ +40°C		
Dimension of glass plate (BxHxP)	123x95x11 mm		
Mounting	In 3-gang rectangular, square or round flush-mounting boxes		
Fixing support	In metal (included)		
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm		

ENERGY CONTROL

KNX interface for energy meters - from DIN rail

The GW 90 876 KNX interface allows you to send (via KNX BUS) the energy and power measurements taken by the GW D6 801 digital singlephase energy meter and by the GW D6 806 and GW D6 808 digital threephase energy meters. The KNX interface is coupled with the measuring devices via an optical interface (IR port).

The functions available with the energy meters are:

- the transmission of values relating to active energy imported and exported (Wh or KWh),
- the transmission of the active power value (W),
- the transmission of status bytes,
- the reset of the energy meters.

Since the KNX interface is not a Easy device, it cannot be recognized by the Easy Controller sw, but it is enough to know the preset group addresses in the interface to let it perform the energy management and load control functions.



Reference standards:

EN60664-1, EN50090-2-2, EN61000-6-2, EN61000-6-3, EN61000-4-2

TECHNICAL DATA			
Power supply	Via KNX BUS 29V DC SELV		
Type of interface	2 IR optical ports (Tx, Rx)		
Operating temperature	0 - 55°C		
Dimensions	1 DIN module		
Connection to the BUS	Coupling terminal, 2 pins Ø 1mm		

Dispersible power table

CODE	DESCRIPTION	No. DIN MODULES	DISPERSIBLE POWER (W)
GW 1 x 766	KNX-Easy 1-channel actuator	3*	1
GW 1 x 767	KNX-Easy motor command actuator	3*	2.7
GW 90 709	KNX 320mA power supply	4	4
GW 90 710	KNX 640mA power supply	4	8
GW 90 835 B	KNX-Easy 4-channel 10A actuator	4	4
GW 90 836 B	KNX-Easy 4-channel 16AX actuator	4	4
GW 90 849	KNX-Easy universal dimmer actuator	4	10
GW A9 351	KNX-Easy 1-channel universal dimmer actuator	4	5
GW A9 352	KNX-Easy 2-channel universal dimmer actuator	4	5
GW 90 854	KNX-Easy dimmer actuator for CVD LED	4	4
GW 90 855	KNX-Easy dimmer actuator for CCD LED	4	4
GW 90 851	KNX-Easy 2-channel actuator for roller shutters	4	4
GW 90 852	KNX-Easy 4-channel actuator for roller shutters	4	8

NOTES: * flush-mounting articles.