



Intelligent Building Solutions ABB i-bus® KNX Product Range Overview 2017



Let's write the future.

by making Building Automation logical.



With the new ABB Logic Controller ABA/S 1.2.1 system integrators can quickly and flexibly deal with the most challenging project requirements – with a maximum of design freedom. That is because the logic controller can easily and reliably accommodate altered or extended functionality requests during construction or usage of buildings. With this new logic controller there is no need for additional software, the graphical programming interface is integrated in ETS software.
new.abb.com/knx



Intelligent Building Solutions

Product Range Overview 2017

[ABB i-bus® KNX](#)

A

[WaveLINE Wireless Control](#)

B

[Selection Tables](#)

C

MDRC = Modular DIN-rail Component, SM = Surface Mounting, FM = Flush Mounting,
LF = Light Fitting, *PG = Price Group, **MW = Module Width 18 mm, HVAC = Heating/Ventilation/Air-Conditioning

ABB i-bus® KNX

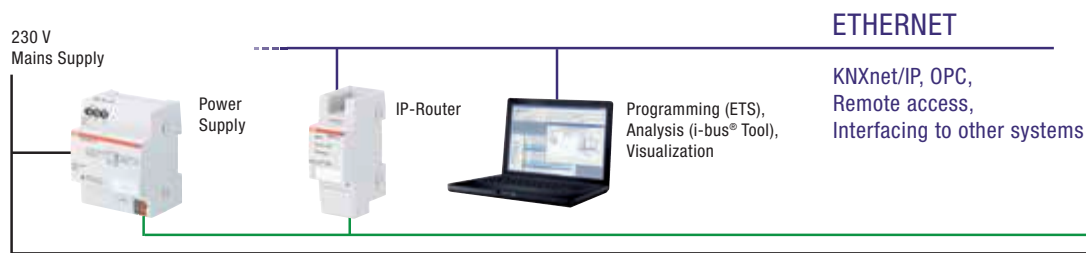
Contents

1	Power Supplies	6
2	System Components and Interfaces	12
3	Connection and Wiring	18
4	Room Automation	19
5	Inputs	28
6	Outputs	32
7	Shutters and Sun Protection	38
8	Illumination and Light Sensors	44
9	Heating and Cooling	64
10	Control, Logic and Time	72
11	Visualisation, Display and Signalling	76
12	Operation	86
13	Energy Measurement	157
14	Security and Surveillance	164



ABB i-bus® KNX-Overview

A



Energy consumption measurement



- Energy Meter with Meter Interface Module
- Energy Module

Switch energy with and without current detection



- Switch Actuator

Switch energy with energy measurement



- Energy Actuator

Switch, dim and control light



- Universal Dim Actuator
- Switch/Dim Actuator 1-10 V
- Light Controller

Digital lighting control using DALI



- DALI Gateway
- DALI Light Controller
- DALI Gateway with Emergency Lighting Control

Control of shutters, blinds and ventilation flaps with and without automatic travel time detection



- Blind/Roller Shutter Actuator
- SMI Blind-/Roller Shutter Actuator

Heating/cooling via valve control



- Electronic Switch Actuator
- Valve Drive Actuator
- Electromotor Valve Drive

Ventilation/climatization



- Blower/Fan Coil Actuator
- Fan Coil Actuator and Controller

Room solutions with integrated sensor and actuator functions



Room Master devices with different combinations of inputs and outputs and internal logical connections



Room Controller with functional modules

KNX-Main Line/TP

Line 1 2 3 4 ... 13 14 15



- 64 devices/line
- 15 lines/area with superordinated main line
- max. 15 areas with superordinated area line

A

- Binary Input



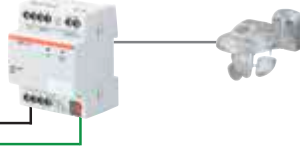
Detect and evaluate switching commands

- Analogue Input

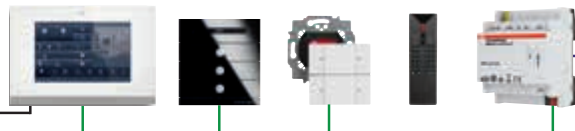


Capture, evaluate and monitor physical values

- Weather Station and Weather Sensor



Evaluate and monitor meteorological data (wind, temperature, rain, etc.)



Remote control via internet

Display operating conditions and control functions

- Presence Detector
- Movement Sensor
- Light Sensor



Detect presence and movement

Measure brightness levels

Lighting Control

- Logic Module
- Application Unit Logic
- Application Unit Time
- Time Switch



Perform logical operations and trigger timer-controlled functions

- Room Thermostat
- Air Quality Sensor



Capture, evaluate, monitor and control room conditions, temperature, air quality, etc.

- Security Terminal
- Security Module
- KNX Security Panel
- Fault Monitoring Unit
- Monitoring Unit
- Data Logging Unit



12 V



Security System

Monitor operating conditions, signal technical faults, recognize hazards and trigger alarms

- Transponder Reader
- Transponder Holder
- Transponder Card
- Configuration Software



Access Control system for hotel rooms

ABB i-bus® KNX Power Supplies

A 1 Safe bus voltage and expanded diagnostics

The new ABB i-bus KNX Power Supplies with diagnostics feature an expanded LED display for indication of the momentary current load in the bus line and for quick diagnostics of the bus state. The state values are also provided on the KNX system by means of ETS communication objects. The ABB i-bus tool also permits detailed analysis.

Two versions for bus loads of 320 and 640 mA are available, each with integrated choke and wide range inputs for supply voltages from 85 to 265 V AC at 50/60 Hz, in MDRC housing (4 modules width). The device with 640 mA features a voltage output without choke to power another bus line in combination with an additional choke.

Connection to the bus is performed via bus terminals. All other connections are made reliably and quickly via combination head screws

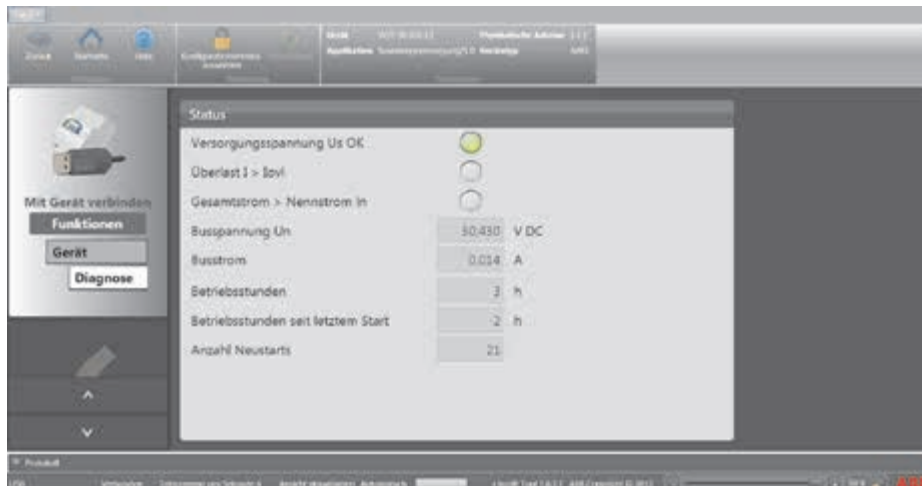


Quick visual diagnostics and trouble shooting via LED display

The LED display on the front of the device permits quick visual diagnostics of the momentary current load in the bus line and the momentary operating state.

Analysis of device information with the ABB i-bus tool

The ABB i-bus tool permits detailed device analysis without ETS software – even remotely. The following items of status information are available here:



- Supply voltage OK
- Overload $I > I_{max}$
- Total current $I > \text{rated current } I_n$
- Bus voltage U_n
- Bus current
- Current I_2 (additional voltage output for SV/S 30.640.5.1)
- Total current $I = I_1 + I_2$ (for SV/S 30.640.5.1)
- Operating hours
- Operating hours since last start up
- Number of start ups

Screenshot of ABB i-bus tool

ABB i-bus® KNX

Power Supplies – Overview

	SV/S 30.160.1.1	Standard SV/S 30.320.1.1	SV/S 30.640.3.1	Diagnostic SV/S 30.320.2.1	SV/S 30.640.5.1	Uninterruptible SU/S 30.640.1
General						
Supply voltage	85...265 V AC					195...255 V AC
Type of installation	MDRC					
Module width (18 mm)	4					8
Rated current I _n	160 mA	320 mA	640 mA	320 mA	640 mA	640 mA
Rated voltage U _n	30 V DC					
Back-up						
Mains failure back-up time without battery	200 ms					
Mains failure back-up time with new, fully charged battery up to	–	–	–	–	–	AM/S: 10 min SAK7: 2.5 h 2 x SAK7: 5 h 2 x SAK12: 11 h 2 x SAK7: 16 h
Choke						
Integrated choke	■	■	■	■	■	■
Extra Voltage output without choke (30 V DC)	–	–	■	–	■	–
Operation and indication						
Short-circuit and overload indication	■	■	■	■	■	■
Output voltage indication	■	■	■	■	■	■
Overload indication	■	■	■	■	■	■
Bus current indication	–	–	–	■	■	–
Telegram traffic indication	–	–	–	■	■	–
Communication error indication	–	–	–	■	■	–
Bus reset button and indication	–	–	–	■	■	–
Mains voltage indication	■	■	■	■	■	■
Battery voltage indication	–	–	–	–	–	■
Reporting						
Floating contact for fault reporting	–	–	–	–	–	■
Commissioning and diagnostic functions						
Control and diagnosis via ABB i-bus® Tool	–	–	–	■	■	–

- = Function is supported
– = Function is not supported

ABB i-bus® KNX Power Supplies

A
1



SV/S 30.160.1.1

Power Supply, 160 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is de-coupled from the power supply by an integrated choke.
The voltage output is short-circuit and overload protected.
The two-color LED indicates device output status. With two-coloured status indicator and wide range input from 85...265 V AC, 50/60 Hz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	SV/S 30.160.1.1	2CDG110144R0011		1	0.30



SV/S 30.320.1.1

Power Supply, 320 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is de-coupled from the power supply by an integrated choke.
The voltage output is short-circuit and overload protected.
The two-color LED indicates device output status.
With two-coloured status indicator and wide range input from 85...265 V AC, 50/60 Hz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	SV/S 30.320.1.1	2CDG110166R0011		1	0.30



SV/S 30.640.3.1

Power Supply, 640 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is de-coupled from the power supply by an integrated choke.
The voltage output is short-circuit and overload protected.
The two-color LED indicates device output status.
Device type SV/S 30.640.3.1 has an additional 30 V DC short-circuit and overload protected voltage output that can be used to power an additional bus line (in combination with a separate choke).

With two-coloured status indicator and wide range input from 85...265 V AC, 50/60 Hz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	SV/S 30.640.3.1	2CDG110167R0011		1	0.30

ABB i-bus® KNX Power Supplies



SV/S 30.320.2.1

Power Supply with diagnostics, 320 mA, MDRC

Compact Power Supply with integrated choke. Quick diagnostics by LED display and ETS communication objects. Analysis of the operating state and the bus line possible by means of ABB i-bus tool.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	SV/S 30.320.2.1	2CDG110145R0011		1	0.26



SV/S 30.640.5.1

Power Supply with diagnostics, 640 mA, MDRC

Compact Power Supply with integrated choke. Quick diagnostics by LED display and ETS communication objects. Analysis of the operating state and the bus line possible by means of ABB i-bus tool. Additional voltage output to supply an additional line in conjunction with an additional choke.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	SV/S 30.640.5.1	2CDG110146R0011		1	0.26



SU/S 30.640.1

Uninterruptible Power Supply, 640 mA, MDRC

Power supply with integrated choke for supplying a bus line from an uninterrupted supply. Quick diagnostics via LED display for operational readiness, fault and battery level as well as a floating contact for a fault signal indication. The accumulator module or up to 2 rechargeable batteries can be charged in normal operation by the voltage supply. The bus voltage is provided by the batteries in the event of a mains failure.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	8	SU/S 30.640.1	GHQ6310049R0111		1	0.55



AM/S 12.1

Battery Module, 12 V DC, MDRC

With lead-gel battery for use in uninterruptible power supply SU/S 30.640.1 and for maintaining the bus voltage during a mains failure for 10 minutes (at full load). Connection is made via 4-core standard cable.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	8	AM/S 12.1	GHQ6310062R0111		1	0.81

ABB i-bus® KNX Power Supplies

A
1



KS/K 4.1



KS/K 2.1

Cable Sets

For connection of sealed lead gel batteries SAK7, SAK12 and SAK17 to the uninterruptible KNX power supply SU/S 30.640.1 or the uninterruptible power supply NTU/S 12.2000.1. If only one battery is connected, the basic cable set KS/K 4.1 with integrated temperature sensor is to be used. In case two batteries are connected in parallel, the basic cable set KS/K 4.1 is to be used for the first battery and the extension cable set KS/K 2.1 is to be used for the second battery. It is not permitted to connect more than two batteries in parallel.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Basic	–	KS/K 4.1	GHQ6301910R0001		1	0.18
Extension	–	KS/K 2.1	GHQ6301910R0011		1	0.12



SAK17, SAK12, SAK7

Sealed Lead Acid Batteries, 12 V DC

For maintaining the bus voltage during a mains failure. For connection to the uninterruptible power supply SU/S 30.640.1 or the uninterruptible power supply NTU/S 12.2000.1. A maximum of two batteries of the same type can be connected in parallel. For connection, the cable sets KS/K 4.1 and KS/K 2.1 are to be used.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
7 Ah	–	SAK7	GHV9240001V0011		1	2.98
12 Ah	–	SAK12	GHV9240001V0012		1	4.66
17 Ah	–	SAK17	GHV9240001V0013		1	7.15



DR/S 4.1

Choke, MDRC

The device can be used together with the SV/S 30.640.5 to supply a second line. Integrated reset button for resetting the bus devices. Connection via connection terminals.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	DR/S 4.1	2CDG110029R0011		1	0.16



NTI/Z 28.30.1

Commissioning Power Supply, 28 V DC, 30 mA

For temporary power supply of KNX devices during commissioning. The Euroconnector and plug-in terminal provide faster connection and supply of devices with manual operation (e.g. FCA/S).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	NTI/Z 28.30.1	2CDG110096R0011		1	0.14

ABB i-bus® KNX Power Supplies



CP-D 24/2.5

Power Supply Units, MDRC

The supply units that can be used universally as auxiliary power supply in KNX installations or other SELV applications. The devices supply a regulated output voltage of 12 V DC or 24 V DC with a maximum output current of 0.42 A up to 4.2 A. The units are protected against overload, the output being able to sustain a continuous short circuit. LED indication of the status of the supply and output voltage. With a width between one to five modules only, the CP-D range power supplies are ideally suited for the installation in distribution panels. Optimized for world-wide applications: The CP-D power supplies can be supplied with a rated voltage of 100 – 240 V AC.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
12 V DC, 0.83 A	1	CP-D 12/0.83 NEW	1SVR427041R1000		1	0.07
12 V DC, 2.1 A	3	CP-D 12/2.1 NEW	1SVR427043R1200		1	0.20
24 V DC, 0.42 A	1	CP-D 24/0.42 NEW	1SVR427041R0000		1	0.07
24 V DC, 1.3 A	3	CP-D 24/1.3 NEW	1SVR427043R0100		1	0.20
24 V DC, 2.5 A	4	CP-D 24/2.5	2CDG120037R0011		1	0.25
24 V DC, 4.2 A	5	CP-D 24/4.2 NEW	1SVR427045R0400		1	0.39
Redundancy Unit for decoupling of two CP-D power supply units	2	CP-D RU NEW	1SVR427049R0000		1	0.08



NT/S 12.1600

Power Supply Units, MDRC

The supply units that can be used universally as the auxiliary power supply in KNX installations or other SELV applications. The devices supply a regulated output voltage of 12 V DC or 24 V DC with a maximum output current of 1.6 A or 0.8 A. The units are protected against overload, the output being able to sustain a continuous short circuit. LED indication of the status of the supply and output voltage.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
12 V DC, 1,6 A	4	NT/S 12.1600	GHQ6050056R0002		1	0.26
24 V DC, 1,6 A	4	NT/S 24.800	GHQ6050057R0002		1	0.26



NTU/S 12.2000.1

Uninterruptible Power Supply, 640 mA, MDRC

Power supply with integrated choke for supplying a bus line from an uninterrupted supply. Quick diagnostics via LED display for operational readiness, fault and battery level as well as a floating contact for a fault signal indication. The accumulator module or up to 2 rechargeable batteries can be charged in normal operation by the voltage supply. The bus voltage is provided by the batteries in the event of a mains failure.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
12 V DC, 2 A	8	NTU/S 12.2000.1	2CDG110070R0011		1	0.43

Connecting KNX to IP networks

New ABB i-bus® KNX IP Devices

A
2

The new range of ABB i-bus KNX IP devices, consisting of IP interface and IP router, can be used in all applications in which KNX shall be interfaced to IP networks.

The IP interface is especially suitable for connecting visualization systems and ETS software to the KNX bus. Therefore it features 5 tunneling servers which allow up to 5 IP clients to simultaneously build up a connection. The IP router can additionally be used as fast line and area coupler for KNX installations and provides 5 tunneling servers.

Both devices can be powered via a separate 12 – 30 V DC power supply or via Power over Ethernet (PoE), saving space in the distribution board. Furthermore, the new range supports the ABB i-bus Tool which significantly facilitates the installation and commissioning.



Benefits:

- 5 Tunneling Server available, simultaneous usage of interface / router with up to 5 IP clients (PC, Smartphone, Tablet) enabling cost savings and additional comfort for end users
- Power supply via PoE is supported (IEEE 802.3af Class 1), no additional 12 V – 30 V DC power supply is needed in distribution board if PoE switch is used
- ABB i-bus Tool for IP discovery and FW update available facilitating installation and commissioning
- Standard multicast communication in IP router can be switched to unicast, allowing usage in IT networks in which multicast communication is not permitted

ABB i-bus® KNX

System Components and Interfaces – Overview

	IP Router IPR/S 2.1	IP Router IPR/S 3.1.1		IP Interface IPS/S 3.1.1		Line Coupler LK/S 4.2	
General							
Auxiliary voltage	10...30 V DC	10...30 V DC or PoE IEEE 802.3af class 1				–	
Type of installation	MDRC	MDRC		MDRC		MDRC	
Application	IP Router/1.0	IP Router/1.1	IP Router/2.0	IP Interface/1.1	IP Interface/2.0	Couple/1.1 or Repeat/1.1	Couple Repeat/2.1
ETS	ETS 3/4/5	ETS 3	ETS 4/5	ETS 3	ETS 4/5	ETS 3	ETS 4/5
Software functions							
Number of tunneling servers	1	1	5	1	5	–	–
Number of unicast connections	3	10	10	–	–	–	–
Monitoring of bus voltage failure	–	■	■	–	–	–	–
Filter Group telegrams main group 0...13	■	■	■	–	–	■	■
Filter Group telegrams main group 14...31	–	–	■ (ETS 4.1.7 or higher)	–	–	–	■
Function Repeater	–	–	–	–	–	■	■
Commissioning and diagnostic functions							
Control and diagnosis via ABB i-bus® Tool	–	■	■	■	■	■	■
Firmware update (ABB i-bus® Tool)	–	■	■	■	■	–	–
Unicast parameterization (ABB i-bus® Tool)	–	■	■	–	–	–	–

■ = Function is supported
– = Function is not supported

ABB i-bus® KNX

System Components and Interfaces

A
2



LK/S 4.2

Line Coupler, MDRC

The line coupler is used in larger installations to connect KNX lines or areas. The lines or areas are galvanically isolated from one another. Telegrams can be filtered to simultaneously reduce the telegram traffic between lines or areas. With ETS 4 (V4.1.2 and higher) the complete group address range of the main groups 0...31 can be filtered. Within a line, the LK/S 4.2 can also be used as a line amplifier (repeater).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	LK/S 4.2	2CDG110171R0011		1	0.1



IPR/S 3.1.1

IP Router, MDRC

Connects the KNX bus with the Ethernet network. The device uses the KNXnet/IP protocol for communication (Routing and Tunneling). It can be used as a fast line and area coupler. The full filter table for main groups 0-31 is supported. KNX devices can be programmed via the LAN using ETS. For this and further clients 5 Tunneling Server are available. The IP address can be fixed or can be received from a DHCP server. Power supply via 12...30 V DC or PoE. The KNX Standard Communication (Multicast) can be switched off. In this case, up to 10 IPR/S 3.1.1 can communicate using unicast communication.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	IPR/S 3.1.1	2CDG110175R0011		1	0.11



IPR/S 2.1

IP Router, MDRC

The IP Router is the interface between the KNX installations and the IP networks. It can be used as a quick line or area coupler or utilise the local network (LAN) for quick exchange of telegrams between the lines/areas. With ETS 3.0, KNX devices can be programmed via LAN. The device uses the KNXnet/IP protocol of the KNX Association (Routing and Tunneling). The IP address can be fixed or received from a DHCP server. The device requires a 10 to 30 V DC power supply.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	IPR/S 2.1	2CDG110061R0011		1	0.11



IPS/S 3.1.1

IP Interface, MDRC

Connects the KNX bus with the Ethernet network. The device uses the KNXnet/IP protocol for communication (Tunneling). KNX devices can be programmed via the LAN using ETS. For this and further clients 5 Tunneling Server are available. The IP address can be fixed or can be received from a DHCP server. Power supply via 12...30 V DC or PoE.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	IPS/S 3.1.1	2CDG110177R0011		1	0.11

ABB i-bus® KNX

System Components and Interfaces



ISM/S 5.1

IP Switch, Master, MDRC

IP Switch Master for MDRC installation. For networking of up to 5 end devices. Can be extended to 10 end devices by side connection of the IP Switch Slave (ISS/S). One of the ports is a Gigabit Ethernet enabled and can serve as an uplink port.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	6	ISM/S 5.1	2CDG120034R0011		1	0.35



ISS/S 5.1

IP Switch, Slave, MDRC

IP Switch Slave for MDRC installation. For networking of up to 5 end devices. Can be side connected to the IP Switch Master (ISM/S), accordingly can be extended to 10 end devices. The slave is only functional together with the master.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	6	ISS/S 5.1	2CDG120035R0011		1	0.23



8186/03-500

Patch Panel PoE 3gang, MDRC

For the setup of small and medium-sized network installations. For the power supply of up to 3 terminal devices such as IP telephone or IP webcams direct via the network cable. For all PoE applications of class 0 to 3, such as IP telephone, IP cameras, WLAN access points or PoE switches. External power supply via 8186/04 necessary.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	6	8186/03-500	8100-0-0344		1	



8186/04-500

Power supply PoE 48 V, DRA

For the setup of small and medium-sized network installations. For the power supply of patch panel PoE 3gang 8186/03. Nominal voltage: 100 – 240 V.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	6	8186/04-500	8100-0-0346		1	

ABB i-bus® KNX

System Components and Interfaces

A
2



IPM/S 1.1

IP Patch Module, MDRC

The IP Patch Module consists of an RJ-45 module and a mounting adapter for rail mounting.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	1	IPM/S 1.1	2CDG120036R0011		1	0.1



USB/S 1.1

USB Interface, MDRC

For connection of a PC via the USB port for programming and diagnostics from ETS3. Display of connection and data transfer via LED.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	USB/S 1.1	2CDG110008R0011		1	0.12



LL/S 1.1

Optical Fibre Interface, MDRC

The device is used to couple two sections of an bus line using an optical fibre link. Ideal for bridging longer distances or to avoid having to implement lightning and overvoltage protection when laying cables between buildings. Two devices are needed to complete a transmission link.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	LL/S 1.1	GHQ6050053R0001		1	0.28



EG/A 32.2.1

KNX/EnOcean Gateway, SM

To connect and integrate EnOcean devices into KNX networks with bidirectional data exchange. The KNX/EnOcean Gateway sends its data within the 868.3 MHz frequency band which is only approved for EnOcean in the European Union incl. Switzerland, Turkey & Norway. Please ensure that the product is suitable for application in the intended country of final installation and use before purchase. Dimensions: (L x W x H) 100 x 70 x 28.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	EG/A 32.2.1	2CDG120047R0011		1	0.1

ABB i-bus® KNX

System Components and Interfaces



MKE/A1.868.1

Magnetic Contact EnOcean

The Magnetic Contact EnOcean is a surface mounted device for windows or doors recognizing opening or closing. The magnetic contact EnOcean communicates on this with a gateway via radio.

The frequency is 868.3 MHz. The interior range is up to 30 m, typically 5 – 10 m, depending on the structural conditions. When using the ABB i-bus® KNX/EnOcean Gateway EG/A 32.2.1, to link to the KNX-Bus, the signal strength can be measured with the ABB i-bus® Tool.

The magnetic contact supplies itself with power via a solar cell and does not require a battery or other supply voltage.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	MKE/A 1.868.1	2CDG120048R0011		1	0.1



SE/K 1.868.1

Valve Drive EnOcean

NEW

The Valve Drive EnOcean is used for efficient room temperature control. It communicates via the wireless, bidirectional EnOcean protocol. The Valve Drive has a large display for showing the current room temperature setpoint and a setting dial for manual setpoint adjustment. Via the ABB i-bus KNX/EnOcean Gateway (EG/A 32.2.1) the Valve Drive EnOcean can easily be included in every KNX system.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SE/K 1.868.1	2CDG120051R0011		1	0.28



6770-500

KNX TP/RF WaveLine Gateway, SM

Media converter with internal antenna for conversion of KNX RF WaveLine radio signals to KNX twisted pair networks with 24 channels. For the evaluation and transfer of up to 24 channels each with 4 sub-channels as transmitter or receiver. Simple operation due to “programming button” and display on the device. Is surface-mounted. The KNX/WaveLine Gateway is powered via KNX and does not require an additional power supply.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6770-500	6770-0-0002		1	

WaveLINE components are available in chapter WaveLINE wireless control.

ABB i-bus® KNX

Connection and Wiring

A
3



DSM/S 1.1

Diagnosis and Protection Module, MDRC

Enables quick diagnosis of the bus state and indicates telegram traffic via an LED. A bus fault is indicated by contacts. The DSM also suppresses transient overvoltages and interference voltage spikes on the bus and thus protects the connected devices.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	DSM/S 1.1	2CDG110060R0011		1	0.11



VB/K ...

Wiring Jumpers

For the interconnection of devices with a bus connection terminal. The vertical and horizontal versions are matched to typical wiring applications.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
horizontal, 100 mm	–	VB/K 100.1	GHQ6301908R0003		10	0.06
horizontal, 200 mm	–	VB/K 200.1	GHQ6301908R0001		10	0.07
vertical, 270 mm	–	VB/K 270.1	GHQ6301908R0002		10	0.11
vertical, 360 mm	–	VB/K 360.1	GHQ6301908R0004		10	0.16



PS 1/4/6-KNX



PS-END 1-S

Busbars

For interconnection of the phase supply to multiple input terminals on devices such as SD/S, SA/S, 6197, They reduce the wiring effort and ensure safe interconnection. The PS 1/4/6 is prefabricated and can be used immediately. The PS 1/60/6 is cut to the desired length and sealed with end caps.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1 phase, 4 contacts	–	PS 1/4/6-KNX	2CDG924003R0011		10	0.012
1 phase, 60 contacts	–	PS 1/60/6-KNX	2CDG924004R0011		1	0.11
End cap	–	PS-END 1-S	2CDL000001R0001		25	0.001



US/E 1

Connection Terminals

For connecting bus devices as well as for looping through or branching the bus cable. Available in black/red for use as bus connecting terminal, in blue as bus connecting terminal with surge protector and in white/yellow for use as a connecting terminal.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
black/red	–	BUSKLEMME	GHQ6301901R0001		50	0.1
white/yellow	–	KLEMME	GHQ6301902R0001		50	0.1
with surge protector	–	US/E 1	GHQ6310009R0001		1	0.01

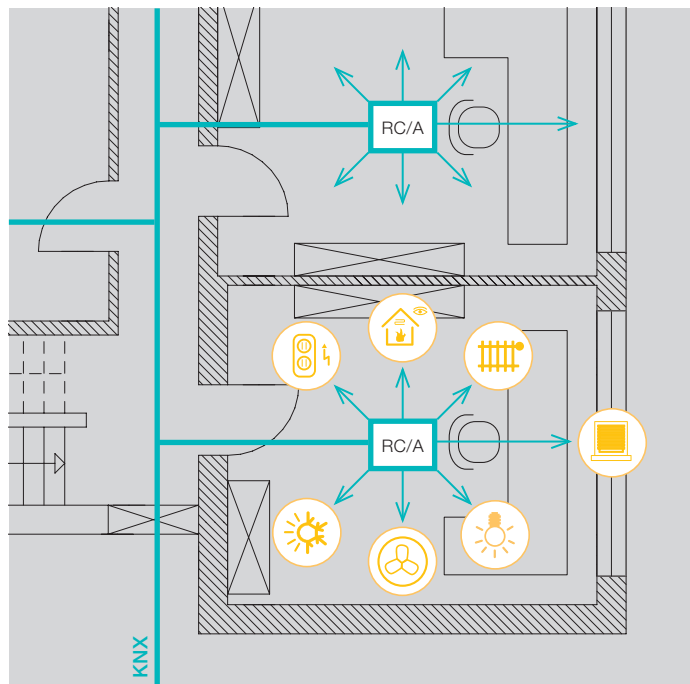
Label Carrier

Snap-on label carrier consisting of transparent carrier plate and insertable blank paper labels.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Label Carrier, 50 pcs.	–	STR/Z 1.50.1	2CDG110149R0011		1	0.04

ABB i-bus® KNX

Room Automation – Room Controller



The fundamental principle: One device per room

A single Room Controller controls all the room functions. This “one device per room” principle economically and flexibly provides KNX functionality: With 4 or 8 modules, which are simply inserted into the basis device, all loads in this room (lights, blinds, heating, etc.) can be controlled.

Economic security from the outset

The installation concept of the Room Controller, particularly the simple plug-in module concept, provides security and reliability.

– When planning the infrastructure of a building:

It can be undertaken without exact knowledge of the subsequent user demands.

– During commissioning:

When user demands have been determined, they are implemented by simple insertion of modules.

– In operation in a building:

Modifications to the room utilisation are easy to implement. The changes to the cable routing are limited to the room concerned.

Improved fire protection included

The significant reduction in the wiring also considerably reduces the fire load and thus improves safety for persons and assets.

Save on energy and not on comfort

Each room is used differently. The different module assignments of the Room Controller can be configured accordingly. Just three examples of special building functions that can be implemented with the device.

In the lighting sector

Constant lighting control is not the only conceivable solution. A high level of comfort can be assured by the control of different light scenes.

Blinds and roller shutters

Not only do they provide pleasant shading, they also assist in responsible use of energy. Intelligent facade controls move the blinds to suit the position of the sun.

Heating/Ventilation/Air conditioning

The control of electrothermal valves on radiators is no problem for the “electronic switch actuator” module of the Room Controller. The ventilation can also be integrated into this automatic control.



ABB i-bus® KNX

Room Automation – Room Controller

A 4 Overview of switching performance

	SA/M 2.6.1	SA/M 2.16.1	SD/M 2.6.2	LR/M 1.6.2	UD/M 1.300.1	ES/M 2.230.1	ES/M 2.24.1
Outputs							
Load circuits	2 relay outputs	2 relay outputs, floating	2 relay outputs	1 relay output	Semiconductor output, dimmed via phase interval or phase control	2 semiconductor outputs for resistive loads, inrush current: max. 1 A, continuous current: max. 700 mA	
U _n rated voltage	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC			
I _n rated current	6 AX	16 A	6 AX	6 AX			
Control outputs			2 x 1...10 V DC (passive)	1 x 1...10 V DC (passive)			
Max. control current			30 mA	30 mA	Max. output power 300 VA at 230 V AC 150 VA at 127 V AC Min. output power: 2 VA		
Max. cable length			100 m	100 m			
Switching current per output							
AC3 operation (cos φ = 0.45) EN 60 947-4-1	6 A / 230 V	8 A / 230 V	6 A / 230 V	6 A / 230 V			
AC1 operation (cos φ = 0.45) EN 60 947-4-1	6 A / 230 V	16 A / 230 V	6 A / 230 V	6 A / 230 V			
Fluorescent lighting load AX to EN 60 669	6 A / 250 V (70 µF)	16 A / 250 V (70 µF)	6 A / 250 V (70 µF)	6 A / 250 V (70 µF)			
Minimum switching capacity	100 mA / 12 V 100 mA / 24 V	100 mA / 12 V 100 mA / 24 V	100 mA / 12 V 100 mA / 24 V	100 mA / 12 V 100 mA / 24 V			
DC current switching capacity (resistive load)	6 A / 24 V=	16 A / 24 V=	6 A / 24 V=	6 A / 24 V=			
Lamp loads at 230 V AC							
– Incandescent lamp load	1380 W	2300 W	1380 W	1380 W			
Fluorescent lamps T5 / T8							
– Uncompensated	1380 W	2300 W	1380 W	1380 W			
– Parallel compensated	1380 W	1500 W	1380 W	1380 W			
– DUO connection	1380 W	1500 W	1380 W	1380 W			
Low-volt halogen lamps							
– Inductive transformer	1200 W	1200 W	1200 W	1200 W			
– Electronic transformer	1380 W	1500 W	1380 W	1380 W			
– Halogen lamp 230 V	1380 W	2300 W	1380 W	1380 W			
Dulux lamp							
– Uncompensated	1100 W	1100 W	1100 W	1100 W			
– Parallel compensated	1100 W	1100 W	1100 W	1100 W			
Mercury-vapour lamp							
– Uncompensated	1380 W	2000 W	1380 W	1380 W			
– Parallel compensated	1380 W	2000 W	1380 W	1380 W			
Switching capacity							
– Max. peak inrush-current I _p (150 µs)	400 A	400 A	400 A	400 A			
– Max. peak inrush-current I _p (250 µs)	320 A	320 A	320 A	320 A			
– Max. peak inrush-current I _p (600 µs)	200 A	200 A	200 A	200 A			
Number of electronic ballasts (T5/T8, single element)							
– 18 W (ABB EVG 1x18 CF)	23	23	23	23			
– 24 W (ABB EVG-T5 1x24 CY)	23	23	23	23			
– 36 W (ABB EVG 1x36 CF)	14	14	14	14			
– 58 W (ABB EVG 1x58 CF)	11	11	11	11			
– 80 W (Helvar EL 1x80 SC)	10	10	10	10			

Further technical specifications can be found in the corresponding product manuals at www.abb.com/knx

ABB i-bus® KNX

Room Automation – Room Controller Basis Devices



Configuration example
RC/A 8.1

Room Controller

The Room Controller controls all the functions in the room as a central device. Due to its modular design, it can be adapted flexibly to the required functionality.

On-site installation enables short assembly and commissioning times. A structured cable entry creates clarity and flexibility for changes in function – both during planning and operation.

Special features

- Height 50 mm: optimised for underfloor installation or suspended ceilings
- Room Controller counts as just one bus device
- Robust housing, IP 54 degree of protection
- Manual operation for immediate testing – even without bus voltage
- Comprehensive software functionality

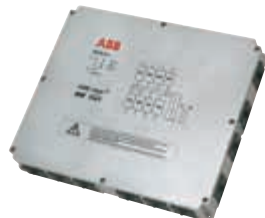


RC/A 4.2

Room Controller, Basis Device for 4 Modules, SM

It accommodates up to 4 plug-in modules and controls their functions. The RC/A 4.2 communicates as a bus device. Any module type can be plugged into each module slot. A manual control for module function test is integrated. Dimensions: (H x W x D) 200 x 275 x 50.

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack unit pc.	Weight 1 pc. kg
	–	RC/A 4.2	2CDG110104R0011		1	0.98



RC/A 8.2

Room Controller, Basis Device for 8 Modules, SM

It accommodates up to 8 plug-in modules and controls their functions. Any module type can be plugged into each module slot. The inserted module is automatically detected. The manual operation facility enables an immediate function test even when bus voltage is not applied. Dimensions: (H x W x D) 270 x 316 x 50.

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack unit pc.	Weight 1 pc. kg
	–	RC/A 8.2	2CDG110106R0011		1	1.695

Please note: With the new DALI Light Controller 4-fold, SM DLR/A 4.8.1.1 the DALI Lighting Control can be integrated in a decentralised KNX installation too! Further information about DLR/A 4.8.1.1 in chapter 8.

ABB i-bus® KNX

Room Automation – Room Controller Function Modules

A
4



BE/M 4.230.1

Binary Input Modules, 4-fold

Each of the modules provides 4 inputs. There are 3 module types available for the connection of 115/230 V, 12/24 V (AC or DC) or floating contacts to cover all demands.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
230 V	–	BE/M 4.230.1	2CDG110005R0011		1	0.13
12/24 V	–	BE/M 4.24.1	2CDG110006R0011		1	0.13
Contact scanning	–	BE/M 4.12.1	2CDG110007R0011		1	0.13



SA/M 2.6.1

Switch Actuator Module, 2-fold, 6 A

For switching loads up to 16 A at a maximum continuous current of 6 A.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SA/M 2.6.1	2CDG110002R0011		1	0.17



SA/M 2.16.1

Switch Actuator Module, 2-fold, 16 A, floating contacts

For switching two loads up to 16 A. The switched voltage is independent of the basic device and is connected directly to the module.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SA/M 2.16.1	2CDG110100R0011		1	0.16



JA/M 2.230.1

Shutter Actuator Modules, 2-fold

For controlling two independent blind or shutter drives. There are two module types available for 115/230 V AC or 24 V DC drives.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
230 V AC	–	JA/M 2.230.1	2CDG110003R0011		1	0.17
24 V DC	–	JA/M 2.24.1	2CDG110004R0011		1	0.17



SD/M 2.6.2

Switch/Dim Actuator Module, 2-fold, 6 AX

It enables the switching and dimming of two groups of luminaires in conjunction with electronic ballasts via a 1...10 V control voltage. Enhanced switching capacity. (Replaces the SD/M 2.6.1).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SD/M 2.6.2	2CDG110107R0011		1	0.17

ABB i-bus® KNX

Room Automation – Room Controller Function Modules



LR/M 1.6.2

Light Controller Module, 1-fold, 6 AX

Enables switching and dimming of a lighting group via 1...10 V control voltage. The device can be used for constant lighting control in conjunction with Light Sensor LF/U 2.1.
(Replaces the LR/M 1.6.1).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	LR/M 1.6.2	2CDG110108R0011		1	0.13



UD/M 1.300.1

Universal Dim Actuator Module, 1-fold, 300 VA

For dimming incandescent lamps, 230 V or low-voltage halogen lamps up to 300 W/VA. The automatic load detection detects the connected load and optimises the control. The minimum load is just 2 W.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	UD/M 1.300.1	2CDG110012R0011		1	0.18



ES/M 2.230.1

Electronic Switch Actuator Module, 2-fold

With 2 overload-proof outputs for noiseless control of heating systems and chilled ceilings via thermoelectric valve drives. Two module types for voltages from 115/230 V or 24 V (AC or DC) are available.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
115/230 V	–	ES/M 2.230.1	2CDG110013R0011		1	0.15
24 V	–	ES/M 2.24.1	2CDG110014R0011		1	0.15

ABB i-bus® KNX

Room Automation – Room Master – Overview

A
4

	Room Master Basic RM/S 1.1	Room Master Premium RM/S 2.1	Room Master RM/S 3.1	Room Master RM/S 4.1
General				
Supply voltage	KNX	KNX	KNX	KNX
Type of installation	MDRC			
Module width (18 mm)	8	12	12	8
Current consumption, bus	< 12 mA	< 24 mA	< 12 mA	< 12 mA
Inputs				
Binary inputs (for potential free contacts via contact scanning)	8	18	12	8
Outputs				
Switching capacity 20 A (16 AX) ¹⁾	1	3	4	–
Switching capacity 16 A (10 AX) ²⁾	2	1	–	–
Switching capacity 6 A ³⁾	3 (configurable as switch or fan outputs)	12 (3 configurable as switch or fan outputs)	–	8
0.5 A electronic (electrothermal or motor valve drive control)	4	4	–	–
6 A changeover contact (Blind or Shutter control)	–	1	4 (configurable also as switch outputs)	–
Functions				
Lighting control (Switching)	■	■	■	■
Heating/Cooling (Electrothermal or motor valve drive control, 3-level fan speed control)	■	■	■	■
Shading control (Shutter, blinds or curtains)	–	■	–	–
Control of further loads via switched electrical sockets	■	■	■	■
Internal connection of inputs and outputs without group addresses	■	■	■	■
Scenes	■	■	■	■
Room scenarios	■	■	■	■
Application with preconfigured inputs and outputs	■	■	–	–
Programmable with predefined and tested example projects (ETS 4) for different fields of application (office, schools, hotel rooms, ...)	–	–	■	–
Planning templates	–	–	■	–

■ = Function is supported

– = Function is not supported

¹⁾ Switching capacity, see Switch Actuators SA/S x.16.5.1

²⁾ Switching capacity, see Switch Actuators SA/S x.10.2.1

³⁾ Switching capacity, see Switch Actuators SA/S x.6.1.1

ABB i-bus® KNX

Room Automation – Room Master



RM/S 1.1



RM/S 2.1



RM/S 3.1



RM/S 4.1

Room Master

The Room Master is a KNX device with a combination of inputs and outputs. The quantities, technical data and the functions of these inputs and outputs are compiled, so that overall control of all the functions in rooms of a live-in character or apartments, are implemented via a device. Typical areas of application of the Room Master are hotel rooms, hospital rooms as well as apartments in institutions for residential care or in student residential homes. The Room Master with its compact design covers all the basic requirements for

- Lighting control
- Heating/Air conditioning
- Shading control (shutters, blinds or curtains - with the RM/S 2.1)
- Control of further loads via switched electrical sockets

Function extensions are possible at any time, e.g. devices for dimming via ABB i-bus® KNX.

- RM/S 1.1 and RM/S 2.1 are preprogrammed ex factory
- RM/S 3.1 and RM/S 4.1 are programmable with predefined and tested example projects (ETS 4) for different fields of application (office, schools, hotel rooms, ...)
- Commissioning of the preprogrammed devices on the construction site without notebook and ETS programming. With the electrical connection all room functions are available.
- Optional functional extensions via integration into KNX networks with ETS software.

Further information about Room Master on www.abb.com/knx

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Inputs, Outputs, Fan Coil	8	RM/S 1.1	2CDG110094R0011		1	0.45
Inputs, Outputs, Blind Control, Fan Coil	12	RM/S 2.1	2CDG110095R0011		1	0.76
Inputs, Outputs, Blind Control or Outputs	12	RM/S 3.1	2CDG110165R0011		1	0.55
Inputs, Outputs	8	RM/S 4.1	2CDG110170R0011		1	0.3

ABB i-bus® KNX

Room Automation – Flush-mounted Combined Devices

A
4



6173/11 U-500

Flush-mounted combined actuator

For controlling blind or awning motors. For connecting thermoelectric actuating drives. With 3 inputs and 2 outputs. A first output (O1) allows the control of electrically-operated Venetian blinds, roller shutters, awnings, venting louvers or similar blinds for 230 V AC mains voltage. One additional electronic switching output (O2) allows silent control of electrothermal valve drives for heating or cooling systems. The bus can be connected via enclosed terminal block. Rated voltage: 230 V~, +10% / -10%, 50 Hz – 60 Hz. Input polling voltage 5V. O1 Rated current 3 A, cos φ 0.8; Output voltage: 250 V~. O2: Rated current: 25 mA, cos φ 1, Output voltage: 250 V~.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit 1 pc.	Weight 1 pc. kg
	–	6173/11 U-500	6151-0-0249		1	0.11



6151/11 U-500

Switch actuator, 16 A

For switching 230 V~ consumers. Equipped with two extension inputs which depending on parameterization can act directly on the switching output or alternatively as binary inputs on the KNX bus. One Normally open contact, potential free; switching voltage: 230 V AC; 50/60 Hz; max. switching current: 16 A; switching capacity: up to 2.500 W depending on the consumer. Rated voltage: 230 V~, +10% / -10%, 50 Hz – 60 Hz. The bus can be connected via enclosed terminal block.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit 1 pc.	Weight 1 pc. kg
	–	6151/11 U-500	6151-0-0245		1	0.11

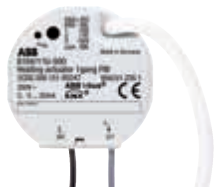


6152/11 U-500

Blind actuator

For controlling blind or awning motors. With 3 inputs and 1 change-over output – normally open contact, potential-bound -. Rated voltage: 230 V~, +10% / -10%, 50 Hz – 60 Hz. Input polling voltage: 5 V. Output rated current: 3 A, cos φ 0.8, Output voltage: 250 V~. The bus can be connected via enclosed terminal block.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit 1 pc.	Weight 1 pc. kg
	–	6152/11 U-500	6152-0-0040		1	0.11



6164/11 U-500

Heating actuator

1 electronic output (noiseless) For connecting thermoelectric actuating drives. The device possesses three additional input. Rated voltage: 230 V~, +10% / -10%, 50 Hz – 60 Hz. Input polling voltage 5 V. OutputRated current: 25 mA, cos φ 1. Output voltage: 250 V~. The bus can be connected via enclosed terminal block.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit 1 pc.	Weight 1 pc. kg
	–	6164/11 U-500	6151-0-0247		1	0.09



Let's write the future of comfort, efficiency and safety. Building Space®

ABB intelligent building automation solutions help to provide comfort, efficiency and safety to all kinds of commercial buildings, including offices, public buildings and hotels.
abb.com/betterspacehotel



ABB i-bus® KNX Inputs

A
5



Application

Operation of KNX systems via conventional push buttons and switches
Processing of binary signals (signalling contacts)

Benefits

Flexible application due to wide-range inputs
Reduced stock requirement due to streamlined product range
Simplified commissioning using the copy function

Product

BE/S 4.20.2.1 with 4 inputs for contact scanning and manual operation
BE/S 4.230.2.1 with 4 wide-range inputs and manual operation
BE/S 8.20.2.1 with 8 inputs for contact scanning and manual operation
BE/S 8.230.2.1 with 8 wide-range inputs and manual operation

Wide-range inputs and a streamlined range – The ABB i-bus® KNX Binary Inputs.

ABB i-bus® KNX Binary Inputs serve as an interface for operation of KNX systems via conventional push buttons and switches as well as for processing binary signals (signalling contacts).

In contrast to the existing solutions, where the input voltages of 24 V and 230 V required separate devices, the Binary Inputs now feature **wide-range inputs**, which can process voltage signals ranging from 10 to 230 V AC/DC. This offers the **installer significantly greater flexibility**.

In addition to two devices with 4 and 8 wide-range inputs, the ABB i-bus® KNX Binary Input product range is rounded off by two devices with 4 and 8 inputs with scanning voltage. On these types, a pulsed scanning voltage is provided for connection of floating contacts from the device.

With an identical range of applications, the number of ABB i-bus® KNX Binary Inputs is now reduced from 6 types to 4.

All Binary Inputs feature a **high-quality membrane keypad for comfortable manual operation and display of the device functions**. Input states can be simulated at the device, so that the conventional push buttons, switches or floating contacts do not need to be connected for commissioning purposes. The device functions can be easily tested during commissioning in this way.

The Binary Inputs are powered via the KNX and do not require an additional power supply.

The software functionality of the Binary Inputs has also been extended. It is now possible to send **several switching telegrams with just a single push of a button**.

Especially useful, just as in the case of the Switch Actuators, it is also possible **to copy the channels of the device in the ETS**. The parameters and group addresses of a channel can be simply transferred to other channels in this way. This simplifies project engineering and helps reduce sources of error.

ABB i-bus® KNX

Inputs – Overview

Binary Inputs Selection Table

	BE/S 4.20.2.1	BE/S 4.230.2.1	BE/S 8.20.2.1	BE/S 8.230.2.1	US/U 2.2	US/U 4.2	US/U 12.2
General							
Voltage range	–	10...230 V	–	10...230 V	–	–	–
Voltage type	–	AC/DC	–	AC/DC	–	–	–
Contact scanning	■	–	■	–	■	■	■
Inputs	4	4	8	8	2	4	12
Type of installation	MDRC	MDRC	MDRC	MDRC	FM	FM	FM
Module width (space unit)	2	2	4	4	–	–	–
Switch sensor							
Send switch value after any edge	■	■	■	■	■	■	■
Send switch value after signal length and/or cyclically	■	■	■	■	■	■	■
Send switch value 1 cyclically	■	■	■	■	■	■	■
Send switch value 2	■	■	■	■	–	–	–
Send switch value 3	■	■	■	■	–	–	–
Difference between short and long operation	■	■	■	■	■	■	■
Dim sensor							
Start-stop dimming, step-by-step dimming	■	■	■	■	■	■	■
One-touch dimming	■	■	■	■	■	■	■
Shutter Sensor							
Shutter operation via a push button/switch	■	■	■	■	■	■	■
Shutter operation via two push buttons/switches	■	■	■	■	■	■	■
Value/Forced operation							
1 bit [0/1], 2 bit forced operation	■	■	■	■	■	■	■
1/2/4 bytes	■	■	■	■	■	■	■
Signed	■	■	■	■	–	–	–
3 byte, time, weekday	■	■	■	■	–	–	–
Control scene							
8 bit scene	■	■	■	■	■	■	■
Store scene	■	■	■	■	■	■	■
Switching sequence							
Several preset sequences can be set	■	■	■	■	■	■	■
Link several push buttons in a switching sequence (actuating number)	■	■	■	■	■	■	■
Multiple operation							
Telegram for long operation	■	■	■	■	■	■	■
Multiple operation can be set	■	■	■	■	■	■	■
Pulse counter							
Adjustable data type and threshold values	■	■	■	■	■	■	–
Temporary counter activation	■	■	■	■	■	■	–
Send counter level cyclically	■	■	■	■	■	■	–
Manual operation							
Energy-saving mode	■	■	■	■	–	–	–
Enable/release manual operation	■	■	■	■	–	–	–
Manual operating status	■	■	■	■	–	–	–
Enable/release manual operation button per input	■	■	■	■	–	–	–
Input LED can be inverted	■	■	■	■	–	–	–
Special functions							
Copying and exchanging parameter settings	■	■	■	■	–	–	–
Enable/disable input	■	■	■	■	■	■	■
Adjustable debounce time and minimum signal time	■	■	■	■	■	■	■
Limit the number of telegrams	■	■	■	■	■	■	■
Device sends an "In operation" telegram"	■	■	■	■	■	■	■
Heating valve control (electric relay)	–	–	–	–	■	■	■
Switch LEDs	–	–	–	–	■	■	■

■ = Function is supported

– = Function is not supported

ABB i-bus® KNX Inputs

A
5



BE/S 8.230.2.1

Binary Inputs, 10 – 230 V AC/DC, MDRC

Detects AC/DC signals in the voltage range from 12...230 V. The state of the input is displayed via yellow LEDs. The binary inputs enable detection of independent input signals. The devices feature a manual operation pushbutton for each channel. The devices are powered via the ABB i-bus® and do not require an additional power supply.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
4-fold	2	BE/S 4.230.2.1	2CDG110091R0011		1	0.12
8-fold	4	BE/S 8.230.2.1	2CDG110093R0011		1	0.23



BE/S 4.20.2.1

Binary Inputs, Contact Scanning, MDRC

Scans floating contacts with internally generated scanning voltage. The state of the input is displayed via yellow LEDs. The binary inputs enable detection of independent input signals. The devices feature a manual operation pushbutton for each channel. The devices are powered via the ABB i-bus® and do not require an additional power supply.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
4-fold	2	BE/S 4.20.2.1	2CDG110090R0011		1	0.12
8-fold	4	BE/S 8.20.2.1	2CDG110092R0011		1	0.23



US/U 4.2

Universal Interface, FM

The universal interface has 2, 4 or 12 channels which can be parametrised as inputs or outputs with the ETS software. Conventional push-buttons, auxiliary contacts, LEDs and the electronic relay ER/U can be connected. The connecting cables can be extended up to 10 m. The contact scanning voltage and the supply voltage for the LEDs are made available by the device, the series resistors for the LEDs are integrated.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	–	US/U 2.2	GHQ6310074R0111		1	0.06
4-fold	–	US/U 4.2	GHQ6310070R0111		1	0.06
12-fold	–	US/U 12.2	2CDG110065R0011		1	0.08



AE/S 4.1.1.3

Analogue Input, 4-fold, MDRC

Analogue Input, 2-fold, SM

Used wherever analogue variables should be detected. The sophisticated housing concept of the surface mounted device and the screw terminals of the MDRC device enable quick and clear wiring and improve the speed of connection of the sensors.

Comprehensive range of adjustment for many typical sensors (1 – 10 V, 0(4) – 20 mA, 0 – 1 V, PT 100, PT 1000,...) for detection of temperature, brightness, fill levels, etc.

For active sensors the auxiliary voltage is supplied by AE/S 4.1.1.3; in case of AE/A 2.1 a separate auxiliary voltage supply is required.



AE/A 2.1

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
4-fold, MDRC	4	AE/S 4.1.1.3	2CDG110190R0011		1	0.27
2-fold, SM	–	AE/A 2.1	2CDG110086R0011		1	0.30

ABB i-bus® KNX

Inputs



WZ/S 1.3.1.2



WES/A 3.1



WS/S 4.1.1.2

Weather Unit, MDRC and Weather Sensor, SM

It is used to detect and process weather data from weather sensor. It supplies data for twilight and brightness levels in 3 directions, rain, temperature, information on day/night, wind speed, date and time. An additional input for the connection of a PT - 1000 sensor is provided. Four value memories which can store up to 24 values each are available. [The Weather Unit WZ/S 1.3.1.2 can be operated either with the new Weather Sensor WES/A 3.1 or with the former sensor WES/A 2.1.](#) The Weather Unit also provides the supply voltage for the connected sensor. The Weather Unit has to be supplied with a operating voltage of 85 to 265 V AC. The Weather Unit supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

The Weather Sensor WES/A 3.1 detects twilight, brightness in three directions, rain, temperature, day/night, wind speed and the date and time using a GPS module. An additional heating transformer is not required. The new Weather Sensor WES/A 3.1 can be connected to the new Weather Unit WZ/S 1.3.1.2 or to the former Weather Unit WZ/S 1.1.

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack	Weight 1 pc. kg
Weather Unit	4	WZ/S 1.3.1.2	2CDG110184R0011			0.20
Weather Sensor	–	WES/A 3.1	2CDG120046R0011			0.17

Weather Station, 4-fold, MDRC

All common weather sensors for wind speed, wind direction, rain, amount of rain, brightness, light intensity, pyranometers, twilight, air pressure, humidity or temperature can be connected to the device. The power supply generates the 24 V DC voltage for external sensors (max. 300 mA). The device can be operated with 85 to 265 V AC, 50/60 Hz. The application software is configured for the detection of weather based data and enables quick sensor programming. The Weather Station supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack	Weight 1 pc. kg
	4	WS/S 4.1.1.2	2CDG110191R0011			0.27

ABB i-bus® KNX

Outputs – A Complete Switch Actuator Range

A
6



Switch Actuators are responsible for reliable switching of different electrical loads in the KNX system. Many different load situations are possible. ABB offers a suitable Switch Actuator for all application areas. The range has been rounded off with a series. Now 16/20 AX C-Load Switch Actuators with and without a current detection feature are available; each featuring 2, 4, 8 or 12 outputs.

In the following table, you will find an overview of the ABB i-bus® Switch Actuators and their type designations:

–	SA/S 2.6.2.1	SA/S 2.10.2.1	SA/S 2.16.2.1	SA/S 2.16.5.1	SA/S 2.16.6.1
SA/S 4.6.1.1	SA/S 4.6.2.1	SA/S 4.10.2.1	SA/S 4.16.2.1	SA/S 4.16.5.1	SA/S 4.16.6.1
SA/S 8.6.1.1	SA/S 8.6.2.1	SA/S 8.10.2.1	SA/S 8.16.2.1	SA/S 8.16.5.1	SA/S 8.16.6.1
SA/S 12.6.1.1	SA/S 12.6.2.1	SA/S 12.10.2.1	SA/S 12.16.2.1	SA/S 12.16.5.1	SA/S 12.16.6.1

Note:

The codes represent the following:

SA/S

= **S**witch **A**ctuator, DIN Rail mounting

SA/S **x**.

x = Number of outputs

SA/S 8.**y**.

y = Rated current in Ampere A

SA/S 8.16.**1**

1 = Standard without manual operation

SA/S 8.16.**2**

2 = With manual operation

SA/S 8.16.**5**

5 = C-Load (200 µF)

SA/S 8.16.**6**

6 = C-Load with current detection

SA/S 8.16.6.**z**

z = Version

ABB i-bus® KNX

Outputs – Switching Capacity Overview

The following table provides an overview of the rated values, switching performance, lamp loads or the number of lamps, which can be connected to a contact:

A
6

	SA/S 4.6.1.1 SA/S 8.6.1.1 SA/S 12.6.1.1	SA/S 2.6.2.1 SA/S 4.6.2.1 SA/S 8.6.2.1 SA/S 12.6.2.1	SA/S 2.10.2.1 SA/S 4.10.2.1 SA/S 8.10.2.1 SA/S 12.10.2.1	SA/S 2.16.2.1 SA/S 4.16.2.1 SA/S 8.16.2.1 SA/S 12.16.2.1	SA/S 2.16.5.1 SA/S 4.16.5.1 SA/S 8.16.5.1 SA/S 12.16.5.1	SA/S 2.16.6.1 SA/S 4.16.6.1 SA/S 8.16.6.1 SA/S 12.16.6.1
I_n rated current (A)	6 A	6 AX	10 AX	16 A	16/20 AX C-Load	16/20 AX C-Load
U_n rated voltage (V)	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC
AC1 operation (cos φ = 0.8) DIN EN 60947-4-1	6 A	6 A	10 A	16 A	20 A	20 A
AC3 operation (cos φ = 0.45) DIN EN 60947-4-1	6 A	6 A	8 A	— ⁴⁾	16 A	16 A
C-Load switching capacity	—	—	—	—	20 A	20 A
Fluorescent lighting load AX to EN 60669-1	6 A (35 µF) ³⁾	6 AX (140 µF) ³⁾	10 AX (140 µF) ³⁾	16 A (70 µF) ³⁾	20 AX (200 µF) ³⁾	20 AX (200 µF) ³⁾
Minimum switching capacity	10 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V
DC current switching capacity (resistive load)	6 A/24 V =	6 A/24 V =	10 A/24 V =	16 A/24 V =	20 A/24 V =	20 A/24 V =
Mechanical service life	> 10 ⁷	> 3 x 10 ⁶	> 3 x 10 ⁶	> 3 x 10 ⁶	> 10 ⁶	> 10 ⁶
Electronic endurance to IEC 60947-4-1:						
– Rated current AC1 (240 V/0.8)	100,000	100,000	100,000	100,000	100,000	100,000
– Rated current AC3 (240 V/0.45)	15,000	30,000	30,000	30,000	30,000	30,000
– Rated current AC5a (240 V/0.45)	15,000	30,000	30,000	30,000	30,000	30,000
Incandescent lamp load at 230 V AC	1,200 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
Fluorescent lamp T5 / T8:						
– Uncorrected	800 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
– Parallel compensated	300 W	1,380 W	1,500 W	1,500 W	2,500 W	2,500 W
– DUO circuit	350 W	1,380 W	1,500 W	1,500 W	3,680 W	3,680 W
Low-voltage halogen lamps:						
– Inductive transformer	800 W	1,200 W	1,200 W	1,200 W	2,000 W	2,000 W
– Electronic transformer	1,000 W	1,380 W	1,500 W	1,500 W	2,500 W	2,500 W
Halogen lamp 230 V	1,000 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
Dulux lamps:						
– Uncorrected	800 W	1,100 W	1,100 W	1,100 W	3,680 W	3,680 W
– Parallel compensated	800 W	1,100 W	1,100 W	1,100 W	3,000 W	3,000 W
Mercury-vapour lamps:						
– Uncorrected	1,000 W	1,380 W	2,000 W	2,000 W	3,680 W	3,680 W
– Parallel compensated	800 W	1,380 W	2,000 W	2,000 W	3,000 W	3,000 W
Sodium-vapour lamps:						
– Uncorrected	1,000 W	1,380 W	2,000 W	2,000 W	3,680 W	3,680 W
– Parallel compensated	800 W	1,380 W	2,000 W	2,000 W	3,000 W	3,000 W
Max. peak inrush-current I_p (150 µs)	200 A	400 A	400 A	400 A	600 A	600 A
Max. peak inrush-current I_p (250 µs)	160 A	320 A	320 A	320 A	480 A	480 A
Max. peak inrush-current I_p (600 µs)	100 A	200 A	200 A	200 A	300 A	300 A
Number of electronic ballasts						
(T5/T8, single element):²⁾						
18 W (ABB ballasts 1 x 18 SF)	10 ballasts	23 ballasts	23 ballasts	23 ballasts	26 ¹⁾ ballasts	26 ¹⁾ ballasts
24 W (ABB ballasts 1 x 24 CY)	10 ballasts	23 ballasts	23 ballasts	23 ballasts	26 ¹⁾ ballasts	26 ¹⁾ ballasts
36 W (ABB ballasts 1 x 36 CF)	7 ballasts	14 ballasts	14 ballasts	14 ballasts	22 ballasts	22 ballasts
58 W (ABB ballasts 1 x 58 CF)	5 ballasts	11 ballasts	11 ballasts	11 ballasts	12 ¹⁾ ballasts	12 ¹⁾ ballasts
80 W (Helvar EL 1 x 80 SC)	3 ballasts	10 ballasts	10 ballasts	10 ballasts	12 ¹⁾ ballasts	12 ¹⁾ ballasts

¹⁾ The number of ballasts is limited by the protection with B16/B20 circuit-breakers.

²⁾ For multiple element lamps or other types, the number of electronic ballasts must be determined using the peak inrush current of the electronic ballasts.

³⁾ The maximum peak inrush current may not be exceeded.

⁴⁾ Not intended for AC3 operation, see Technical Data for maximum AC3 current.

ABB i-bus® KNX

Outputs – An Overview of all Software Functions

A
6

The following table provides an overview of the functions possible with the Switch Actuators and their application programs:

	SA/S 4.6.1.1 SA/S 8.6.1.1 SA/S 12.6.1.1	SA/S 2.6.2.1 SA/S 4.6.2.1 SA/S 8.6.2.1 SA/S 12.6.2.1	SA/S 2.10.2.1 SA/S 4.10.2.1 SA/S 8.10.2.1 SA/S 12.10.2.1	SA/S 2.16.2.1 SA/S 4.16.2.1 SA/S 8.16.2.1 SA/S 12.16.2.1	SA/S 2.16.5.1 SA/S 4.16.5.1 SA/S 8.16.5.1 SA/S 12.16.5.1	SA/S 2.16.6.1 SA/S 4.16.6.1 SA/S 8.16.6.1 SA/S 12.16.6.1
Type of installation	MDRC	MDRC	MDRC	MDRC	MDRC	MDRC
Number of outputs	4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12
Module width (space unit)	4/6/8	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12
Manual operation	–	■	■	■	■	■
Contact position display	–	■	■	■	■	■
I _n rated current (A)	6 A	6 AX	10 AX	16 A	16/20 AX C-Load	16/20 AX C-Load
Current detection	–	–	–	–	–	■

Switch function						
– ON/OFF delay	■	■	■	■	■	■
– Staircase light	■	■	■	■	■	■
– Warning before end of staircase lighting	■	■	■	■	■	■
– Staircase lighting time set via object	■	■	■	■	■	■
– Flashing	■	■	■	■	■	■
– Switch response can be set (N.O./N.C.)	■	■	■	■	■	■
– Thresholds	■	■	■	■	■	■
Current detection	–	–	–	–	–	■
– Threshold value monitoring	–	–	–	–	–	■
– Measured value detection	–	–	–	–	–	■
Function Scene	■	■	■	■	■	■

Function Logic						
– Logic AND function	■	■	■	■	■	■
– Logic OR function	■	■	■	■	■	■
– Logic XOR function	■	■	■	■	■	■
– Gate function	■	■	■	■	■	■
Priority object/forced operation	■	■	■	■	■	■

Heating/fan control						
– Switch ON/OFF (2 point control)	■	■	■	■	■	■
– Cyclical fault monitoring	■	■	■	■	■	■
– Automatic purging	■	■	■	■	■	■
Fan Coil control ¹⁾	■	■	■	■	■	■

Special functions						
– Default position on bus voltage failure/recovery	■	■	■	■	■	■
– Status messages	■	■	■	■	■	■

■ = Function is supported
– = Function is not supported

¹⁾ See special ABB i-bus® KNX devices of the HVAC area, e.g. Fan/Fan Coil actuator LFA/S or Fan Coil actuator FCA/S.

ABB i-bus® KNX Outputs



SA/S 8.6.1.1

Switch Actuators, 6 A, MDRC

Using floating contacts it switches 4, 8 or 12 independent electrical loads. The 6 A-AC3 devices are suited for switching resistive, inductive and capacitive loads. Please note: Increased module width compared to previous generation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
4-fold	4	SA/S 4.6.1.1	2CDG110152R0011		1	0.18
8-fold	6	SA/S 8.6.1.1	2CDG110153R0011		1	0.27
12-fold	8	SA/S 12.6.1.1	2CDG110154R0011		1	0.35



SA/S 8.6.2.1

Switch Actuators, 6 A, MDRC, Manual Operation

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts. Every output can be operated manually and features display of the switching state. The 6 A-AC3 devices are suited for switching resistive, inductive and capacitive loads.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	2	SA/S 2.6.2.1	2CDG110180R0011		1	0.18
4-fold	4	SA/S 4.6.2.1	2CDG110181R0011		1	0.29
8-fold	8	SA/S 8.6.2.1	2CDG110182R0011		1	0.51
12-fold	12	SA/S 12.6.2.1	2CDG110183R0011		1	0.74



SA/S 4.10.2.1

Switch Actuators, 10 AX, MDRC

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts. Every output can be operated manually and features display of the switching state. The 10AX-AC1 devices are especially suited for switching resistive, inductive and capacitive loads such as fluorescent lighting (AX) compliant to EN 60669.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	2	SA/S 2.10.2.1	2CDG110155R0011		1	0.18
4-fold	4	SA/S 4.10.2.1	2CDG110156R0011		1	0.29
8-fold	8	SA/S 8.10.2.1	2CDG110157R0011		1	0.51
12-fold	12	SA/S 12.10.2.1	2CDG110158R0011		1	0.74



SA/S 8.16.2.1

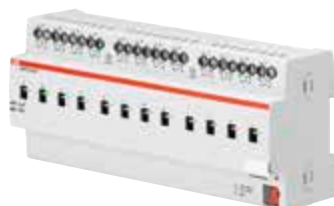
Switch Actuators, 16 AC1, MDRC

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts. Every output can be operated manually and features display of the switching state. The 16A-AC1 devices are suited for switching resistive, inductive and capacitive loads.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	2	SA/S 2.16.2.1	2CDG110159R0011		1	0.18
4-fold	4	SA/S 4.16.2.1	2CDG110160R0011		1	0.29
8-fold	8	SA/S 8.16.2.1	2CDG110161R0011		1	0.51
12-fold	12	SA/S 12.16.2.1	2CDG110162R0011		1	0.74

ABB i-bus® KNX Outputs

A
6



SA/S 12.16.5.1

Switch Actuator, 16/20 AX, C-Load, MDRC

Uses floating contacts to switch independent electrical loads via ABB i-bus® KNX. Every output can be operated manually and features display of the switching state. The 16AX-AC3, C-Load devices are especially suited for switching loads with high surge currents such as luminaries with ballasts or fluorescent lighting (AX) according to EN 60669.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	2	SA/S 2.16.5.1	2CDG110132R0011		1	0.19
4-fold	4	SA/S 4.16.5.1	2CDG110133R0011		1	0.31
8-fold	8	SA/S 8.16.5.1	2CDG110134R0011		1	0.59
12-fold	12	SA/S 12.16.5.1	2CDG110137R0011		1	0.85



SA/S 8.16.6.1

Switch Actuator with Current Detection, 16/20 AX, C-Load, MDRC

Switches with floating contacts, 2, 4, 8 or 12 independent electrical loads with high surge currents. The Switch Actuators feature a circuit for high precision current detection for each output that is used to monitor the connected circuits. Every output can be operated manually and features display of the switching state. The 16/20A, C-Load devices are especially suited for switching loads with high surge currents such as luminaries with ballasts or fluorescent lighting (AX) according to EN 60669.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	2	SA/S 2.16.6.1	2CDG110112R0011		1	0.21
4-fold	4	SA/S 4.16.6.1	2CDG110113R0011		1	0.38
8-fold	8	SA/S 8.16.6.1	2CDG110114R0011		1	0.69
12-fold	12	SA/S 12.16.6.1	2CDG110138R0011		1	0.90

ABB i-bus® KNX Outputs



IO/S 4.6.1.1

I/O Actuator, 6 A, MDRC

For the control of loads in residential areas, typically in hotel rooms and apartments. The I/O Actuators provide binary inputs for the connection of conventional push-buttons and outputs for switching loads. Inputs and outputs can be internally connected by ETS. By integrating the devices into KNX networks further functions can be realised: e.g. central control or room based emergency calls to a control centre.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
4-fold	4	IO/S 4.6.1.1	2CDG110168R0011		1	0.17
8-fold	8	IO/S 8.6.1.1	2CDG110169R0011		1	0.3



AA/S 4.1.2

Analogue Actuator, 4-fold, MDRC

Analogue Actuator, 2-fold, SM

NEW

The Analogue Actuators convert KNX telegrams in voltage or current signals. These analogue output signals are used to influence regulatory processes. For example, devices for heating, air conditioning or ventilation applications can be adjusted in their operation depending on the information, which are transmitted via the bus system. The Analogue Actuators are available in a 4-fold DIN rail version and a 2-fold device with surface mounting housing. The ABB i-bus Tool is supported for advanced diagnosis and improved commissioning.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
4-fold, MDRC	4	AA/S 4.1.2	2CDG110202R0011		1	0.19
2-fold, SM	4	AA/A 2.1.2	2CDG110203R0011		1	0.3



AA/A 2.1.2

ABB i-bus® KNX Shutters and Sun Protection

A
7

Modern building installation enables a high degree of functionality and simultaneously complies with increased security requirements. Due to the structured installation of the electrical components, it is possible to carry out rapid planning, installation and setup as well as achieve cost benefits during operation.

Modern sun protection devices have a significant role, as they must fulfil many demands:

- Anti-glare protection (e.g. PC workstations)
- Utilization of daylight by tracking the sun's position and directing available daylight
- Protecting furniture and carpets from fading
- Regulating the room temperature (overheating protection in summer; harvesting the available energy on cold days)
- Providing protection from people looking in from the outside
- Protection against intruders.

With the Blind/Roller Shutter Actuators JRA/S, the complex requirements on a sustainable and energy efficient automatic sun protection control can be implemented in offices, residential and functional buildings via ABB i-bus® KNX.

The Blind/Roller Shutter Actuators are ideal for the control of drives in the area of sun protection:

- Blinds, exterior blinds, slat blinds and panel curtains
- Roller shutters, roller blinds, screens, vertical blinds
- Awnings, pleated blinds, pleated curtains, etc.



Optimum room air quality via automatic ventilation

The demands for the reduction of energy consumption often results in poor ventilation in today's heavily insulated buildings. The quality of the room air does not comply with the desired and required level.

Natural ventilation is often an effective and efficient method for exchanging the "used" room air and improving the air quality in the room. If the air quality in the room is monitored with sensors (temperature, humidity, CO₂ concentration), the ventilation flaps can be opened automatically and in good time ensuring that the air quality is kept in a comfortable range.

Blind/Roller Shutter Actuators are ideal for control of ventilation elements such as

- Ventilation flaps
- Roof hatches, skylights
- Windows, doors and gates

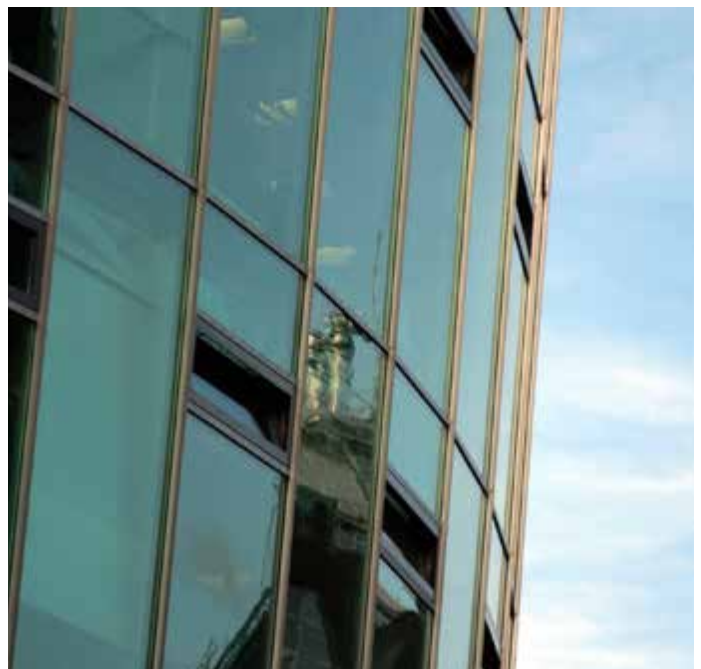


ABB i-bus® KNX

Shutters and Sun Protection – Features

Automatic travel detection

Travel times for the connected drives can be easily determined during operation with the automatic travel detection feature. It saves time during setup. Furthermore, compensation of age and weather-related length changes to blinds or roller shutters is assured. It facilitates precise positioning of the blinds/shutter when using sun position-dependent control.

Diagnostics

Enhanced diagnostic messages can be issued with the Blind/Roller Shutter Actuators. They are particularly useful during setup or in the event of faults. It is possible, for example, to detect and signal if the power supply to a drive is interrupted.

Copy and exchange

This function allows parameter settings of an output to be copied or exchanged with other freely selectable outputs. This is possible within a device or in conjunction with several devices. Copy and exchange is useful particularly on projects, where all drives of a facade are controlled identically. It shortens the setup process and reduces the possible sources of error with parameterization.

Integration in the room temperature control

The intelligent and networked blind and roller shutter control plays an important role in the energy efficient usage of a building. The level of sunlight in the room and heating up due to the sun's energy can be controlled in conjunction with the room climate control. The software function "overheat control" prevents unintentional overheating of a room. The blinds are closed in good time. The shutter control can be actively involved in the room temperature control – a requirement for implementing high-efficient buildings compliant to EN 15232.



ABB i-bus® KNX

Shutters and Sun Protection – Overview

A
7

	Standard				SMI	
	JRA/S X.230.5.1	JRA/S 4.24.5.1	JRA/S X.230.2.1	JRA/S X.230.1.1	SJR/S 4.24.2.1	JA/S 4.SMI.1M
General						
Supply voltage	KNX	KNX	KNX	KNX	KNX	KNX
Nominal voltage	230 V AC	24 V DC	230 V AC	230 V AC	24 V DC	230 V AC
Auxiliary voltage	–	–	–	–	230 V AC	230 V AC
Type of installation	MDRC					
Module width (18 mm)	2-fold: 4 4-fold: 4 8-fold: 8	4-fold: 4	2-fold: 4 4-fold: 4 8-fold: 8	2-fold: 4 4-fold: 4 8-fold: 8	4-fold: 4	4-fold: 4
Number of outputs	X = 2, 4, 8	4	X = 2, 4, 8	X = 2, 4, 8	4 x 4 SMI LoVo (broadcast)	4 x 4 SMI (broadcast)
Manual operation	■	■	■	–	■	■
Manual functions						
Disable/enable manual operation	■	■	■	–	■	■
Status manual operation	■	■	■	–	■	■
Operating modes						
Control with slat adjustment (blinds, etc.)	■	■	■	■	■	■
Control without slat adjustment (shutters, awnings, etc.)	■	■	■	■	■	■
Ventilation flaps, switch mode	■	■	■	■	–	–
Direct mode						
Limit UP/DOWN/STOP	■	■	■	■	■	■
Slat adjustment	■	■	■	■	■	■
Position height/slat [0...255]	■	■	■	■	■	■
Preset Move to position/Set position	■	■	■	■	■	■
Limited UP/DOWN	■	■	■	■	■	■
Enable limitation	■	■	■	■	■	■
Trigger travel detection	■	■	–	–	–	–
Trigger reference movement	■	■	■	■	–	–
8-bit scene	■	■	■	■	■	■
Safety						
Wind/Rain/Frost alarm	■	■	■	■	■	■
Disable control	■	■	■	■	■	■
Forced operation (1-bit and 2-bit)	■	■	■	■	■	■
Reaction after bus voltage failure/recovery, programming	■	■	■	■	■	■
Automatic mode						
Activation of automatic control	■	■	■	■	■	■
Position height/slat position if sunny	■	■	■	■	■	■
Presence	■	■	■	■	■	■
Heating/Cooling	■	■	■	■	■	■
Overheat control	■	■	■	■	–	–
Enable/disable automatic control	■	■	■	■	■	■
Enable/disable direct operation	■	■	■	■	■	■

■ = Function is supported
– = Function is not supported

ABB i-bus® KNX

Shutters and Sun Protection – Overview

	Standard				SMI	
	JRA/S X.230.5.1	JRA/S 4.24.5.1	JRA/S X.230.2.1	JRA/S X.230.1.1	SJR/S 4.24.2.1	JA/S 4.SMI.1M
Status messages						
Height/slat [0...255]	■	■	■	■	■	■
Upper/lower end position	■	■	■	■	■	■
Operability	■	■	■	■	■	■
Automatic	■	■	■	■	■	■
Status byte (2-byte)	■	■	■	■	–	–
SMI	–	–	–	–	■	■
Positions/limit position	–	–	–	–	■	■
Auxiliary voltage	–	–	–	–	■	■
SMI Diagnostic byte	–	–	–	–	■	■
Various						
Automatic travel detection	■	■	–	–	–	–
Time-delayed switching of drives	■	■	■	■	■	■
Limit rate of telegrams	■	■	■	■	–	–
Transmission and switching delay	■	■	■	■	–	–
In operation function	■	■	■	■	–	–
Request status values	■	■	■	■	–	–
Extended setting options for drives and blinds/shutters	■	■	■	■	■	■
Total turning of slats after move down command	■	■	■	■	–	–
Position of slat after arriving on lower end position	■	■	■	■	■	■
Commissioning and diagnostic function						
Control and diagnosis via ABB i-bus® Tool	■	■	■	■	–	–

- = Function is supported
- = Function is not supported

ABB i-bus® KNX Shutters and Sun Protection

A
7



JRA/S 8.230.5.1

Blind/Roller Shutter Actuator with Travel Detection and Manual Operation, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. The travel times of the drive are detected automatically via current detection. To protect the drives, the output contacts are electromechanically locked against each other. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	4	JRA/S 2.230.5.1	2CDG110124R0011		1	0.21
4-fold	4	JRA/S 4.230.5.1	2CDG110125R0011		1	0.25
8-fold	8	JRA/S 8.230.5.1	2CDG110126R0011		1	0.46



JRA/S 4.24.5.1

Blind/Roller Shutter Actuator with Travel Detection and Manual Operation, 4-fold, 24 V DC, MDRC

For the control of up to 4 independent 24 V DC drives via ABB i-bus® KNX. The device is designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. The travel times of the drive are detected automatically via current detection. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	JRA/S 4.24.5.1	2CDG110128R0011		1	0.21



JRA/S 2.230.2.1

Blind/Roller Shutter Actuator with Manual Operation, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. To protect the drives, the output contacts are electromechanically locked against each other. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	4	JRA/S 2.230.2.1	2CDG110120R0011		1	0.21
4-fold	4	JRA/S 4.230.2.1	2CDG110121R0011		1	0.25
8-fold	8	JRA/S 8.230.2.1	2CDG110122R0011		1	0.46

ABB i-bus® KNX

Shutters and Sun Protection



JRA/S 2.230.1.1

Blind/Roller Shutter Actuator, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. To protect the drives, the output contacts are electromechanically locked against each other.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
2-fold	4	JRA/S 2.230.1.1	2CDG110129R0011		1	0.21
4-fold	4	JRA/S 4.230.1.1	2CDG110130R0011		1	0.25
8-fold	8	JRA/S 8.230.1.1	2CDG110131R0011		1	0.46



JA/S 4.SMI.1M

SMI Shutter Actuator with Manual Operation, 4-fold, MDRC

It controls four independent groups (broadcast) with up to four SMI (Standard Motor Interface) drives (230 V) for positioning blinds, roller shutters, awnings and other shading products. Status signals (motor fault, direction of movement) can also be sent from the SMI drive on the bus. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	JA/S 4.SMI.1M	2CDG110028R0011		1	0.25



SJR/S 4.24.2.1

SMI Blind/Roller Shutter Actuator, 4-fold, LoVo, MDRC

It controls four independent groups (broadcast) with up to four SMI (Standard Motor Interface) LoVo drives for positioning blinds, roller shutters, awnings and other shading products. Status signals (motor fault, direction of movement) can also be sent from the SMI drive on the bus. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	SJR/S4.24.2.1	2CDG110143R0011		1	0.25



JSB/S 1.1

Shutter Control Unit, MDRC

Controls shutter and blind actuators according to the position of the sun. The shutter control unit contains the functions of anti-glare protection and daylight redirection for up to 4 facades. Automatic shading can be implemented for every building and climatic control can be supported by the comprehensive range of parameter settings in the ETS.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	JSB/S 1.1	GHQ6310084R0111		1	0.12

ABB i-bus® KNX

Illumination and Light Sensors – DALI – Overview

A
8

The ABB DALI Gateways are used to interface between DALI (Digital Addressable Lighting Interface) and KNX installations. Two new Gateways will be available in April 2017: DG/S 1.64.1.1 DALI-Gateway (1fold) and DG/S 2.64.1.1 DALI Gateway (2fold). Both incorporate the DALI power supply.

Both Gateways are equipped with emergency lighting function, support the DALI standard EN 62386-202 that specifies DALI emergency lighting (self-contained).

DALI-Gateway DG/S 1.64.1.1

Flexibility by controlling light individually per device or in groups



DALI-Gateway DG/S 2.64.1.1

Maximum flexibility combined with highest amount of DALI participants and groups, to meet all customer needs



The DG/S 1.64.1.1 DALI-Gateway (1fold) can install up to 64 DALI devices both via 16 flexible DALI (orange lined group) and KNX lighting groups (green dotted lined group), each with one or more DALI participants. Control and Monitoring via KNX. Control and status feedback can also be carried out via Broadcast. 16 independent Lighting scenes are available.

The DG/S 2.64.1.1 DALI-Gateway (2fold) can install up to 2 x 64 DALI devices both via 2 x 16 flexible DALI (orange lined group) and KNX lighting groups (green dotted lined group), each with one or more DALI participants. Control and Monitoring via KNX. Control and status feedback can also be carried out via Broadcast. 2 x 16 independent Lighting scenes are available.

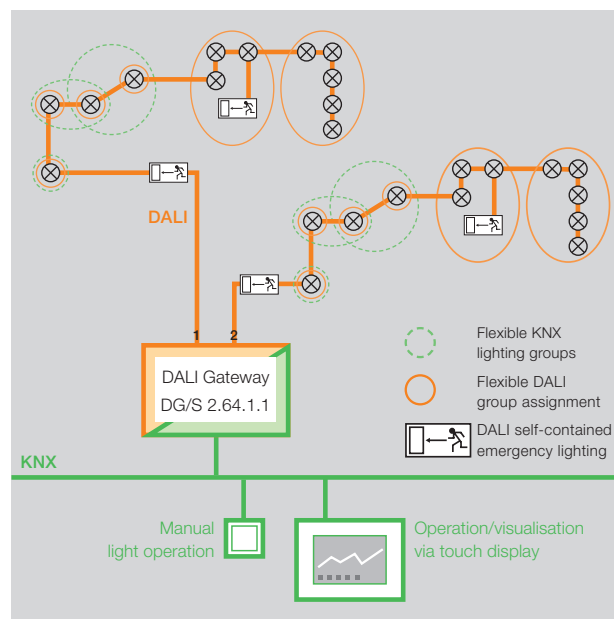
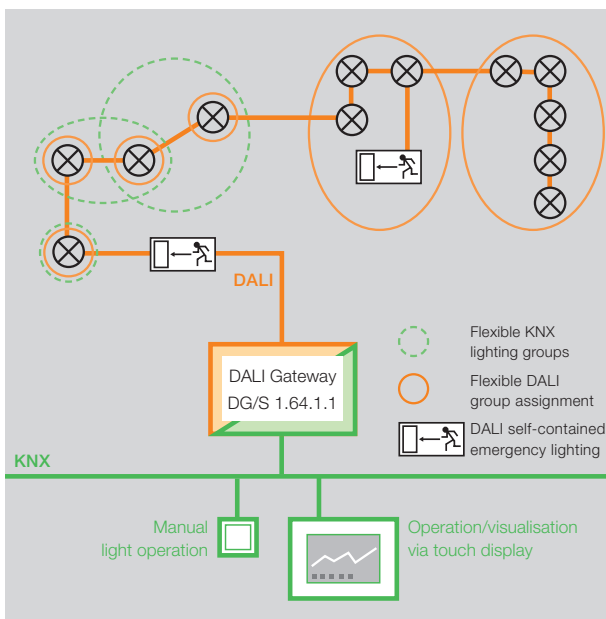


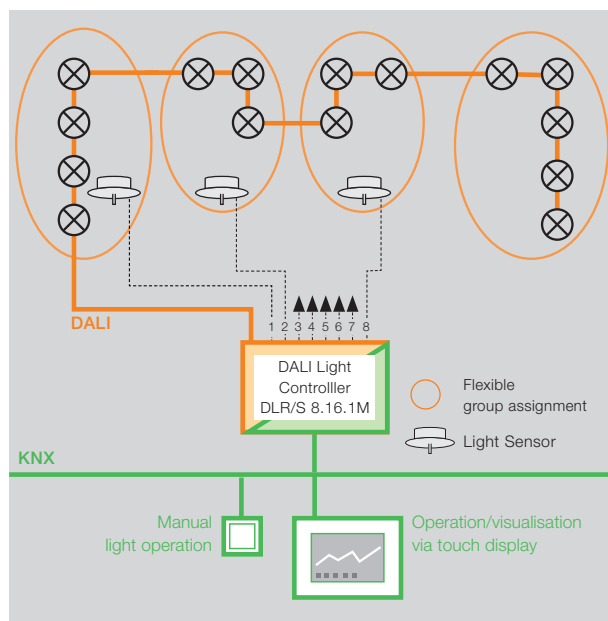
ABB i-bus® KNX

Illumination and Light Sensors – DALI – Overview

DALI Light Controller DLR/S 8.16.1M
Energy through constant lighting control



Control via 16 lighting groups. Up to 8 lighting groups can be controlled with 8 light sensors. Master-slave, staircase light and Scene mode round off the functions.



DALI Light Controller DLR/A 4.8.1.1
Decentralized Constant Lighting Control



The new DALI Light Controller DLR/A 4.8.1.1 is a surface mounting device for switching and dimming of 8 independent lighting groups. A maximum of 64 DALI devices can be connected. The device can be used for 4-fold constant lighting control in connection with 4 Light Sensors LF/U 2.1. Furthermore staircase lighting and master / slave functions are provided. Fault feedback messages, e.g. concerning ballast or lamp failures, can be programmed and activated via KNX. The compact surface-mounted housing allows the decentralized installation in the underfloor or in false ceilings – optimal for the use with Room Controller RC/A.

ABB i-bus® KNX

Illumination and Light Sensors – DALI – Overview

A
8

DALI Gateway DG/S 8.1

The proven technology



Lighting groups are formed via “rigid” hardware wiring.
Fast commissioning as no addressing is necessary.
No readdressing when a ballast is exchanged. 8 x 16 DALI devices.

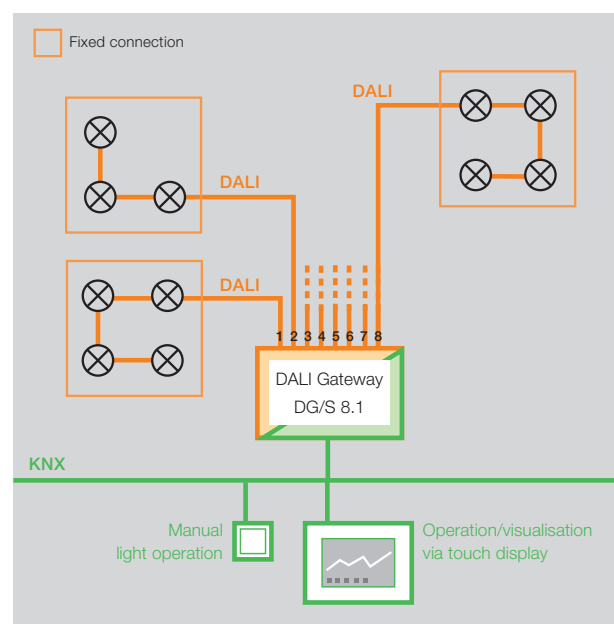


ABB i-bus® KNX

Illumination and Light Sensors – DALI – Overview

	Gateways						Light Control	
	DG/S 1.64.1.1	DG/S 2.64.1.1	DG/S 8.1	DG/S 1.1	DG/S 1.16.1	DGN/S 1.16.1	DLR/S 8.16.1M	DLR/A 4.8.1.1
General								
Supply voltage	85...265 V AC 110...240 V DC							
Type of installation	MDRC							SM
Module width (18 mm)	4	4	6	4	4	4	6	220 x 147 x 50 mm
Number of outputs	1	2	8	2	1	1	1	1
Light sensor inputs	–	–	–	–	–	–	8	4
Degree of protection	IP20							IP54
Integrated power supply	■	■	■	■	■	■	■	■
Number of DALI participants	64	2 x 64	8 x 16	2 x 64	64	64	64	64
Broadcast control	■	■	■	■	■	■	■	■
Number of group control	16	2 x 16	–	–	16	16	16	8
Individual control	64	2 x 64	–	64	–	–	–	–
Self-contained emergency lighting, IEC 62 386-202	■	■	–	–	–	■	–	–
Manual operation	■	■	■	■	■	■	■	■
Functions								
Enable/disable DALI address assignment	■	■	–	■	■	■	■	■
Switching, dimming, set brightness	■	■	■	■	■	■	■	■
Slave	■	■	■	■	■	■	■	■
Staircase lighting	■	■	■	■	■	■	■	■
Burn-in	■	■	■	■	■	■	■	■
Scenes	■	■	■	■	■	■	■	■
Forced	■	■	–	–	–	–	■	■
Sequence	–	–	–	–	■	■	–	–
Emergency lighting test	■	■	–	–	–	■	–	–
Constant light control	–	–	–	–	–	–	■	■
Reaction on KNX bus voltage failure	■	■	■	■	■	■	■	■
Reaction on KNX voltage recovery	■	■	■	■	■	■	■	■
Reaction on DALI bus voltage failure	■	■	■	■	■	■	■	■
Reaction on DALI voltage recovery	■	■	■	■	■	■	■	■
Power on level	■	■	–	–	■	■	■	■
Device or lamp fault	■	■	■	■	■	■	■	■
Cyclic monitoring telegram	■	■	■	■	■	■	■	■
DALI telegram rate modifiable	■	■	–	–	–	–	–	–
Commissioning and diagnostic functions								
Control and diagnosis via ABB i-bus® Tool	■	■	–	■	■	■	■	■
Device assignment	■	■	–	■	■	■	■	■
Group assignment	■	■	–	–	■	■	■	■
Fault DALI device	■	■	■	■	■	■	■	■
Fault lamp	■	■	■	■	■	■	■	■
Constant light control	–	–	–	–	–	–	■	■
Emergency lighting	■	■	–	–	–	■	–	–

■ = Function is supported
– = Function is not supported

ABB i-bus® KNX

Illumination and Light Sensors – DALI

A
8



DG/S 1.64.1.1

DG/S 1.64.1.1 DALI-Gateway, Basic, 1-fold, MDRC

NEW

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. One DALI output for up to 64 DALI Slaves. Control and status feedback is carried out via KNX per DALI slave (64), with lighting groups (16), together in broadcast or per scenes (16). Extensive fault and error messages are available. Self-contained emergency converter (64) acc. EN 62386-202 will be supported. By means of KNX and emergency converter, different emergency tests (e.g. function and duration test) can be triggered. Feedback is sent. Slave-, staircase-, force-, block- and scene- function are integrated. DALI telegram rate can change. For diagnostic use and individual change of the DALI address or group assignment a separate ABB i-bus Tool is available.

Expected availability April 2017

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	DG/S 1.64.1.1	2CDG110198R0011		1	0.133



DG/S 2.64.1.1

DG/S 2.64.1.1 DALI-Gateway, Basic, 2-fold, MDRC

NEW

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. Two DALI output for up to 2 x 64 DALI Slaves. Control and status feedback is carried out via KNX per DALI slave (2 x 64), with lighting groups (2x16), together in two broadcasts or per scenes (2 x 16). Extensive fault and error messages are available. Self-contained emergency converter (2 x 64) acc. EN 62386-202 will be supported. By means of KNX and emergency converter, different emergency tests (e.g. function and duration test) can be triggered. Feedback is sent. Slave-, staircase-, force-, block- and scene- function are integrated. DALI telegram rate can change. For diagnostic use and individual change of the DALI address or group assignment a separate ABB i-bus Tool is available.

Expected availability April 2017

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	DG/S 2.64.1.1	2CDG110199R0011		1	0.15



DG/S 8.1

DALI Gateway, 8-fold, MDRC

For controlling up to 128 DALI devices. There are 8 separate, independent DALI outputs/channels available. Up to 16 DALI devices can be connected per channel. The DALI power supply is integrated in the gateway. The functions of switching, dimming, set values and fault indication for lamps and electronic ballasts are available for each output. It is possible to set the lamp burn-in time and 16 light scenes. Commissioning is simplified as no addressing or commissioning of the DALI devices is necessary.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	6	DG/S 8.1	2CDG110025R0011		1	0.31

ABB i-bus® KNX

Illumination and Light Sensors – DALI



DG/S 1.1

DALI Gateway, 1-fold, MDRC

to be discontinued

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. Up to 2 x 64 DALI devices can be connected. 64 devices can be individually switched, dimmed and controlled with a brightness value. The second 64 devices operate in broadcast mode. The DALI functions such as scene control or fault indication can be programmed and activated via the KNX.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	DG/S 1.1	2CDG110026R0011		1	0.22



DG/S 1.16.1

DALI Gateway, 1-fold, Group Control, MDRC

to be discontinued

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. Up to 64 DALI devices can be assigned to 16 lighting groups. Each group can be switched, dimmed and controlled with a brightness value. Scenes and sequencer functions are available for lighting effects. Fault feedback messages can be programmed and activated via KNX.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	DG/S 1.16.1	2CDG110103R0011		1	0.22



DGN/S 1.16.1

DALI-Gateway with Emergency Lighting Control, 1-fold, Group Control, MDRC

to be discontinued

For controlling DALI devices via the ABB i-bus®. Up to 64 DALI Slaves can be connected. Self contained emergency converter acc. EN 62386-202 will be supported. Control and status feedback is carried out via KNX with 16 lighting groups. By means of KNX and emergency converter different emergency tests (e.g. function and duration test) can be triggered. Feedback is sent. Slave-, staircase- and sequencer- function are integrated. For an individual change of the DALI address or group assignment a separate DGS-Software-Tool is available.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	DGN/S 1.16.1	2CDG110142R0011		1	0.22



DLR/S 8.16.1M

DALI Light Controller, 8-fold, MDRC

For switching and dimming of 16 independent lighting groups. A maximum of 64 DALI devices can be connected. The device can be used for 8-fold constant lighting control in connection with eight Light Sensors LF/U 2.1. Fault feedback messages can be programmed and activated via KNX. With comfortable manual operation and status display.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	6	DLR/S 8.16.1M	2CDG110101R0011		1	0.26

ABB i-bus® KNX

Illumination and Light Sensors – DALI

A
8



DLR/A 4.8.1.1

DALI Light Controller, 4-fold, SM

Surface mounting device for switching and dimming of 16 independent groups of luminaries. Up to 64 DALI participants can be connected to one DALI control line. When combined with the light sensor LF/U 2.1 the device can be used as a 8-fold light controller for constant light control. Additionally a staircase and master/slave function is integrated. A great number of status feedback e.g. lamp and ballast fault can be transferred from DALI to KNX. With this functions the DALI light controller is a key factor in every energy efficient building automation. With his surface mounting housing it is possible to insert the device central in false ceiling or underfloor installation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	DLR/A 4.8.1.1	2CDG110172R0011		1	0.66

ABB i-bus® KNX

Illumination and Light Sensors – Switch/Dim Actuators – Overview

	Switch/Dim Actuators			Constant Light Control	
	SD/S 2.16.1	SD/S 4.16.1	SD/S 8.16.1	LR/S 2.16.1	LR/S 4.16.1
General					
Supply voltage	KNX	KNX	KNX	KNX	KNX
Type of installation	MDRC				
Module width (18 mm)	4	6	8	4	6
Number of outputs 1-10 V (passive)	2	4	8	2	4
Manual operation	■	■	■	■	■
Maximum current per control output	100 mA				
Maximum cable length at maximum load (100 mA)	70 m (cable cross-section 0.8 mm²)				
	100 m (cable cross-section 1.5 mm²)				
Light sensor (LF/U 2.1)	–	–	–	2	4
Maximum cable length per sensor	–	–	–	100 m	100 m
(P-YCYM or J-Y(ST)Y cable (SELV), diameter 0.8 mm)					
Power loss per device at max. load	2.6 W	5.2 W	10.4 W	2.6 W	5.2 W
Switching capacity					
Rated current I _n	16 A AC1				
Rated voltage U _n	250/440 V AC				
AC1 operation (cos φ = 0.8) DIN EN 60 947-4-1	16 A				
AC3 operation (cos φ = 0.45) DIN EN 60 947-4-1	8 A/ 230 V				
Fluorescent lighting load AX DIN EN 60 669-1	10 A (140 mF) ¹⁾				
Minimum switching capacity	100 mA/12 V				
DC current switching capacity (resistive load)	10 A/24 V DC				
Mechanical service life	> 3 x 10 ⁶				
Electronic endurance to DIN IEC 60 947-4-1					
Rated current AC1 (240 V/cos φ = 0.8)	100,000				
Rated current AC3 (240 V/cos φ = 0.45)	30,000				
Rated current AC5a (240 V/cos φ = 0.45)	30,000				
Incandescent lamp load at 230 V AC	2,300 W				
Fluorescent lamps T5/T8					
Uncorrected	2,300 W				
Parallel compensated	1,500 W				
DUO circuit	1,500 W				
Low-voltage halogen lamps					
Inductive transformer	1,200 W				
Electronic transformer	1,500 W				
Halogen lamp 230 V	2,500 W				
Dulux lamps					
Uncorrected	1,100 W				
Parallel compensated	1,100 W				
Mercury-vapour lamps					
Inductive transformer	2,000 W				
Electronic transformer	2,000 W				

■ = Function is supported

– = Function is not supported

¹⁾ The maximum peak inrush current may not be exceeded.

ABB i-bus® KNX

Illumination and Light Sensors – Switch/Dim Actuators

– Overview

A
8

	Switch/Dim Actuators			Constant Light Control	
	SD/S 2.16.1	SD/S 4.16.1	SD/S 8.16.1	LR/S 2.16.1	LR/S 4.16.1
Sodium-vapour lamps					
Inductive transformer			2,000 W		
Electronic transformer			2,000 W		
Max. peak inrush-current I_p (150 μ s)			400 A		
Max. peak inrush-current I_p (250 μ s)			320 A		
Max. peak inrush-current I_p (600 μ s)			200 A		
Number of ballasts (T5/T8, single element) e.g.¹⁾					
18 W (ABB EVG 1 x 18 SF)			23		
24 W (ABB EVG 1 x 24 CY)			23		
36 W (ABB EVG 1 x 36 CF)			14		
58 W (ABB EVG 1 x 58 CF)			11		
80 W (Helvar EL 1 x 80 SC)			10		

¹⁾ For multiple element lamps or other types, the number of electronic ballasts must be determined using the peak inrush current of the electronic ballasts.

	Switch/Dim Actuators			Constant Light Control	
	SD/S 2.16.1	SD/S 4.16.1	SD/S 8.16.1	LR/S 2.16.1	LR/S 4.16.1
Functions					
Brightness control	–	–	–	■	■
Brightness value	■	■	■	■	■
Dimming speed for transition brightness values	■	■	■	■	■
Min. and max. value limits	■	■	■	■	■
Set switching on and off via value	■	■	■	■	■
Presets	■	■	■	■	■
Scenes	■	■	■	■	■
Switch					
Brightness value when turned on	■	■	■	■	■
Dimming speed for switching on and off	■	■	■	■	■
Dimming					
Dimming speed can be changed via KNX	■	■	■	■	■
Min. and max. dimming values	■	■	■	■	■
Switching on/off via rel. dimming	■	■	■	■	■
Forced operation					
2-bit coded forced operation	■	■	■	■	■
Behaviour after voltage recovery	■	■	■	■	■
Block Activate output via 1-bit object	■	■	■	■	■
Special					
4-point characteristic adjustment	■	■	■	■	■
Preference with bus voltage failure	■	■	■	■	■
Status feedback	■	■	■	■	■
Additional					
Slave mode e.g. for integration in the constant lighting control	■	■	■	■	■
Staircase lighting	■	■	■	■	■
Prewarning via dimming and/or KNX object	■	■	■	■	■
Commissioning and diagnostic functions					
Control and diagnosis via ABB i-bus® Tool	–	–	–	■	■

■ = Function is supported

– = Function is not supported

	Universal Dim Actuators		LED Dimmer with constant curve	
	UD/S 2.300.2	6197/x-101-500 (x=12-15, 52, 53)	6155/30-500 1–4-fold	6155/40-500 1–4-fold with power supply
General				
Supply voltage	230 V -15/+10 %, 50/60 Hz	230 V AC ± 10 %, 50/60 Hz	12...24 V DC	230 V AC ± 10%, 50/60 Hz
Type of installation	MDRC		Wall (surface)	
Module width (18 mm)	4	8/12	–	–
Number of outputs	2	1, 4, 6	4	4
Maximum load per channel	2 x 300 W, or 1x 500 W/VA	210, 315, 600, 1260, 2400 VA	1 x 10 A / 4 x 2.5 A	1 x 4 A / 4 x 1 A
Incoming supply	2 phase inputs	3 phase inputs	1 phase input	1 phase input
Load types				
230 V incandescent lamps	■	■	–	–
230 V halogen lamps	■	■	–	–
Low-voltage halogen lamps with conventional transformers or electronic transformers	■	■	–	–
LED strips or 12/24V lamps	–	–	■	■
LED Retrofit 230 V	–	■ ¹⁾	–	–
Grouping of channels for load increase	■ ²⁾	■	■	■
Switching				
Brightness value when turned on	■	■	■	■
Dimming speed for switching on and off	■	■	■	■
Dimming				
Change of dimming speed via KNX	■	■	■	■
Min. and max. dimming values	■	■	■	■
Switching on/off via rel. dimming	■	■	■	■
Brightness				
Dimming speed while setting brightness values	■	■	–	–
Min. and max. value limits	■	–	–	–
Switching on/off via value	■	■	■	■

■ = Function is supported

– = Function is not supported

¹⁾ Selected LED retrofit lamps are tested and approved. Restrictions have to be observed.

Details see Busch-Dimmer® Tool (www.busch-jaeger.com)

²⁾ One channel uses 500 W

	Universal Dim Actuators		LED Dimmer with constant curve	
	UD/S 2.300.2	6197/x-101-500 (x=12-15, 52, 53)	6155/30-500 1–4-fold	6155/40-500 1–4-fold with power supply
Further functions				
Forced operation	■	–	–	–
Dimming curve adjustment	■	■	–	–
Reaction on bus voltage failure	■	■	–	–
Behavior on bus voltage recovery	■	■	■	■
Status feedback	■	■	■	■
Blocking channel	■	■	■	■
Preset	■	■	–	–
Scenes	■	■	■	■
Phase angle control: automatic, leading or trailing edge	■	■	–	–
General functions: logic, gate, flashing, etc.	–	■	–	–
Ripple control	■	–	–	–
Slave mode e.g. for integration in the constant lighting control	■	–	■	■
Staircase lighting	■	■	–	–

■ = Function is supported

– = Function is not supported

ABB i-bus® KNX

Illumination and Light Sensors



LR/S 4.16.1

Light Controller, 16 A, MDRC

The device enables the switching and dimming of 2 or 4 independent lighting circuits in conjunction with electronic ballasts. In combination with the Light Sensor LF/U 2.1, the device can be used for constant lighting control. 2 or 4 light sensors can be connected to the controller for precise detection of the lighting conditions.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit	Weight 1 pc. kg
2-fold	4	LR/S 2.16.1	2CDG110087R0011		1	0.25
4-fold	6	LR/S 4.16.1	2CDG110088R0011		1	0.40



LF/U 2.1

Light Sensor, FM

Used for implementing constant lighting control applications in conjunction with light controllers LR/S, LR/M, DLR/S 8.16.1M or DLR/A 4.8.1.1. The scope of delivery includes different optical rods, the connection terminals and the cover for discrete fitting in a room.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit	Weight 1 pc. kg
	–	LF/U 2.1	2CDG110089R0011		1	0.07



SD/S 8.16.1

Switch/Dim Actuator, 16 A, MDRC

Used for switching and dimming of 2, 4 or 8 independent groups of luminaires with electronic ballasts with 1 – 10 V control interfaces. On each channel the power supply of the ballasts is switched by a floating load relay (16 A – AC1). Every output can be operated manually and features display of the switching state. The device can assume a range of applications thanks to the programming options. The switching load is identical to the SA/S x.16.2.1 range (see capital 6).

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit	Weight 1 pc. kg
2-fold	4	SD/S 2.16.1	2CDG110079R0011		1	0.21
4-fold	6	SD/S 4.16.1	2CDG110080R0011		1	0.32
8-fold	8	SD/S 8.16.1	2CDG110081R0011		1	0.56



UD/S 2.300.2

Universal Dim Actuator, 2-fold, 300 VA, MDRC

For switching and dimming of incandescent lamps, 230 V halogen lamps or low-voltage halogen lamps which are powered by wound or electronic transformers (automatic load detection). Output power 2 x 300 VA or 1 x 500 VA up to 45 °C ambient temperature at a minimum load of just 2 W. Both outputs are independent of one another and can be supplied by different phases. Comprehensive application program with scene and time functions.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit	Weight 1 pc. kg
	4	UD/S 2.300.2	2CDG110074R0011		1	0.24

ABB i-bus® KNX

Illumination and Light Sensors

A
8



6197/13-101-500

Universal Dim Actuator, MDRC

Multi-channel universal dimming actuator for control of incandescent lamps, 230 V halogen lamps, lowvoltage halogen lamps with conventional or electronic transformers and dimmable energy-efficient lamps. Optimized for dimming of Philips retrofit LEDs (LEDi). Parallel connection of channels to increase load capacity via wire jumpers possible. Status/state indication of the outputs via LED. Local operation even without bus voltage or in non-programmed state possible.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
4-fold, 210 VA	8	6197/12-101-500	6197-0-0036		1	0.42
4-fold, 315 VA	8	6197/13-101-500	6197-0-0037		1	0.42
6-fold, 315 VA	12	6197/14-101-500	6197-0-0038		1	0.91
4-fold, 600 VA	12	6197/15-101-500	6197-0-0039		1	0.91
1-fold, 1.260 VA	12	6197/52-101-500	6197-0-0040		1	
1-fold, 2.400 VA	12	6197/53-101-500	6197-0-0041		1	



6155/30-500

LED-Dimmer with constant curve, 1-4gang

NEW

Build-in LED-Dimmer for LED strips with constant curve. To control RGB or RGBW-LEDs. Grouping of channels possible. With Master/Slave-function.

Connections: KNX-line: Bus connection terminal. Rated voltage: 12 - 24 V. Output voltage: 12 V. Secondary: 24 V. Rated frequency: 600 Hz. Outputs: 4x dimming channel. Suitable for: DC. Rated current: 10 A. Rated power: 240 W. Protection class (Device): IP 20.

Temperature range (Device): -5 °C to 45 °C.

Dimensions: (L x W x D): 33 mm x 53 mm x 95 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6155/30-500	6151-0-0254		1	



6155/40-500

LED-Dimmer with constant curve, with power supply. 1-4gang

NEW

Build-in LED-Dimmer for LED strips with constant curve. To control RGB or RGBW-LEDs. With integrated power adapter. Grouping of channels possible. With Master/Slave-function.

Connections: KNX-line: Bus connection terminal. Rated voltage: 230 V~. Output voltage: 24 V~. Rated frequency: 600 Hz. Outputs: 4x dimming channel. Suitable for: DC.

Rated current: 4 A. Rated power: 100 W. Protection class (Device): IP 20.

Temperature range (Device): -5 °C to 45 °C.

Dimensions: (L x W x D): 45 mm x 53 mm x 226 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6155/40-500	6151-0-0256		1	

ABB i-bus® KNX

Illumination and Light Sensors



HS/S 4.2.1

Interface for Outside Light Sensor, MDRC

The device is used for the connection and evaluation of up to 3 Outside Light Sensors LFO/A 1.1. The Outside Light Sensors can be analysed individually or combined. Amongst others 10 logical switching channels for the evaluation of threshold values are provided. Threshold values can be adjusted directly on the device. The device can be used as a twilight switch (1 ... 100 lux) or as a light value switch (100 ... 20.000 lux). One Outside Light Sensor LFO/A 1.1 is supplied with the device.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	HS/S 4.2.1	2CDG120044R0011		1	0.24



LFO/A 1.1

Outside Light Sensor

Outside Light Sensor for the connection with the Interface HS/S 4.2.1.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	LFO/A 1.1	2CDG120045R0011		1	

ABB i-bus® KNX

Illumination and Light Sensors – Presence Detectors – Overview

A
8

	Mini Basic 6131/20-xxx-500	Mini Premium 6131/21-xxx-500	Basic 6131/30-xxx-500	Premium 6131/31-xxx-500	Sky 6131/40-xxx-500	Corridor Basic 6131/50-xxx-500	Corridor Premium 6131/51-xxx-500
General							
Supply voltage	KNX	KNX	KNX	KNX	KNX	KNX	KNX
Type of installation	flush-mounted/surface-mounted						
Programming button accessible from outside	■	■	■	■		■	■
Detection range diameter (sitting / walking person)					Corridor: only walking person		
Installation height 2.5 m	Max. 5.0 m/6.5 m	Max. 5.0 m/6.5 m	Max. 8.0 m/10.0 m	Max. 8.0 m/10.0 m	–	Frontal: max. 18 x 2,5 m; Lateral: max. 24 x 2,5 m	
Installation height 3.0 m	Max. 6.5 m/8.0 m	Max. 6.5 m/8.0 m	Max. 10.0 m/12.0 m	Max. 10.0 m/12.0 m	–	Frontal: max. 20 x 3 m; Lateral: max. 30 x 3 m	
Installation height 4.0 m	Max. 9.0 m/10.5 m	Max. 9.0 m/10.5 m	Max. 14.0 m/16.0 m	Max. 14.0 m/16.0 m	–	Frontal: max. 20 x 3 m; Lateral: max. 30 x 3 m	
Installation height 6.0 m	–	–	–	–	Max. 18.0 m	–	–
Installation height 12.0 m	–	–	–	–	Max. 24.0 m	–	–
Number of channels							
Movement detector	2	4 in total	2	4 in total	2	2	4 in total
Constant light switch	2		2		2	2	
Combination	1 x each		1 x each		1 x each	1 x each	
Constant light controller	–	2	–	2	–	–	2
Heating/cooling/ventilation systems (HVAC)	–	1	–	1	–	–	1
Infrared receiver, can be operated via IR remote control 6010-25	–	10 button pairs + 4 single buttons/ 24 single buttons	–	10 button pairs + 4 single buttons/ 24 single buttons	(only red for activation of the programming mode)	–	10 button pairs + 4 single buttons/ 24 single buttons
Two power-off stages							
Movement detector	■	■	■	■	■	■	■
Constant light control	–	■	–	■	–	–	■
Application							
Surveillance detector	■	■	■	■	■	■	■
Movement detector	■	■	■	■	■	■	■
Presence detector	■	■	■	■	–	■	■
Constant light switch	■	■	■	■	■	■	■
Controller independent of movement	–	■	–	■	–	–	■
Various							
Integrated object room temperature controller with temperature sensor	–	1	–	1	–	–	1
Brightness measurement	■	■	■	■	■	■	■
Calibration of brightness sensor via ETS group objects	■	■	■	■	■	■	■
Programming mode can be activated via IR remote control 6010-25	–	■	–	■	■	–	■
Programming LED can be activated via ETS group objects	■	■	■	■	■	■	■
Number of logic functions (4 different ones)	–	5	–	5	–	–	5

■ = Function is supported
– = Function is not supported

ABB i-bus® KNX

Illumination and Light Sensors



6131/20-24-500

Busch-Presence detector mini KNX 8 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.

Seated persons Ø: 5 m, 6,5 m and 9 m.

Walking persons Ø: 6,5 m, 8 m and 10,5 m.

Visible height 16 mm. With 2 channels.

Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Using the device as presence and/or movement detectors. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightnessdependent switching of two light bands in the area. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.

Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 80 mm x 80 mm x 45 mm. Mounting depth: 29 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6131/20-24-500	6132-0-0342		1	0.13
aluminium silver	–	6131/20-183-500	6132-0-0343		1	0.13



6131/21-24-500

Busch-Presence detector mini premium KNX 8 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.

Seated persons Ø: 5 m, 6,5 m and 9 m.

Walking persons Ø: 6,5 m, 8 m and 10,5 m.

Visible height 16 mm. With 4 channels. For dimming/brightness of the rules to a defined value in a designated collection area. HVAC function for controlling heating and/or cooling systems and ventilation systems in the designated collection area. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light controller with up to two independent channels. Constant light controller with max. 2 outputs for dimming daylight control/rules of two rooflights in the room. Integrated object room temperature controller. 10 freely programmable IR channels (white). Incl. 5 logic channels (logic gates, gates, delay and staircase lighting). Weighting of up to 2 external brightness values and the internal brightness sensor possible. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 80 mm x 80 mm x 45 mm. Mounting depth: 29 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6131/21-24-500	6132-0-0344		1	0.13
aluminium silver	–	6131/21-183-500	6132-0-0345		1	0.13

ABB i-bus® KNX

Illumination and Light Sensors

A
8



6131/30-24-500

Busch-Presence detector KNX 12 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.

Seated persons Ø: 8 m, 10 m and 14 m.

Walking persons Ø: 10 m, 12 m and 16 m.

Visible height 23 mm. With 2 channels. Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Using the device as presence and/or movement detectors. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightness-dependent switching of two light bands in the area. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.

Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack 1 pc.	Weight 1 pc. kg
studio white matt	–	6131/30-24-500	6132-0-0346		1	0.15
aluminium silver	–	6131/30-183-500	6132-0-0347		1	0.15



6131/31-24-500

Busch-Presence detector premium KNX 12 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.

Seated persons Ø: 8 m, 10 m and 14 m.

Walking persons Ø: 10 m, 12 m and 16 m.

Visible height 23 mm. With 4 channels. For dimming/brightness of the rules to a defined value in a designated collection area. HVAC function for controlling heating and/or cooling systems and ventilation systems in the designated collection area. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light controller with up to two independent channels. Constant light controller with max. 2 outputs for dimming daylight control/rules of two rooflights in the room. Integrated object room temperature controller. 10 freely programmable IR channels (white). Incl. 5 logic channels (logic gates, gates, delay and staircase lighting). Weighting of up to 2 external brightness values and the internal brightness sensor possible. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal.

Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m. Protection class

(Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack 1 pc.	Weight 1 pc. kg
studio white matt	–	6131/31-24-500	6132-0-0348		1	0.15
aluminium silver	–	6131/31-183-500	6132-0-0349		1	0.15

ABB i-bus® KNX

Illumination and Light Sensors

A
8



6131/40-24-500

Busch-Watchdog Sky KNX 24 meter

Detection range (for mounting height 6 m and 12 m): circular.

Walking persons Ø: 18 m, 24 m.

Visible height 23 mm. With 2 channels. Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Use of the device as a movement detector. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightnessdependent switching of two light bands in the area. With integrated KNX bus coupler. The programming button can be activated with the IR transmitter 6010-25 (-500). Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 4 m – 12 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6131/40-24-500	6132-0-0350		1	0.15



6131/50-24-500

Busch-Presence detector Corridor KNX 30 meter

NEW

Detection range: rectangular.

For mounting height 2.5 m: frontal approach max. 18 m x 2.5 m (per side max. 9 m x 2.5 m).

Lateral movement max. 24 m x 2.5 m (per side max. 12 m x 2.5 m).

For mounting height 3 m as well as 4 m: frontal approach max. 20 m x 3 m (per side max. 10 m x 3 m). Lateral movement max. 30 m x 3 m (per side max. 15 m x 3 m).

Visible height 27 mm. With 2 channels. Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Using the device as presence and/or movement detectors. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightnessdependent switching of two light bands in the area. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.

Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 91 mm x 91 mm x 49 mm. Mounting depth: 22 mm.

Expected availability February 2017

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6131/50-24-500	6132-0-0399		1	0.16
aluminium silver	–	6131/50-183-500	6132-0-0400		1	0.16

ABB i-bus® KNX

Illumination and Light Sensors

A
8



6131/51-24-500

Busch-Presence detector Corridor premium KNX 30 meter

Detection range: rectangular.

For mounting height 2.5 m: frontal approach max. 18 m x 2.5 m (per side max. 9 m x 2.5 m). Lateral movement max. 24 m x 2.5 m (per side max. 12 m x 2.5 m).

For mounting height 3 m as well as 4 m: frontal approach max. 20 m x 3 m (per side max. 10 m x 3 m). Lateral movement max. 30 m x 3 m (per side max. 15 m x 3 m).

Visible height 27 mm. With 4 channels. For dimming/brightness of the rules to a defined value in a designated collection area. HVAC function for controlling heating and/or cooling systems and ventilation systems in the designated collection area. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light controller with up to two independent channels. Constant light controller with max. 2 outputs for dimming daylight control/rules of two rooflights in the room. Integrated object room temperature controller. 10 freely programmable IR channels (white). Incl. 5 logic channels (logic gates, gates, delay and staircase lighting). Weighting of up to 2 external brightness values and the internal brightness sensor possible. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal.

Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.

Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 91 mm x 91 mm x 49 mm. Mounting depth: 22 mm.

Expected availability February 2017

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6131/51-24-500	6132-0-0411		1	0.16
aluminium silver	–	6131/51-183-500	6132-0-0412		1	0.16



6131/29-24-500

Surface-mounting box

For installing a Busch-Presence detector mini KNX 6131/20-xxx(-500) or a Busch-Presence detector mini premium KNX 6131/21-xxx(-500).

Protection class (Device): IP 20. Dimensions: (L x W x D): 80 mm x 80 mm x 35 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6131/29-24-500	6132-0-0351		1	0.08
aluminium silver	–	6131/29-183-500	6132-0-0352		1	0.08



6131/39-24-500

Surface-mounting box

For mounting a Busch-Presence detector KNX 6131/30-xxx(-500), a Busch-Presence detector premium KNX 6131/31-xxx(-500), a Busch-Presence detector Corridor KNX 6131/50-xxx(-500), a Busch-Presence detector Corridor premium KNX 6131/51-xxx(-500) or a Busch-Watchdog Sky KNX 6131/40-24(-500).

Protection class (Device): IP 20. Dimensions: (L x W x D): 91 mm x 91 mm x 33 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6131/39-24-500	6132-0-0353		1	0.10
aluminium silver	–	6131/39-183-500	6132-0-0354		1	0.10

ABB i-bus® KNX

Illumination and Light Sensors



6131/38-24

Intermediate ring for VDE flush-mounted box

NEW

A
8

For mounting a Busch-Presence detector KNX 6131/30-xxx(-500), a Busch-Presence detector premium KNX 6131/31-xxx(-500), a Busch-Presence detector Corridor KNX 6131/50-xxx(-500), a Busch-Presence detector Corridor premium KNX 6131/51-xxx(-500) or a Busch-Watchdog Sky KNX 6131/40-24(-500).

Protection class (Device): IP 20. Dimensions: (L x W x D): 91 mm x 91 mm x 22 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6131/38-24	6132-0-0401		1	0.08
aluminium silver	–	6131/38-183	6132-0-0402		1	0.08



6179/01-204-500

Busch-Watchdog 220 MasterLINE KNX

Sensor angle: 220° Range: approx. 16 m. With 2 movement channels. With 1 twilight channel with 3 switching thresholds. No remote control possible via IR remote control KNX. With integrated KNX bus coupler. No additional power supply necessary. Surveillance density: 92 sectors with 368 switching segments. Twilight sensor: approx. 1 – 1000 lux. Switch-off delay: approx. 10 sec to 1092 min.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpine white	–	6179/01-204-500	6132-0-0313		1	0.56
silver metallic	–	6179/01-208-500	6132-0-0314		1	0.56



6179/02-204-500

Busch-Watchdog 220 MasterLINE KNX premium

Sensor angle: 220° Range: approx. 16 m. With 4 movement channels. With 1 twilight / brightness channel with 3 switching thresholds. With 1 temperature channel with three switching thresholds. With 7-channel IR remote control. Remote control possible via IR remote control KNX 6179 (included in scope of delivery). With integrated KNX bus coupler. No additional power supply necessary. Surveillance density: 92 sectors with 368 switching segments. Twilight sensor: approx. 1–1000 lux; Brightness sensor: approx. 1 – 80 klux; Temperature sensor: approx. – 25 to + 55 °C; Switch-off delay: approx. 10 sec to 1092 min.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpine white	–	6179/02-204-500	6132-0-0317		1	0.56
silver metallic	–	6179/02-208-500	6132-0-0318		1	0.56



6179-500

IR Remote Control KNX

For Busch-Watchdog 220 MasterLINE KNX premium. The functions can be freely assigned. With coded transmission signal. Power supply: lithium button cell battery. Type CR2025 (included in delivery). Battery life: typically 2 years. Rated voltage: 3 V, Protection class (Device): IP 40, Temperature range (Device): 0 °C – 45 °C, Dimensions: (L x W x D): 86 mm x 40 mm x 7 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
grey / anthracite	–	6179-500	6132-0-0320		1	0.58

Influencing Variables on Room Temperature

Internal and external factors have an effect on the thermal conditions in a room or a building. As an external factor the solar radiation is important for the indoor temperature – particularly with regard to modern architecture with glass fronts. Besides this, the room temperature is strongly affected by the exchange of thermal energy through windows and walls as well as the loss of thermal energy through open doors and windows.

Depending on the intensity, all this interactions influence also the energy efficiency of a building and have therefore to be optimised.

Internal thermal inputs from lighting, devices or persons have also an influence on the room climate. By planning a heating, ventilation or air conditioning system all this internal and external factors have to be considered.

Influencing Variables on Air Quality

The indoor climate in living and working areas has a scientifically proven impact on health, job performance and well-being of people. A suitable indicator for determination of the room air quality is the CO₂ concentration. In addition the values for room temperature and air humidity must be controlled to meet the requirements for a comfortable room climate.

Studies have shown, that high CO₂ concentration in the air influences the well-being as well as the performance and learning ability of people. Besides the normal CO₂ concentration in the air, human respiration is an important factor increasing the CO₂ concentration in a room. Therefore it is important to measure the CO₂ concentration in rooms where many persons are present (schools, conference rooms, open-plan offices). Monitoring of thresholds enables fans to be switched via ABB i-bus KNX allowing automatic control of the CO₂ concentration and sufficient supply of fresh air.

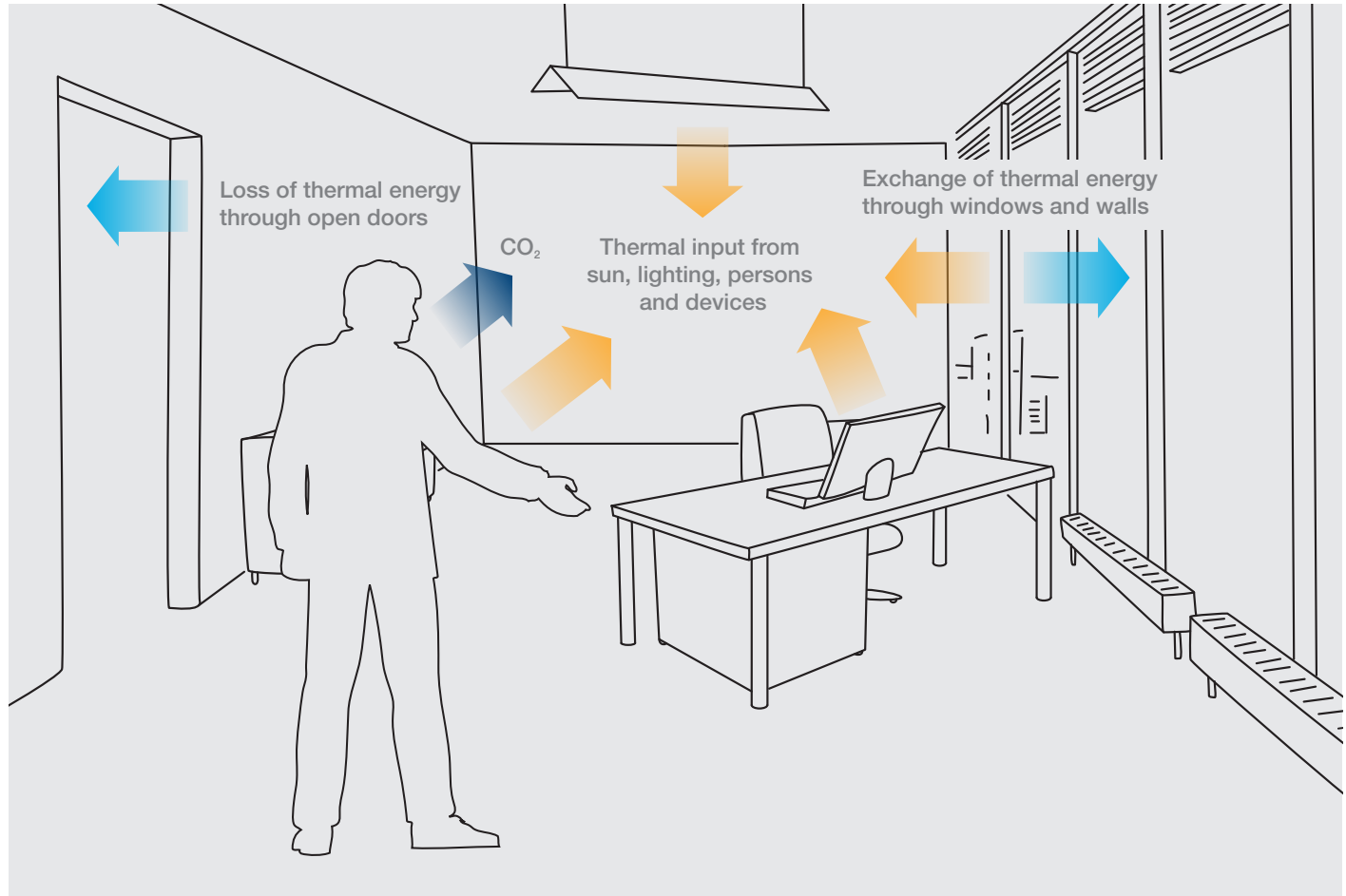


ABB i-bus® KNX

Heating and Cooling – Room Thermostat FanCoil

Living and working with a feeling of well-being. And here the air in the room is one of the most important factors. Because the body takes an ideal temperature for granted and therefore easily reacts to changes. Heated or air-conditioned rooms can be optimally adjusted – to a consistently pleasant ambience.

The KNX Fan Coil room temperature controller for stand-alone applications.

The Fan Coil room temperature controller with display is a room temperature controller for ventilator convectors or conventional systems for heating and cooling. This option offers complete air-conditioning for rooms. The temperature can be adjusted precisely for personal comfort. The fan speeds can be selected by push buttons. Even very large rooms can be heated or cooled to a comfortable temperature quickly – with additional air-conditioning units. The KNX Fan Coil room temperature controller can be operated individually. The bus coupler is integrated into the control element.

Function

- Temperature sensor
- RTC setting
- Illuminated display
- Fan Coil operation for heating and cooling

Features

- Very easy to operate with large, clear display
- Complete air conditioning
- Fan speeds can be manually selected
- Integrated bus coupler
- Surface-mounted, independent switching program
- Colours: studio white, aluminium silver



ABB i-bus® KNX

Heating and Cooling – Valve Control – Overview

A
9

	Electronic Switch Actuator	Electronic Relay	Valve Drive Actuator	Valve Drive Actuator
	ES/S x.1.2.1 (x = 4/8)	ER/U 1.1 (in combination with US/U x.2 (x = 2/4))	VAA/S x.230.2.1 (x = 6/12)	VAA/S 6.24.2.1
General				
Supply voltage	KNX	24...250 V AC/DC	KNX	230 V AC (+10/-15 %)
Type of installation	MDRC	Flush-mounted	MDRC	Wall (surface) or on mounting rail
Module width (18 mm)	4/8	–	4/8	–
Rated current (per channel)	1 A (resistive load)	0.5 A (resistive load)	160 mA (resistive load)	1 A
Inrush current (per channel)	8 A (1 s, Tu = 20 °C)	1.2 A (1 min.)	300 mA (2 min., Tu = 60 °C)	– (1 A)
Number of electrothermal valve drives (per channel)	10 (230 V) 3 (24 V)	2 (230 V) 2 (24 V)	3 (230 V) 1 (24 V)	4
Outputs				
Number	4/8	1	6/12	6
Type	Electrothermal or motor valve drives	Electrothermal valve drives	Electrothermal valve drives	Electrothermal valve drives
Output voltage	24...230 V AC/DC (±10 %)	24...250 V AC/DC	24...230 V AC	24 V AC (±20 %)
Manual operation				
Operation of the outputs	■	–	■	–
Fault acknowledgement	■	–	■	–
Function:				
Operation mode Valve drive, Electrothermal/motor valve drives				
Forced operation	■	■ (via US/U x.2)	■	■
Status	■	–	■	–
Adjustable control value after controller fault	■	■ (via US/U x.2)	■	–
Valve purge	■	■ (via US/U x.2)	■	■
Characteristic curve adaption	■	–	■	–
Blocking	■	–	■	–
Operation mode Switch actuator				
Time:	■	–	–	–
Staircase lighting, delay, flashing	■	–	–	–
8-bit scene	■	–	–	–
Logical functions	■	–	–	–
Safety settings	■	–	–	–
Threshold values	■	–	–	–

■ = Function is supported

– = Function is not supported

ABB i-bus® KNX

Heating and Cooling



ES/S 4.1.2.1

Electronic Switch Actuator, 4-fold, 1 A, MDRC

Controls thermoelectric valve drives (e.g. TSA/K) in heating and cooling systems. Each output (24...230 V AC/DC) is protected against short-circuit and overload. With manual operation and status display for each output.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
4-fold	4	ES/S 4.1.2.1	2CDG110058R0011		1	0.25
8-fold	8	ES/S 8.1.2.1	2CDG110059R0011		1	0.38



ER/U 1.1

Electronic Relay, 1-fold, FM

The device combination with the Universal Interface US/U and a room thermostat noiselessly controls the heating system and chilled ceiling temperature via thermo-electric valve drives e.g. TSA/K, 24 V...230 V AC/DC).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	ER/U 1.1	GHQ6310044R0111		1	0.08
2-fold	–	US/U 2.2	GHQ6310074R0111		1	0.06
4-fold	–	US/U 4.2	GHQ6310070R0111		1	0.06



VAA/S 6.230.2.1

Valve Drive Actuator, 230 V, MDRC

Controls thermoelectric valve drives (e.g. TSA/K) in heating or cooling systems. Each three outputs are protected against short-circuit and overload. With manual operation and status display.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
6-fold	4	VAA/S 6.230.2.1	2CDG110116R0011		1	0.17
12-fold	8	VAA/S 12.230.2.1	2CDG110117R0011		1	0.3



VAA/A 6.24.1

Valve Drive Actuator, 6-fold, 24 V, SM

In conjunction with the thermostat it controls up to 13 thermoelectric valve drives (24 V), max. 4 per channel. The device is suitable for the installation in heating circuit distribution systems where the application of a triac ensures noiseless switching of the drives. Mains plug on the transformer (230 V) for ease of installation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	VAA/A 6.24.1	2CDG120032R0011		1	1.8

	Blower Actuators		FanCoil Actuators			
	FCL/S 1.6.1.1	FCL/S 2.6.1.1	FCA/S 1.1.1.2	FCA/S 1.1.2.2	FCA/S 1.2.1.2	FCA/S 1.2.2.2
General						
Supply voltage	KNX	KNX	KNX	KNX	KNX	KNX
Type of installation	MDRC					
Module width (18 mm)	4			6		
Current consumption, bus	< 12 mA					
Manual operation	–	–	–	■	–	■
Fan outputs						
Number of fans	1	2*	1	1	1	1
Supported fan types:						
1/2/3 step or	■	■	■	■	■	■
3 individual contacts	–	–	■	■	■	■
Rated current I _n	6 A					
Rated voltage U _n	250/440 V AC (50/60 Hz)					
Valve outputs						
Electronic 0.5 A	–	–	4	4	–	–
Analog 0...10 V	–	–	–	–	2	2
Control individual	–	–	■	■	■	■
Supported valve types:						
Thermoelectric valve drive (PWM)	–	–	4	4		
Motor-driven valve drive (3-point)	–	–	2	2		
Analog valve drive	–	–	–	–	2	2
Valve type can be mixed	–	–	■	■	–	–
Switching contact						
Number of contacts	1	2 (5)*		1		
Rated current I _n	6 A		16 A	20 A	16 A	20 A
Rated voltage U _n	250/440 V AC (50/60 Hz)					
Inputs						
Number of inputs	–	–	3	3	3	3
Supported sensors:						
Switch sensor	–	–	■	■	■	■
Value/forced operation	–	–	■	■	■	■
Temperature sensor	–	–	■	■	■	■
Fan Coil type						
2 pipe						
Heating	–	–	■	■	■	■
Cooling	–	–	■	■	■	■
Heating/Cooling	–	–	■	■	■	■
4 pipe						
Heating/Cooling	–	–	■	■	■	■
Various						
Parallel operation	–	–	■	■	■	■
Commissioning and diagnostic function						
Control and diagnosis via ABB i-bus® Tool	–	–	■	■	■	■

■ = Function is supported
 – = Function is not supported

* Second fan output can be used as 3 switch outputs

ABB i-bus® KNX

Heating and Cooling



FCL/S 2.6.1.1

Blower Actuator, 6 A, MDRC

to control blowers or fans with up to three fan speeds via step or changeover control. The FCL/S 1.6.1.1 have one fan output and one additional floating switch output. The FCL/S 2.6.1.1 feature two fan outputs plus two floating switch outputs. Alternatively the second fan output can be used as three switch outputs.

The fan speed can be directly chosen, increased and decreased as well as controlled by the control value of a closed-loop controller.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold	4	FCL/S 1.6.1.1	2CDG110163R0011		1	0.18
2-fold	6	FCL/S 2.6.1.1	2CDG110164R0011		1	0.26



FCA/S 1.1.2.2

Fan Coil Actuator, PWM, MDRC

For the control of typical blower convectors via four electronic outputs for thermoelectric or motor-driven valve drives. Furthermore, three outputs for individual fan speeds are provided. An additional load output switches an additional load (up to 16 A), such as auxiliary heating. Window contacts, condensed water signals and temperature signals can be read via three universal inputs and transferred via KNX bus. The FCA/S 1.1.2.2 features an easy to use manual operation and enables quick commissioning. The Fan Coil Actuator supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Without manual operation	6	FCA/S 1.1.1.2	2CDG110195R0011		1	0.34
With manual operation	6	FCA/S 1.1.2.2	2CDG110194R0011		1	0.34



FCA/S 1.2.2.2

Fan Coil Actuator, 0-10V, MDRC

For the control of typical blower convectors via two analogue outputs for 0...10 V valve drives. Furthermore, three outputs for individual fan speeds are provided. An additional load output switches an additional load (up to 16 A), such as auxiliary heating. Window contacts, condensed water signals and temperature signals can be read via three universal inputs and transferred via KNX bus. The FCA/S 1.2.2.2 features an easy to use manual operation and enables quick commissioning. The Fan Coil Actuator supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Without manual operation	6	FCA/S 1.2.1.2	2CDG110196R0011		1	0.34
With manual operation	6	FCA/S 1.2.2.2	2CDG110193R0011		1	0.34

ABB i-bus® KNX Heating and Cooling

A
9



6138/11-84-500

Room Thermostat Fan Coil with Display, SM

Sends control values for the room to the Fan Coil Actuators or devices with the respective outputs (e.g. Room Master). The intuitive control operation allows each user to individually set the room temperature and the fan speed. The large LC display can display the actual and target temperatures, the current operating mode as well as the fan speeds. **With integrated Bus Coupler.**

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpine white	–	6138/11-84-500	6138-0-0003		1	0.092
aluminium silver	–	6138/11-83-500	6138-0-0005		1	0.092



FC/S 1.1

Fan Coil Controller, MDRC

It controls motor-driven and thermoelectric valve drives as well as multi-speed fans. Control without further additional components can be undertaken in combination with the optional Temperature Sensor TS/K. There are two binary inputs available for 24 V AC signal contacts for window contact or dew point signals. A 230 V power supply is required.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	6	FC/S 1.1	2CDG120001R0011		1	0.5
Temperature Sensor for FC/S 1.1	–	TS/K 1.1	2CDG120002R0011		1	0.055



LGS/A 1.1

Air Quality Sensor, SM

Accurately measures the CO₂ concentration, humidity and temperature in a room. Three independent thresholds can be set for the CO₂ concentration and the relative humidity in addition to a threshold for the temperature. Exceeding or underrunning the thresholds can trigger a response. Disable object for every threshold. Measured variables can be transmitted directly on the bus. Communication object "Ventilation" is used for RPM control or as a position indicator for the ventilation flaps. Maintenance free sensor. The sensor is powered via the bus. **With integrated Bus Coupler.**

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	LGS/A 1.1	2CDG120038R0011		1	0.136



ST/K 1.1

Electromotor Valve Drive

The drive is a proportional valve drive for controlling heating valves and is mounted on thermostat valve bases. Valve Adapters VA10, VA78 for conventional valves are supplied. The control is carried out via a continuous KNX room thermostat. The actual valve position is indicated by 5 LEDs. The valve drive has two binary inputs for a presence contact and/or window contact and for further signal indication. **With integrated Bus Coupler.**

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	ST/K 1.1	2CDG120004R0011		1	0.32

ABB i-bus® KNX

Heating and Cooling



TSA/K 230.2

Thermoelectric Valve Drives

For opening and closing valves in heating, ventilation and air-conditioning systems. Both variants (230 V and 24 V) feature a plug-in connection cable (1 m) and a splash-proof housing. The mounting on the valve is easily implemented using the Valve Adapter VA/Z xx.1.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
230 V	–	TSA/K 230.2	2CDG120049R0011		1	0.16
24 V	–	TSA/K 24.2	2CDG120050R0011		1	0.16
Valve Adapter for valves from Dumser, Chronatherm, Vesca, KaMo	–	VA/Z 10.1	2CDG120009R0011		1	0.06
Valve Adapter for valves from Honeywell, Reich, Cazzaniga, Landis & Gyr. MNG	–	VA/Z 50.1	2CDG120010R0011		1	0.05
Valve Adapter for valves from Danfoss RA	–	VA/Z 78.1	2CDG120011R0011		1	0.03
Valve Adapter for valves from Heimeier, Herb, Onda, Schlösser (ab 93), Oventrop	–	VA/Z 80.1	2CDG120012R0011		1	0.06

Simply logical

The new ABB i-bus® KNX Logic Controller ABA/S 1.2.1

A
10

With the new ABB Logic Controller ABA/S 1.2.1 system integrators can quickly and flexibly deal with the most challenging project requirements – with a maximum of design freedom. That is because the logic controller can easily and reliably accommodate altered or extended functionality requests during construction or usage of buildings. The Logic Controller comes in a newly developed housing for mounting on a DIN rail enabling easy dismounting without the necessity for a tool.

What makes the device so compelling is not just the graphical programming interface in the ETS software environment. It comes also with a comprehensive library of functions to control all building applications. The library includes solutions for heating, ventilation and climate control. The installation of extra software is not necessary. Another benefit is the innovative technology. The device uses state-of-the-art and energy-efficient microcontroller technology.

Furthermore, the system comes with a simulator function. Using simulation the system integrator is able to make sure that the logic controller performs all commands correctly before commissioning the device on the project's site.

Adjusting the settings later – according to a possible changed building usage – is easy and cost-effective for the system integrator. Thus the Logic Controller is a reliable companion for KNX system integrators to successfully implement their projects.

Benefits:

- Maximum design freedom for KNX system integrators by easily extending functionality during a building's construction and usage
- Graphical programming interface in ETS software environment without the need to install additional software
- Comprehensive library of functions for all typical building applications
- Inbuilt simulator facilitates efficient and reliable commissioning on the project's site. All functions can be tested before going live
- Newly developed housing enabling dismounting on DIN rail without any tools



ABB i-bus® KNX

Control, Logic and Time – Overview

	Logic Module LM/S 1.1	Application Unit, Logic ABL/S 2.1	Application Unit, Time ABZ/S 2.1	Logic Controller ABA/S 1.2.1
General				
Supply voltage	KNX	KNX	KNX	KNX
Network connection	–	–	–	■
Type of installation	MDRC			
Module width (18 mm)		2		4
Software function				
Logic gates	■	■	–	■
Gate/filter	■	■	–	■
Multiplexer	–	–	–	■
Flip Flop	–	–	–	■
PID Controller	–	–	–	■
Composite function blocks	–	–	–	■
Time delay	■	■	–	■
Staircase lighting/Pulse duration	■	■	–	■
Calculation	□	–	–	■
Min./Max.	■	■	–	■
Comparator/Threshold	■	■	–	■
Format converter	■	–	–	■
Counter	■	–	–	■
Calendar switch program	–	–	■	■
Day routines	–	–	■	■
Week routines	–	–	■	■
Year routines	–	–	■	■
Special days	–	–	■	–
Daylight saving times	–	–	■	–
Telegram multiplier	■	–	■	■
Logic simulation	–	–	–	■
Webserver	–	–	–	■
Programming via KNX	■	■	■	■
Programming via network	–	–	–	■
Store values on power failure	■	■	■	■
Max. number of function elements	3	140	30	> 3000

- = Function is supported
- = Function is not supported
- = Limited functions

ABB i-bus® KNX

Control, Logic and Time

A
10



LM/S 1.1

Logic Module, MDRC

Used to solve a varied range of project-specific control tasks and can implement 3 functions simultaneously. The following functions are available for selection: logic gate, filter, time delay, multiplier, min/max value detector, temperature comparator, toggle values, threshold detection, format converter, scenes, increment/decrement values, staircase lighting.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	LM/S 1.1	GHQ6310080R0111		1	0.1



ABL/S 2.1

Application Unit, Logic, MDRC

Allows the compilation of complex logical functions by simply combining different logic elements and gates using a graphical user interface as an ETS plug-in and does not require additional software. 50 logical elements, 50 gates, 30 timer modules and 10 comparators are available.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	ABL/S 2.1	2CDG110073R0011		1	0.12



ABZ/S 2.1

Application Unit, Time, MDRC

It provides a yearly time clock program with 15 daily routines (800 switching events), a weekly schedule and allowance for 100 special days. Additionally, the unit can control up to 300 participants in 30 macro groups, that can be triggered using a single command. In this way, each time controlled switching event can cause a series of actions. The switching times can be modified with the free PZM software without using ETS. PZM Software and additional information on www.abb.com/knx.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	ABZ/S 2.1	2CDG110072R0011		1	0.12



ABA/S 1.2.1

Logic Controller, MDRC

NEW

The device provides extensive logic functions. The logic is defined via a graphic editor integrated in the ETS. Up to 3000 logic gates are possible.

The generated logic can be tested by a simulation function. User-defined function blocks can be created and saved for taking them over into other projects.

The device requires an auxiliary voltage, either 24 V DC or Power over Ethernet (PoE). If timer functions are used the date and time has to be provided via KNX/TP.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	ABA/S 1.2.1	2CDG110192R0011		1	

ABB i-bus® KNX

Control, Logic and Time



FW/S 8.2.1

Radio Time Switch, 8-channel, MDRC

The Radio Time Switch sends current time and date on the bus. The time can be optionally received via a DCF or GPS antenna. Furthermore the device can be used to easily adjust the time programs.

The device provides 8 channels. Every channel supplies an independent daily, time and/or yearly program. Additionally, special programs (e.g. for vacation or public holiday days) are possible.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	3	FW/S 8.2.1	2CDG120039R0011		1	0.33



FAD/A 1.1

DCF Antenna for Radio Time Switch

For the connection to the Radio Time Switch FW/S 8.2.1. The time signal from the DCF 77 transmitter can be received within a radius of approx. 1000 km around Frankfurt.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	FAD/A 1.1	2CDG120040R0011		1	0.17



FAG/A 1.1

GPS Antenna for Radio Time Switch

For the connection to the Radio Time Switch FW/S 8.2.1. The device receives time and date via GPS signal which is available worldwide.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	FAG/A 1.1	2CDG120041R0011		1	0.21



PS/E 2.1

Programming Set OBELISK top2 for Radio Time Switch

The programming set contains a CD ROM with the Obelisk top2 for the creation of switching programs for the Radio Time Switch FW/S 8.2.1, a memory card PK/E 2.1 for transferring switching programs to the Radio Time Switch and a USB programming adapter for the memory card.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	PS/E 2.1	2CDG120042R0011		1	0.20



PK/E 2.1

Memory Card OBELISK top2

The memory card can be used for transferring switching programs to Radio Time Switch.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	PK/E 2.1	2CDG120043R0011		1	0.02

ABB i-bus® KNX

Visualisation, Display and Signalling

A
11



UK/S 32.2

Universal I/O Concentrator, 32-fold, MDRC

Used to connect push buttons or signal lamps, e.g. to an operating/display tableau. It has 32 channels which can be freely parameterised as inputs/outputs using the ETS software. The device requires an external 12 or 24 V DC auxiliary power supply, (e. g. NT/S 24.800).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	UK/S 32.2	2CDG110071R0011		1	0.18



MT 701.2, WS
with T-RAHM, WS

Control and Display Tableau, LCD

For indication of switching status, fault reports and measurement values. Using the robust push buttons, electrical consumers can be manually switched, values can be set in addition to timer programs and light scenes. The alarms can also issue an acoustic warning. The FM wall box simplifies mounting.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
white	–	MT 701.2, WS	GHQ6050059R0005		1	1.16
silver	–	MT 701.2, SR	GHQ6050059R0006		1	1.24
Coverframe, white	–	T-RAHM, WS	GHQ6050059R0011		1	0.16
Coverframe, silver	–	T-RAHM, SR	GHQ6050059R0012		1	0.17
Wall box	–	UP-KAST 2	GHQ6050059R0014		1	0.44

Notes

ABB i-bus® KNX

Visualisation, Display and Signalling – Busch-ComfortTouch®

A
11

Simplicity and user-friendliness. The Busch-ComfortTouch® not only offers an extremely versatile range of switching and control functions for KNX systems, but also satisfies the highest design requirements. Its visualisation lifts intuitive operation to a whole new level.



01



02



reddot design award
winner 2013

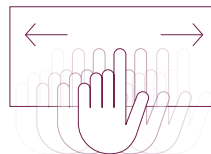


03



04

Busch-ComfortTouch® unites the functions of a home control system with an information and entertainment centre. You can use Busch-ComfortTouch® to switch lamps on and off, dim them, control blinds, set room temperature or select scenes by combining functions – even via remote control.



These functions are of interest not only for private households – the system is often used in doctors' surgeries, offices, restaurants or stores to provide attractive lighting, soft background music or comfortable room climates. A presence-simulation function and alarm message display provide added security. It is also possible to display images from surveillance cameras. The system can be connected to the Internet, enabling you to call up e-mails, the latest stock market news, the weather forecast or traffic information. Operation is simple and easy via touchscreen. A menu created individually for the user with clearly assigned buttons and a unique colour-coding concept allows simple and intuitive operation.

01 **Busch-ComfortTouch® 12.1**
glass black

02 **Busch-ComfortTouch® 12.1**
white glass

03 **Busch-ComfortTouch® 9**
glass black

04 **Busch-ComfortTouch® 9**
white glass



Colours that make life easier. A colour-coding concept and durable LED technology make Busch-ComfortTouch® extremely easy to operate. The colouring provides feedback on the function currently selected. Yellow for lighting, blue for blind control, magenta for scenes and orange for heating control.

Door communication



Video surveillance



Media player



Control of household appliances



The system is controlled via the Busch-ComfortTouch® – it couldn't be easier. Buttons with text and symbols allow intuitive operation. Just a touch of the finger, and you can call up the MP3 player and play individual titles or playlists. And the volume is regulated via the panel, too. The ideal solution, not only for homes – the system is, for example, popular in restaurants. No more CDs lying around, no more finding space for a conventional hi-fi system. The system can also be used to call up light scenes for various situations, from a cosy dinner at home to night-time lighting for store

windows, at the press of a button or via a time-controlled function. Another useful feature is the handy memo field allowing you to write text by hand – use it, for example, to write a shopping list or to leave messages for others. Colour pictures from surveillance cameras on stairways or outside the building can be called up on the display, offering added security. This allows you to keep an eye on the building at all times – handy, for example, for checking the surrounding area before opening the door for customers in the morning or when the doorbell rings.

ABB i-bus® KNX

Visualisation, Display and Signalling

A
11



6136/07-811-500

Busch-SmartTouch® 7"

NEW

Free programmable KNX touch display as a control, notification and operation center for the entire house. Works as a video indoor station with the ABB-Welcome Door Entry System. During the conversation a picture of the visitor can be taken and stored in the picture memory. For the display and operation of the following KNX standard functions: switching, dimming, slider, blind, RGBW LED control, step switch, RTC, scene switch, display element, audio control. With scene and logic functions, presence simulation and time programs. Displays alerts and malfunctions. Available with induction loop for connecting to hearing aid devices. Programmable with up to 16 functions per page. External power supply: 20 – 32 V DC (SELV) or through the ABB-Welcome bus. The freely programmable touch display (7") comes with a resolution of 1024 x 600.

Expected availability April 2017

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
white glass	–	6136/07-811-500	6136-0-0205		1	
black	–	6136/07-825-500	6136-0-0206		1	



6136/27-811-500

Surface Mounting Frame for SmartTouch

NEW

Surface mounting frame for mounting the Busch-SmartTouch 7" 6136/07-8xx-500 on:

- standard flush mounted wall box VDE & BS
- flush mounted installation box (6136/UP) or
- to be mounted directly on the wall
- to be mounted on the ABB-Welcome table stand

Expected availability April 2017

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
white	–	6136/27-811-500	6136-0-0209		1	
black	–	6136/27-825-500	6136-0-0210		1	



6136/07 UP-500

Flush Mounted Wall Box for SmartTouch

NEW

For flush mounting and hollow panel mounting of the Busch-SmartTouch 7" 6136/07-8xx-500. Windproof.

Dimensions flush mounting (H x W x D): 152 mm x 235 mm x 60 mm.

Dimensions hollow wall (H x W x D): 146 mm x 227 mm x 50 mm.

Expected availability April 2017

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6136/07 UP-500	6136-0-0212		1	



CP-D 24/2.5

Power Supply, 24 V, 2.5 A, MDRC

For Busch-SmartTouch® 7" 6136/07-8xx-500, Busch-priOn® Power Bus Coupler 6120/13-500 and Busch-ControlTouch® 6136/APP-500.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	CP-D 24/2.5	2CDG120037R0011		1	

ABB i-bus® KNX

Visualisation, Display and Signalling



8136/09-811-500

Busch-ComfortTouch® 9"

Free programmable IP/KNX touch display can be used as a control, infotainment and entertainment centre for the whole house With a closed capacitive glass surface and a design strip made of stainless steel (brushed). With integrated camera and proximity sensor. Easy control using intuitive navigation concept. House control: switching, dimming, blinds, RTR, scene/sequences, timed controls Entertainment: Multimedia, remote control RC5 and B&O. Infotainment: IP telephony, RSS reader, intercom with picture, e-mail, voice and graphic memo, consumption data monitoring. Door communication: Indoor station for the ABB-Welcome system in combination with IP gateway 83341. Safety: video surveillance with IP cameras, alarm function, message function, presence simulation. Representation from individual floor plans, room images and operation pages. 23 cm (9") Touch-display with 800 x 480 pixel Compatible with ABB i-bus® KNX Maintenance via remote control over IP. Control with smartphones and tablets via the ComfortTouch App (Apple iOS /Google Android from Version 4).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
white glass	–	8136/09-811-500	8136-0-0024		1	
black	–	8136/09-825-500	8136-0-0026		1	



8136/12-811-500

Busch-ComfortTouch® 12.1"

Free programmable IP/KNX touch display can be used as a control, infotainment and entertainment centre for the whole house With a closed capacitive glass surface and a design strip made of stainless steel (brushed). With integrated camera and proximity sensor. Easy control using intuitive navigation concept. House control: switching, dimming, blinds, RTR, scene/sequences, timed controls Entertainment: Multimedia, remote control RC5 and B&O. Infotainment: IP telephony, RSS reader, intercom with picture, e-mail, voice and graphic memo, consumption data monitoring. Door communication: Indoor station for the ABB-Welcome system in combination with IP gateway 83341. Safety: video surveillance with IP cameras, alarm function, message function, presence simulation. Representation from individual floor plans, room images and operation pages. 31 cm (12.1") touchdisplay with 1280 x 800 pixel. Compatible with ABB i-bus® KNX Maintenance via remote control over IP. Control with smartphones and tablets via the ComfortTouch App (Apple iOS /Google Android from Version 4).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
white glass	–	8136/12-811-500	8136-0-0028		1	
black	–	8136/12-825-500	8136-0-0030		1	



6186/01 UP-500

Power adapter module ABB i-bus® KNX

Power adapter for the power supply of Comfort-Touch 8136/09-... and 8136/12-.... With integrated KNX bus coupler for the establishment of the local bus connection to the ABB i-bus® KNX. With integrated audio outputs (LineOut). Rated voltage: 110 V~ – 230 V~, +10% / –10%. Rated frequency: 50 Hz – 60 Hz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6186/01 UP-500	6186-0-0023		1	

ABB i-bus® KNX

Visualisation, Display and Signalling

A
11



8136/01 UP-500

Flush-mounted installation box

For flush-mounted and hollow-wall installation of the Busch-ComfortTouch® 8136/09-..., 8136/12-... . Windproof.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	8136/01 UP-500	8136-0-0032		1	



6136/UP

Flush-mounted installation box

For flush-mounted and hollow-wall installation of the Busch-ComfortTouch 8136/09..., 8136/12-... .

Dimensions (H x W x D): 163.5 mm x 199 mm x 60 mm. Mounting depth: 60 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6136/UP	6136-0-0124		1	



6136/100 C-102-500

Controlpanel SMARTtouch

to be discontinued

The SMARTtouch (210 functions) offers a colour touch display. The panels clearly display switch states, error messages and measured values, and allow comfortable operation and setting of timing programs and light scenes. Acoustic warnings or alarm functions can be programmed. The integrated room thermostat can be integrated into room climate control. Commissioning is via the bus or multimedia card/SD card. For flush mounting in walls and hollow panels the wall box 6136/UP can be used.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
SMARTtouch, colour (210 functions)	–	6136/100 C-102-500	6136-0-0185		1	
Bang & Olufsen, colour (210 functions)	–	6136/100 CB-102	6136-0-0186		1	



6136/15-500

Design Frame for SMARTtouch

to be discontinued

Design frame made of real metal for 6136/100C xxx, 6136/100CB xxx, 6936/100C xxx, 6936/100CB xxx. Real metals: Dark glass with flap in chrome, dark glass with flap in aluminium, white glass satin finish with flap in aluminium.

Dimensions (H x W x D): 184.6 mm x 218 mm x 9 mm.

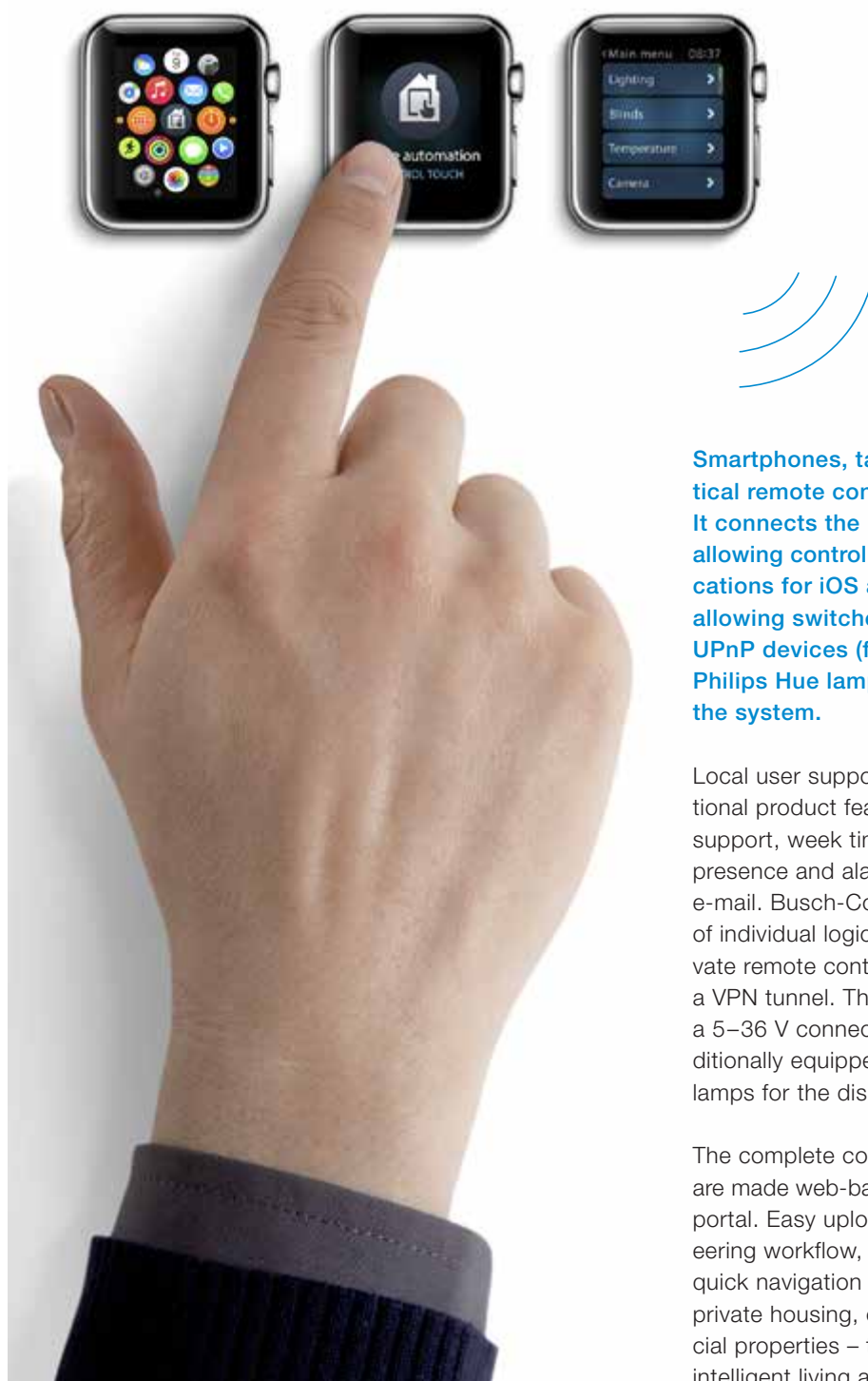
Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Dark glass with flap in chrome	–	6136/10-500	6136-0-0139		1	
Dark glass with flap in aluminium	–	6136/11-500	6136-0-0141		1	
White glass, satin finish with flap in aluminium	–	6136/15-500	6136-0-0196		1	

Busch-ControlTouch® KNX

Easy KNX remote control with mobile device

Busch-ControlTouch® KNX. Previously only operated via the Busch-ComfortTouch® or via a switch, the KNX system can now be operated remotely using a smart device. Clear control for installer and customer alike.

A
11



Smartphones, tablets and smartwatches turn into a practical remote control, thanks to Busch-ControlTouch® KNX. It connects the KNX installation with the IP network, allowing control of all KNX functions in the building. Applications for iOS and Android create intuitive operation, allowing switches, dimmers, blinds, scenes, IP cameras, UPnP devices (for instance Sonos wireless boxes), Philips Hue lamps and many more to be integrated into the system.

Local user support can assign roles with user rights. Additional product features include Scene Editor, RGB/RGBW support, week timer with practical astro function, optional presence and alarm notifications via push messages or e-mail. Busch-ControlTouch® KNX also enables the creation of individual logic scripts. The end customer can also activate remote control via ETS programming, without requiring a VPN tunnel. The compact system has a KNX, a LAN and a 5–36 V connection for an external power adaptor. It is additionally equipped with two buttons for restarts and two LED lamps for the display of status and connection.

The complete commissioning of the module and the changes are made web-based via the myABB-LivingSpace Internet portal. Easy upload from ETS projects allows a smooth engineering workflow, reducing time and money. GridView allows quick navigation and operation within two clicks. Suitable for private housing, offices, large housing complexes or commercial properties – the Busch-ControlTouch® KNX takes modern, intelligent living and working to the next level.

ABB i-bus® KNX

Visualisation, Display and Signalling

A
11



6136/APP-500

Busch-ControlTouch®, MDRC

NEW

Freely programmable IP-/KNX gateway as multi-room app control for the KNX system.

MDRC devices with associated IOS and Android apps.

Easy control using intuitive navigation concept.

Representation of individual operating pages with list view.

Complete web-based commissioning.

Home automation, switching, dimming, blind, RTC control, scene/sequences, timing, Philips Hue.

Entertainment: multimedia integration via UPnP.

Infotainment: monitoring of usage data for up to 3 years.

Safety: video surveillance with IP cameras, message function via push messages or e-mail.

Time programs and scenes can be created by the end customer.

Access via KNXnet/IP tunnelling.

Script editor for logic functions.

Compatible with ABB i-bus® KNX

Control with smartphones and tablets via the ControlTouch app (Apple iOS /Google Android).

External power supply: 5-36 V DC (SELV).

Control element: freely programmable touch surfaces,

Rated voltage: 5 V- - 36 V-, Bus voltage: 24 V-,

Protection class (Device): IP 20, Temperature range (Device): 0 °C to 70 °C,

Dimensions: (L x W x D): 90 mm x 72 mm x 60 mm, Module width: 4 MW, Position for installation: Horizontal

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	6136/APP-500	6136-0-0202		1	



CP-D 24/2.5

Power Supply, 24 V, 2.5 A, MDRC

For Busch-SmartTouch® 7" 6136/07-8xx-500, Busch-priOn® Power Bus Coupler 6120/13-500 and Busch-ControlTouch® 6136/APP-500.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	CP-D 24/2.5	2CDG120037R0011		1	

Notes

A
11

ABB i-bus® KNX

Operation – Unique diversity of the range

A
12

01



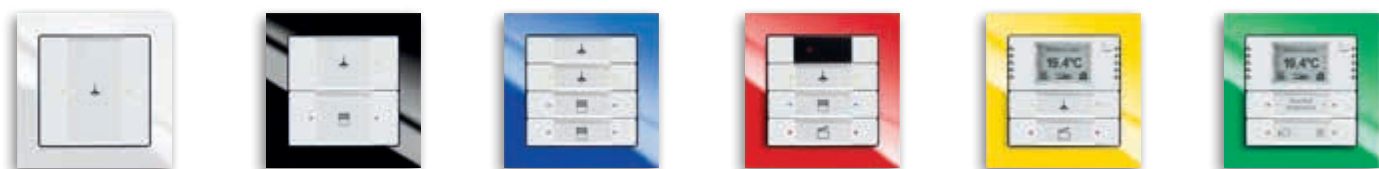
02



03



04



05



06



ABB i-bus® KNX

Operation – Unique diversity of the range

A
12

07



08



09



10



11



01 carat®

02 pure stainless steel

03 solo®

04 Busch-axcent®

05 future® linear

06 Millenium*

07 Zenit for VDE markets

08 Zenit for NEMA markets

09 Busch-triton®

10 Busch-priOn®

11 Bus Coupling Unit –
for conventional Busch-Jaeger series**

* Millenium and Zenit series are only available in selected markets.

** Busch-Jaeger switch ranges only available for selected markets. For further information please contact your local ABB office.

ABB i-bus® KNX

Operation – Functional Overview

A
12

Program	Standard control elements, bus coupler included with package	Multifunction control elements, suitable for KNX bus coupler				
						
	6125/01 1gang 6126/01 2gang 6127/01 4gang	6125/02 1/2gang 6126/02 2/4gang 6127/02 4/8gang	6129/01 3/6gang with IR	6108/18	6128/28	
KNX function						
Switching, rocker switch total	■	■	■	–	■	
Switching, rocker switch left/right	–	■	■	–	■	
Dimming, rocker switch total	■	■	■	–	■	
Dimming, switch rocker left/right	–	■	■	–	■	
Blind switch rocker total	■	■	■	–	■	
Venetian blind switch rocker total left/right	–	■	■	–	■	
Short-long operation, switch rocker left/right	–	■	■	–	■	
Value sender rocker switch total	■	■	■	–	■	
Value sender switch rocker left/right	–	■	■	–	■	
Value dimming sensor, switch rocker total	–	■	■	–	■	
Red/green LED status illumination (red/green/off)	Two LEDs per switch rocker	–	–	–	–	
RGB LED function illumination + status illumination	–	Two LEDs per switch rocker	Two LEDs per switch rocker	–	Two LEDs per switch rocker	
Setting the RTC operating mode	–	■	■	–	■	
Value sender, 2 objects, switch rocker left/right	■	■	■	–	■	
Light scene extension unit with light scene memory function	■	■	■	–	■	
Level switch, switch rocker total	–	■	■	–	■	
Level switch, switch rocker total left/right	–	■	■	–	■	
Multiple operation, rocker switch left/right	–	■	■	–	■	
IR remote control channels (up to 5 channels)	–	–	■	–	–	
Room temperature controller only						
Temperature reading	–	–	–	■	■	
Master/Slave configuration	–	–	–	■	■	
RTC settings	–	–	–	■	■	
Base-load operation	–	–	–	■	■	
Illuminated display	–	–	–	■	■	
Fan Coil operation for heating and cooling	–	–	–	■	■	
Logic function (including light scenes)	–	■	■	–	■	
Busch-Watchdog 4 channels	–	–	–	–	–	
Design series						
Reflex SI	–	–	–	■	–	
Busch Duro 2000® SI	–	–	–	■	–	
future®linear	■	■	■	■	■	
alpha exclusive / nea	–	–	–	–	–	
Busch-axcent®	■	■	■	■	■	
solo®	■	■	■	■	■	
impuls	–	–	–	–	–	
pure stainless steel	■	■	■	■	■	
carat®	■	■	■	■	■	
ocean®	–	–	–	–	–	
All Weather 44®	–	–	–	–	–	
Busch-prOn®	–	–	–	–	–	
Busch-triton®	–	–	–	–	–	

ABB i-bus® KNX

Operation – Functional Overview

A
12

6120/12-101 and 6120/13

FM push-button coupling unit with integrated bus coupler



6122/10 Standard

6122/02 Comfort

6108/06 2gang

6108/07 4gang

6108/06-AP 2gang

6108/07-AP 4gang

-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	-	-	1 LED	-
-	-	One LED per switch rocker	One LED per switch rocker	-	-
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
■	■	-	-	-	-
■	■	-	-	-	-
-	-	■	■	■	■
-	-	■	■	■	■
■	■	-	-	■	■
■	■	■	■	■	■
■	■	■	■	■	■
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

ABB i-bus® KNX

Operation – Functional Overview

A
12

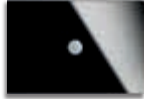
Program	Busch-triton® (next generation) Monoblock		Busch-priOn® suitable for KNX bus coupler	
				
	6320/10 1/2gang 6320/30 3/6gang 6320/50 5/10gang	6320/38 3/6gang with RTC 6320/58 5/10gang with RTC	6340-xx-101 1/2gang	6341-xx-101 rotary-control element
KNX function				
Switching, rocker switch total	■	■	■	–
Switching, rocker switch left/right	■	■	■	■
Dimming, rocker switch total	■	■	■	–
Dimming, rocker switch left/right	■	■	■	–
Blind switch rocker total	■	■	■	–
Blind switch rocker total left/right	■	■	■	■
Short-long operation, switch rocker left/right	■	■	■	–
Value sender rocker switch total	■	■	■	–
Value sender switch rocker left/right	■	■	■	–
Value dimming sensor, switch rocker total	■	■	■	■
Red/green LED status illumination (red/green/off)	1 LED per switch rocker	1 LED per switch rocker	–	–
RGB LED function illumination + status illumination	–	–	1 LED per switch rocker	1 LED per button
Setting the RTC operating mode	■	■	■	–
Value sender, 2 objects, rocker switch left/right	■	■	■	–
Light scene extension unit with light scene memory function	■	■	■	–
Level switch, switch rocker total	■	■	■	–
Level switch, switch rocker total left/right	■	■	■	–
Multiple operation, rocker switch left/right	–	–	■	–
IR remote control channels (up to 13 channels)	■	■	–	–
Light scene unit (8 scenes for up to 8 actuators)	■	■	–	–
Light scene unit (10 scenes for up to 10 actuators)	–	–	–	–
Programmable shift key	■	■	–	–
Proximity function	–	–	–	–
Room temperature controller only				
Temperature reading	–	■	–	–
Master/Slave configuration	–	–	–	–
RTC settings	–	■	–	–
Base-load operation	–	–	–	–
Illuminated display	–	■	–	–
Fan Coil operation for heating and cooling	–	■	–	–
Media box/CD/DVD/Radio	–	–	–	–
Short-time timer	–	–	–	–
Weekly timer	–	–	–	–
Alarm clock	–	–	–	–
Messages	–	–	–	–
Screen saver	–	–	–	–
Display text/value	–	–	–	–
Device lock	–	–	–	–
Logic function (including light scenes)	–	–	■	■
Busch-Watchdog 4 channels	–	–	–	–

ABB i-bus® KNX

Operation – Functional Overview

6120/12-101 or 6120/13 (depending on the specific combination)

A
12[illegible]

ABB i-bus® KNX

Operation – Functional Overview

A
12

Program	Millenium						
							
	6125/20-500 1/2gang	6126/20-500 2/4gang	6129/20-500 3/6gang	6129/21-500 3/6gang with IR	6122/20-500	6124/08-981- 500	
KNX function							
Switching, button pair	■	■	■	■	–	–	
Switching, button upper/lower	■	■	■	■	–	–	
Dimming, button pair	■	■	■	■	–	–	
Dimming, button upper/lower	■	■	■	■	–	–	
Blind, button pair	■	■	■	■	–	–	
Blind, button upper/lower	■	■	■	■	–	–	
Short-long operation, button upper/lower	■	■	■	■	–	–	
Value transmitter, button pair	■	■	■	■	–	–	
Value transmitter, button upper/lower	■	■	■	■	–	–	
Value dimming sensor, button pair	■	■	■	■	–	–	
Value dimming sensor, upper/lower	■	■	■	■	–	–	
RGB LED function illumination + status illumination	■	■	■	■	–	–	
Setting the RTC operating mode	■	■	■	■	–	–	
Value transmitter, 2 objects, button upper/lower	■	■	■	■	–	–	
Light scene extension unit with light scene memory function	■	■	■	■	–	–	
Step switch, button pair	■	■	■	■	–	–	
Step switch, button upper/lower	■	■	■	■	–	–	
Multiple operation, button upper/lower	■	■	■	■	–	–	
IR remote control channels (up to 5 channels)	–	–	–	■	–	–	
Room temperature controller only							
Temperature reading	–	–	–	–	–	■	
Master/Slave configuration	–	–	–	–	–	■	
RTC settings	–	–	–	–	–	■	
Base-load operation	–	–	–	–	–	■	
Illuminated display	–	–	–	–	–	■	
Fan Coil operation for heating and cooling	–	–	–	–	–	■	
10 logic channels (incl. light scene, actuator, sequence actuator, logic gates, etc.)	■	■	■	■	–	■	
Busch-Watchdog 4 channels	–	–	–	–	■	–	

ABB i-bus® KNX

Operation – Functional Overview

A
12

Program	Zenit (VDE and NEMA)					
						
	6125/98-509 1/2gang	6126/98-509 2/4gang	6129/96-509 3/6gang	6129/98-509 3/6gang with IR	6122/98-509	6124/88-509
KNX function						
Switching, button pair	■	■	■	■	–	–
Switching, button upper/lower	■	■	■	■	–	–
Dimming, button pair	■	■	■	■	–	–
Dimming, button upper/lower	■	■	■	■	–	–
Blind, button pair	■	■	■	■	–	–
Blind, button upper/lower	■	■	■	■	–	–
Short-long operation, button upper/lower	■	■	■	■	–	–
Value transmitter, button pair	■	■	■	■	–	–
Value transmitter, button upper/lower	■	■	■	■	–	–
Value dimming sensor, button pair	■	■	■	■	–	–
Value dimming sensor, upper/lower	■	■	■	■	–	–
RGB LED function illumination + status illumination	■	■	■	■	–	–
Setting the RTC operating mode	■	■	■	■	–	–
Value transmitter, 2 objects, button upper/lower	■	■	■	■	–	–
Light scene extension unit with light scene memory function	■	■	■	■	–	–
Step switch, button pair	■	■	■	■	–	–
Step switch, button upper/lower	■	■	■	■	–	–
Multiple operation, button upper/lower	■	■	■	■	–	–
IR remote control channels (up to 5 channels)	–	–	–	■	–	–
Room temperature controller only						
Temperature reading	–	–	–	–	–	■
Master/Slave configuration	–	–	–	–	–	–
RTC settings	–	–	–	–	–	■
Base-load operation	–	–	–	–	–	–
Illuminated display	–	–	–	–	–	■
Fan Coil operation for heating and cooling	–	–	–	–	–	■
10 logic channels (incl. light scene, actuator, sequence actuator, logic gates, etc.)	■	■	■	■	–	■
Busch-Watchdog 4 channels	–	–	–	–	■	–

Busch-priOn®

The central control unit

A
12

Busch-priOn® allows you to control and monitor functions in the entire room. Light, scenes, timer, blind control unit, heating control unit – all functions are controlled simply and intuitively via a rotary knob, and freely programmable functions can be called up via the rocker switches. Busch-priOn® is a non-fixed, modular concept.



01



02



03



04

Busch-priOn® is ideal in combination with the carat® switch series, which has surfaces in the same design.



The rotary control element is equipped with a freely programmable button which can be pressed and turned. It can be used to switch and dim individual lamps, but also to switch on whole groups of lamps with one press of a button and vary their brightness continuously via the knob. The single control element is equipped with a freely programmable “large” operating button. It can be assigned to one function and can carry out a maximum of two commands. The triple-button control element is equipped with three freely programmable control buttons. Each can be assigned to one function and can carry out a maximum of two commands.

01 Rotary control element

02 3gang control element

03 Flush-mounted movement sensor

04 carat® glass black

05 3gang control element with single-line display and temperature controller

06 2gang combination

07 3gang combination

08 Rotary control element with single-line display



reddot design award
best of the best 2008

Busch-priOn® received special commendation in the category "Best of the Best", winning the "Red Dot Award: Communication Design 2008" for its interface design. It is available in the colours glass black, studio white (glossy), stainless steel and white glass.

A
12



05



06



07



08

- Dimming, blinds, value, light scenes, logic functions, time functions
- Illuminated knob and colour-coding concept
- Anti-theft protection
- Day/night operation
- Replaceable labelling symbol

A single-line display with integrated room temperature controller has been designed for the Busch-priOn® 3gang control element, technically reduced to the basics and optically elegant. It is particularly easy to read due to the monochromatic design for white-on-black information. The room temperature controller, information functions like time and date, up to 17 freely programmable text displays, IR sensor and proximity sensor have been integrated into the display. The design of the display is available in the colour and material "glass black" only.

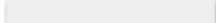
Operation is intuitive, supported by the colour-coding concept. It is possible to freely combine several Busch-priOn® elements with each other. The user can choose from three surface designs: black, blue and silver. Busch-priOn® is a non-fixed, modular-design system. The rocker switch element allows you to call up freely programmable functions such as light scenes, blind functions or specific lamps. The Busch-priOn® flush-mounted movement sensor can be used individually or with other Busch-priOn® modules. Practical because users thus do not have to look for the light switch and are greeted with light when first entering a dark room.

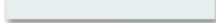
ABB i-bus® KNX

Operation – Planning aid for Busch-*priOn*®

A
12

End strips without function


studio white,
Article-No. 6348-24G-101-500


white glass,
Article-No. 6348-811-101-500

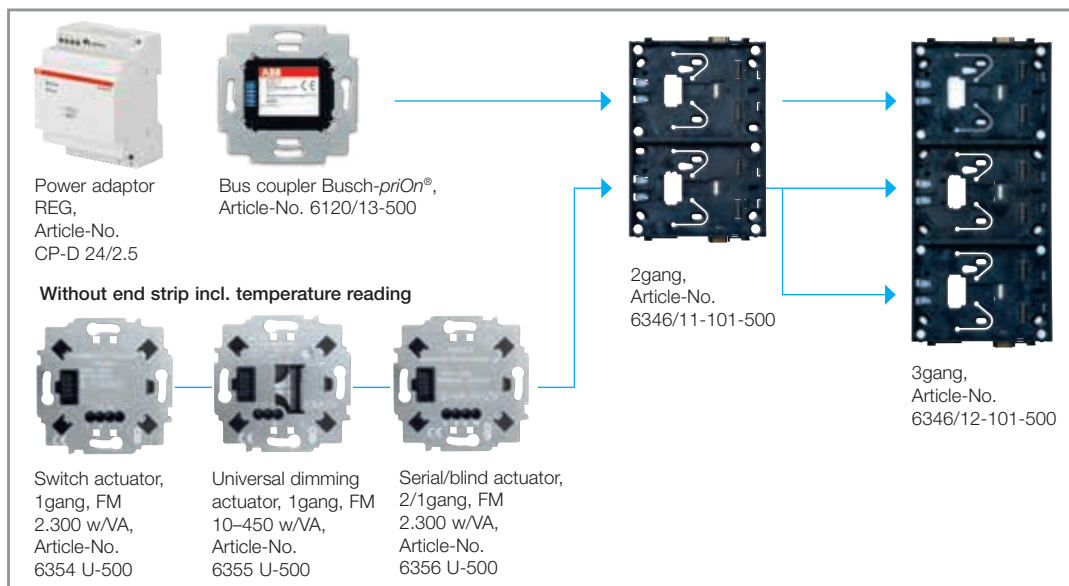

glass black,
Article-No. 6348-825-101-500


stainless steel,
Article-No. 6348-860-101-500

Support frame, bus coupler



Note:
This power adaptor can
supply up to 15 power
bus couplers with current.



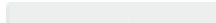
FM actuators

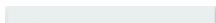
End strip



Commissioning adaptor,
Article-No. 6149/21-500

End strips without function


studio white,
Article-No. 6349-24G-101-500


white glass,
Article-No. 6349-811-101-500

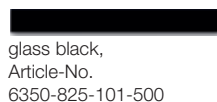

glass black,
Article-No. 6349-825-101-500


stainless steel,
Article-No. 6349-860-101-500

ABB i-bus® KNX

Operation – Planning aid for Busch-priOn®

End strip with IR proximity function



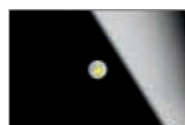
glass black,
Article-No.
6350-825-101-500

Note:

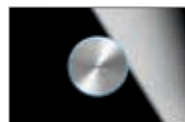
only combinable with
3gang control element
and rotary control
element



Single-line display and
room thermostat,
Article-No.
6351/08-825-500



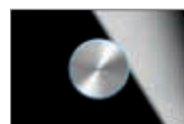
Control element,
1gang,
Article-No.
6340-825-101-500



Rotary control element,
1gang,
Article-No.
6341-825-101-500



Control element,
3gang, Article-No.
6342-825-101-500



Rotary control element,
1gang,
Article-No.
6341-825-101-500



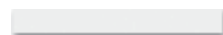
Colour display with
rotary control
element,
Article-No.
6344-825-101-500



Busch-Watchdog,
180 FM,
Article-No.
6345-825-101-500

End strips with temperature sensor.

Not combinable with FM actuators.



studio white,
Article-No. 6352-24G-101-500



white glass,
Article-No. 6352-811-101-500



glass black,
Article-No. 6352-825-101-500

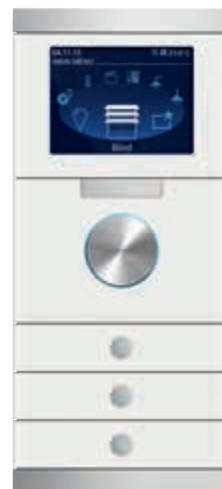


stainless steel,
Article-No. 6352-860-101-500

Colour range



Busch-priOn®
glass black



Busch-priOn®
white glass



Busch-priOn®
stainless steel



Busch-priOn®
studio white, gloss

Labelling symbols



Labelling inserts for blinds, lighting, RTC
and scene. The colours are repeated in
the Busch-Jaeger colour concept.

ABB i-bus® KNX

Operation – Busch-priOn®

A
12



6120/12-101-500

Bus Coupler, FM

for Busch-priOn® support frame 1-fold 6346/10-10x and control elements 6122/0x-xxx, 6124/0x-xxx, 6125/0x-xxx, 6126/0x-xxx, 6127/0x-xxx, 6128/0x-xxx and 6129/0x-xxx.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6120/12-101-500	6120-0-0075		1	
swiss version	–	6120/12-101-508	6120-0-0076		1	



6120/13-500

Power Bus Coupler, FM, Busch-priOn®

For Busch-priOn® base frame 1-fold, 2-fold and 3-fold.

Separate power supply required. The KNX connection is used exclusively for bus communication.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6120/13-500	6120-0-0072		1	
swiss version	–	6120/13-508	6120-0-0073		1	



6354 U-500

Switch Actuator/Sensor, 1-fold, FM, Busch-priOn®

For switching incandescent lamps, 230 V halogen lamps, fluorescent lamps and low-voltage halogen lamps operated using transformers 3-wire technology (Neutral conductor required). Only in conjunction with a 2-fold and 3-fold base frame Cannot be combined with the lower finishing strip with temperature sensor.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6354 U-500	6310-0-0097		1	



6356 U-500

Shutter/2-fold Actuator, FM, Busch-priOn®

Only in conjunction with a 2-fold and 3-fold base frame. Not suitable for switching fluorescent lamps, HQL lamps and HQL lamps. Cannot be combined with the lower finishing strip with temperature sensor.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6356 U-500	6310-0-0099		1	



6355 U-500

Universal Dim Actuator, 1-fold, FM, Busch-priOn®

For dimming and switching of incandescent lamps, 230 V halogen lamps and low-voltage halogen lamps with conventional or electronic transformers.

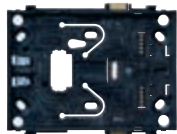
2-wire connection (neutral conductor not required). Do not operate conventional transformers and electronic transformers together on the universal dimmer switch insert.

Can be used only in connection with support frame 2gang (6346/11-101-500) and 3gang (6346/12-101-500). Not combinable with the bottom end strip with temperature sensor (6352-xxx-101-500).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6355 U-500	6310-0-0098		1	

ABB i-bus® KNX

Operation – Busch-priOn®

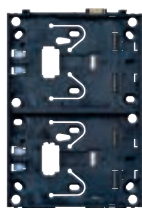


6346/10-101-500

Base Frame, 1-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of rotary control elements, operating element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Bus Coupler priOn or Power Bus Coupler priOn.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6346/10-101-500	6310-0-0135		1	

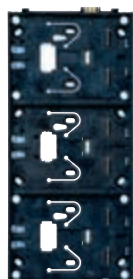


6346/11-101-500

Base Frame, 2-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of 8.89 cm (3.5") TFT colour display with rotary control element, rotary control element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Power Bus Coupler priOn.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6346/11-101-500	6310-0-0137		1	



6346/12-101-500

Base Frame, 3-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of 8.89 cm (3.5") TFT colour display with rotary control element, rotary control element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Power Bus Coupler priOn.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6346/12-101-500	6310-0-0139		1	



6340-825-101-500

Control Element, 1-fold, Busch-priOn®

Freely programmable multi-function operation element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the labelling symbols or standard lighting in red/green. The accompanying symbol can be substituted by other alternative labelling symbols.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white, high gloss	–	6340-24G-101-500	6310-0-0109		1	
white glass	–	6340-811-101-500	6310-0-0168		1	
glass black	–	6340-825-101-500	6310-0-0108		1	
stainless steel	–	6340-866-101-500	6310-0-0106		1	

ABB i-bus® KNX

Operation – Busch-priOn®

A
12

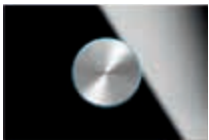


6342-825-101-500

Control Element, 3-fold, Busch-priOn®

Freely programmable multi-function operation element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the labelling symbols or standard lighting in red/green. The accompanying symbol can be substituted by other alternative labelling symbols.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white, high gloss	–	6342-24G-101-500	6310-0-0125		1	
white glass	–	6342-811-101-500	6310-0-0172		1	
glass black	–	6342-825-101-500	6310-0-0124		1	
stainless steel	–	6342-866-101-500	6310-0-0122		1	



6341-825-101-500

Rotary Control Element, 1-fold, Busch-priOn®

Freely programmable multi-function rotary control element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the rotary knob or standard lighting in red/green. Rotary knob stainless steel.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white, high gloss	–	6341-24G-101-500	6310-0-0117		1	
white glass	–	6341-811-101-500	6310-0-0170		1	
glass black	–	6341-825-101-500	6310-0-0116		1	
stainless steel	–	6341-866-101-500	6310-0-0114		1	



6344-825-101-500

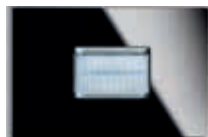
8.89 cm (3.5") TFT Colour Display with Rotary Control Element, Busch-priOn®

Freely programmable 8.89 cm (3.5") TFT colour display with rotary control element for installation in the Base Frame, 2-fold or 3-fold. For representation of up to 120 functions. With integrated weekly time switch, alarm, timer, with light scene function, screensaver and control of multimedia devices (in conjunction with additional device). Free function inscription with user-defined texts and symbols. Supports the KNX functions with innovative colour concept on the rotary knob. Rotary knob stainless steel.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white, high gloss	–	6344-24G-101-500	6310-0-0133		1	
white glass	–	6344-811-101-500	6310-0-0174		1	
glass black	–	6344-825-101-500	6310-0-0132		1	
stainless steel	–	6344-866-101-500	6310-0-0130		1	

ABB i-bus® KNX

Operation – Busch-priOn®



6345-825-101-500

Busch Watchdog® 180 FM Sensor, Busch-priOn®

Sends switching commands with motion detection in combination with the bus coupler Busch-priOn®. Programmable via ETS for automatic and semi-automatic operation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white, high gloss	–	6345-24G-101-500	6310-0-0081		1	
white glass	–	6345-811-101-500	6310-0-0176		1	
glass black	–	6345-825-101-500	6310-0-0080		1	
stainless steel	–	6345-866-101-500	6310-0-0078		1	



6348-825-101-500

Top End Strip, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white, high gloss	–	6348-24G-101-500	6310-0-0147		1	
white glass	–	6348-811-101-500	6310-0-0178		1	
glass black	–	6348-825-101-500	6310-0-0146		1	
stainless steel	–	6348-866-101-500	6310-0-0144		1	



6350-825-101-500

Top End Strip with IR Receiver and Proximity Sensor, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold. With integrated IR receiver for control by IR handheld control as well as integrated proximity function.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
glass black	–	6350-825-101-500	6310-0-0157		1	



6349-825-101-500

Bottom End Strip without logo, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white, high gloss	–	6349-24G-101-500	6310-0-0155		1	
white glass	–	6349-811-101-500	6310-0-0180		1	
glass black	–	6349-825-101-500	6310-0-0154		1	
stainless steel	–	6349-860-101-500	6310-0-0152		1	

ABB i-bus® KNX

Operation – Busch-priOn®

A
12

6352-825-101-500

Bottom End Strip with Temperature Sensor, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold. Provides the value measured by the temperature sensor to the 8.89 cm (3.5") TFT colour display or the room thermostat.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white, high gloss	–	6352-24G-101-500	6310-0-0165		1	
white glass	–	6352-811-101-500	6310-0-0182		1	
glass black	–	6352-825-101-500	6310-0-0164		1	
stainless steel	–	6352-860-101-500	6310-0-0162		1	



6351/08-825-500

Top End Strip with Display, Room Thermostat, IR Receiver and Proximity Sensor, Busch-priOn®

Top end strip for installation on 1gang to 3gang support frame (6346/10-101, 6346/11-101 and 6346/12-101). With integrated IR receiver for control using the Busch remote control 6010-25 or 6020-.../6121... and integrated proximity function. For heating and cooling (PI, PWM or 2-point). For control of up to 5-level ventilation actuators. With manual adjustment of fan levels. Master/slave configuration. With base-load operation. Display of up to 17 functions as text and/or icon. Only in connection with 1-gang rotary control element (6341-xxx-101) and 3-gang control element (6342-xxx-101) possible. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Detection range: frontal: 0.5 m, lateral: 0.5 m. Detection angle: 100 °. Mounting height: 1.1 m. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C. Dimensions: (L x W x D): 33.4 mm x 106.6 mm x 15.5 mm

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
glass black	–	6351/08-825-500	6310-0-0183		1	



6353/20-860-500

Inscription Symbols, Busch-priOn®

For Busch-priOn® operating element 1-fold to 3-fold with different symbols.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
lighting	–	6353/20-860-500	6310-0-0093		10	
blind	–	6353/30-860-500	6310-0-0094		10	
Room Temperature	–	6353/40-860-500	6310-0-0095		10	
scene	–	6353/50-860-500	6310-0-0096		10	

ABB i-bus® KNX

Operation – Busch-priOn®



6149/21-500

Commissioning Interface / Adapter

6120/12-101-500 and 6120/13-500 via USB port or via SD card slot.

With integrated battery for independent operation for up to 8 h.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6149/21-500	6133-0-0201		1	



CP-D 24/2.5

Power Supply, 24 V, 2.5 A, MDRC

For Busch-SmartTouch® 7" 6136/07-8xx-500, Busch-priOn® Power Bus Coupler 6120/13-500 and Busch-ControlTouch® 6136/APP-500.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	CP-D 24/2.5	2CDG120037R0011		1	

ABB i-bus® KNX

Operation – Standard Control Elements

A
12

The standard control elements are available as 1/2gang, 2/4gang or 4/8gang models. Every switch rocker has two LEDs, which display the status of the connected loads. The separate switch rockers are freely programmable and are suitable for switching and dimming, and also for operating blinds and as a light scene extension unit. They can also be used in commercial applications. Anti-theft protection has also been integrated – an important factor for installations in public areas.

Customised text. Pictograms can be applied to push buttons for easier orientation. A clear text template with standard symbols is included for every sensor. The self-explanatory pictograms are available for the complete range of building control technology and if necessary can be easily replaced. If the appropriate symbol is not included, the push buttons can be labelled as desired. The related bus-coupler unit is included in delivery.

01



Function
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

Features
Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)

02



Function
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

Features
Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)

03



Function
Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

Features
Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)

- 01 Standard control element 1/2gang
- 02 Standard control element 2/4gang
- 03 Standard control element 4/8gang

ABB i-bus® KNX

Operation – Standard Control Elements

Standard control element with bus coupler enclosed

With labelling field. Transparent labelling sheet with standard symbols included in delivery.
Display elements: Two LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 63 mm x 63 mm



6125/01



6126/01



6127/01

Pack unit pc.	Weight 1 pc. kg	Description	Standard control element, 1-fold with bus coupler enclosed			Standard control element, 2-fold with bus coupler enclosed			Standard control element, 4-fold with bus coupler enclosed		
			Type	Order code	Price 1 pc. €	Type	Order code	Price 1 pc. €	Type	Order code	Price 1 pc. €
		future® linear									
1		anthracite	6125/01-81-500	6115-0-0205		6126/01-81-500	6116-0-0195		6127/01-81-500	6117-0-0221	
1		savanne/ivory	6125/01-82-500	6115-0-0206		6126/01-82-500	6116-0-0196		6127/01-82-500	6117-0-0222	
1		aluminium silver ¹⁾	6125/01-83-500	6115-0-0207		6126/01-83-500	6116-0-0197		6127/01-83-500	6117-0-0223	
1		davos/studio white	6125/01-84-500	6115-0-0183		6126/01-84-500	6116-0-0174		6127/01-84-500	6117-0-0200	
1		studio white, matt ¹⁾	6125/01-884-500	6115-0-0214		6126/01-884-500	6116-0-0204		6127/01-884-500	6117-0-0230	
1		black, matt ¹⁾	6125/01-885-500	6115-0-0215		6126/01-885-500	6116-0-0205		6127/01-885-500	6117-0-0231	
		solo®									
1		savanne/ivory	6125/01-82-500	6115-0-0206		6126/01-82-500	6116-0-0196		6127/01-82-500	6117-0-0222	
1		davos/studio white	6125/01-84-500	6115-0-0183		6126/01-84-500	6116-0-0174		6127/01-84-500	6117-0-0200	
1		meteor/grey metallic ¹⁾	6125/01-803-500	6115-0-0212		6126/01-803-500	6116-0-0202		6127/01-803-500	6117-0-0228	
		carat®									
1		anthracite	6125/01-81-500	6115-0-0205		6126/01-81-500	6116-0-0195		6127/01-81-500	6117-0-0221	
1		savanne/ivory	6125/01-82-500	6115-0-0206		6126/01-82-500	6116-0-0196		6127/01-82-500	6117-0-0222	
1		davos/studio white	6125/01-84-500	6115-0-0183		6126/01-84-500	6116-0-0174		6127/01-84-500	6117-0-0200	
		pure stainless steel ¹⁾									
1		stainless steel	6125/01-866-500	6115-0-0211		6126/01-866-500	6116-0-0201		6127/01-866-500	6117-0-0227	
		Busch-axcent®									
1		davos/studio white	6125/01-84-500	6115-0-0183		6126/01-84-500	6116-0-0174		6127/01-84-500	6117-0-0200	

¹⁾ Surface painted

Multifunction control elements

For various ranges with LED colour-code concept

A
12

The multifunction control elements with LED colour-code concept. Meeting the highest demands for comfort and technology. They come with two RGB LEDs per rocker switch, which conform to a consistent colour concept. This makes the function obvious at a glance, and the rockers can be additionally fitted with pictograms. Each side of a rocker switch can have its own function – each for calling up one light scene, for instance. This turns a 4gang control element into an 8gang control element.



01



02



03



04



05



06



07



04 Multifunction control element 2/4gang, integrated room thermostat

01 Multifunction control element 1/2gang

02 Multifunction control element 2/4gang

03 Multifunction control element 4/8gang

05 Multifunction control element 3/6gang with IR reception

06 FM movement detector standard

07 FM movement detector comfort



- Multiple functions:
switching, dimming, blinds
- Push-button
- Value transmitter,
value dimming sensor
- Light scene extension unit
- Step-type and multiple operation
- Labellable switch rockers
- LED colour code concept

Different shapes, colours and materials fulfil every requirement. KNX control elements are available in the carat®, pure stainless steel, solo®, Busch-axcent® and future® linear programmes. The complete range of conventional switches from these series is available, so there are no limits to the options for combining KNX components.

ABB i-bus® KNX

Operation – Multifunction Control Elements

A
12

Control element, Multi-function/colour concept

For BCU 6120/12-101-500 or 6120/13-500. With labelling field. Support of KNX functions through innovative colour concept or standard illumination red/green. Push switch function: switching/dimming/blind/sending values/scenes etc. Transparent labelling sheet with standard symbols included in delivery. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Display elements: Two LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light.



6125/02



6126/02



6127/02

			Control element, 1/2-fold Multi-function/colour concept			Control element, 2/4-fold Multi-function/colour concept			Control element, 4/8-fold Multi-function/colour concept		
			With 1 Control element: rocker switch left/right			With 2 Control elements: rocker switch left/right			With 4 Control elements: rocker switch left/right		
Pack unit pc.	Weight 1 pc. kg	Description	Type	Order code	Price 1 pc. €	Type	Order code	Price 1 pc. €	Type	Order code	Price 1 pc. €
		future® linear									
1		anthracite	6125/02-81-500	6115-0-0216		6126/02-81-500	6116-0-0206		6127/02-81-500	6117-0-0232	
1		savanne/ivory	6125/02-82-500	6115-0-0217		6126/02-82-500	6116-0-0207		6127/02-82-500	6117-0-0233	
1		aluminium silver ¹⁾	6125/02-83-500	6115-0-0218		6126/02-83-500	6116-0-0208		6127/02-83-500	6117-0-0234	
1		davos/studio white	6125/02-84-500	6115-0-0219		6126/02-84-500	6116-0-0209		6127/02-84-500	6117-0-0235	
1		studio white, matt ¹⁾	6125/02-884-500	6115-0-0226		6126/02-884-500	6116-0-0216		6127/02-884-500	6117-0-0242	
1		black, matt ¹⁾	6125/02-885-500	6115-0-0227		6126/02-885-500	6116-0-0217		6127/02-885-500	6117-0-0243	
		solo®									
1		savanne/ivory	6125/02-82-500	6115-0-0217		6126/02-82-500	6116-0-0207		6127/02-82-500	6117-0-0233	
1		davos/studio white	6125/02-84-500	6115-0-0219		6126/02-84-500	6116-0-0209		6127/02-84-500	6117-0-0235	
1		meteor/grey metallic ¹⁾	6125/02-803-500	6115-0-0224		6126/02-803-500	6116-0-0214		6127/02-803-500	6117-0-0240	
		carat®									
1		anthracite	6125/02-81-500	6115-0-0216		6126/02-81-500	6116-0-0206		6127/02-81-500	6117-0-0232	
1		savanne/ivory	6125/02-82-500	6115-0-0217		6126/02-82-500	6116-0-0207		6127/02-82-500	6117-0-0233	
1		davos/studio white	6125/02-84-500	6115-0-0219		6126/02-84-500	6116-0-0209		6127/02-84-500	6117-0-0235	
		pure stainless steel ¹⁾									
1		stainless steel	6125/02-866-500	6115-0-0223		6126/02-866-500	6116-0-0213		6127/02-866-500	6117-0-0239	
		Busch-axcent®									
1		davos/studio white	6125/02-84-500	6115-0-0219		6126/02-84-500	6116-0-0209		6127/02-84-500	6117-0-0235	
		Dynasty®									
1		anthracite	6125/02-81-500	6115-0-0216		6126/02-81-500	6116-0-0206		6127/02-81-500	6117-0-0232	
1		savanne/ivory	6125/02-82-500	6115-0-0217		6126/02-82-500	6116-0-0207		6127/02-82-500	6117-0-0233	
1		antique brass	6125/02-840-500	6115-0-0452		6126/02-840-500	6116-0-0227		6127/02-840-500	6117-0-0252	

¹⁾ Surface painted

ABB i-bus® KNX

Operation – Multifunction Control Elements



6129/01

Control Element, 3/6-fold, multifunction, with IR-Interface, FM

suitable for KNX bus coupler 6120/12-101-500 and 6120/13-500. With IR interface for Busch-remote controllers 6010-25 or 6020-.../6021-... . Push button function: switching/dimming/ blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. Two freely programmable RGB LEDs per rocker. With RGB colour code concept or red/green/ OFF-operation. With labeling field. Transparent labeling sheet with standard symbols included in delivery.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
future® linear						
anthracite	–	6129/01-81-500	6135-0-0156		1	
savanne/ivory	–	6129/01-82-500	6135-0-0157		1	
aluminium silver ¹⁾	–	6129/01-83-500	6135-0-0158		1	
davos/studio white	–	6129/01-84-500	6135-0-0146		1	
studio white, matt ¹⁾	–	6129/01-884-500	6135-0-0165		1	
black, matt ¹⁾	–	6129/01-885-500	6135-0-0166		1	
solo®						
savanne/ivory	–	6129/01-82-500	6135-0-0157		1	
davos/studio white	–	6129/01-84-500	6135-0-0146		1	
meteor/grey metallic ¹⁾	–	6129/01-803-500	6135-0-0163		1	
carat®						
anthracite	–	6129/01-81-500	6135-0-0156		1	
savanne/ivory	–	6129/01-82-500	6135-0-0157		1	
davos/studio white	–	6129/01-84-500	6135-0-0146		1	
pure stainless steel ¹⁾						
stainless steel	–	6129/01-866-500	6135-0-0162		1	
Busch-axcent®						
davos/studio white	–	6129/01-84-500	6135-0-0146		1	

¹⁾ Surface painted

ABB i-bus® KNX

Operation – Movement Detectors

A
12



6122/02-84-500

Busch-Watchdog 180 flush-mounted comfort sensor II

Movement detector with up to 4 channels. For ABB i-bus® KNX 6120/12-101-500, 6120/13-500. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.)

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
future® linear						
anthracite	–	6122/02-81-500	6132-0-0283		1	
savanne/ivory	–	6122/02-82-500	6132-0-0284		1	
aluminium silver ¹⁾		6122/02-83-500	6132-0-0285		1	
davos/studio white		6122/02-84-500	6132-0-0263		1	
studio white, matt ¹⁾	–	6122/02-884-500	6132-0-0292		1	
black, matt ¹⁾	–	6122/02-885-500	6132-0-0293		1	
	–					
solo®	–					
savanne/ivory	–	6122/02-82-500	6132-0-0284		1	
davos/studio white	–	6122/02-84-500	6132-0-0263		1	
meteor/grey metallic ¹⁾		6122/02-803-500	6132-0-0290		1	
carat®	–					
anthracite	–	6122/02-81-500	6132-0-0283		1	
savanne/ivory	–	6122/02-82-500	6132-0-0284		1	
davos/studio white		6122/02-84-500	6132-0-0263		1	
pure stainless steel ¹⁾	–					
stainless steel		6122/02-866-500	6132-0-0289		1	
Busch-axcent®	–					
davos/studio white		6122/02-84-500	6132-0-0263		1	

¹⁾ Surface painted

ABB i-bus® KNX

Operation – Movement Detectors



6122/10-84-500

Busch-Watchdog® 180 Sensor Standard, Select with integrated bus coupler, FM

Movement detector with up to 4 channels. The bus can be connected via enclosed terminal block. With integrated KNX bus coupler.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
white	–	6122/10-212-500	6132-0-0373		1	
alpine white	–	6122/10-214-500	6132-0-0374		1	
future® linear						
anthracite	–	6122/10-81-500	6132-0-0376		1	
ivory	–	6122/10-82-500	6132-0-0377		1	
aluminium silver	–	6122/10-83-500	6132-0-0378		1	
studio white	–	6122/10-84-500	6132-0-0379		1	
studio white matt	–	6122/10-884-500	6132-0-0380		1	
black, matt	–	6122/10-885-500	6132-0-0381		1	
solo®						
ivory	–	6122/10-82-500	6132-0-0377		1	
studio white	–	6122/10-84-500	6132-0-0379		1	
grey metallic	–	6122/10-803-500	6132-0-0382		1	
Busch-axcent®						
studio white	–	6122/10-84-500	6132-0-0379		1	
pure stainless steel						
stainless steel	–	6122/10-866-500	6132-0-0385		1	
carat®						
anthracite	–	6122/10-81-500	6132-0-0376		1	
ivory	–	6122/10-82-500	6132-0-0377		1	
studio white	–	6122/10-84-500	6132-0-0379		1	
Dynasty®						
anthracite	–	6122/10-81-500	6132-0-0376		1	
ivory	–	6122/10-82-500	6132-0-0377		1	
antique brass	–	6122/10-840-500	6132-0-0407		1	

ABB i-bus® KNX

Operation – Room Thermostats

A
12



6128/28-884-500

Control element, 2/4gang, with RTC multi-function/colour concept

For ABB i-bus® KNX bus coupler 6120/12-101-500, 6120/13-500. Support of KNX functions through innovative colour concept (yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green. Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function). Master/slave configuration. With base-load operation. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Transparent labelling sheet with standard symbols included in delivery. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Control element: Switch contacts left/right, also for selecting setpoint and mode of operation. Display elements: LCD showing operation mode and temperature. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C. Dimensions: (L x W x D): 63 mm x 63 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
future® linear						
anthracite	–	6128/28-81-500	6134-0-0331		1	
savanne/ivory	–	6128/28-82-500	6134-0-0332		1	
aluminium silver	–	6128/28-83-500	6134-0-0333		1	
davos/studio white	–	6128/28-84-500	6134-0-0334		1	
studio white, matt	–	6128/28-884-500	6134-0-0338		1	
black, matt	–	6128/28-885-500	6134-0-0339		1	
solo®						
savanne/ivory	–	6128/28-82-500	6134-0-0332		1	
davos/studio white	–	6128/28-84-500	6134-0-0334		1	
meteor/grey metallic	–	6128/28-803-500	6134-0-0336		1	
carat®						
anthracite	–	6128/28-81-500	6134-0-0331		1	
savanne/ivory	–	6128/28-82-500	6134-0-0332		1	
davos/studio white	–	6128/28-84-500	6134-0-0334		1	
pure stainless steel						
stainless steel	–	6128/28-866-500	6134-0-0335		1	
Busch-axcent®						
davos/studio white	–	6128/28-84-500	6134-0-0334		1	
Dynasty®						
anthracite	–	6128/28-81-500	6134-0-0331		1	
savanne/ivory	–	6128/28-82-500	6134-0-0332		1	
antique brass	–	6128/28-840-500	6134-0-0342		1	

ABB i-bus® KNX

Operation – Frames



1721-184K

Frames, future® linear

For vertical and horizontal installation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold, anthracite	–	1721-181K	1754-0-4240		10	
1-fold, savanna/ivory	–	1721-182K-500	1754-0-4506		10	
1-fold, aluminium silver ¹⁾	–	1721-183K-500	1754-0-4529		10	
1-fold, davos/studio white	–	1721-184K-500	1754-0-4498		10	
1-fold, studio white, matt ¹⁾	–	1721-884K-500	1754-0-4531		10	
1-fold, black matt ¹⁾	–	1721-885K-500	1754-0-4532		10	
2-fold, anthracite	–	1722-181K	1754-0-4241		10	
2-fold, savanna/ivory	–	1722-182K	1754-0-4231		10	
2-fold, aluminium silver ¹⁾	–	1722-183K-500	1754-0-4530		10	
2-fold, davos/studio white	–	1722-184K-500	1754-0-4499		10	
2-fold, studio white, matt ¹⁾	–	1722-884K	1754-0-4415		10	
2-fold, black matt ¹⁾	–	1722-885K-500	1754-0-4534		10	
3-fold, anthracite	–	1723-181K	1754-0-4242		10	
3-fold, savanna/ivory	–	1723-182K	1754-0-4232		10	
3-fold, aluminium silver ¹⁾	–	1723-183K-500	1754-0-4533		10	
3-fold, davos/studio white	–	1723-184K-500	1754-0-4502		10	
3-fold, studio white, matt ¹⁾	–	1723-884K	1754-0-4416		10	
3-fold, black matt ¹⁾	–	1723-885K	1754-0-4421		10	
4-fold, anthracite	–	1724-181K	1754-0-4243		10	
4-fold, savanna/ivory	–	1724-182K	1754-0-4233		10	
4-fold, aluminium silver ¹⁾	–	1724-183K	1754-0-4309		10	
4-fold, davos/studio white	–	1724-184K	1754-0-4238		10	
4-fold, studio white, matt ¹⁾	–	1724-884K	1754-0-4417		10	
4-fold, black matt ¹⁾	–	1724-885K	1754-0-4422		10	
5-fold, anthracite	–	1725-181K	1754-0-4244		1	
5-fold, savanna/ivory	–	1725-182K	1754-0-4234		1	
5-fold, aluminium silver ¹⁾	–	1725-183K	1754-0-4310		1	
5-fold, davos/studio white	–	1725-184K-500	1754-0-4517		1	
5-fold, studio white, matt ¹⁾	–	1725-884K	1754-0-4418		1	
5-fold, black matt ¹⁾	–	1725-885K	1754-0-4423		1	

¹⁾ Surface painted

ABB i-bus® KNX

Operation – Frames

A
12



1721-80

Frames, solo®

For vertical and horizontal installation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold, chrome, matt	–	1721-80-500	1754-0-4535		10	
1-fold, chrome, glossy	–	1721-80G-500	1754-0-4538		10	
1-fold, davos/studio white	–	1721-84-500	1754-0-4536		10	
2-fold, chrome, matt	–	1722-80-500	1754-0-4537		10	
2-fold, chrome, glossy	–	1722-80G	1754-0-4327		10	
2-fold, davos/studio white	–	1722-84-500	1754-0-4539		10	
3-fold, chrome, matt	–	1723-80-500	1754-0-4540		10	
3-fold, chrome, glossy	–	1723-80G	1754-0-4328		10	
3-fold, davos/studio white	–	1723-84-500	1754-0-4541		10	
4-fold, chrome, matt	–	1724-80	1754-0-4107		1	
4-fold, chrome, glossy	–	1724-80G	1754-0-4329		1	
4-fold, davos/studio white	–	1724-84	1754-0-4112		1	
5-fold, chrome, matt	–	1725-80	1754-0-4108		1	
5-fold, chrome, glossy	–	1725-80G	1754-0-4330		1	
5-fold, davos/studio white	–	1725-84	1754-0-4113		1	



1721-860

Frames, carat®

For vertical and horizontal installation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold, white glass	–	1721-811	1754-0-4442		1	
1-fold, bronze	–	1721-821	1754-0-4258		1	
1-fold, gold ¹⁾	–	1721-823-101	1754-0-4356		1	
1-fold, glass black	–	1721-825	1754-0-4322		1	
1-fold, chrome	–	1721-826-101	1754-0-4360		1	
1-fold, stainless steel	–	1721-860	1754-0-4254		1	
2-fold, white glass	–	1722-811	1754-0-4443		1	
2-fold, bronze	–	1722-821	1754-0-4259		1	
2-fold, gold ¹⁾	–	1722-823-101	1754-0-4357		1	
2-fold, glass black	–	1722-825	1754-0-4323		1	
2-fold, chrome	–	1722-826-101	1754-0-4361		1	
2-fold, stainless steel	–	1722-860	1754-0-4255		1	
3-fold, white glass	–	1723-811	1754-0-4444		1	
3-fold, bronze	–	1723-821	1754-0-4260		1	
3-fold, gold ¹⁾	–	1723-823-101	1754-0-4358		1	
2-fold, glass black	–	1722-825	1754-0-4323		1	
3-fold, chrome	–	1723-826-101	1754-0-4362		1	
3-fold, stainless steel	–	1723-860	1754-0-4256		1	
4-fold, white glass	–	1724-811	1754-0-4445		1	
4-fold, bronze	–	1724-821	1754-0-4261		1	
4-fold, gold ¹⁾	–	1724-823-101	1754-0-4359		1	
4-fold, glass black	–	1724-825	1754-0-4325		1	
4-fold, chrome	–	1724-826-101	1754-0-4363		1	
4-fold, stainless steel	–	1724-860	1754-0-4257		1	

¹⁾ Gold plated 24 carat

ABB i-bus® KNX

Operation – Frames



1721-866K

Frames, pure stainless steel

For vertical and horizontal installation. Stainless steel material.

Anti-fingerprint (does not leave any visible fingerprints on the material).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold, stainless steel	–	1721-866K-500	1754-0-4500		10	
2-fold, stainless steel	–	1722-866K-500	1754-0-4501		10	
3-fold, stainless steel	–	1723-866K	1754-0-4319		10	
4-fold, stainless steel	–	1724-866K	1754-0-4320		1	
5-fold, stainless steel	–	1725-866K	1754-0-4321		1	



1722-283

Frames, accent

For vertical and horizontal installation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold, black	–	1721-281	1754-0-4409		10	
1-fold, brown glass	–	1721-283	1754-0-4543		1	
1-fold, davos/studio white	–	1721-284	1754-0-4331		10	
1-fold, yellow	–	1721-285	1754-0-4334		10	
1-fold, green	–	1721-286	1754-0-4337		10	
1-fold, red	–	1721-287	1754-0-4340		10	
1-fold, blue	–	1721-288	1754-0-4343		10	
1-fold, white glass	–	1721-280	1754-0-4437		1	
1-fold, entrée-grey	–	1721-291-500	1754-0-4471		10	
1-fold, château-black	–	1721-295-500	1754-0-4491		10	
1-fold, chalet-white	–	1721-296-500	1754-0-4486		10	
1-fold, foyer-red	–	1721-297-500	1754-0-4476		10	
1-fold, maison-beige	–	1721-299-500	1754-0-4481		10	
2-fold, black	–	1722-281	1754-0-4410		10	
2-fold, brown glass	–	1722-283	1754-0-4544		1	
2-fold, davos/studio white	–	1722-284	1754-0-4332		10	
2-fold, yellow	–	1722-285	1754-0-4335		10	
2-fold, green	–	1722-286	1754-0-4338		10	
2-fold, red	–	1722-287	1754-0-4341		10	
2-fold, blue	–	1722-288	1754-0-4344		10	
2-fold, white glass	–	1722-280	1754-0-4438		1	
2-fold, entrée-grey	–	1722-291-500	1754-0-4472		10	
2-fold, château-black	–	1722-295-500	1754-0-4492		10	
2-fold, chalet-white	–	1722-296-500	1754-0-4487		10	
2-fold, foyer-red	–	1722-297-500	1754-0-4477		10	
2-fold, maison-beige	–	1722-299-500	1754-0-4482		10	

Continuation of table „Frames, accent“ on next page

ABB i-bus® KNX

Operation – Frames

A
12

Continuation of table „Frames, axcent“

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
3-fold, black	–	1723-281	1754-0-4411		10	
3-fold, brown glass	–	1723-283	1754-0-4545		1	
3-fold, davos/studio white	–	1723-284	1754-0-4333		10	
3-fold, yellow	–	1723-285	1754-0-4336		10	
3-fold, green	–	1723-286	1754-0-4339		10	
3-fold, red	–	1723-287	1754-0-4342		10	
3-fold, blue	–	1723-288	1754-0-4345		10	
3-fold, white glass	–	1723-280	1754-0-4439		1	
3-fold, entrée-grey	–	1723-291-500	1754-0-4473		10	
3-fold, château-black	–	1723-295-500	1754-0-4493		10	
3-fold, chalet-white	–	1723-296-500	1754-0-4488		10	
3-fold, foyer-red	–	1723-297-500	1754-0-4478		10	
3-fold, maison-beige	–	1723-299-500	1754-0-4483		10	
4-fold, black	–	1724-281	1754-0-4412		1	
4-fold, brown glass	–	1724-283	1754-0-4546		1	
4-fold, davos/studio white	–	1724-284	1754-0-4346		1	
4-fold, yellow	–	1724-285	1754-0-4348		1	
4-fold, green	–	1724-286	1754-0-4350		1	
4-fold, red	–	1724-287	1754-0-4352		1	
4-fold, blue	–	1724-288	1754-0-4354		1	
4-fold, white glass	–	1724-280	1754-0-4440		1	
4-fold, entrée-grey	–	1724-291-500	1754-0-4474		1	
4-fold, château-black	–	1724-295-500	1754-0-4494		1	
4-fold, chalet-white	–	1724-296-500	1754-0-4489		1	
4-fold, foyer-red	–	1724-297-500	1754-0-4479		1	
4-fold, maison-beige	–	1724-299-500	1754-0-4484		1	
5-fold, black	–	1725-281	1754-0-4413		1	
5-fold, brown glass	–	1725-283	1754-0-4547		1	
5-fold, davos/studio white	–	1725-284	1754-0-4347		1	
5-fold, yellow	–	1725-285	1754-0-4349		1	
5-fold, green	–	1725-286	1754-0-4351		1	
5-fold, red	–	1725-287	1754-0-4353		1	
5-fold, blue	–	1725-288	1754-0-4355		1	
5-fold, white glass	–	1725-280	1754-0-4441		1	
5-fold, entrée-grey	–	1725-291-500	1754-0-4475		1	
5-fold, château-black	–	1725-295-500	1754-0-4495		1	
5-fold, chalet-white	–	1725-296-500	1754-0-4490		1	
5-fold, foyer-red	–	1725-297-500	1754-0-4480		1	
5-fold, maison-beige	–	1725-299-500	1754-0-4485		1	

ABB i-bus® KNX

Operation – Frames



1721-838-500

Frames, Dynasty®

For vertical and horizontal installation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold, polished brass ivory	–	1721-838-500	1754-0-4560		1	
1-fold, polished brass anthracite	–	1721-835-500	1754-0-4565		1	
1-fold, polished brass decor ivory	–	1721-836-500	1754-0-4570		1	
1-fold, polished brass decor anthracite	–	1721-833-500	1754-0-4575		1	
1-fold, antique brass ivory	–	1721-848-500	1754-0-4580		1	
1-fold, antique brass anthracite	–	1721-845-500	1754-0-4585		1	
1-fold, antique brass decor ivory	–	1721-846-500	1754-0-4590		1	
1-fold, antique brass decor anthracite	–	1721-843-500	1754-0-4595		1	
1-fold, ivory	–	1721-832-500	1754-0-4600		1	
1-fold, anthracite	–	1721-831-500	1754-0-4605		1	
2-fold, polished brass ivory	–	1722-838-500	1754-0-4561		1	
2-fold, polished brass anthracite	–	1722-835-500	1754-0-4566		1	
2-fold, polished brass decor ivory	–	1722-836-500	1754-0-4571		1	
2-fold, polished brass decor anthracite	–	1722-833-500	1754-0-4576		1	
2-fold, antique brass ivory	–	1722-848-500	1754-0-4581		1	
2-fold, antique brass anthracite	–	1722-845-500	1754-0-4586		1	
2-fold, antique brass decor ivory	–	1722-846-500	1754-0-4591		1	
2-fold, antique brass decor anthracite	–	1722-843-500	1754-0-4596		1	
2-fold, ivory	–	1722-832-500	1754-0-4601		1	
2-fold, anthracite	–	1722-831-500	1754-0-4606		1	
3-fold, polished brass ivory	–	1723-838-500	1754-0-4562		1	
3-fold, polished brass anthracite	–	1723-835-500	1754-0-4567		1	
3-fold, polished brass decor ivory	–	1723-836-500	1754-0-4572		1	
3-fold, polished brass decor anthracite	–	1723-833-500	1754-0-4577		1	
3-fold, antique brass ivory	–	1723-848-500	1754-0-4582		1	
3-fold, antique brass anthracite	–	1723-845-500	1754-0-4587		1	
3-fold, antique brass decor ivory	–	1723-846-500	1754-0-4592		1	
3-fold, antique brass decor anthracite	–	1723-843-500	1754-0-4597		1	
3-fold, ivory	–	1723-832-500	1754-0-4602		1	
3-fold, anthracite	–	1723-831-500	1754-0-4607		1	

Continuation of table „Frames, Dynasty®“ on next page

ABB i-bus® KNX

Operation – Frames

A
12

Continuation of table „Frames, Dynasty®“

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack 1 pc.	Weight 1 pc. kg
4-fold, polished brass ivory	–	1724-838-500	1754-0-4563		1	
4-fold, polished brass anthracite	–	1724-835-500	1754-0-4568		1	
4-fold, polished brass decor ivory	–	1724-836-500	1754-0-4573		1	
4-fold, polished brass decor anthracite	–	1724-833-500	1754-0-4578		1	
4-fold, antique brass ivory	–	1724-848-500	1754-0-4583		1	
4-fold, antique brass anthracite	–	1724-845-500	1754-0-4588		1	
4-fold, antique brass decor ivory	–	1724-846-500	1754-0-4593		1	
4-fold, antique brass decor anthracite	–	1724-843-500	1754-0-4598		1	
4-fold, ivory	–	1724-832-500	1754-0-4603		1	
4-fold, anthracite	–	1724-831-500	1754-0-4608		1	
5-fold, polished brass ivory	–	1725-838-500	1754-0-4564		1	
5-fold, polished brass anthracite	–	1725-835-500	1754-0-4569		1	
5-fold, polished brass decor ivory	–	1725-836-500	1754-0-4574		1	
5-fold, polished brass decor anthracite	–	1725-833-500	1754-0-4579		1	
5-fold, antique brass ivory	–	1725-848-500	1754-0-4584		1	
5-fold, antique brass anthracite	–	1725-845-500	1754-0-4589		1	
5-fold, antique brass decor ivory	–	1725-846-500	1754-0-4594		1	
5-fold, antique brass decor anthracite	–	1725-843-500	1754-0-4599		1	
5-fold, ivory	–	1725-832-500	1754-0-4604		1	
5-fold, anthracite	–	1725-831-500	1754-0-4609		1	

Notes

Busch-triton®

Elegant ergonomics

A
12

With freely programmable switch rockers, backlit label fields and IR sensor Busch-triton® is ideal for any application and, with its elegant design, it is commonly installed in hotels and public areas. Busch-triton® is equipped with an integrated bus coupler and IR receiver. The unit is composed of control element and integrated bus coupler with everything required to control building systems elegantly and comfortably.



01



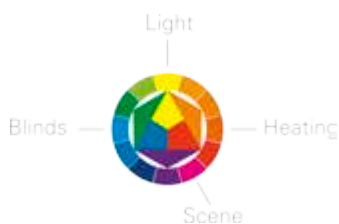
02



03



04



01 1/2gang control element with rear-illuminated labelling area and IR reception

02 3/6gang control element with rear-illuminated labelling area and IR reception

03 5/10gang control element with rear-illuminated labelling area and IR reception

04 5/10gang control element with rear-illuminated labelling field, integrated room thermostat, LCD display and IR reception



- Multiple functions:
switching, dimming, blinds
- Value transmitter, value dimming sensor
- Light scene extension unit
- Step-type switch
- Short/long operation
- 13 freely programmable IR channels
- 8 light scenes
- LCD display room temperature
controller

The Busch-triton® is available in five stunning colours, offering exactly the right ambience for any environment. The colours offer exactly the right accent to the carat®, impuls, alpha and future® linear ranges – such as the use of the colour-coordinated socket outlets or motion detectors.

ABB i-bus® KNX

Operation – Busch-triton®

A
12



6320/10-24G-500

Busch-triton® Control Element, 1/2-fold, FM

With integrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpha						
platinum	–	6320/10-20-500	6320-0-0002		1	
studio white,high gloss	–	6320/10-24G-500	6320-0-0004		1	
palladium	–	6320/10-260-500	6320-0-0010		1	
impuls						
champagne metallic	–	6320/10-79-500	6320-0-0006		1	
future® linear						
aluminium silver	–	6320/10-83-500	6320-0-0008		1	



6320/30-24G-500

Busch-triton® Control Element, 3/6-fold, FM

With integrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpha						
platinum	–	6320/30-20-500	6320-0-0012		1	
studio white,high gloss	–	6320/30-24G-500	6320-0-0014		1	
palladium	–	6320/30-260-500	6320-0-0020		1	
impuls						
champagne metallic	–	6320/30-79-500	6320-0-0016		1	
future® linear						
aluminium silver	–	6320/30-83-500	6320-0-0018		1	

ABB i-bus® KNX

Operation – Busch-triton®



6320/50-24G-500

Busch-triton® Control Element, 5/10-fold, FM

With integrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpha						
platinum	–	6320/50-20-500	6320-0-0032		1	
studio white, high gloss	–	6320/50-24G-500	6320-0-0034		1	
palladium	–	6320/50-260-500	6320-0-0040		1	
impuls						
champagne metallic	–	6320/50-79-500	6320-0-0036		1	
future® linear						
aluminium silver	–	6320/50-83-500	6320-0-0038		1	



6321/38-24G-500

Busch-triton® Control Element with Room Thermostat and 3/6-fold Switch Sensor, FM

With integrated KNX bus coupler. With labelling field. Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function). Master/slave configuration. With base-load operation. Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. To control up to 13 IR channels (RC5) using Busch-Remote control. IR mobile remote control 6010-25 or 6020-.../6021... . Control element: rocker switch left/right. Display elements: One LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light. Connections: KNX-line: Bus connection terminal. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpha						
platinum	–	6321/38-20-500	6320-0-0052		1	
studio white, high gloss	–	6321/38-24G-500	6320-0-0054		1	
palladium	–	6321/38-260-500	6320-0-0060		1	
impuls						
champagne metallic	–	6321/38-83-500	6320-0-0056		1	
future® linear						
aluminium silver	–	6321/38-83-500	6320-0-0058		1	

ABB i-bus® KNX

Operation – Busch-triton®

A
12



6321/58-24G-500

Busch-triton® Control Element with Room Thermostat and 5/10-fold Switch Sensor, FM

With integrated KNX bus coupler. With labelling field. Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function). Master/slave configuration. With base-load operation. Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. To control up to 13 IR channels (RC5) using Busch-Remote control IR mobile remote control 6010-25 or 6020-.../6021... . Control element: rocker switch left/right. Display elements: One LED per rocker via separate communication object for status (Red/ Green/ OFF) or orientation light. Connections: KNX-line: Bus connection terminal. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C. Dimensions: (L x W x D): 159 mm x 90 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpha						
platinum	–	6321/58-20-500	6320-0-0062		1	
studio white, high gloss	–	6321/58-24G-500	6320-0-0064		1	
palladium	–	6321/58-260-500	6320-0-0070		1	
impuls						
champagne metallic	–	6321/58-79-500	6320-0-0066		1	
future® linear						
aluminium silver	–	6321/58-83-500	6320-0-0068		1	



6010-25-500

Infra-Red Hand Held Transmitter

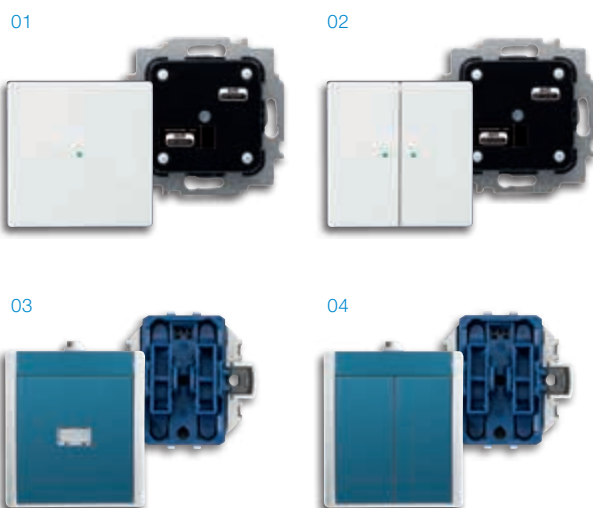
For infra-red receiver and KNX flush-mounted infra-red interface. Switching and dimming of up to 10 consumers in 2 groups (1-5/6-10). Programming and selection of 2 MEMO memories per group is possible. Power supply: 4 alkaline manganese batteries, IEC LR03 (microcell) not included in scope of supply Detection range: frontal 15 m.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6010-25-500	6020-0-1133		1	

ABB i-bus® KNX

Operation – Push Button Coupling Unit

The push-button coupling unit with a centre position offers maximum flexibility. Installed in a flush-mounted wall box, it accepts switch rockers from conventional switch ranges* like a completely standard flush-mounted insert. Covers from all conventional ranges can now be used for KNX. This offers maximum freedom in the selection of the switch range and makes retrofitting easier.



Features

Easy mounting and uncomplicated commissioning
All flush-mounted switch ranges* can be used for the ABB i-bus® KNX
Affordable solution for renovations
Status/orientation light (red/green/OFF) (only with 1gang push-button/switches)
Integration in surface-mounted water protected units

01	Push-button coupler 2gang with integrated bus coupler
02	Push-button coupler 4gang with integrated bus coupler
03	Push-button coupler 2gang for ocean with integrated bus coupler
04	Push-button coupler 4gang for ocean with integrated bus coupler



Design without limits. The push-button coupling unit includes the complete range* of switches for KNX. Switch rockers from all switch ranges can now be converted to KNX push buttons, which not only switch on and off but also dim or show the status with an LED (6108/01 and 6108/04 only). 1gang and 2gang models for single and 2gang switch rockers are available.

KNX – water protected

The push-button coupling unit also allows special products to be used for KNX. Special models for water-protected installation allow covers from, for example, the ocean® surface-mounted range to be used. This means that KNX sensors can also be safely installed in a cellar, outside on a patio or in commercial applications. Temperature range: -25 °C to 45 °C

*except impuls, basic55® and All Weather 44 Busch-Jaeger switch ranges only available for selected markets. For further information please contact your local ABB office.

ABB i-bus® KNX

Operation – Push Button Coupling Unit

A
12



6108/06-AP-500

KNX Switch Connection Unit for design ocean® (IP44), FM

For contacting conventional 1gang rocker switches. With middle position. For inserting in the ocean surface-mounted housing. The bus can be connected via enclosed terminal block.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1/2-fold	–	6108/06-AP-500	6133-0-0225		1	
2/4-fold	–	6108/07-AP-500	6133-0-0227		1	

ABB i-bus® KNX

Operation – Push Button Coupling Unit

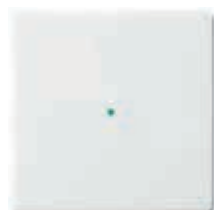


6108/06-500

Push-button coupling 2gang with integrated bus coupler

Support of KNX functions through innovative colour concept yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green. With middle position. The bus can be connected via enclosed terminal block.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6108/06-500	6133-0-0221		1	



SR-1-84

Rocker 1gang, without printing

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
white	–	SR-1-212	6220-0-0182		1	
alpine white	–	SR-1-214	6220-0-0183		1	
future® linear						
anthracite	–	SR-1-81	6220-0-0137		1	
ivory	–	SR-1-82	6220-0-0516		1	
aluminium silver	–	SR-1-83	6220-0-0138		1	
studio white	–	SR-1-84	6220-0-0139		1	
studio white matt	–	SR-1-884	6220-0-0601		1	
black, matt	–	SR-1-885	6220-0-0618		1	
solo®						
ivory	–	SR-1-82	6220-0-0516		1	
studio white	–	SR-1-84	6220-0-0139		1	
grey metallic	–	SR-1-803	6220-0-0550		1	
Busch-axcent®						
studio white	–	SR-1-84	6220-0-0139		1	
pure stainless steel						
stainless steel	–	SR-1-866	6220-0-0533		1	
carat®						
anthracite	–	SR-1-81	6220-0-0137		1	
ivory	–	SR-1-82	6220-0-0516		1	
studio white	–	SR-1-84	6220-0-0139		1	
Dynasty®						
anthracite	–	SR-1-81	6220-0-0137		1	
ivory	–	SR-1-82	6220-0-0516		1	
antique brass	–	SR-1-840	6220-0-0371		1	

ABB i-bus® KNX

Operation – Push Button Coupling Unit

A
12



SRL-1-84

Rocker 1gang, with „Light“ icon

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
white	–	SRL-1-212	6220-0-0184		1	
alpine white	–	SRL-1-214	6220-0-0185		1	
future® linear						
anthracite	–	SRL-1-81	6220-0-0140		1	
ivory	–	SRL-1-82	6220-0-0517		1	
aluminium silver	–	SRL-1-83	6220-0-0141		1	
studio white	–	SRL-1-84	6220-0-0142		1	
studio white matt	–	SRL-1-884	6220-0-0602		1	
black, matt	–	SRL-1-885	6220-0-0619		1	
solo®						
ivory	–	SRL-1-82	6220-0-0517		1	
studio white	–	SRL-1-84	6220-0-0142		1	
grey metallic	–	SRL-1-803	6220-0-0551		1	
Busch-axcent®						
studio white	–	SRL-1-84	6220-0-0142		1	
pure stainless steel						
stainless steel	–	SRL-1-866	6220-0-0534		1	
carat®						
anthracite	–	SRL-1-81	6220-0-0140		1	
ivory	–	SRL-1-82	6220-0-0517		1	
studio white	–	SRL-1-84	6220-0-0142		1	
Dynasty®						
anthracite	–	SRL-1-81	6220-0-0140		1	
ivory	–	SRL-1-82	6220-0-0517		1	
antique brass	–	SRL-1-840	6220-0-0372		1	

ABB i-bus® KNX

Operation – Push Button Coupling Unit



SRB-1-84

Rocker 1gang, with „Blind“ icon

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
white	–	SRB-1-212	6220-0-0186		1	
alpine white	–	SRB-1-214	6220-0-0187		1	
future® linear						
anthracite	–	SRB-1-81	6220-0-0143		1	
ivory	–	SRB-1-82	6220-0-0518		1	
aluminium silver	–	SRB-1-83	6220-0-0144		1	
studio white	–	SRB-1-84	6220-0-0145		1	
studio white matt	–	SRB-1-884	6220-0-0603		1	
black, matt	–	SRB-1-885	6220-0-0620		1	
solo®						
ivory	–	SRB-1-82	6220-0-0518		1	
studio white	–	SRB-1-84	6220-0-0145		1	
grey metallic	–	SRB-1-803	6220-0-0552		1	
Busch-axcent®						
studio white	–	SRB-1-84	6220-0-0145		1	
pure stainless steel						
stainless steel	–	SRB-1-866	6220-0-0535		1	
carat®						
anthracite	–	SRB-1-81	6220-0-0143		1	
ivory	–	SRB-1-82	6220-0-0518		1	
studio white	–	SRB-1-84	6220-0-0145		1	
Dynasty®						
anthracite	–	SRB-1-81	6220-0-0143		1	
ivory	–	SRB-1-82	6220-0-0518		1	
antique brass	–	SRB-1-840	6220-0-0373		1	

ABB i-bus® KNX

Operation – Push Button Coupling Unit

A
12



SRS-1-84

Rocker 1gang, with „Scene“ icon

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
white	–	SRS-1-212	6220-0-0188		1	
alpine white	–	SRS-1-214	6220-0-0189		1	
future® linear						
anthracite	–	SRS-1-81	6220-0-0146		1	
ivory	–	SRS-1-82	6220-0-0519		1	
aluminium silver	–	SRS-1-83	6220-0-0147		1	
studio white	–	SRS-1-84	6220-0-0148		1	
studio white matt	–	SRS-1-884	6220-0-0604		1	
black, matt	–	SRS-1-885	6220-0-0621		1	
solo®						
ivory	–	SRS-1-82	6220-0-0519		1	
studio white	–	SRS-1-84	6220-0-0148		1	
grey metallic	–	SRS-1-803	6220-0-0553		1	
Busch-axcent®						
studio white	–	SRS-1-84	6220-0-0148		1	
pure stainless steel						
stainless steel	–	SRS-1-866	6220-0-0536		1	
carat®						
anthracite	–	SRS-1-81	6220-0-0146		1	
ivory	–	SRS-1-82	6220-0-0519		1	
studio white	–	SRS-1-84	6220-0-0148		1	
Dynasty®						
anthracite	–	SRS-1-81	6220-0-0146		1	
ivory	–	SRS-1-82	6220-0-0519		1	
antique brass	–	SRS-1-840	6220-0-0374		1	

ABB i-bus® KNX

Operation – Push Button Coupling Unit



SRD-1-84

Rocker 1gang, with „Dimmer“ icon

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
white	–	SRD-1-212	6220-0-0190		1	
alpine white	–	SRD-1-214	6220-0-0191		1	
future® linear						
anthracite	–	SRD-1-81	6220-0-0149		1	
ivory	–	SRD-1-82	6220-0-0520		1	
aluminium silver	–	SRD-1-83	6220-0-0150		1	
studio white	–	SRD-1-84	6220-0-0151		1	
studio white matt	–	SRD-1-884	6220-0-0605		1	
black, matt	–	SRD-1-885	6220-0-0622		1	
solo®						
ivory	–	SRD-1-82	6220-0-0520		1	
studio white	–	SRD-1-84	6220-0-0151		1	
grey metallic	–	SRD-1-803	6220-0-0554		1	
Busch-axcent®						
studio white	–	SRD-1-84	6220-0-0151		1	
pure stainless steel						
stainless steel	–	SRD-1-866	6220-0-0537		1	
carat®						
anthracite	–	SRD-1-81	6220-0-0149		1	
ivory	–	SRD-1-82	6220-0-0520		1	
studio white	–	SRD-1-84	6220-0-0151		1	
Dynasty®						
anthracite	–	SRD-1-81	6220-0-0149		1	
ivory	–	SRD-1-82	6220-0-0520		1	
antique brass	–	SRD-1-840	6220-0-0375		1	



6108/07-500

Push-button coupling 4gang with integrated bus coupler

Support of KNX functions through innovative colour concept yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green. With middle position. The bus can be connected via enclosed terminal block.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6108/07-500	6133-0-0223		1	

ABB i-bus® KNX

Operation – Push Button Coupling Unit

A
12



SR-2-84



SRB-2-84

Rocker 2gang left/right, without printing						Rocker 2gang left/right, with „Blind“ icon		
As cover for KNX 4gang push-button coupling unit (6108/07-500).						As cover for KNX 4gang push-button coupling unit (6108/07-500).		
Pack unit pc.	Weight 1 pc. kg	Description	Type	Order code	Price 1 pc. €	Type	Order code	Price 1 pc. €
		Reflex SI						
		white	SR-2-212	6220-0-0192		SRB-2-212	6220-0-0196	
		alpine white	SR-2-214	6220-0-0193		SRB-2-214	6220-0-0197	
		future® linear						
		anthracite	SR-2-81	6220-0-0152		SRB-2-81	6220-0-0158	
		ivory	SR-2-82	6220-0-0521		SRB-2-82	6220-0-0523	
		aluminium silver	SR-2-83	6220-0-0153		SRB-2-83	6220-0-0159	
		studio white	SR-2-84	6220-0-0154		SRB-2-84	6220-0-0160	
		studio white matt	SR-2-884	6220-0-0606		SRB-2-884	6220-0-0608	
		black, matt	SR-2-885	6220-0-0623		SRB-2-885	6220-0-0625	
		solo®						
		ivory	SR-2-82	6220-0-0521		SRB-2-82	6220-0-0523	
		studio white	SR-2-84	6220-0-0154		SRB-2-84	6220-0-0160	
		grey metallic	SR-2-803	6220-0-0555		SRB-2-803	6220-0-0557	
		Busch-axcent®						
		studio white	SR-2-84	6220-0-0154		SRB-2-84	6220-0-0160	
		pure stainless steel						
		stainless steel	SR-2-866	6220-0-0538		SRB-2-866	6220-0-0540	
		carat®						
		anthracite	SR-2-81	6220-0-0152		SRB-2-81	6220-0-0158	
		ivory	SR-2-82	6220-0-0521		SRB-2-82	6220-0-0523	
		studio white	SR-2-84	6220-0-0154		SRB-2-84	6220-0-0160	
		Dynasty®						
		anthracite	SR-2-81	6220-0-0152		SRB-2-81	6220-0-0158	
		ivory	SR-2-82	6220-0-0521		SRB-2-82	6220-0-0523	
		antique brass	SR-2-840	6220-0-0376		SRB-2-840	6220-0-0378	

ABB i-bus® KNX

Operation – Push Button Coupling Unit



SRL-2-L-84



SRL-2-R-84

A
12

Rocker 2gang left, with „Light“ icon						Rocker 2gang right, with „Light“ icon		
As cover for KNX 4gang push-button coupling unit (6108/07-500).						As cover for KNX 4gang push-button coupling unit (6108/07-500).		
Pack unit pc.	Weight 1 pc. kg	Description	Type	Order code	Price 1 pc. €	Type	Order code	Price 1 pc. €
		Reflex SI						
		white	SRL-2-L-212	6220-0-0194		SRL-2-R-212	6220-0-0202	
		alpine white	SRL-2-L-214	6220-0-0195		SRL-2-R-214	6220-0-0203	
		future® linear						
		anthracite	SRL-2-L-81	6220-0-0155		SRL-2-R-81	6220-0-0167	
		ivory	SRL-2-L-82	6220-0-0522		SRL-2-R-82	6220-0-0527	
		aluminium silver	SRL-2-L-83	6220-0-0156		SRL-2-R-83	6220-0-0168	
		studio white	SRL-2-L-84	6220-0-0157		SRL-2-R-84	6220-0-0169	
		studio white matt	SRL-2-L-884	6220-0-0607		SRL-2-R-884	6220-0-0612	
		black, matt	SRL-2-L-885	6220-0-0624		SRL-2-R-885	6220-0-0629	
		solo®						
		ivory	SRL-2-L-82	6220-0-0522		SRL-2-R-82	6220-0-0527	
		studio white	SRL-2-L-84	6220-0-0157		SRL-2-R-84	6220-0-0169	
		grey metallic	SRL-2-L-803	6220-0-0556		SRL-2-R-803	6220-0-0561	
		Busch-axcent®						
		studio white	SRL-2-L-84	6220-0-0157		SRL-2-R-84	6220-0-0169	
		pure stainless steel						
		stainless steel	SRL-2-L-866	6220-0-0539		SRL-2-R-866	6220-0-0544	
		carat®						
		anthracite	SRL-2-L-81	6220-0-0155		SRL-2-R-81	6220-0-0167	
		ivory	SRL-2-L-82	6220-0-0522		SRL-2-R-82	6220-0-0527	
		studio white	SRL-2-L-84	6220-0-0157		SRL-2-R-84	6220-0-0169	
		Dynasty®						
		anthracite	SRL-2-L-81	6220-0-0155		SRL-2-R-81	6220-0-0167	
		ivory	SRL-2-L-82	6220-0-0522		SRL-2-R-82	6220-0-0527	
		antique brass	SRL-2-L-840	6220-0-0377		SRL-2-R-840	6220-0-0381	

ABB i-bus® KNX

Operation – Push Button Coupling Unit

A
12



SRS-2-L-84



SRS-2-R-84

Rocker 2gang left, with „Scene“ icon						Rocker 2gang right, with „Scene“ icon		
As cover for KNX 4gang push-button coupling unit (6108/07-500).						As cover for KNX 4gang push-button coupling unit (6108/07-500).		
Pack unit pc.	Weight 1 pc. kg	Description	Type	Order code	Price 1 pc. €	Type	Order code	Price 1 pc. €
		Reflex SI						
		white	SRS-2-L-212	6220-0-0198		SRS-2-R-212	6220-0-0206	
		alpine white	SRS-2-L-214	6220-0-0199		SRS-2-R-214	6220-0-0207	
		future® linear						
		anthracite	SRS-2-L-81	6220-0-0161		SRS-2-R-81	6220-0-0173	
		ivory	SRS-2-L-82	6220-0-0524		SRS-2-R-82	6220-0-0528	
		aluminium silver	SRS-2-L-83	6220-0-0162		SRS-2-R-83	6220-0-0174	
		studio white	SRS-2-L-84	6220-0-0163		SRS-2-R-84	6220-0-0175	
		studio white matt	SRS-2-L-884	6220-0-0609		SRS-2-R-884	6220-0-0613	
		black, matt	SRS-2-L-885	6220-0-0626		SRS-2-R-885	6220-0-0630	
		solo®						
		ivory	SRS-2-L-82	6220-0-0524		SRS-2-R-82	6220-0-0528	
		studio white	SRS-2-L-84	6220-0-0163		SRS-2-R-84	6220-0-0175	
		grey metallic	SRS-2-L-803	6220-0-0558		SRS-2-R-803	6220-0-0562	
		Busch-axcent®						
		studio white	SRS-2-L-84	6220-0-0163		SRS-2-R-84	6220-0-0175	
		pure stainless steel						
		stainless steel	SRS-2-L-866	6220-0-0541		SRS-2-R-866	6220-0-0545	
		carat®						
		anthracite	SRS-2-L-81	6220-0-0161		SRS-2-R-81	6220-0-0173	
		ivory	SRS-2-L-82	6220-0-0524		SRS-2-R-82	6220-0-0528	
		studio white	SRS-2-L-84	6220-0-0163		SRS-2-R-84	6220-0-0175	
		Dynasty®						
		anthracite	SRS-2-L-81	6220-0-0161		SRS-2-R-81	6220-0-0173	
		ivory	SRS-2-L-82	6220-0-0524		SRS-2-R-82	6220-0-0528	
		antique brass	SRS-2-L-840	6220-0-0379		SRS-2-R-840	6220-0-0382	

ABB i-bus® KNX

Operation – Push Button Coupling Unit



SRD-2-L-84



SRD-2-R-84

A
12

Rocker 2gang left, with „Dimmer“ icon						Rocker 2gang right, with „Dimmer“ icon		
As cover for KNX 4gang push-button coupling unit (6108/07-500).						As cover for KNX 4gang push-button coupling unit (6108/07-500).		
Pack unit pc.	Weight 1 pc. kg	Description	Type	Order code	Price 1 pc. €	Type	Order code	Price 1 pc. €
		Reflex SI						
		white	SRD-2-L-212	6220-0-0200		SRD-2-R-212	6220-0-0261	
		alpine white	SRD-2-L-214	6220-0-0201		SRD-2-R-214	6220-0-0262	
		future® linear						
		anthracite	SRD-2-L-81	6220-0-0164		SRD-2-R-81	6220-0-0258	
		ivory	SRD-2-L-82	6220-0-0525		SRD-2-R-82	6220-0-0526	
		aluminium silver	SRD-2-L-83	6220-0-0165		SRD-2-R-83	6220-0-0259	
		studio white	SRD-2-L-84	6220-0-0166		SRD-2-R-84	6220-0-0260	
		studio white matt	SRD-2-L-884	6220-0-0610		SRD-2-R-884	6220-0-0611	
		black, matt	SRD-2-L-885	6220-0-0627		SRD-2-R-885	6220-0-0628	
		solo®						
		ivory	SRD-2-L-82	6220-0-0525		SRD-2-R-82	6220-0-0526	
		studio white	SRD-2-L-84	6220-0-0166		SRD-2-R-84	6220-0-0260	
		grey metallic	SRD-2-L-803	6220-0-0559		SRD-2-R-803	6220-0-0560	
		Busch-axcent®						
		studio white	SRD-2-L-84	6220-0-0166		SRD-2-R-84	6220-0-0260	
		pure stainless steel						
		stainless steel	SRD-2-L-866	6220-0-0542		SRD-2-R-866	6220-0-0543	
		carat®						
		anthracite	SRD-2-L-81	6220-0-0164		SRD-2-R-81	6220-0-0258	
		ivory	SRD-2-L-82	6220-0-0525		SRD-2-R-82	6220-0-0526	
		studio white	SRD-2-L-84	6220-0-0166		SRD-2-R-84	6220-0-0260	
		Dynasty®						
		anthracite	SRD-2-L-81	6220-0-0164		SRD-2-R-81	6220-0-0258	
		ivory	SRD-2-L-82	6220-0-0525		SRD-2-R-82	6220-0-0526	
		antique brass	SRD-2-L-840	6220-0-0380		SRD-2-R-840	6220-0-0383	

ABB i-bus® KNX

Operation – Room Temperature Controller

A
12



6109/05-500

Room temperature controller with 5gang universal input for heating/cooling operation, FM

NEW

Room thermostat without "local operation" and without internal temperature sensor. With master/slave configuration and base load operation. With universal inputs: a) max. of 5 binary inputs b) 4 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V or c) 2 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V and an external temperature sensor PT1000/T6226.

[Expected availability June 2017](#)

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6109/05-500	6181-0-0013		1	



6109/08-500

Room temperature controller, Commercial, with 5gang universal input for heating/cooling operation, FM

NEW

Room thermostat without "local operation" incl. insert for centre plate for cooling element. With master/slave configuration and base load operation. With universal inputs: a) max. of 5 binary inputs b) 4 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V or c) 2 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V and an external temperature sensor PT1000/T6226.

[Expected availability March 2017](#)

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6109/08-500	6134-0-0313		1	



6108/08-500

Room Temperature Controller, Commercial, FM

Room thermostat without „local operation“ incl. insert for centre plate for cooling element. For controlling commercially available valve drives. Can only be used with a cover plate 2114-xxx or 6541-xxx, with the exception of 6541-20, -21, -260 and -266. For control of up to 5-level ventilation actuators Master/slave configuration. With base-load operation. The bus can be connected via enclosed terminal block.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6108/08-500	6134-0-0308		1	

ABB i-bus® KNX

Operation – Room Temperature Controller



6541-84

Cover Plate for Room Temperature Controller

For room temperature controller, commercial.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
future® linear						
anthracite	–	6541-81	6599-0-2882		10	
savanna/ivory	–	6541-82	6599-0-2832		10	
aluminium silver ¹⁾	–	6541-83	6599-0-2885		10	
davos/studio white	–	6541-84	6599-0-2835		10	
studio white, matt ¹⁾	–	6541-884	6599-0-2962		10	
black matt ¹⁾	–	6541-885	6599-0-2967		10	
solo®						
savanna/ivory	–	6541-82	6599-0-2832		10	
davos/studio white	–	6541-84	6599-0-2835		10	
meteor/grey metallic ¹⁾	–	6541-803	6599-0-2940		10	
carat®						
anthracite	–	6541-81	6599-0-2882		10	
savanna/ivory	–	6541-82	6599-0-2832		10	
davos/studio white	–	6541-84	6599-0-2835		10	
pure stainless steel ¹⁾						
stainless steel	–	6541-866	6599-0-2924		10	
Busch-axcent®						
davos/studio white	–	6541-84	6599-0-2835		10	

¹⁾ Surface painted



2114-214

Cover Plate for Temperature Controller, Commercial

For room temperature controller, commercial.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
alpine white (SI-Series)	–	2114-214-500	6599-0-3008		10	

ABB i-bus® KNX

Operation – Room Temperature Controller

A
12



6108/18-500

Room thermostat, heating/cooling operation

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. For controlling commercially available valve drives. With display of set-value temperature. Master/slave configuration. With base-load operation. The bus can be connected via enclosed terminal block.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6108/18-500	6134-0-0319		1	



CP-RTC-84

Cover plate for room thermostat

As cover for KNX room temperature controller (6108/18-500).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
white	–	CP-RTC-212	6220-0-0210		1	
alpine white	–	CP-RTC-214	6220-0-0211		1	
future® linear						
anthracite	–	CP-RTC-81	6220-0-0179		1	
ivory	–	CP-RTC-82	6220-0-0529		1	
aluminium silver	–	CP-RTC-83	6220-0-0180		1	
studio white	–	CP-RTC-84	6220-0-0181		1	
studio white matt	–	CP-RTC-884	6220-0-0614		1	
black, matt	–	CP-RTC-885	6220-0-0631		1	
solo®						
ivory	–	CP-RTC-82	6220-0-0529		1	
studio white	–	CP-RTC-84	6220-0-0181		1	
grey metallic	–	CP-RTC-803	6220-0-0563		1	
Busch-axcent®						
studio white	–	CP-RTC-84	6220-0-0181		1	
pure stainless steel						
stainless steel	–	CP-RTC-866	6220-0-0546		1	
carat®						
anthracite	–	CP-RTC-81	6220-0-0179		1	
ivory	–	CP-RTC-82	6220-0-0529		1	
studio white	–	CP-RTC-84	6220-0-0181		1	
Dynasty®						
anthracite	–	CP-RTC-81	6220-0-0179		1	
ivory	–	CP-RTC-82	6220-0-0529		1	
antique brass	–	CP-RTC-840	6220-0-0384		1	

ABB i-bus® KNX

Operation – Room Temperature Controller



6109/18-500

Room temperature controller with 5gang universal input for heating/cooling operation, FM

NEW

A
12

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. With display of set-value temperature, master/slave configuration and base load operation. With universal inputs: a) max. of 5 binary inputs b) 4 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V or c) 2 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V and an external temperature sensor PT1000/T6226.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6109/18-500	6134-0-0315		1	



6109/28-500

Room temperature controller with CO₂ moisture sensor for heating/cooling operation, FM

NEW

Control element with room thermostat function and CO₂ moisture/air pressure sensor or triggering the heating, ventilation and fan-coil actuators. With display of set-value temperature, master/slave configuration and base load operation. With universal inputs: a) max. of 5 binary inputs b) 4 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V or c) 2 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V and an external temperature sensor PT1000/T6226.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6109/28-500	6134-0-0317		1	

ABB i-bus® KNX

Operation – Room Temperature Controller

A
12



6109/03-214-500

Cover plate for room temperature controller

NEW

As cover for KNX room temperature controller (6109/18-500 and 6109/28-500).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Reflex SI						
white	–	6109/03-212-500	6155-0-0051		1	
alpine white	–	6109/03-214-500	6155-0-0052		1	
future® linear						
anthracite	–	6109/03-81-500	6155-0-0060		1	
ivory	–	6109/03-82-500	6155-0-0061		1	
aluminium silver	–	6109/03-83-500	6155-0-0062		1	
studio white	–	6109/03-84-500	6155-0-0063		1	
studio white matt	–	6109/03-884-500	6155-0-0064		1	
black, matt	–	6109/03-885-500	6155-0-0065		1	
solo®						
ivory	–	6109/03-82-500	6155-0-0061		1	
studio white	–	6109/03-84-500	6155-0-0063		1	
grey metallic	–	6109/03-803-500	6155-0-0066		1	
Busch-axcent®						
studio white	–	6109/03-84-500	6155-0-0063		1	
pure stainless steel						
stainless steel	–	6109/03-866-500	6155-0-0069		1	
carat®						
anthracite	–	6109/03-81-500	6155-0-0060		1	
ivory	–	6109/03-82-500	6155-0-0061		1	
studio white	–	6109/03-84-500	6155-0-0063		1	
Dynasty®						
anthracite	–	6109/03-81-500	6155-0-0060		1	
ivory	–	6109/03-82-500	6155-0-0061		1	
antique brass	–	6109/03-840-500	6155-0-0114		1	

Notes

Millenium KNX

Everything under control

A
12

Millenium is the first metal range with KNX technology, the most intelligent way to manage spaces and optimise performance in terms of energy savings. Millenium is based on a combinable concept, creating a comprehensive range suitable for all needs. This makes it the ideal collection for all types of homes, hotels, offices and shops.



01



02



03



04



05



06

01 Switch Sensor 2gang KNX

02 Switch Sensor 4gang KNX

03 Switch Sensor 6gang KNX

04 Switch Sensor 6gang KNX
with IR

05 Busch-Watchdog 180° KNX

06 Room Thermostat KNX

The Millenium range is only available in the following countries:
China, Dubai, India, Kuwait, Oman, Qatar, Saudi Arabia, Singapore, UAE and UK.
Frames and special mounting plates for KNX sensors have to be ordered from:
ABB, S.A. Low Voltage Products Niessen, OIartzun/Spain www.abb.es/niessen



The Millenium range offers special mounting plates for KNX sensors to reduce the height and improve the aesthetics for ultra-slim design. The KNX sensors allow the buttons to be replaced with desired symbols in order to adjust the sensors to specific design and needs like light, blind, scene, RTC or fan coil. Millenium offers a wide and elegant choice of finishes in stainless steel material: from brushed stainless steel, to the soft new touch given by silk black, and the luxury of the sophisticated gold finishes, matt gold and antique gold.

- Multiple functions:
switching, dimming, blinds
sending values, scenes, etc.
- Incl. 10 logic channels
- Sequence actuator
- Logic gates
- Control element: switch contacts
- Status/orientation light
(red/green/OFF)

ABB i-bus® KNX

Operation – Millennium

A
12



6125/20-981-500

2-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	AMD72053-AN (6125/20-981-500)	6115-0-0443		1	



6126/20-981-500

4-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	AMD74053-AN (6126/20-981-500)	6116-0-0218		1	



6129/20-981-500

6-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	AMD76053-AN (6129/20-981-500)	6118-0-0104		1	



6129/21-981-500

6-fold sensor with IR

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	AMD76153-AN (6129/21-981-500)	6118-0-0107		1	

ABB i-bus® KNX

Operation – Millenium



6122/20-981-500

Watchdog 180 flush mounted

Movement sensor with up to four channels. Detection range: frontal: 6 m, lateral: 6 m. Detection angle: 180 °. Brightness limit value: 5 Lux – 150 Lux. Mounting height: 1.1 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 53 mm x 44 mm. Position for installation: vertical.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	AMD70153-AN (6122/20-981-500)	6132-0-0306		1	



6124/08-981-500

Room thermostat heating/cooling Fan Coil

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2- and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment. Display elements: LCD showing operation modes. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 53 mm x 44 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	AMD70053-AN (6124/08-981-500)	6134-0-0309		1	



Buttons with symbols

Buttons with symbols for Millenium control covers 1 / 2-gang, 2 / 4-gang, 3 / 6-gang and 3 / 6-gang with infrared.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Ceiling light symbol	–	AM50701-GR (6123/20-500)	6123-0-0001		10	
Blinds symbol	–	AM50702-GR (6123/21-500)	6123-0-0002		10	
Scene symbol	–	AM50703-GR (6123/22-500)	6123-0-0003		10	
Temperature symbol	–	AM50704-GR (6123/23-500)	6123-0-0004		10	
Light symbol	–	AM50705-GR (6123/24-500)	6123-0-0005		10	
Fan Coil symbol	–	AM50706-GR (6123/26-500)	6123-0-0006		10	

ABB i-bus® KNX

Operation – Millenium

A
12



Triple rocker / KNX frame 1 gang

Frame includes metal mounting plate. Dimensions 86 x 86 mm.

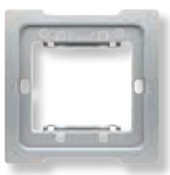
Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Stainless Steel	–	AMD5153-ST	2CLA637100N1101		1	
Silk Black	–	AMD5153-SB	2CLA637100N1501		1	
Matt Gold	–	AMD5153-MG	2CLA637100N1701		1	
Antique Gold	–	AMD5153-AG	2CLA637100N1601		1	



Triple rocker / KNX frame 2 gang

Frame includes metal mounting plate. Dimensions 86 x 147 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Stainless Steel	–	AMD5253-ST	2CLA667200N1101		1	
Silk Black	–	AMD5253-SB	2CLA667200N1501		1	
Matt Gold	–	AMD5253-MG	2CLA667200N1701		1	
Antique Gold	–	AMD5253-AG	2CLA667200N1601		1	



AMD5053

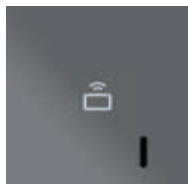
Special metal mounting plate for KNX sensors

Allows reduction height of KNX sensors to 1 mm. Only for following items: AMD72053-AN, AMD74053-AN, AMD76053-AN, AMD76153-AN.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Special metal mounting plate for KNX sensors 1 gang	–	AMD5053	2CLA627190N1001		1	

ABB i-bus® KNX

Operation – Millenium



TR/U 1.1

Transponder reader MIFARE

The „transponder reader“ is a flush-mounting device for British Standard wall boxes, designed to realize access control systems with a communication support based on KNX bus.

It is equipped with one relay (4A @24 V AC/DC) and one input to be used for connecting external conventional card-holder (e.g. Millenium wiring accessories card-holder).

The output can be programmed in three different ways: „Linked to access control“, receiving in this case switching commands from the device itself (according to transponder card validation); being a standard KNX Switch actuator output, able to be controlled by every KNX-standard devices; „linked to card-holder“, that means that the relay is switched according to closing/opening internal input contact available on transponder reader.

The bicolor (red-green) LED placed on the front of the device allow you to monitor device operation and can be also switched ON/OFF in the proper color according to KNX telegram (for example for DND/MUR purposes).

The transponder reader requires a 12...24 V AC/DC external power supply to ensure its operation even with bus voltage failure.

The transponder reader is available for ABB Millenium wiring accessories range.

For the list of available plates, please refer to Millenium catalogue, code 2CLC6AM006C0201.

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack 1 pc.	Weight 1 pc. kg
	–	TR/U 1.1	2CSY235683R2001		1	



TH/U 1.1

Transponder holder MIFARE

The „transponder holder“ is a flush-mounting device for British Standard wall boxes, designed to realize access control systems with a communication support based on KNX bus.

It is equipped with one relay (4A @24V AC/DC) and one binary input to be used for connecting external conventional push-button for switch, dimmer and shutter functionalities, or for example for connecting window contact or similar.

The output can be programmed as „Linked to access control“, receiving in this case switching commands from the device itself (according to card insertion/removal); or being a standard KNX Switch actuator output, able to be controlled by every KNX-standard devices.

The bicolor (red-green) LED placed on the front of the device allow you to monitor device operation and can be also switched ON/OFF in the proper color according to KNX.

The transponder reader requires a 12...24 V AC/DC external power supply to ensure its operation even with bus voltage failure.

The transponder reader is available for ABB Millenium wiring accessories range.

For the list of available plates, please refer to Millenium catalogue, code 2CLC6AM006C0201.

Description	MW	Type	Order code	Price 1 pc. unit € pc.	Pack 1 pc.	Weight 1 pc. kg
	–	TH/U 1.1	2CSY265232R2021		1	

ABB i-bus® KNX

Operation – Millenium

A
12



TS/T 1

Set of 10 transponder cards, MIFARE

The transponder card uses passive transponder technology operating in radio frequency (MIFARE technology), without the need for contact between the reader and the card itself. The transponder card is read by swiping it in front of the reader at a maximum distance of 20 mm (can be reduced according to installation environment).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	TS/T 1	2CSY259412R2041		1	



SW MiniMAC 4.1

MiniMAC software

MiniMAC – Management and configuration software.

The management and configuration software ensures bidirectional communication with the access control system devices, allowing the system's configuration during its installation and its overall management and supervision.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SW MiniMAC 4.1	2CSY258202R2051		1	

Notes

A
12

Zenit KNX

Suitable for every need

A
12

Zenit is based on a combinable concept which, creating a comprehensive range, is suitable for all needs. Optimising comfort, safety and efficiency in homes and buildings. Providing comfort solutions to satisfy all types of needs and projects. Ensuring safety and protection of persons and goods. Saving energy by using only the amount of energy required.



01



02



03



04



05



06

01 Switch Sensor 2gang KNX

02 Switch Sensor 4gang KNX

03 Switch Sensor 6gang KNX

04 Switch Sensor 6gang KNX with IR

05 Busch-Watchdog 180° KNX

06 Room Thermostat KNX

The Zenit VDE range is only available in the following countries: Spain, Portugal, Russia, France.
 The Zenit NEMA range is only available in the following countries: Latin America, Australia, Thailand, Vietnam.
 Sensors, frames and special mounting plates for KNX sensors have to be ordered from:
 ABB, S.A., Low Voltage Products Niessen, Olartzun/Spain, www.abb.es/niessen



- Multiple functions:
switching, dimming, blinds
sending values, scenes, etc.
- Incl. 10 logic channels
- Sequence actuator
- Logic gates
- Control element: switch contacts
- Display elements: LED to
indicate the function



Zenit offers two different mounting plates for KNX sensors, corresponding to different market standards: VDE and NEMA.

ABB i-bus® KNX

Operation – Zenit

A
12

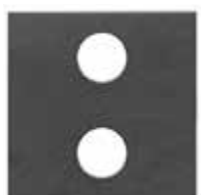


6125/98-509

1/2-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Control element: Switch contacts. Display elements: LED to indicate the function.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6125/98-509	6115-0-0444		1	



N2221.2

Cover Zenit 1/2-fold

Cover Zenit 1/2-fold. Available in white (BL), antrachite (AN) and silver (PL).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Cover Zenit 1/2-fold – white	–	N2221.2 BL	2CLA222120N1101		1	
Cover Zenit 1/2-fold – antrachite	–	N2221.2 AN	2CLA222120N1801		1	
Cover Zenit 1/2-fold – silver	–	N2221.2 PL	2CLA222120N1301		1	

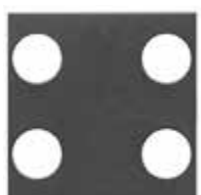


6126/98-509

2/4-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Control element: Switch contacts. Display elements: LED to indicate the function.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6126/98-509	6116-0-0219		1	



N2221.4

Cover Zenit 2/4-fold

Cover Zenit 2/4-fold. Available in white (BL), antrachite (AN) and silver (PL).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Cover Zenit 2/4-fold – white	–	N2221.4 BL	2CLA222140N1101		1	
Cover Zenit 2/4-fold – antrachite	–	N2221.4 AN	2CLA222140N1801		1	
Cover Zenit 2/4-fold – silver	–	N2221.4 PL	2CLA222140N1301		1	

ABB i-bus® KNX

Operation – Zenit



6129/96-509

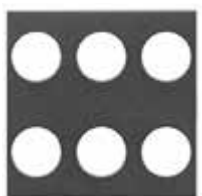
3/6-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.)

Control element: Switch contacts. Display elements: LED to indicate the function. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 44 mm x 44 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6129/96-509	6118-0-0105		1	



N2221.6

Cover Zenit 3/6-fold

Cover Zenit 3/6-fold. Available in white (BL), antrachite (AN) and silver (PL).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Cover Zenit 3/6-fold – white	–	N2221.6 BL	2CLA222160N1101		1	
Cover Zenit 3/6-fold – antrachite	–	N2221.6 AN	2CLA222160N1801		1	
Cover Zenit 3/6-fold – silver	–	N2221.6 PL	2CLA222160N1301		1	



6129/98-509

3/6-fold sensor with IR

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). With infrared.

Control element: Switch contacts. Display elements: LED to indicate the function.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6129/98-509	6118-0-0108		1	



N2221.7

Cover Zenit 3/6-fold with IR

Cover Zenit 3/6-fold with IR. Available in white (BL), antrachite (AN) and silver (PL).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Cover Zenit 3/6-fold with IR – white	–	N2221.7 BL	2CLA222170N1101		1	
Cover Zenit 3/6-fold with IR – antrachite	–	N2221.7 AN	2CLA222170N1801		1	
Cover Zenit 3/6-fold with IR – silver	–	N2221.7 PL	2CLA222170N1301		1	

ABB i-bus® KNX

Operation – Zenit

A
12



6124/88-509

Room thermostat heating / cooling Fan Coil

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2 - and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment. Display elements: LCD showing operation modes.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6124/88-509	6134-0-0310		1	



N2240.4

Cover Zenit room thermostat

Cover Zenit room thermostat. Available in white (BL), antrachite (AN) and silver (PL).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Cover Zenit RTC – white	–	N2240.4 BL	2CLA224040N1101		1	
Cover Zenit RTC – antrachite	–	N2240.4 AN	2CLA224040N1801		1	
Cover Zenit RTC – silver	–	N2240.4 PL	2CLA224040N1301		1	



6122/98-509

Watchdog 180 flush mounted

Movement sensor with up to four channels. Detection range: frontal: 6 m, lateral: 6 m. Detection angle: 180 °. Brightness limit value: 5 Lux – 150 Lux. Mounting height: 1.1 m.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6122/98-509	6132-0-0307		1	



N2241.4

Cover Zenit watchdog

Cover Zenit watchdog. Available in white (BL), antrachite (AN) and silver (PL).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Cover Zenit Watchdog – white	–	N2241.4 BL	2CLA224140N1101		1	
Cover Zenit Watchdog – antrachite	–	N2241.4 AN	2CLA224140N1801		1	
Cover Zenit Watchdog – silver	–	N2241.4 PL	2CLA224140N1301		1	

ABB i-bus® KNX

Operation – Zenit



Buttons with symbols

Buttons with symbols for Zenit control covers 1 / 2-gang, 2 / 4-gang, 3 / 6-gang and 3 / 6-gang with infrared.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Ceiling light symbol	–	6123/20-500	6123-0-0001		10	
Blinds symbol	–	6123/21-500	6123-0-0002		10	
Scene symbol	–	6123/22-500	6123-0-0003		10	
Temperature symbol	–	6123/23-500	6123-0-0004		10	
Light symbol	–	6123/24-500	6123-0-0005		10	
Fan Coil symbol	–	6123/26-500	6123-0-0006		10	



N2271 XX

Frames, Zenit VDE

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*	–	N2271 XX				
1-fold basic (without logo), Available in AN, BL, CV, PL*	–	N2271.1 XX				
2-fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*	–	N2272 XX				
2-fold basic (without logo), Available in AN, BL, CV, PL*	–	N2272.1 XX				
3-fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*	–	N2273 XX				
3-fold basic (without logo), Available in AN, BL, CV, PL*	–	N2273.1 XX				
4-fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*	–	N2274 XX				
4-fold basic (without logo), Available in AN, BL, CV, PL*	–	N2274.1 XX				



N2271.9

Metal mounting plate

Metal mounting plate for Zenit VDE KNX sensors.

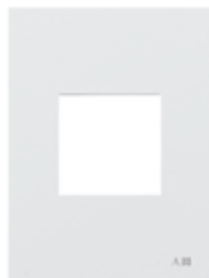
Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Metal mounting plate	–	N2271.9	2CLA227190N1001		20	

* AN = Antrachite, BL = white, CB = white glass, CN = black glass, CV = Cava, OX = Stainless Steel, PL = Silver, PZ = Slate, WG = Wenge

ABB i-bus® KNX

Operation – Zenit

A
12

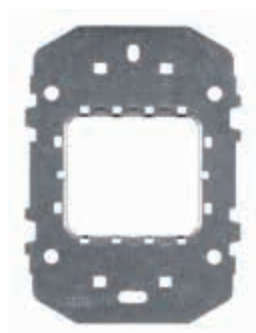


N2372.1 XX

Frame, Zenit NEMA

Dimensions (L x W): 122 x 90 mm. Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
1-fold	–	N2372.1 XX				



N2371.9V

Metal mounting plate

Metal mounting plate for Zenit NEMA KNX sensors. Dimensions (L x W): 102 x 74 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Metal mounting plate	–	N2371.9V			20	

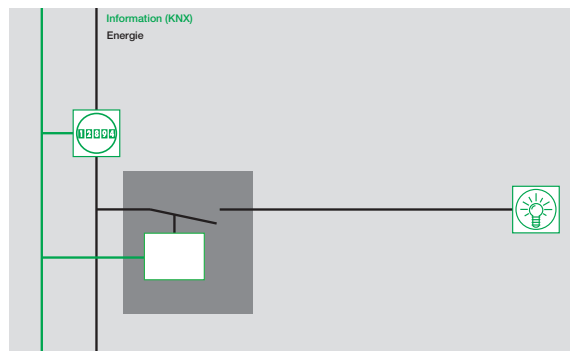
* AN = Antrachite, BL = white, CB = white glass, CN = black glass, CV = Cava, OX = Stainless Steel, PL = Silver, PZ = Slate, WG = Wenge

ABB i-bus® KNX Energy Measurement

ABB offers various solutions for decentral energy measurement on the basis of the KNX standard.

A
13

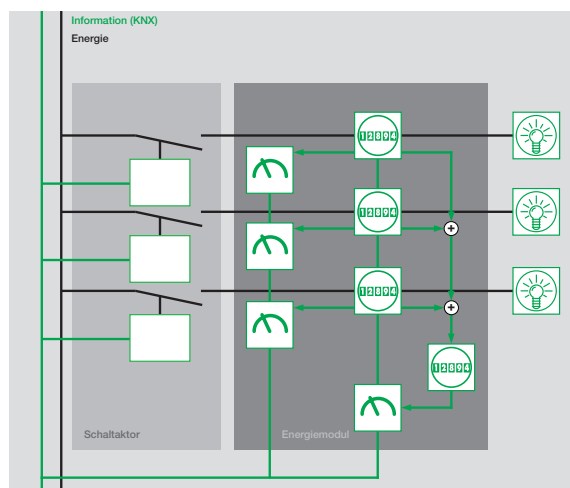
Version 1



Electronic energy meters make the current energy values available on the KNX bus system in conjunction with a KNX interface. The measured data can be intermediately stored, evaluated and visualized from here.



Version 2

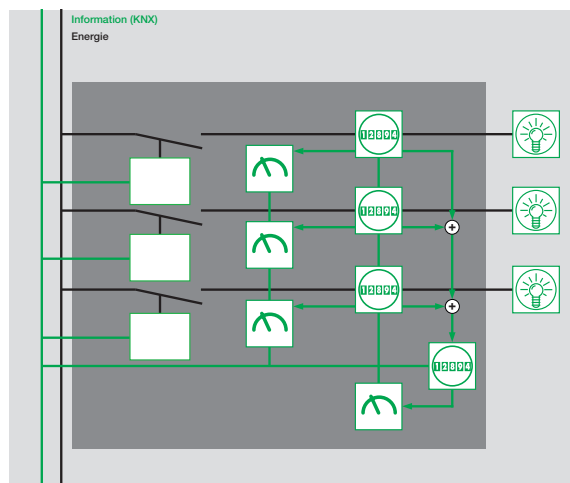


The Energy Module can record the energy consumption for the individual devices. It is used particularly when upgrading existing KNX systems and wherever energy measurement is required without switch functions. It facilitates a detailed and transparent insight into the energy consumption of a building.

The current meter values can be sent and evaluated.



Version 3



The Energy Actuator facilitates control of the connected consumer loads via the ABB i-bus® KNX. For each of the three switch channels, the individual consumption can be measured in the same way as for the Energy Module. For every channel, the proven functionality of the ABB i-bus® KNX Switch Actuators are available.



Intermediate meter for electrical energy



Electrical consumer (load)



Energy meter

ABB i-bus® KNX

Energy Measurement – Overview

A
13

	Energy Module EM/S 3.16.1	Energy Actuator SE/S 3.16.1	Meter Interface Module ZS/S 1.1 ¹⁾
General			
Supply voltage		KNX	
Type of installation		MDRC	
Module width (18 mm)	4	4	2
Number of channels	3	3	–
Rated current I _n	16/20 A	16/20 A AX (C-Load)	–
Measuring range Current	0.025...20 A	0.025...20 A	Depending on meter connected ²⁾
Measuring range Voltage	95...265 V	95...265 V	Depending on meter connected ²⁾
Measuring range Frequency	45...65 Hz	45...65 Hz	50/60 Hz ± 5 %
Measurement values			
E – Active energy [kWh]	■	■	■
U – Voltage [V]	■	■	■
I – Current [A]	■	■	■
F – Frequency [Hz]	■	■	■
P – Active power [W]	■	■	■
Q – Reactive power [var]	–	–	■
S – Apparent power [VA]	■	■	■
PF – Power factor	■	■	■
CF – Crest factor	■	■	–
General functions			
Function Switch	–	■	–
Function Time	–	■	–
Function Scene	–	■	–
Function Logic	–	■	–
Function Priority	–	■	–
Load control with Energy Actuators as Master (up to ten SE/S 3.16.1 as slaves)	■	■	–
Load control as Slave	–	■	–
Sending delay (for value request)	–	–	■
Commissioning and diagnostic function			
Control and diagnosis via ABB i-bus® Tool	■	■	–

■ = Function is supported

– = Function is not supported

¹⁾ In combination with ABB Energy Meter A and B series

²⁾ See also Electricity Meters Overview

ABB i-bus® KNX

Energy Measurement



SE/S 3.16.1

Energy Actuator, 3-fold, 16/20 AX, MDRC

Records the energy consumption of the connected electrical loads in the load circuit. Various electrical variables can be monitored and load peaks can be limited by simple load control. The 3 output channels can be manually operated and display the current switching state. The Energy Actuator can switch resistive, inductive and capacitive loads. The switching capacity corresponds to the SA/S X.16.6.1.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	SE/S 3.16.1	2CDG110136R0011		1	0.3



EM/S 3.16.1

Energy Module, MDRC

Measures energy consumption and various electrical parameters in the terminal current. Active power, Current, Voltage and Frequency can be monitored via threshold values and peak loads can be limited through a simple load control. The measured values are provided via ABB i-bus® KNX.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	4	EM/S 3.16.1	2CDG110148R0011		1	0.2



ZS/S 1.1

Meter Interface Module, MDRC

It records consumption and measured values of the electrical energy consumption meters. Using an infra-red interface, the ABB energy meter types of the A- and B-series are incorporated. The information and data which is read can be used, for example, for cost centre accounting, energy optimisation, monitoring of installations and visualisation.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	ZS/S 1.1	2CDG110083R0011		1	0.13

Energy Management

General Information about EQ meters

A
13



EQ meters serve as the 'building blocks' in a sub-metering system with several options for seamless integration into a system solution. The reason to choose EQ meters is to find the right meter that is easy to use and ensures measurements of high quality.

The wide range of EQ meters allows users to easily find the right meters according to the specific requirements and needs. EQ meters include the necessary features, from basic to the most advanced. EQ meters provide information to the user and helps them make the right decisions while keeping track of their installation's energy usage. EQ meters come with options for communication, such as inbuilt Modbus or M-Bus, and are also possible to use with EQ meters gateway that could be used in small to big sub-metering systems.

EQ meters are fast to install. Easy to configure and use.

EQ meters are made for easy and fast installation. With its compact and clean design EQ meters are suited to be installed in many kinds of installation, from consumer units to distribution boards. With its user-friendly interface configuration of settings is fast and the meter is up and running in no time. The big and clear displays are perfect for reading energy registers and instrumentation values.

EQ meters are made with ABB quality

All EQ meters are made of highest quality to ensure a trouble-free use. Having a meter to trust in any situation was the aim when developing the EQ meters. All meters are made with high quality components and are all carefully tested. EQ meters fulfill national and international standards, such as IEC standards, and are type tested and approved according to MID and IEC. These requirements ensure the high quality of EQ meters from ABB while also proving they can be used worldwide.

Energy Management

EQ meters: A, B and C series

A
13

EQ meters is the new range of meters for sub-metering and energy efficiency from ABB. The EQ meters are divided into three products series with up to five functionality levels each. They come in both single and three phase versions.

The C series is a product range intended for simple energy measurement up to 40 A direct connected.

The B series is a basic meter product range for installations up to 65 A direct connected or transformer connected (CT).

The A series is a product range of meters with advanced functions, 80 A direct connected or transformer connected (CTVT).

The functionality of the EQ meters is grouped in five levels ranging from Steel to Platinum.

The Steel level includes metering of active energy in accuracy class 1 (MID Class B), instrument values (voltage, current, power and power factor), alarm function and an output for pulses or alarm.

The Bronze level includes the functions of Steel and the following additional functions: import and export of energy, energy measurement per phase, reactive and apparent energy measurement.

The Silver level adds four tariff registers to the Bronze level. The pulse output board in the Steel and Bronze products is replaced by an input and output board with two inputs and two outputs. Transformers connected meters with Silver functionality are also available in accuracy class 0,5 S (MID class C).

The Gold level adds time dependent functions to the Silver level. These time dependent functions include Previous Values for day, week or month and demand (max and min) function. The built-in clock can be used to control tariff switching times and to set outputs.

The Platinum level adds advanced load profiles (8 channels) and harmonics measurement up to 16th harmonic and an evaluation of TDH¹. The input and output board in Silver and Gold is replaced by a configurable I/O board with four I/O's that can be selected to operate as input or output.

The A and B series can be delivered with a communication interface for RS-485 or M-Bus. All meters in the A and B series are equipped with an infrared port on the side for communication with a Gateway, Serial communication adapter or similar equipment.

¹Total harmonic distortion

Features and functionality overview

	Connection	Max. Amp.	Communication	Functionality	
Single Phase	C11	Direct	40A	-	Steel
	B21	Direct	65A	IR, M-Bus, RS-485	Steel, Bronze, Silver
	A41	Direct	80A	IR, M-Bus, RS-485	Steel, Bronze, Silver, Gold, Platinum
	A42	CTVT	6A	IR, M-Bus, RS-485	Steel, Bronze, Silver, Gold, Platinum
Three Phase	C13	Direct	40A	-	Steel
	B23	Direct	65A	IR, M-Bus, RS-485	Steel, Bronze, Silver
	B24	CT	6A	IR, M-Bus, RS-485	Steel, Bronze, Silver
	A43	Direct	80A	IR, M-Bus, RS-485	Steel, Bronze, Silver, Gold, Platinum
	A44	CTVT	6A	IR, M-Bus, RS-485	Steel, Bronze, Silver, Gold, Platinum

This QR-code is linked to our web site www.abb.com/lowvoltage. You will have to download a QR-code reader app to your phone in order to use it.



Energy Management

Diverse meter range for several applications

A
13

A diverse meter range for most standard single and three phase applications. EQ meters are suitable for installation in panels, distribution boards and small consumer units. The wide temperature range allows them to be installed in various environments. Navigating and configuring EQ meters is easily done via the push-buttons below the display.

All EQ meters are type approved according to IEC and MID. The A and B series meters are also IRIS approved. As standard the A and B series are also verified according to MID which is optional for C series.

All EQ meters have as minimum the following instrumentation values:

- Active power
- Voltage
- Current
- Power factor

C series can be used in many applications where the meter is expected to be installed in stand-alone applications.

General features

Truly compact meters with large digits LCD display.

Output

The meters have a solid state relay output that can be used as pulse or alarm output. Used as pulse output it generates pulses proportionally to the measured energy. Used as alarm the preferred quantity and levels are easily configured on the meter with the push button.

B series is compact meters with outstanding performance and features.

General features

The EQ meters B series has a big backlighted LCD display that clearly presents values.

Communication

Built-in serial communication interfaces for M-Bus, Modbus RTU or EQ bus.

Tariffs

Some B series meters have tariff handling of up to four tariffs. The tariffs are controlled via inputs or communication.



Instrumentation

In addition to the standard instrumentation values, the B series also supports the following dependent on version of meter:

- Apparent power
- Reactive power
- Frequency

Inputs and outputs

The B series have two options of one output or two inputs and two outputs in a fixed configuration. Inputs can be used for counting pulses or reading status from external devices. Outputs can be used as pulse outputs or controlling an external apparatus.

Installation

The B series meters come with an automatic installation check that indicates problems in the installation.

The A series meters ranges from basic up to advanced functionality without any comparison.

General features

The backlighted pixel-oriented display can display up to four quantities at the same time. The wide voltage range minimizes the need for transformers and article numbers.

The main terminals, designed in compliance with DIN 43857, are accessible from below the meters and are suitable for all applications.

Energy Management

Meter range for several applications

Communication

Built-in serial communication interfaces for M-Bus, Modbus RTU or EQ bus. Infrared port is standard for backward compatibility with communication adapters like the ABB SCA.

Tariffs

Some A series meters have tariff handling of up to four tariffs. The tariffs are controlled via inputs, via communication or via the internal clock depending on type.

Instrumentation

In addition to the standard instrumentation values, the A series also supports the following dependent on version of meter:

- Apparent power
- Reactive power
- Frequency
- Harmonics
- Total harmonic distortion

Optional functionality

A series meters with a functionality level of Gold or Platinum have an internal clock for advanced functionality:

- Previous values
- Event log
- Maximum demand
- Load profile

Inputs and outputs

The A series support up to four I/O's. It can be one output, two inputs and two outputs in a fixed configuration or four I/O points that are freely configured as input or output. Inputs can be used for counting pulses or reading status from external devices. Outputs can be used as pulse outputs or controlling an external apparatus.

Installation

The A series meters come with an automatic installation check that indicates problems in the installation. This helps the installer to make a correct installation.

The EQ meter gateway is used as an access point to all of the EQ meters, for optimal configuration. When connected to the EQ meter, the EQ gateway provides data over the encrypted EQ bus and allows the user to perform settings using high level programming language JSON or through a web browser.

Data from the A and B series meters is preferably collected via built-in serial communication interfaces for M-Bus or Modbus RTU (RS-485) and standard equipment. When safety and maximum functionality is of importance the EQ bus will make it fully utilized over the EQ meter gateway. Meters with RS-485 can be used for Modbus or EQ bus.

General features

The gateway is the interface between EQ meters and the system side. The gateway features both RS-485 and M-Bus interfaces towards the meter side. On the up-stream side there is a RJ 45 connector for Ethernet. Security is ensured on the Ethernet by the use of SSL encryption.

EQ bus

EQ bus provides safety and maximum functionality, the comprehensive functionality of EQ meters needs EQ bus to be fully utilized. The protocol is based on standards which ensure a well proven solution for information security — a major concern for many users.

M-Bus

Previous versions of meters from ABB with M-Bus can be connected to the gateway.

JSON

JSON (JavaScript Object Notation), is a lightweight data-interchange format. It is easy for humans to read and write and it is also easy for machines to parse and generate. JSON is a text format that is completely language independent but uses conventions that are familiar to programmers of the C-family of languages and many others. These properties make JSON an ideal language for system developers.

Web server

The easiest way to read a meter is by simply logging in to the gateway via your browser. Data from all EQ meters that are connected to the gateway can be read online and you can perform settings and write tariff schedules. Access to the web server is given by an administrator to ensure safe management. The different user profiles created by the administrator then control the meters.





SMB/S 1.1

Fault Monitoring Unit, MDRC

It is used to detect and manage up to 100 fault messages which are processed within the unit and can be forwarded to a display unit. Furthermore, an optical and an acoustic collective status signal is provided. Messages can be acknowledged and data losses can be reported. The devices support message formats to DIN 19 235: messages with continuous lighting, new value messages with simple flashing light, initial value messages with simple acknowledgement, motor messages. Current values can be centrally scanned.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	SMB/S 1.1	GHQ6310085R0111		1	0.12



EUB/S 1.1

Monitoring Unit, MDRC

Monitors up to 100 bus devices in KNX systems, which can be divided into 5 groups. The devices are monitored to ensure their presence and minimum functionality (send and receive). Monitoring can be undertaken based on the physical address or the group address. A total of four different monitoring modes are available.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	EUB/S 1.1	2CDG110066R0011		1	0.12



BDB/S 1.1

Data Logging Unit, MDRC

It detects local operation cycles and operating hours to plan the maintenance or durability evaluation of the devices. For each of the 35 channels to be monitored, limit values can be set and a message sent if this limit is exceeded. The logging of operating hours can be predetermined for the total or remaining time. These values can be modified via communication objects.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	BDB/S 1.1	2CDG110067R0011		1	0.12

ABB i-bus® KNX

Security and Surveillance – Approved Security with KNX



A
14

The compact solution for security applications – the Security Terminals

The Security Terminal provides a compact security solution for KNX applications for detection and signalling of intrusion, personal attack and technical hazards. They are used as the interface between the security technology sensors and KNX.

Depending on the configuration, the devices feature 2, 4 or 8 inputs – so-called detector circuits or zones. They are used for monitoring connected passive detectors (e.g. magnetic contacts, glass break sensors, etc.) to the ABB i-bus® KNX as well as for connection of floating contacts in applications with enhanced security requirements.

Through the connection of security technology and KNX, the detectors employed can, in addition to the security functions, also be used for heating control (e.g. window contact signal for control of the heating valve) or lighting control (e.g. central switch off of the lighting when the alarm logic is set).

The Security Terminals can be used as autonomous systems with the integrated alarm logic, in conjunction with the Security Module SCM/S or with an Intrusion Alarm Panel GM/A 8.1 or L240.

The application program offers several functions for security applications, such as

- Direct and delayed setting
- Internal setting with occupancy and external setting when absent
- Setting of the connected detector types
- Reset input and setting input
- Detector monitoring
- Zones (detector circuits) can be switched off
- Different types of alarms
- Setting for freely programmable relay outputs, e.g. for direct control of signalling devices.

ABB i-bus® KNX

Security and Surveillance – Overview

A 14	Standard Security				Professional Security
	MT/U 2.12.2	MT/S 4.12.2M	MT/S 8.12.2M	SCM/S 1.1	GM/A 8.1
General					
Supply voltage	KNX				85...265 V AC
Auxiliary power supply	12 V DC				–
Type of installation	FM	MDRC		MDRC	SM
Module width (18 mm)	–	4		2	–
Inputs (extendable via bus)	2	4	8	0 (64)	8 (344)
Outputs	2 x Relais	3 x Relais	3 x Relais	1 x Relais	4 x Relais 4 x Signaling devices
Functions					
Connection of conventional security sensors/devices	■	■	■	–	■
Connection of 4-wired security bus sensors/devices	–	–	–	–	■
Event log	–	–	–	■ (1,000)	■ (10,000)
Remote alarming	Optional via TG/S 3.2	Optional via TG/S 3.2	Optional via TG/S 3.2	Optional via TG/S 3.2	Integrated E-Mail Voice messages
Back-up power supply					
Optional via NTU/S 12.2000.1 and SU/S 30.640.1	■	■	■	–	–
Optional via SU/S 30.640.1	–	–	–	■	–
Integrated back-up power	–	–	–	–	■
Certifications					
VdS	–	–	–	–	Class C
EN 50 131/IEC 62 642	–	–	–	–	Grade 3
Commissioning and diagnostic functions					
Commissioning and diagnostic via webserver	–	–	–	–	■

- = Function is supported
– = Function is not supported



SCM/S 1.1

Security Module, MDRC

The module provides the necessary logic functions to link the various KNX devices (e.g. zone terminals) to a security system. Up to 64 different zones can be evaluated via communication objects. Arming, operation and display are also implemented using communication objects. The device has a freely programmable relay output for connection of a signal encoder. An uninterruptible KNX power supply with battery back-up is recommended for security function buffering on mains failure.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	2	SCM/S 1.1	2CDG110024R0011		1	0.13

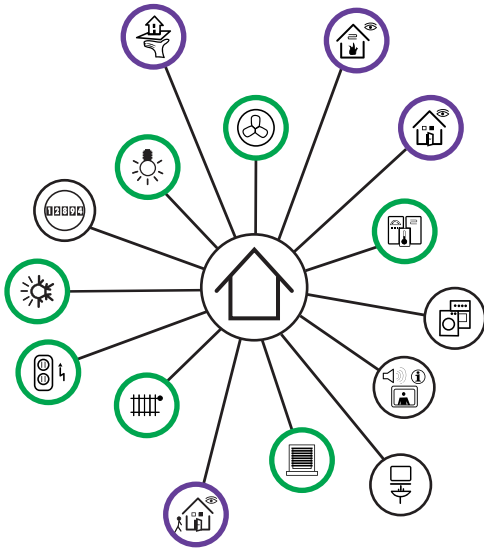


MT/S 8.12.2M

Security Terminal

They are used as the interface between the security technology sensors and the KNX. The device features inputs, so-called zones. They are used for monitoring connected passive detectors, e.g. magnetic contacts and/or glass break sensors on the ABB i-bus® KNX and/or for connection of floating contacts in applications with enhanced security requirements. The device can be used as a system with autonomous alarm logic or in combination with the Security Module SCM/S or an Intrusion Alarm Panel. The device requires an external 12 V DC SELV auxiliary power supply, (e.g. NTU/S 12.2000.1).

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
8-fold, MDRC	4	MT/S 8.12.2M	2CDG110110R0011		1	0.19
4-fold, MDRC	4	MT/S 4.12.2M	2CDG110109R0011		1	0.19
2-fold, FM	–	MT/U 2.12.2	2CDG110111R0011		1	0.08

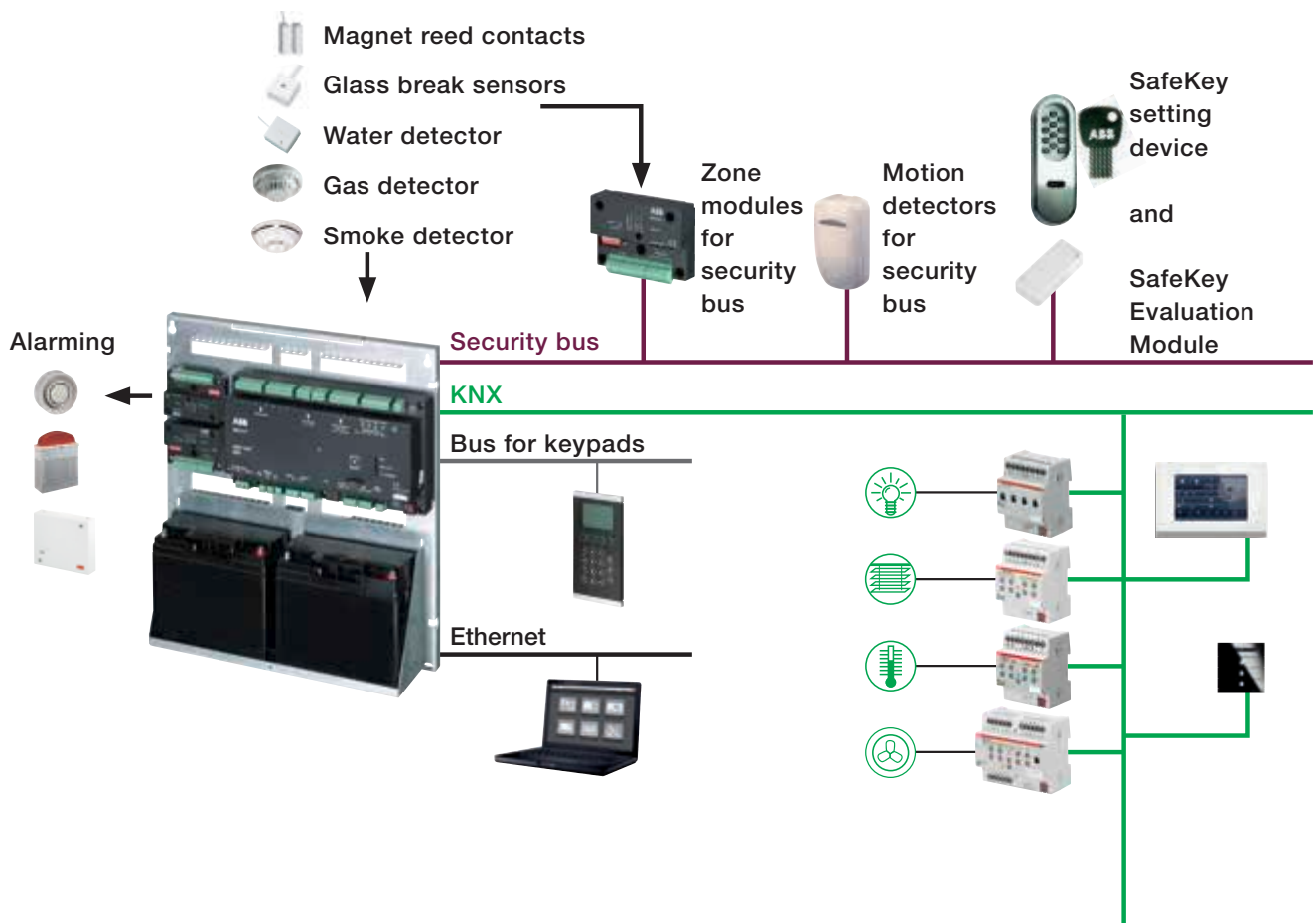
A
14

This innovation is the result of more than 30 years of system and application knowledge in alarm technology and building automation at ABB.

ABB i-bus® KNX

Security and Surveillance – KNX Security Panel

A
14



A complete product portfolio: One system – all interfaces

To fulfill the project requirements ABB provides the user besides the panel and keypad a complete product portfolio for professional alarm technology as well as known solutions for all trades of KNX building automation.

The KNX Security Panel is for universal usage for all kinds of hazardous situations in buildings like intrusion, personal attack, smoke, gas- and water leakage.

ABB i-bus® KNX

Security and Surveillance – KNX Security Panel

A
14



KNX Security Panel without cover, integrated zone modules and batteries

- ↔ Ethernet connection for programming, diagnostics and operation via a standard webbrowser
- ← Direct inputs for security sensors
- ↔ Keypads
- Internal, external or remote alarming
- ← Security bus for security sensors, zone modules and setting devices
- ↔ KNX interface to display alarm states via displays of building automation and to control automatic building functions with support of security sensors.

The KNX Security Panel provides all needed system interfaces: An ethernet connection is used for programming, diagnostics and operation via a standard webbrowser as well as integration into the building network. The security sensors will be connected directly to the panel inputs or via the security bus, where the setting device for the system is also connected. Furthermore the panel provides interfaces for the also newly developed keypads and for internal, external or remote alarming. Finally the integrated KNX interface allows on the one hand to display alarm states via displays of building automation and on the other to control automatic building functions with support of security sensors.

ABB i-bus® KNX

Security and Surveillance – KNX Security Panel

A
14



GM/A 8.1

KNX Security Panel, SM

for the protection of small to medium residential or commercial properties against intrusion and technical faults. The Security Panel is suitable for up to five logical setting zones. It has 8 integrated zones for detectors, a Security Bus for Bus-detectors, Bus-Zone Modules or Setting devices, Ethernet connection (RJ45) for programming, operating and displaying system status via Web-Browser and an integrated KNX interface. The Security Panel GM/A 8.1 complies with the requirements to VdS classes A, B and C, to the European Standard EN 50131, Grade 1 to 3 and to ISO/IEC 62642 Grade 1 to 3.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	GM/A 8.1	2CDG110150R0011		1	10.5
Off the wall tamper contact	–	WA/Z 1.1	2CDG110174R0011		1	



BT/A 1.1



BT/A 2.1

Keypad for GM/A 8.1

to connect to Security Panel GM/A 8.1 via the Keypad-Bus. The Keypad allows easy operation of the Security Panel. System messages are displayed on a four-line LCD display. Five Keypads can be connected to each Security Panel. There is no need for an external voltage supply, the keypads are supplied via the Keypad-Bus.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Black	–	BT/A 1.1	2CDG280001R0011		1	0.5
White	–	BT/A 2.1	2CDG280002R0011		1	0.5



MG/A 4.4.1

Zone Module, 4-fold

to connect to Security Panel GM/A 8.1 via the Security-Bus. For expansion of the Security-Panel by 4 detector zones. Used for connection to the exterior perimeter detectors such as magnetic reed contacts and passive glass break sensors. The module has 4 zones to which several detectors can be connected. The status of each zone is displayed with a status LED. The Zone Module delivers the control signals and the supply voltage for the external detectors. There is no need for an external voltage supply, the Zone Modules are supplied via the Security-Bus.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
to mount in the Security Panel housing	–	MG/E 4.4.1	2CDG110178R0011		1	0.1
in a surface mounting housing for installation in the building	–	MG/A 4.4.1	2CDG110186R0011		1	0.1

ABB i-bus® KNX

Security and Surveillance – System Components

A
14



SAK7

Sealed Lead Acid Battery, 12 V DC, 7 Ah

For Intrusion Alarm Panel emergency power. 2 units can be installed. VdS class C.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SAK7	GHV9240001V0011		1	
	–	SAK17	GHV9240001V0013		1	



IR/XB
IR/XC

Infra-Red Motion Detector for security-bus

For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240.

The motion detectors with passive infra-red technology are registered for VdS classes B and C (anti-masking monitored). They facilitate monitoring of an area with an IR range of up to 15 m.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
VdS-No. G 110 506	–	IR/XB	2CDG230023R0011		1	
VdS-No. G 110 062	–	IR/XC	2CDG230024R0011		1	



EIM/XB
EIM/XC

Dual Motion Detector for security-bus

For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240. The Dual-Motion Detector combines proven passive infra-red technology with temperature-independent microwave technology. The combination of both functional principles results in a detector featuring high immunity to false alarms, even with unfavourable ambient conditions, and which still has high detection security. The detectors are registered for VdS classes B and C (anti-masking monitored). They facilitate monitoring of an area with an IR range of up to 15 m.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
VdS-No. G 110 513	–	EIM/XB	2CDG230025R0011		1	
VdS-No. G 110 061	–	EIM/XC	2CDG230026R0011		1	



MW

Mounting Bracket

For motion detectors.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	MW	GHV9230039V0020		1	

ABB i-bus® KNX

Security and Surveillance – System Components



WEL/A, ES

SafeKey Wall Reader, SM

For setting/unsetting with the Evaluation Module L240/BS. The unit is actuated by inserting the electronic SafeKey chipkey. The SafeKey Wall Reader WEL is equipped with the key reader and an acknowledgement buzzer. VdS class C.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	WEL/A, ES	GHQ3050023R0001		1	



WELT/A, ES

SafeKey Wall Reader, SM

For setting/unsetting with the Evaluation Module L240/BS. The unit is actuated by inserting the electronic SafeKey chipkey. The SafeKey Wall Reader WEL is equipped with the key reader and an acknowledgement buzzer. VdS class C.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	WELT/A, ES	GHQ3050024R0001		1	



SCS

SafeKey Chipkey

It is an electronic carrier medium for setting / unsetting via a SafeKey Wall Reader. A SafeKey Chipkey can be authorized for any number of different SafeKey systems with different levels of authorization.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SCS	GHQ3050027R0001		1	

ABB i-bus® KNX

Security and Surveillance – System Components

A
14



L240/BS

SafeKey Evaluation Module

For connection of the SafeKey components as well as all components required for a setting door (magnetic contacts, lock bolt switching contact, bolt lock, internal siren). For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240. The management of the electronic keys from the SafeKey range is undertaken completely via the WebUI of the Security Panel GM/A 8.1.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	–	L240/BS	GHQ3050031R0001		1	



SSM/A

SafeKey Switching Module

is used for an easy connection and evaluation of the SafeKey Wall Reader with or without keypad (WEL or WELT). Applicable for potential-free switching of electrical components up to 5 A at a max. voltage of 12...24 V DC/AC, i.e. electrical door opener or garage doors, or to set/unset a KNX security system via the connection to a Security Terminal MT/x.

In subject to the housing type the module can be used for surface or flush mount. A 12 V power supply is required.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
Surface mounting	–	SSM/A	2CDG240019R0011		1	



ESPE

Electromechanical Bolt Lock

Prevents access to the set zone of an Intrusion Alarm Panel. The unit is mounted in the door frame. Only a single bore or the counterpart for the locking bolt in the door panel is required. Suitable for use with WEL and WELT. VdS class C.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	–	ESPE	GHV9250010V0001		1	
Replacement Locking Bolt	–	EVSB	GHV9250010V0002		1	
Mounting kit, flat door panel and frame	–	AMSP	GHV9250010V0004		1	
Mounting kit, raised door panel	–	AMSE	GHV9250010V0003		1	



ESPE/M

Electrical Mini Bolt Lock

The ESPE/M Mini Bolt Lock is used together with an intrusion alarm system to implement the inevitability condition. The motorized bolt lock additionally locks the door to the set area, preventing unintentional opening of the door when the intrusion alarm system is set.

The ESPE/M Mini Bolt Lock is connected to the L240/BS Evaluation module for the L240 Intrusion Alarm Panel or GM/A 8.1 KNX Security Panel.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	–	ESPE/M	2CDG270010R0011		1	

ABB i-bus® KNX

Security and Surveillance – System Components



SAD/GAP

Distribution Enclosure, SM

For installation of the Bus Modules L840/MG4 and L240/BS.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Surface mounting	–	SAD/GAP	2CDG220021R0011		1	



MRS/W

Magnet Reed Contact Set

For opening surveillance of windows and doors, complete for bolting or drilling Contents: 1 magnet, 1 reed contact with 4.0 m connection cable LIYY 4 x 0.14 mm², 2 housings, 2 spacer plates, 2 flanges and 4 anti-magnetic fixing screws. VdS No. G 191549. VdS class B.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
white	–	MRS/W	GHQ3201972R0001		1	
brown	–	MRS/B	GHQ3201972R0002		1	
Saver Set (20 pcs.), white	–	VMRS/W	GHQ3201972R0011		1	
Saver Set (20 pcs.), brown	–	VMRS/B	GHQ3201972R0012		1	



RTK

Rolling Door Magnet Reed Contact Set

For monitoring opening or rolling doors or other large doors in the industrial field.

Contents: 1 magnet, 1 reed contact with 2 m connection cable 4 x 0.14 mm², 1 m protective tubing and 1 set of mounting accessories. Degree of protection: IP 68; Environmental class to VdS 4; VdS class B.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	RTK	GHQ3201973R0021		1	



SPGS/W

Glass Break Sensor

For surveillance of glass surfaces of windows, display windows and doors with high interference immunity and integrated memory display. For operation directly on detector circuits of intrusion alarm panels or security terminals. Extremely compact dimensions.

Dimensions: H x W x D = 18 x 18 x 9 mm.

Mounted onto glass using Loctite adhesive (LKS). With 5 m connection cable.

VdS No. G 194524. VdS class B.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
white	–	SPGS/W	GHV9220004V0009		1	
brown	–	SPGS/B	GHV9220004V0010		1	
Mechanical Glass Break Test Device	–	GP2	GHV9220004V0004		1	
Loctite adhesive	–	LKS	GHQ4001906R0001		1	

ABB i-bus® KNX

Security and Surveillance – System Components

A
14



WRK/W

Lock Bolt Switching Contact

For installation in the strike plate, for lock monitoring on doors. Water-tight IP 67, with 2.5 m connection cable LIYY 3 x 0.14 mm². VdS No. G 190008. VdS class C.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	WRK/W	2CDG250003R0011		1	



VSUE

Window Lock Monitoring Contact

Lock monitoring is carried out with a special magnet and a reed contact. The magnet is mounted on the push rod of the window sash while the reed contact is mounted on the frame. The connection cable LIYY 4 x 0.14 mm² is 4 m in length. VdS No. G 190074. VdS class C.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	VSUE	GHV9210018V0022		1	



ND/W

Emergency Call Button

For manual alarm tripping. Complies with the police regulations since it features permanent trip recognition, momentary-contact function, with cover contact. Surface mount version. Colour: white. VdS class C.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Surface mounting	–	ND/W	GHQ7132443R0011		1	
Flush mounting	–	NDU/W	GHQ7132443R0021		1	
Spare Papers (10 pcs.)	–	EP	GHQ7132443R0003		1	



NDA/W

Cover plate

Used primarily in the banking sector or other institutions, where unintentional alarm triggering is possible due to public access.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	NDA/W	GHQ7132443R0004		1	

ABB i-bus® KNX

Security and Surveillance – System Components



IR/KB

Passive Infra-Red Detector

For conventional wiring to zone inputs of an Intrusion Alarm Panel or a KNX Security Terminal. With a volumetric lens for interior monitoring. Can be optionally set for hall monitoring function up to 15 m. Color: RAL 9010 pure white; for use up to VdS class B.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
VdS-No. G 110 502	–	IR/KB	2CDG230027R0011		1	



EIM/KB

Dual Motion Detector

This new dual detector is based on proven detection principles of the EIM detector AND incorporation of infrared technology and electromagnetic field detection. The detector enables a detection range of 15 m with 17 zones on 6 levels. The range of the infra-red component the electromagnetic field can be adjusted separately using a jumper. Up to VdS class C; Color RAL 9010 pure white.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
VdS-No. G 110 503	–	EIM/KB	2CDG230028R0011		1	
VdS-No. G 110 060	–	EIM/KC	2CDG230029R0011		1	



MW

Mounting Bracket

For motion detectors.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	MW	GHV9230039V0020		1	



EIM/D

Dual Ceiling Detector

Operates according to the proven detection principle of the EIM detector (infra-red technology and electromagnetic field) over 360°. The range of the infrared component can be adapted via the mounting height while the range of the electromagnetic field can be adjusted separately using a jumper. The detector is fitted with a walk test LED. Colour: RAL 9010 pure white.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	EIM/D	2CDG230039R0011		1	



SGL

Gas Detector

For measurement and evaluation of the concentration of natural gas or liquefied gas in the air. The detector requires a 10 – 30 V DC voltage supply and has a normally open relay output contact for connection to the intrusion alarm panels and fire alarm panels, features an LED display and a Piezo buzzer. For ceiling and wall mounting.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SGL	GHQ3050008R0001		1	

ABB i-bus® KNX

Security and Surveillance – System Components

A
14



SWM 4

Water Detector

A resin-encapsulated water detector with gold-plated Termipoint pins, detects water ingress, e.g., pipe fractures, ingress of groundwater and sewage, water damage caused by washing machines and dishwashers etc. before the damage becomes too expensive. For operation directly on detector circuits of intrusion alarm panels or security terminals.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SWM 4	GHQ4030001R0004		1	



SWM 4/RN

Water Detector with Relay Output

Features a potential free changeover contact output, an LED parallel output and a LED display. The detector resets itself automatically when the affected area dries out. The device draws its power from an external 10 ... 23 V DC voltage source.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SWM4/RN	GHQ4030001R0012		1	

ABB i-bus® KNX

Security and Surveillance – System Components



FC650/O

Optical Smoke Detector

Optical smoke detector in threshold alarm technology that detects smoke according to the scattered-light principle. The detectors feature an alarm indicator on the detector head that is visible from all angles, and which can be triggered with a permanent magnet for test purposes. A detector base is provided for mounting and cable connection purposes into which the detector is simply screwed in via the bayonet connection. Each detector is equipped with an alarm LED, which displays the stored alarm in the event of an alarm. Detector/base diameter: 110 mm. VdS approved.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	FC650/O	2CDG430079R0011		1	



FC650/TMAX

Heat Detector

Static Heat Detector in threshold alarm technology, – trigger temperature 78 °C. The detectors feature an alarm indicator on the detector head that is visible from all angles, and which can be triggered with a permanent magnet for test purposes. A detector base is provided for mounting and cable connection purposes into which the detector is simply screwed-in via the bayonet connection. Each detector is equipped with an alarm LED, which displays the stored alarm in the event of an alarm. Detector/base diameter: 110 mm. VdS approved.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	FC650/TMAX	2CDG430081R0011		1	



FC600/BREL

Detector Base, 12 V

Enables system-independent connection of the FC650 series fire detector to systems or devices that are not specifically designed for this detector technology. Examples include Intrusion Alarm Panels, KNX Security Terminals, elevator controls or other signal processing equipment. The detector base must be supplied by either a 12 V or a 24 V DV voltage supply. A floating 30 V DC/1 A changeover contacting is provided for transferring an alarm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	FC600/BREL	2CDG430051R0011		1	

ABB i-bus® KNX

Security and Surveillance – System Components

A
14



FPA03

Testing Aerosol

For optical smoke detector testing, 250 ml.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	FPA03	GHV9020012V0021		1	

Reed Relay, 12 V

For connection, e.g. to transistor outputs of Intrusion Alarm Panels. Coil voltage 8.5...14 V DC. Current consumption 5 mA at 12 V DC. Contact loading 24 V/100 mA.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	RL	GHV9270013V0101		1	



SSS

Electronic Solid-State Siren

Electronic solid-state siren with intermittent tone for alarm purposes in indoor installations. External dimensions: ø x H = 90 x 37 mm.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SSS	GHV9270001V0001		1	



SSF/G

Siren in Enclosure

An aluminium protective housing with additional protective enamel coating. Protected against sabotage by a case tamper contact. The alarm inputs are wired onto a terminal strip. With fixing screw (M4) for potential equalization on the base.

Dimensions: H x W x D = 200 x 205 x 88 mm; Color: RAL 9002 Environmental class III to VdS.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SSF/G	GHQ3050017R0001		1	



SSF/GB

Combination Signalling Device

Siren in an aluminium protective housing with additional protective enamel coating and strobe light mounted on top. Protected against sabotage by a case tamper contact.

The alarm inputs are wired onto a terminal strip. Dimensions: H x W x D = 258 x 205 x 88 mm; Color RAL 9002. VdS No. G 101147. VdS class C.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	SSF/GB	GHQ3050018R0001		1	

ABB i-bus® KNX

Security and Surveillance – System Components



6833/01-84-500

Busch Smoke Alarm® ProfessionalLine

For early detection of smouldering fires and open fires with smoke development indoors according to the photooptical measurement principle (Tyndall). With installed Lithium battery. Battery life min. 10 years. With test button and muting. Can be networked with up to 12 detectors using the radio module. Can be networked via 2-wire twisted pair cable with up to 12 detectors. Acoustic alarm: installed horn (85 dBA). Cyclic functional test. Including attachment material – VdS certified. Conform to EN 14604 studio white.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
not networkable	–	6833-84-500	6800-0-2720		1	
networkable	–	6833/01-84-500	6800-0-2721		1	



6835/01-84-500

Busch Heat Alarm ProfessionalLine

Signal triggered at over 57 °C. With installed Lithium battery. Battery life min. 10 years. With test button and muting. Can be networked via 2-wire twisted pair cable with up to 12 detectors. Can be networked with up to 12 detectors using the radio module. Acoustic alarm: installed horn (85 dBA). Cyclic functional test. Including attachment material – VdS certified. Conform to EN 14604.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white	–	6835/01-84-500	6800-0-2723		1	



6827-84

Busch Smoke Alarm® Radio Module

For wireless networking of multiple Busch smoke alarms® / heat alarms. With installed Lithium battery. Battery life min. 10 years. Radio frequency: 868 MHz. Range: max. 100 m outdoors, max. 30 m indoors.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6828	6800-0-2514		1	



6829-84

Busch Smoke Alarm® Relay

For connecting external systems, e.g. KNX. Relay contact, floating changeover contact 230 V~ max. 5 A. Cable connection: up to 2 x 2 x 1.5 mm². With installed radio module. Rated voltage: 230 V~.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white	–	6829-84	6800-0-2515		1	



6824-84

Busch Smoke Alarm® Remote Control

For service purposes. With muting, test and search function.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white	–	6824-84	6800-0-2516		1	

Notes

A
14

WaveLINE Wireless Control

Contents

RF Sensors	184
RF Actuators / Displays	185
Transmitter	186
Actuators, RF/ KNX Media Converters	190
Window Sensor, Universal Detector	192



WaveLINE Wireless Control

RF Sensors

B



01



02



03



04



05

01 SM WaveLINE movement detector,
Article-No. 6747 AGM-204-500

The WaveLINE Busch-Watchdog 220 is a battery-operated movement detector. Since it is installed without cables it can be mounted in the most ideal position. The battery has a service life of 5 years.

02 WaveLINE media converter TP-RF,
Article-No. 6770-500

The KNX and Busch radio control are coupled via the WaveLINE media converter TP-RF. Telegrams can be exchanged in both directions. One application serves to transmit the window sensor to the KNX system.

03 Window sensor,
Article-No. 6720-64

The WaveLINE window sensor is retrofitted between the window and window handle, which means the original window handle is retained. The window handle is used for the following window positions: opened, tilted and closed.

04 Universal detector,
Article-No. 6721-64

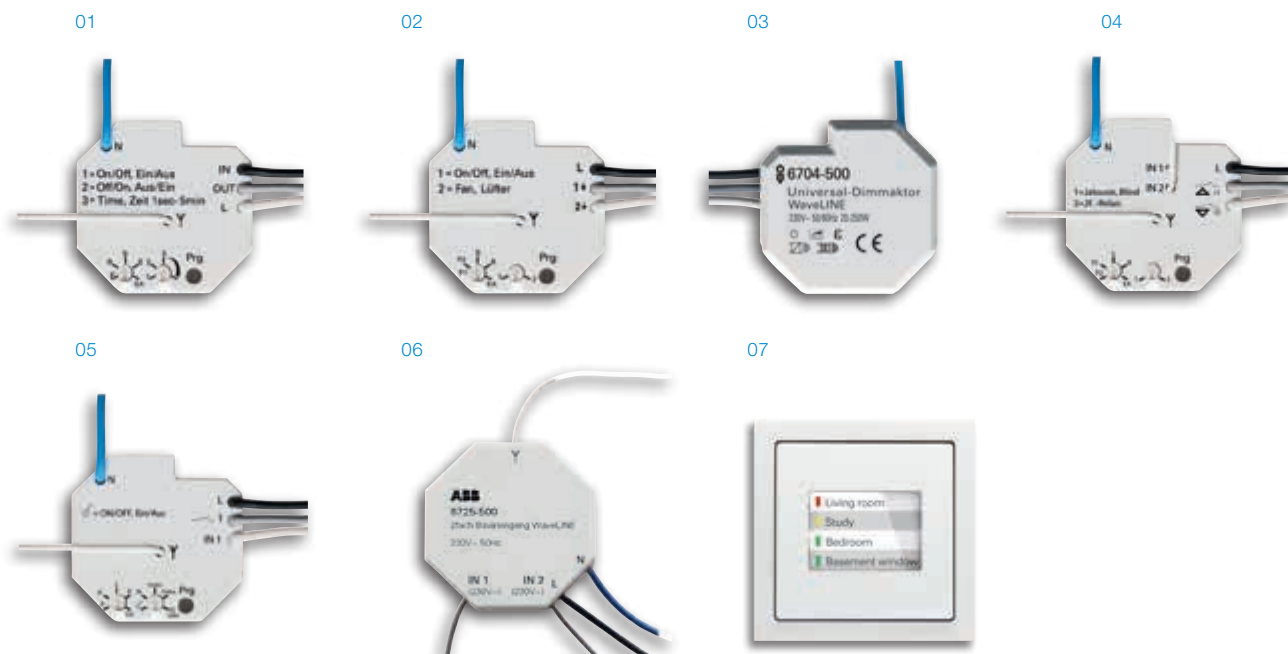
The WaveLINE universal detector is suited for skylights or sliding doors and is activated via a reed contact. The universal detector has a second channel which can be permanently wired to a floating contact (NO or NC contacts).

05 Remote control RF,
Article-No. 6780-500

The remote control is used as mobile control for the WaveLINE. Loads can be controlled individually and scenes can be started.

Control elements					
					
Switch ranges	1gang	2gang	4gang	1gang	2gang
pure stainless steel	6731-866-500	6732-866-500	6733-866-500		
solo®	6731-xx-500	6732-xx-500	6733-xx-500		
Busch-axcent®	6731-xx-500	6732-xx-500	6733-xx-500		
future® linear	6731-xx-500	6732-xx-500	6733-xx-500		
Reflex SI				6731-214-500	6732-214-500
Busch-Duro 2000® SI				6731-212-500	6732-212-500

WaveLINE Wireless Control RF Actuators / Displays



- 01 1gang WaveLINE actuator, Article-No. 6702-500
- 02 2gang WaveLINE actuator, Article-No. 6703-500
- 03 WaveLINE dimming actuator, Article-No. 6704-500
- 04 WaveLINE blind actuator, Article-No. 6705-101-500
- 05 1gang WaveLINE actuator, Article-No. 6701-101-500
- 06 WaveLINE binary input, 2gang Article-No. 6725-500
- 07 WaveLINE LED display, 4gang with switching function, Article-No. 6730-84

Before

After



Usage of frequency might be restricted in certain countries.

WaveLINE Wireless Control Transmitter



6731-214-500

Wall-mounted transmitter WaveLINE

1-channel

1gang wall-mounted transmitter independent of mains power supply. For switching and dimming. For controlling blinds and light scenes. 1 radio channel can be operated or up to 2 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Busch-Duro 2000® SI white	–	6731-212-500	6730-0-0028		1/10	
Reflex SI alpine white	–	6731-214-500	6730-0-0030		1/10	



6732-214-500



6731-84-500

Wall-mounted transmitter WaveLINE

2-channel

2gang wall-mounted transmitter independent of mains power supply. For switching and dimming. For controlling blinds and light scenes. 2 radio channels can be operated or up to 4 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Busch-Duro 2000® SI white	–	6732-212-500	6730-0-0029		1/10	
Reflex SI alpine white	–	6732-214-500	6730-0-0031		1/10	
future® linear ivory white	–	6731-82-500	6730-0-0032		1/10	
aluminium silver	–	6731-83-500	6730-0-0035		1/10	
studio white	–	6731-84-500	6730-0-0038		1/10	
pure stainless steel stainless steel	–	6731-866-500	6730-0-0041		1/10	
Dynasty® antique brass		6731-840-500	6730-0-0094			

WaveLINE Wireless Control Transmitter



6732-84-500

Wall-mounted transmitter WaveLINE

2-channel

2gang wall-mounted transmitter independent of mains power supply. With labelling field and labelling strip. For switching and dimming. For controlling blinds and light scenes. 2 radio channels can be operated or up to 4 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
future® linear						
ivory white	–	6732-82-500	6730-0-0033		1/10	
aluminium silver	–	6732-83-500	6730-0-0036		1/10	
studio white	–	6732-84-500	6730-0-0039		1/10	
pure stainless steel						
stainless steel	–	6732-866-500	6730-0-0042		1/10	
Dynasty®						
antique brass		6732-840-500	6730-0-0095			



6733-84-500

Wall-mounted transmitter WaveLINE

4-channel

4gang wall-mounted transmitter independent of mains power supply. With labelling field and labelling strip. For switching and dimming. For controlling blinds and light scenes. 4 radio channels can be operated or up to 8 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
future® linear						
ivory white	–	6733-82-500	6730-0-0034		1/10	
aluminium silver	–	6733-83-500	6730-0-0037		1/10	
studio white	–	6733-84-500	6730-0-0040		1/10	
pure stainless steel						
stainless steel	–	6733-866-500	6730-0-0043		1/10	

WaveLINE Wireless Control Transmitter



6780-500

Remote control WaveLINE

Network-independent radio control. For switching and dimming. For controlling blinds and light scenes. With 3 groups (A, B or C) with 5 pairs of channels. There are 15 radio channels operated singly or up to 30 light scenes can be called. With "ALL OFF" function for associated actuators. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
black	—	6780-500	6780-0-0001		1/10	



6725-500

WaveLINE binary input, 2gang, 230 V~

Radio control telegrams are sent when the two extension units are activated with mains voltage (AC 230 V~). Operation also possible via conventional push-buttons (2020 US, 2012/6 UK).

The 2gang binary input has 5 function modes 2-channel switching; 2-channel dimming; 1-channel blind; Two-channel light scene control; Channel 1: Switching ON. Channel 2: Continuous switching ON/OFF.

In dependence of the selected function, it can be combined with WaveLINE actuators 6701-101, 6702, 6703, 6704, 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. Repeater function can be activated for extended range. For universal attachment or installation. Phase and neutral conductor required. For installation in (deep) flush-mounted boxes to German Standard DIN 49073, Part 1. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: LED for status display. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 2.

Polling voltage: 230 V~, potential-connected.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
white	—	6725-500	6720-0-0008		1/10	

WaveLINE Wireless Control Transmitter



6747 AGM-204-500

Busch-Watchdog 220° WaveLINE

Wireless movement detector for detecting thermal motion. With display for detection and status indication. With ground and rear-field detection. With high-quality lens for optimum detection. Surveillance density: 84 sectors with 336 switching segments. With integrated dismantling protection. All functions controlled by microprocessor. With automatic range stabilization. With automatic interference suppression. With automatic dazzle-proofing. With automatic battery monitoring. Battery type: Lithium batteries 1250 mAh (L92 AAA 1.5 V). Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free. With brightness-independent test mode for evaluating the detection zone. Individual adjustment of detection range via enclosed protective foil which can be cut to size. Combinable with switch actuator WaveLINE, 1gang, with extension unit 6701-101. Compatible with WaveLINE KNX gateway TP-RF 6770. For standalone and group operation. Switch-off delay: 3 min. (single mode), individually adjustable at actuator (group mode). Send frequency: 868 MHz. Free-field range: approx. 100 m. Rated voltage: 4.5 V-. Detection range: frontal: 16 m, lateral: 16 m. Detection angle: 220 °. Brightness limit value: 0.5 Lux – 300 Lux, Daytime operation. Mounting height: 2.5 m.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
brown	–	6747 AGM-201-500	6700-0-0038		1	
alpine white	–	6747 AGM-204-500	6700-0-0035		1	
silver metallic	–	6747 AGM-208-500	6700-0-0036		1	
anthracite	–	6747 AGM-35-500	6700-0-0037		1	

WaveLINE Wireless Control

Actuators, RF/ KNX Media Converters



6701-101-500

WaveLINE switch actuator, 1gang, with extension unit

For wireless switching of electrical loads. Functions via radio control: ON/OFF, timer and light scene control. Functions via the extension unit: ON/OFF, timer and sending a radio control telegram. Operation also possible via conventional push-buttons (2020 US, 2012/6 UK). For Busch-Watchdog WaveLINE. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 1. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 1x Normally open contact, potential-bound.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	-	6701-101-500	6700-0-0040		1/10	



6702-500

Switch actuator WaveLINE

For wireless switching of electrical loads. For functions ON/OFF, timer and lightscene control. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Outputs: 1x Normally open contact, potential free.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	-	6702-500	6700-0-0023		1/10	



6703-500

2gang switch actuator WaveLINE

For wireless switching of electrical loads. For operation mode 2gang switch, 2 separate outputs. For operation mode timer: output 1 (eg lighting), output 2: ON/Off delay in dependence of output 1 (eg fan control). For functions: ON/OFF and light scene control. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Outputs: 2x Normally open contact, potential-bound.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	-	6703-500	6700-0-0024		1/10	

WaveLINE Wireless Control

Actuators, RF/

KNX Media Converters



6704-500

Universal dimming actuator WaveLINE

For wireless switching and dimming of electrical loads. For functions ON/OFF, dimming and lightscene control. With soft ON/OFF function. With selectable light value storage. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. Compatible with WaveLINE KNX gateway TP-RF 6770. Repeater function can be activated for extended range. Controllable up to 32 transmission addresses.

Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Outputs: 1x dimming channel.

Suitable for: 230 V incandescent lamps. Output voltage: 230 V~. Rated power: 35 – 210 W.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	–	6704-500	6700-0-0025		1/10	



6705-101-500

WaveLINE series/blind actuator with extension unit

For wireless switching of electrical loads. For driving and adjusting blinds/shutters and awnings over radio. Functions via radio control: 2gang switch, blind switch and light scene control.

Functions via extension unit: 2gang switch, blind switch and send radio control telegram.

Operation also possible via conventional push-buttons (2020 US, 2012/6 UK). For wall mounted transmitter Waveline 6731-xxx, 6732-xxx und 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 2. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 2x Normally open contact, potential-bound.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	–	6705-101-500	6700-0-0042		1/10	



6770-500

KNX TP/RF WaveLine Gateway, SM

Media converter with internal antenna for conversion of KNX RF WaveLine radio signals to KNX twisted pair networks with 24 channels. For the evaluation and transfer of up to 24 channels each with 4 sub-channels as transmitter or receiver. Simple operation due to “programming button” and display on the device. Is surface-mounted. The KNX/WaveLine Gateway is powered via KNX and does not require an additional power supply.

Description	MW	Type	Order code	Price 1 pc. € pc.	Pack unit pc.	Weight 1 pc. kg
	–	6770-500	6770-0-0002		1	

WaveLINE Wireless Control

Window Sensor, Universal Detector



6730-214

WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
Busch-Duro 2000® SI white	–	6730-212	6730-0-0001		1	
Reflex SI alpine white	–	6730-214	6730-0-0002		1	



6730-24G

WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. For ABB i-bus® KNX devices 6110 U, 6114 U, 6120 U-102. Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
alpha						
platinum	–	6730-20	6730-0-0007		1	
bronze	–	6730-21	6730-0-0008		1	
ivory	–	6730-22G	6730-0-0009		1	
studio white matt	–	6730-24	6730-0-0010		1	
studio white	–	6730-24G	6730-0-0011		1	
palladium	–	6730-260	6730-0-0005		1	
titanium	–	6730-266	6730-0-0006		1	

WaveLINE Wireless Control

Window Sensor, Universal Detector



6730-84

WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
future® linear						
anthracite	–	6730-81	6730-0-0014		1	
ivory white	–	6730-82	6730-0-0015		1	
aluminium silver	–	6730-83	6730-0-0016		1	
studio white	–	6730-84	6730-0-0017		1	
studio white, matt	–	6730-884	6730-0-0026		1	
black matt	–	6730-885	6730-0-0027		1	
solo®						
ivory white	–	6730-82	6730-0-0015		1	
studio white	–	6730-84	6730-0-0017		1	
grey metallic	–	6730-803	6730-0-0025		1	
yellow	–	6730-815	6730-0-0024		1	
Busch-axcent®						
studio white	–	6730-84	6730-0-0017		1	
chalet-white	–	6730-896-500	6730-0-0066		1	
carat®						
anthracite	–	6730-81	6730-0-0014		1	
ivory white	–	6730-82	6730-0-0015		1	
studio white	–	6730-84	6730-0-0017		1	
pure stainless steel						
stainless steel	–	6730-866	6730-0-0023		1	

WaveLINE Wireless Control

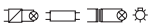
Window Sensor, Universal Detector



6404 U

Busch-Universal relay switch insert

For switching incandescent lamps, 230 V tungsten halogen lamps, fluorescent lamps and low-voltage halogen lamps, that are actuated via transformers. 3 wire connection (neutral conductor required). With operating mode switch for operating mode: switch, time switch. Operation also possible via conventional push buttons (2020 US, 2021/6 UK). For LED display WaveLINE 6730-xxx. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 1. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 1x Normally open contact, potential-bound. Suitable for: ohmic, capacitive and inductive loads. Rated current: 10 AX. Rated power: 2300 W/VA.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
	–	6404 U	6401-0-0055		1	



6595 U

Universal Dimmer Switch Insert

For dimming and switching of incandescent lamps, 230 V halogen lamps and low-voltage halogen lamps with conventional or electronic transformers. 2-wire connection (neutral conductor not required). With soft ON/OFF function. Operation also possible via conventional push buttons (2020 US, 2021/6 UK). Do not operate conventional transformers and electronic transformers together on the universal dimmer switch insert. For LED display WaveLINE 6730-xxx. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 1. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 1x electronic output, potential-bound. Suitable for: ohmic, capacitive and inductive loads. Rated power: 60 – 450 W/VA.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
 	–	6595 U	6590-0-0188		1	

WaveLINE Wireless Control

Window Sensor, Universal Detector



6720-64

WaveLINE window sensor

For monitoring and transmission of the current window handle position (window open, closed, tilted). The WaveLINE window sensor transmits the current window handle position immediately upon operation. Existing window handle is used. The WaveLINE window sensor is installed between the existing window handle and window frame. Suitable for window handle: 7 mm square fastener, 43 mm attachment screw separation, lifter dia. 10 and 12 mm, max. mounting plate size 34 x 77 mm (WxH). No wire laying required. Accessories for assembly (square fastener extension, screws, adapter for lifter) of the WaveLINE window position sensor included in delivery. Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free. Monitoring of battery life and transmission of battery condition. For LED display WaveLINE 6730-xxx. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. Free-field range: approx. 100 m. Send frequency: 868 MHz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6720-64	6720-0-0001		1	
basalt black	–	6720-65	6720-0-0002		1	
stainless steel ¹⁾	–	6720-66	6720-0-0003		1	



6721-64

WaveLINE universal sensor

For monitoring and transmission of the state (open, closed) of dormer windows, skylights, doors and gates. For window surveillance with open fireplace and extractor hood pursuant to Article 4 of the German Fire Prevention Regulations. Additional connection option for an external, potential-free sensor (choice of normally closed or normally open contact). Isolated evaluation and monitoring of channels. The WaveLINE universal sensor immediately transmits the current information when there is a change in state. Addition cyclic transmission for monitoring of the transmission link and the fault-free state of equipment. Attachment of WaveLINE universal sensor and magnets by using adhesive foil or screws. Accessories (adhesive foil, screws, magnet) included in delivery. Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free. Monitoring of battery life and transmission of battery condition. For LED display WaveLINE 6730-xxx. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. External sensor max. wire length: 5 m. External sensor terminal connection diameter : 0.14...0.5 mm² (single wire). Free-field range: approx. 100 m. Send frequency: 868 MHz.

Description	MW	Type	Order code	Price 1 pc. €	Pack unit pc.	Weight 1 pc. kg
studio white matt	–	6721-64	6720-0-0004		1	
basalt black	–	6721-65	6720-0-0005		1	

¹⁾ Surface painted.

Notes

B

Selection Tables

Selection Table According to Order Code	198
Selection Table According to Type	205



Selection Table According to Order Code

Order code	Type	EAN	PG	Page	Order code	Type	EAN	PG	Page
1754-0-4107	1724-80	40 11395 99488 7	04	114	1754-0-4411	1723-281	40 11395 12638 7	04	116
1754-0-4108	1725-80	40 11395 99492 4	04	114	1754-0-4412	1724-281	40 11395 12639 4	04	116
1754-0-4112	1724-84	40 11395 99617 1	01	114	1754-0-4413	1725-281	40 11395 12661 5	04	116
1754-0-4113	1725-84	40 11395 99619 5	01	114	1754-0-4415	1722-884K	40 11395 12825 1	01	113
1754-0-4231	1722-182K	40 11395 05070 5	01	113	1754-0-4416	1723-884K	40 11395 12826 8	01	113
1754-0-4232	1723-182K	40 11395 05071 2	01	113	1754-0-4417	1724-884K	40 11395 12827 5	01	113
1754-0-4233	1724-182K	40 11395 05073 6	01	113	1754-0-4418	1725-884K	40 11395 12828 2	01	113
1754-0-4234	1725-182K	40 11395 05074 3	01	113	1754-0-4421	1723-885K	40 11395 12832 9	04	113
1754-0-4238	1724-184K	40 11395 05078 1	01	113	1754-0-4422	1724-885K	40 11395 12833 6	04	113
1754-0-4240	1721-181K	40 11395 05080 4	04	113	1754-0-4423	1725-885K	40 11395 12834 3	04	113
1754-0-4241	1722-181K	40 11395 05081 1	04	113	1754-0-4437	1721-280	40 11395 15695 7	04	115
1754-0-4242	1723-181K	40 11395 05082 8	04	113	1754-0-4438	1722-280	40 11395 15696 4	04	115
1754-0-4243	1724-181K	40 11395 05083 5	04	113	1754-0-4439	1723-280	40 11395 15697 1	04	116
1754-0-4244	1725-181K	40 11395 05084 2	04	113	1754-0-4440	1724-280	40 11395 15698 8	04	116
1754-0-4254	1721-860	40 11395 05679 0	04	114	1754-0-4441	1725-280	40 11395 15699 5	04	116
1754-0-4255	1722-860	40 11395 05681 3	04	114	1754-0-4442	1721-811	40 11395 15701 5	04	114
1754-0-4256	1723-860	40 11395 05683 7	04	114	1754-0-4443	1722-811	40 11395 15702 2	04	114
1754-0-4257	1724-860	40 11395 05685 1	04	114	1754-0-4444	1723-811	40 11395 15703 9	04	114
1754-0-4258	1721-821	40 11395 05687 5	04	114	1754-0-4445	1724-811	40 11395 15704 6	04	114
1754-0-4259	1722-821	40 11395 05689 9	04	114	1754-0-4471	1721-291-500	40 11395 16507 2	04	115
1754-0-4260	1723-821	40 11395 05691 2	04	114	1754-0-4472	1722-291-500	40 11395 16519 5	04	115
1754-0-4261	1724-821	40 11395 05693 6	04	114	1754-0-4473	1723-291-500	40 11395 16531 7	04	116
1754-0-4309	1724-183K	40 11395 07483 1	04	113	1754-0-4474	1724-291-500	40 11395 16542 3	04	116
1754-0-4310	1725-183K	40 11395 07484 8	04	113	1754-0-4475	1725-291-500	40 11395 16553 9	04	116
1754-0-4319	1723-866K	40 11395 08837 1	04	115	1754-0-4476	1721-297-500	40 11395 16551 7	04	115
1754-0-4320	1724-866K	40 11395 08839 5	04	115	1754-0-4477	1722-297-500	40 11395 16526 3	04	115
1754-0-4321	1725-866K	40 11395 08842 5	04	115	1754-0-4478	1723-297-500	40 11395 16537 9	04	116
1754-0-4322	1721-825	40 11395 08891 3	04	114	1754-0-4479	1724-297-500	40 11395 16548 5	04	116
1754-0-4323	1722-825	40 11395 08892 0	04	114	1754-0-4480	1725-297-500	40 11395 16559 1	04	116
1754-0-4325	1724-825	40 11395 08894 4	04	114	1754-0-4481	1721-299-500	40 11395 16517 1	04	115
1754-0-4327	1722-80G	40 11395 11306 6	04	114	1754-0-4482	1722-299-500	40 11395 16528 7	04	115
1754-0-4328	1723-80G	40 11395 11307 3	04	114	1754-0-4483	1723-299-500	40 11395 16539 3	04	116
1754-0-4329	1724-80G	40 11395 11308 0	04	114	1754-0-4484	1724-299-500	40 11395 16551 5	04	116
1754-0-4330	1725-80G	40 11395 11309 7	04	114	1754-0-4485	1725-299-500	40 11395 16562 1	04	116
1754-0-4331	1721-284	40 11395 11324 0	01	115	1754-0-4486	1721-296-500	40 11395 16512 6	01	115
1754-0-4332	1722-284	40 11395 11325 7	01	115	1754-0-4487	1722-296-500	40 11395 16524 9	01	115
1754-0-4333	1723-284	40 11395 11326 4	01	116	1754-0-4488	1723-296-500	40 11395 16535 5	01	116
1754-0-4334	1721-285	40 11395 11327 1	04	115	1754-0-4489	1724-296-500	40 11395 16546 1	01	116
1754-0-4335	1722-285	40 11395 11328 8	04	115	1754-0-4490	1725-296-500	40 11395 16557 7	01	116
1754-0-4336	1723-285	40 11395 11329 5	04	116	1754-0-4491	1721-295-500	40 11395 16509 6	04	115
1754-0-4337	1721-286	40 11395 11331 8	04	115	1754-0-4492	1722-295-500	40 11395 16522 5	04	115
1754-0-4338	1722-286	40 11395 11332 5	04	115	1754-0-4493	1723-295-500	40 11395 16533 1	04	116
1754-0-4339	1723-286	40 11395 11333 2	04	116	1754-0-4494	1724-295-500	40 11395 16544 7	04	116
1754-0-4340	1721-287	40 11395 11334 9	04	115	1754-0-4495	1725-295-500	40 11395 16555 3	04	116
1754-0-4341	1722-287	40 11395 11335 6	04	115	1754-0-4498	1721-184K-500	40 11395 17452 4	01	113
1754-0-4342	1723-287	40 11395 11336 3	04	116	1754-0-4499	1722-184K-500	40 11395 17453 1	01	113
1754-0-4343	1721-288	40 11395 11337 0	04	115	1754-0-4500	1721-866K-500	40 11395 17454 8	04	115
1754-0-4344	1722-288	40 11395 11338 7	04	115	1754-0-4501	1722-866K-500	40 11395 17455 5	04	115
1754-0-4345	1723-288	40 11395 11339 4	04	116	1754-0-4502	1723-184K-500	40 11395 17456 2	01	113
1754-0-4346	1724-284	40 11395 11341 7	01	116	1754-0-4506	1721-182K-500	40 11395 17460 9	01	113
1754-0-4347	1725-284	40 11395 11342 4	01	116	1754-0-4517	1725-184K-500	40 11395 17472 2	01	113
1754-0-4348	1724-285	40 11395 11343 1	04	116	1754-0-4529	1721-183K-500	40 11395 17594 1	04	113
1754-0-4349	1725-285	40 11395 11344 8	04	116	1754-0-4530	1722-183K-500	40 11395 17595 8	04	113
1754-0-4350	1724-286	40 11395 11345 5	04	116	1754-0-4531	1721-884K-500	40 11395 17596 5	01	113
1754-0-4351	1725-286	40 11395 11346 2	04	116	1754-0-4532	1721-885K-500	40 11395 17597 2	04	113
1754-0-4352	1724-287	40 11395 11347 9	04	116	1754-0-4533	1723-183K-500	40 11395 17599 6	04	113
1754-0-4353	1725-287	40 11395 11348 6	04	116	1754-0-4534	1722-885K-500	40 11395 17600 9	04	113
1754-0-4354	1724-288	40 11395 11349 3	04	116	1754-0-4535	1721-80-500	40 11395 17611 5	04	114
1754-0-4355	1725-288	40 11395 11351 6	04	116	1754-0-4536	1721-84-500	40 11395 17612 2	01	114
1754-0-4356	1721-823-101	40 11395 11522 0	04	114	1754-0-4537	1722-80-500	40 11395 17613 9	04	114
1754-0-4357	1722-823-101	40 11395 11523 7	04	114	1754-0-4538	1721-80G-500	40 11395 17615 3	04	114
1754-0-4358	1723-823-101	40 11395 11524 4	04	114	1754-0-4539	1722-84-500	40 11395 17616 0	01	114
1754-0-4359	1724-823-101	40 11395 11525 1	04	114	1754-0-4540	1723-80-500	40 11395 17617 7	04	114
1754-0-4360	1721-826-101	40 11395 11526 8	04	114	1754-0-4541	1723-84-500	40 11395 17623 8	01	114
1754-0-4361	1722-826-101	40 11395 11527 5	04	114	1754-0-4543	1721-283	40 11395 18556 8	04	115
1754-0-4362	1723-826-101	40 11395 11528 2	04	114	1754-0-4544	1722-283	40 11395 18557 5	04	115
1754-0-4363	1724-826-101	40 11395 11529 9	04	114	1754-0-4545	1723-283	40 11395 18558 2	04	116
1754-0-4409	1721-281	40 11395 12636 3	04	115	1754-0-4546	1724-283	40 11395 18559 9	04	116
1754-0-4410	1722-281	40 11395 12637 0	04	115	1754-0-4547	1725-283	40 11395 18561 2	04	116

Selection Table According to Order Code

Order code	Type	EAN	PG	Page	Order code	Type	EAN	PG	Page
1754-0-4560	1721-838-500	40 11395 19478 2	04	117	2CDG110028R0011	JA/S 4.SMI.1M	40 16779 65423 4	26	43
1754-0-4561	1722-838-500	40 11395 19479 9	04	117	2CDG110029R0011	DR/S 4.1	40 16779 58755 6	26	10
1754-0-4562	1723-838-500	40 11395 19481 2	04	117	2CDG110058R0011	ES/S 4.1.2.1	40 16779 67206 1	26	67
1754-0-4563	1724-838-500	40 11395 19482 9	04	118	2CDG110059R0011	ES/S 8.1.2.1	40 16779 67207 8	26	67
1754-0-4564	1725-838-500	40 11395 19483 6	04	118	2CDG110060R0011	DSM/S 1.1	40 16779 65205 6	26	18
1754-0-4565	1721-835-500	40 11395 19484 3	04	117	2CDG110061R0011	IPR/S 2.1	40 16779 65229 2	26	14
1754-0-4566	1722-835-500	40 11395 19485 0	04	117	2CDG110065R0011	US/U 12.2	40 16779 65012 0	26	30
1754-0-4567	1723-835-500	40 11395 19486 7	04	117	2CDG110066R0011	EUB/S 1.1	40 16779 64991 9	26	164
1754-0-4568	1724-835-500	40 11395 19487 4	04	118	2CDG110067R0011	BDB/S 1.1	40 16779 65753 2	26	164
1754-0-4569	1725-835-500	40 11395 19488 1	04	118	2CDG110070R0011	NTU/S 12.2000.1	40 16779 68117 9	26	11
1754-0-4570	1721-836-500	40 11395 19489 8	04	117	2CDG110071R0011	UK/S 32.2	40 16779 65577 4	26	76
1754-0-4571	1722-836-500	40 11395 19491 1	04	117	2CDG110072R0011	ABZ/S 2.1	40 16779 65236 0	26	74
1754-0-4572	1723-836-500	40 11395 19492 8	04	117	2CDG110073R0011	ABL/S 2.1	40 16779 65263 3	26	74
1754-0-4573	1724-836-500	40 11395 19493 5	04	118	2CDG110074R0011	UD/S 2.300.2	40 16779 66306 9	26	55
1754-0-4574	1725-836-500	40 11395 19494 2	04	118	2CDG110079R0011	SD/S 2.16.1	40 16779 65996 3	26	55
1754-0-4575	1721-833-500	40 11395 19495 9	04	117	2CDG110080R0011	SD/S 4.16.1	40 16779 65937 6	26	55
1754-0-4576	1725-848-500	40 11395 19496 6	04	117	2CDG110081R0011	SD/S 8.16.1	40 16779 65918 5	26	55
1754-0-4577	1723-833-500	40 11395 19497 3	04	117	2CDG110083R0011	ZS/S 1.1	40 16779 66207 9	26	159
1754-0-4578	1724-833-500	40 11395 19498 0	04	118	2CDG110086R0011	AE/A 2.1	40 16779 66401 1	26	30
1754-0-4579	1725-833-500	40 11395 19499 7	04	118	2CDG110087R0011	LR/S 2.16.1	40 16779 66405 9	26	55
1754-0-4580	1721-848-500	40 11395 19501 7	04	117	2CDG110088R0011	LR/S 4.16.1	40 16779 66489 9	26	55
1754-0-4581	1722-848-500	40 11395 19502 4	04	117	2CDG110089R0011	LF/U 2.1	40 16779 66416 5	26	55
1754-0-4582	1723-848-500	40 11395 19503 1	04	117	2CDG110090R0011	BE/S 4.20.2.1	40 16779 71078 7	26	30
1754-0-4583	1724-848-500	40 11395 19504 8	04	118	2CDG110091R0011	BE/S 4.230.2.1	40 16779 71106 7	26	30
1754-0-4584	1725-848-500	40 11395 19505 5	04	118	2CDG110092R0011	BE/S 8.20.2.1	40 16779 71076 3	26	30
1754-0-4585	1721-845-500	40 11395 19506 2	04	117	2CDG110093R0011	BE/S 8.230.2.1	40 16779 71077 0	26	30
1754-0-4586	1722-845-500	40 11395 19512 3	04	117	2CDG110094R0011	RM/S 1.1	40 16779 66556 8	26	25
1754-0-4587	1723-845-500	40 11395 19513 0	04	117	2CDG110095R0011	RM/S 2.1	40 16779 66567 4	26	25
1754-0-4588	1724-845-500	40 11395 19514 7	04	118	2CDG110096R0011	NTU/Z 28.30.1	40 16779 66316 8	26	10
1754-0-4589	1725-845-500	40 11395 19515 4	04	118	2CDG110100R0011	SA/M 2.16.1	40 16779 68158 2	26	22
1754-0-4590	1721-846-500	40 11395 19516 1	04	117	2CDG110101R0011	DLR/S 8.16.1M	40 16779 67656 4	26	49
1754-0-4591	1722-846-500	40 11395 19517 8	04	117	2CDG110103R0011	DG/S 1.16.1	40 16779 66950 4	26	49
1754-0-4592	1723-846-500	40 11395 19518 5	04	117	2CDG110104R0011	RC/A 4.2	40 16779 67647 2	26	21
1754-0-4593	1724-846-500	40 11395 19519 2	04	118	2CDG110106R0011	RC/A 8.2	40 16779 68126 1	26	21
1754-0-4594	1725-846-500	40 11395 19521 5	04	118	2CDG110107R0011	SD/M 2.6.2	40 16779 68066 0	26	22
1754-0-4595	1721-843-500	40 11395 19522 2	04	117	2CDG110108R0011	LR/M 1.6.2	40 16779 68067 7	26	23
1754-0-4596	1722-843-500	40 11395 19523 9	04	117	2CDG110109R0011	MT/S 4.12.2M	40 16779 71187 6	26	167
1754-0-4597	1723-843-500	40 11395 19524 6	04	117	2CDG110110R0011	MT/S 8.12.2M	40 16779 71186 9	26	167
1754-0-4598	1724-843-500	40 11395 19525 3	04	118	2CDG110111R0011	MT/U 2.12.2	40 16779 71176 0	26	167
1754-0-4599	1725-843-500	40 11395 19526 0	04	118	2CDG110112R0011	SA/S 2.16.6.1	40 16779 70830 2	26	36
1754-0-4600	1721-832-500	40 11395 19527 7	04	117	2CDG110113R0011	SA/S 4.16.6.1	40 16779 70831 9	26	36
1754-0-4601	1722-832-500	40 11395 19528 4	04	117	2CDG110114R0011	SA/S 8.16.6.1	40 16779 70832 6	26	36
1754-0-4602	1723-832-500	40 11395 19529 1	04	117	2CDG110116R0011	VAA/S 6.230.2.1	40 16779 82986 1	26	67
1754-0-4603	1724-832-500	40 11395 19531 4	04	118	2CDG110117R0011	VAA/S 12.230.2.1	40 16779 82987 8	26	67
1754-0-4604	1725-832-500	40 11395 19532 1	04	118	2CDG110120R0011	JRA/S 2.230.2.1	40 16779 69839 9	26	42
1754-0-4605	1721-831-500	40 11395 19533 8	04	117	2CDG110121R0011	JRA/S 4.230.2.1	40 16779 69840 5	26	42
1754-0-4606	1722-831-500	40 11395 19534 5	04	117	2CDG110122R0011	JRA/S 8.230.2.1	40 16779 69841 2	26	42
1754-0-4607	1723-831-500	40 11395 19535 2	04	117	2CDG110124R0011	JRA/S 2.230.5.1	40 16779 69843 6	26	42
1754-0-4608	1724-831-500	40 11395 19536 9	04	118	2CDG110125R0011	JRA/S 4.230.5.1	40 16779 69844 3	26	42
1754-0-4609	1725-831-500	40 11395 19537 6	04	118	2CDG110126R0011	JRA/S 8.230.5.1	40 16779 69845 0	26	42
1SVR427041R0000	CP-D 24/0.42	40 13614 52377 9	11		2CDG110128R0011	JRA/S 4.24.5.1	40 16779 69847 4	26	42
1SVR427041R1000	CP-D 12/0.83	40 13614 52375 5	11		2CDG110129R0011	JRA/S 2.230.1.1	40 16779 69848 1	26	43
1SVR427043R0100	CP-D 24/1.3	40 13614 52378 6	11		2CDG110130R0011	JRA/S 4.230.1.1	40 16779 69849 8	26	43
1SVR427043R1200	CP-D 12/2.1	40 13614 52376 2	11		2CDG110131R0011	JRA/S 8.230.1.1	40 16779 69850 4	26	43
1SVR427045R0400	CP-D 24/4.2	40 13614 52379 3	11		2CDG110132R0011	SA/S 2.16.5.1	40 16779 70827 2	26	36
1SVR427049R0000	CP-D RU	40 13614 52380 9	11		2CDG110133R0011	SA/S 4.16.5.1	40 16779 70828 9	26	36
2CDG110002R0011	SA/M 2.6.1	40 16779 58314 5	26	22	2CDG110134R0011	SA/S 8.16.5.1	40 16779 70829 6	26	36
2CDG110003R0011	JA/M 2.230.1	40 16779 58315 2	26	22	2CDG110136R0011	SE/S 3.16.1	40 16779 70977 4	26	159
2CDG110004R0011	JA/M 2.24.1	40 16779 58316 9	26	22	2CDG110137R0011	SA/S 12.16.5.1	40 16779 71107 4	26	36
2CDG110005R0011	BE/M 4.230.1	40 16779 58311 4	26	22	2CDG110138R0011	SA/S 12.16.6.1	40 16779 76516 9	26	36
2CDG110006R0011	BE/M 4.24.1	40 16779 58312 1	26	22	2CDG110142R0011	DGN/S 1.16.1	40 16779 84556 4	26	49
2CDG110007R0011	BE/M 4.12.1	40 16779 58313 8	26	22	2CDG110143R0011	SJR/S4.24.2.1	40 16779 86446 6	26	43
2CDG110008R0011	USB/S 1.1	40 16779 58921 5	26	16	2CDG110144R0011	SV/S 30.160.1.1	40 16779 86666 8	26	8
2CDG110012R0011	UD/M 1.300.1	40 11395 04281 6	26	23	2CDG110145R0011	SV/S 30.320.2.1	40 16779 83766 8	26	9
2CDG110013R0011	ES/M 2.230.1	40 16779 58361 9	26	23	2CDG110146R0011	SV/S 30.640.5.1	40 16779 86669 9	26	9
2CDG110014R0011	ES/M 2.24.1	40 16779 58362 6	26	23	2CDG110148R0011	EM/S 3.16.1	40 16779 87706 0	26	159
2CDG110024R0011	SCM/S 1.1	40 16779 58391 6	26	167	2CDG110150R0011	GM/A 8.1	40 16779 90630 2	26	171
2CDG110025R0011	DG/S 8.1	40 16779 58582 8	26	48	2CDG110152R0011	SA/S 4.6.1.1	40 16779 87786 2	26	35
2CDG110026R0011	DG/S 1.1	40 16779 58583 5	26	49	2CDG110153R0011	SA/S 8.6.1.1	40 16779 87785 5	26	35

Selection Table According to Order Code

C

Order code	Type	EAN	PG	Page
2CDG110154R0011	SA/S 12.6.1.1	40 16779 87784 8	26	35
2CDG110155R0011	SA/S 2.10.2.1	40 16779 87783 1	26	35
2CDG110156R0011	SA/S 4.10.2.1	40 16779 87782 4	26	35
2CDG110157R0011	SA/S 8.10.2.1	40 16779 87781 7	26	35
2CDG110158R0011	SA/S 12.10.2.1	40 16779 87780 0	26	35
2CDG110159R0011	SA/S 2.16.2.1	40 16779 87779 4	26	35
2CDG110160R0011	SA/S 4.16.2.1	40 16779 87778 7	26	35
2CDG110161R0011	SA/S 8.16.2.1	40 16779 87777 0	26	35
2CDG110162R0011	SA/S 12.16.2.1	40 16779 87776 3	26	35
2CDG110163R0011	FCL/S 1.6.1.1	40 16779 87788 6	26	69
2CDG110164R0011	FCL/S 2.6.1.1	40 16779 87787 9	26	69
2CDG110165R0011	RM/S 3.1	40 16779 88106 7	26	25
2CDG110166R0011	SV/S 30.320.1.1	40 16779 90619 7	26	8
2CDG110167R0011	SV/S 30.640.3.1	40 16779 90621 0	26	8
2CDG110168R0011	IO/S 4.6.1.1	40 16779 88107 4	26	37
2CDG110169R0011	IO/S 8.6.1.1	40 16779 88108 1	26	37
2CDG110170R0011	RM/S 4.1	40 16779 88126 5	26	25
2CDG110171R0011	LK/S 4.2	40 16779 88167 8	26	14
2CDG110172R0011	DLR/A 4.8.1.1	40 16779 88237 8	26	50
2CDG110174R0011	WA/Z 1.1	40 16779 90637 1	26	171
2CDG110175R0011	IPR/S 3.1.1	40 16779 90648 7	26	14
2CDG110177R0011	IPS/S 3.1.1	40 16779 90651 7	26	14
2CDG110178R0011	MG/E 4.4.1	40 16779 92549 5	26	171
2CDG110180R0011	SA/S 2.6.2.1	40 16779 92506 8	26	35
2CDG110181R0011	SA/S 4.6.2.1	40 16779 92509 9	26	35
2CDG110182R0011	SA/S 8.6.2.1	40 16779 92513 6	26	35
2CDG110183R0011	SA/S 12.6.2.1	40 16779 92515 0	26	35
2CDG110184R0011	WZ/S 1.3.1.2	40 16779 95861 2	26	31
2CDG110186R0011	MG/A 4.4.1	40 16779 92552 5	26	171
2CDG110190R0011	AE/S 4.1.1.3	40 16779 992929 5	26	30
2CDG110191R0011	WS/S 4.1.1.2	40 16779 992937 0	26	31
2CDG110192R0011	ABA/S 1.2.1	40 16779 92993 6	26	74
2CDG110193R0011	FCA/S 1.2.2.2	40 16779 94217 1	26	69
2CDG110194R0011	FCA/S 1.1.2.2	40 16779 94218 8	26	69
2CDG110195R0011	FCA/S 1.1.1.2	40 16779 94219 5	26	69
2CDG110196R0011	FCA/S 1.2.1.2	40 16779 94222 5	26	69
2CDG110198R0011	DG/S1.64.1.1	40 16779 94266 9	26	48
2CDG110199R0011	DG/S2.64.1.1	40 16779 94285 0	26	48
2CDG110202R0011	AA/S 4.1.2	40 16779 96237 7	26	37
2CDG110203R0011	AA/A 2.1.2	40 16779 95407 5	26	37
2CDG120001R0011	FC/S 1.1	40 16779 58383 1	20	70
2CDG120002R0011	TS/K 1.1	40 16779 58381 7	20	70
2CDG120004R0011	ST/K 1.1	40 16779 63022 1	20	70
2CDG120009R0011	VA/Z 10.1	40 16779 65319 0	20	71
2CDG120010R0011	VA/Z 50.1	40 16779 65320 6	20	71
2CDG120011R0011	VA/Z 78.1	40 16779 65321 3	20	71
2CDG120012R0011	VA/Z 80.1	40 16779 65322 0	20	71
2CDG120032R0011	VAA/A 6.24.1	40 16779 67064 7	20	67
2CDG120034R0011	ISM/S 5.1	40 16779 969792 7	20	15
2CDG120035R0011	ISS/S 5.1	40 16779 69791 0	20	15
2CDG120036R0011	IPM/S 1.1	40 16779 69790 3	20	16
2CDG120037R0011	CP-D 24/2.5	40 16779 69789 7	20	11
2CDG120037R0011	CP-D 24/2.5	40 16779 969789 7	20	80
2CDG120037R0011	CP-D 24/2.5	40 16779 969789 7	20	103
2CDG120038R0011	LGS/A 1.1	40 16779 83712 5	20	70
2CDG120039R0011	FW/S 8.2.1	40 16779 90666 1	20	75
2CDG120040R0011	FAD/A 1.1	40 16779 90668 5	20	75
2CDG120041R0011	FAG/A 1.1	40 16779 90669 2	20	75
2CDG120042R0011	PS/E 2.1	40 16779 90670 8	20	75
2CDG120043R0011	PK/E 2.1	40 16779 90671 5	20	75
2CDG120044R0011	HS/S 4.2.1	40 16779 90672 2	20	57
2CDG120045R0011	LFO/A 1.1	40 16779 90673 9	20	57
2CDG120046R0011	WES/A 3.1	40 16779 992893 9	20	31
2CDG120047R0011	EG/A 32.2.1	40 16779 94257 7	26	16
2CDG120048R0011	MKE/A 1.868.1	40 16779 95066 4	20	17
2CDG120049R0011	TSA/K 230.2	40 16779 995067 1	20	71
2CDG120050R0011	TSA/K 24.2	40 16779 995068 8	20	71
2CDG120051R0011	SE/K 1.868.1	40 16779 99699 0	20	17

Order code	Type	EAN	PG	Page
2CDG120149R0011	STR/Z 1.50.1	40 16779 87716 9	20	18
2CDG220021R0011	SAD/GAP	40 13614 50362 7	50	175
2CDG230023R0011	IR/XB	40 16779 67877 3	50	172
2CDG230024R0011	IR/XC	40 16779 67878 0	50	172
2CDG230025R0011	EIM/XB	40 16779 67879 7	50	172
2CDG230026R0011	EIM/XC	40 16779 67880 3	50	172
2CDG230027R0011	IR/KB	40 16779 75716 4	50	177
2CDG230028R0011	EIM/KB	40 16779 75717 1	50	177
2CDG230029R0011	EIM/KC	40 16779 75718 8	50	177
2CDG230039R0011	EIM/D	40 16779 87766 4	50	177
2CDG240019R0011	SSM/A	40 16779 83746 0	50	174
2CDG250003R0011	WRK/W	40 16779 66404 2	50	176
2CDG270010R0011	ESPE/M	40 16779 66490 8	50	174
2CDG280001R0011	BT/A 1.1	40 16779 92556 3	26	171
2CDG280002R0011	BT/A 2.1	40 16779 96336 7	26	171
2CDG430051R0011	FC600/BREL	40 16779 70840 1	50	179
2CDG430079R0011	FC650/O	40 16779 68479 4	50	179
2CDG430081R0011	FC650/TMAX	40 16779 86477 0	50	179
2CDG924003R0011	PS 1/4/6-KNX	40 16779 66758 6	20	18
2CDG924004R0011	PS 1/60/6-KNX	40 16779 66759 3	20	18
2CDL000001R0001	PS-END 1-S	40 16779 66698 5		18
2CLA222120N1101	N2221.2 BL	84 27238 10032 6		152
2CLA222120N1301	N2221.2 PL	84 27238 10034 0		152
2CLA222120N1801	N2221.2 AN	84 27238 10033 3		152
2CLA222140N1101	N2221.4 BL	84 27238 10043 2		152
2CLA222140N1301	N2221.4 PL	84 27238 10045 6		152
2CLA222140N1801	N2221.4 AN	84 27238 10044 9		152
2CLA222160N1101	N2221.6 BL	84 27238 10053 1		153
2CLA222160N1301	N2221.6 PL	84 27238 10055 5		153
2CLA222160N1801	N2221.6 AN	84 27238 10054 8		153
2CLA222170N1101	N2221.7 BL	84 27238 10065 4		153
2CLA222170N1301	N2221.7 PL	84 27238 10067 8		153
2CLA222170N1801	N2221.7 AN	84 27238 10066 1		153
2CLA224040N1101	N2240.4 BL	84 27238 10071 5		154
2CLA224040N1301	N2240.4 PL	84 27238 10073 9		154
2CLA224040N1801	N2240.4 AN	84 27238 10072 2		154
2CLA224140N1101	N2241.4 BL	84 27238 10081 4		154
2CLA224140N1301	N2241.4 PL	84 27238 10083 8		154
2CLA224140N1801	N2241.4 AN	84 27238 10082 1		154
2CLA227190N1001	N2271.9	84 27238 06670 7		155
2CLA627190N1001	AMD5053	84 27238 09914 9		146
2CLA637100N1101	AMD5153-ST	84 27238 09681 0		146
2CLA637100N1501	AMD5153-SB	84 27238 09682 7		146
2CLA637100N1601	AMD5153-AG	84 27238 09683 4		146
2CLA637100N1701	AMD5153-MG	84 27238 09684 1		146
2CLA667200N1101	AMD5253-ST	84 27238 09689 6		146
2CLA667200N1501	AMD5253-SB	84 27238 09690 2		146
2CLA667200N1601	AMD5253-AG	84 27238 09691 9		146
2CLA667200N1701	AMD5253-MG	84 27238 09692 6		146
2CSY235683R2001	TR/U 1.1	80 12542 35683 7		147
2CSY258202R2051	SW MiniMAC 4.1	80 12542 58202 1		148
2CSY259412R2041	TS/T 1	80 12542 59412 3		148
2CSY265232R2021	TH/U 1.1	80 12542 65232 8		147
6020-0-1133	6010-25-500	40 11395 93850 8	19	124
6115-0-0183	6125/01-84-500	40 11395 13559 4	26	105
6115-0-0205	6125/01-81-500	40 11395 13947 9	26	105
6115-0-0206	6125/01-82-500	40 11395 13948 6	26	105
6115-0-0207	6125/01-83-500	40 11395 13949 3	26	105
6115-0-0211	6125/01-866-500	40 11395 13953 0	26	105
6115-0-0212	6125/01-803-500	40 11395 13954 7	26	105
6115-0-0214	6125/01-884-500	40 11395 13956 1	26	105
6115-0-0215	6125/01-885-500	40 11395 13957 8	26	105
6115-0-0216	6125/02-81-500	40 11395 13958 5	26	108
6115-0-0217	6125/02-82-500	40 11395 13959 2	26	108
6115-0-0218	6125/02-83-500	40 11395 13961 5	26	108
6115-0-0219	6125/02-84-500	40 11395 13962 2	26	108
6115-0-0223	6125/02-866-500	40 11395 13966 0	26	108
6115-0-0224	6125/02-803-500	40 11395 13967 7	26	108
6115-0-0226	6125/02-884-500	40 11395 13969 1	26	108

Selection Table According to Order Code

Order code	Type	EAN	PG	Page	Order code	Type	EAN	PG	Page
6115-0-0227	6125/02-885-500	40 11395 13971 4	26	108	6132-0-0307	6122/98-509	40 11395 15795 4	26	154
6115-0-0443	6125/20-981-500	40 11395 15781 7	26	144	6132-0-0313	6179/01-204-500	40 11395 16854 7	26	63
6115-0-0444	6125/98-509	40 11395 15782 4	26	152	6132-0-0314	6179/01-208-500	40 11395 16856 1	26	63
6115-0-0452	6125/02-840-500	40 11395 19553 6	26	108	6132-0-0317	6179/02-204-500	40 11395 16861 5	26	63
6116-0-0174	6126/01-84-500	40 11395 13574 7	26	105	6132-0-0318	6179/02-208-500	40 11395 16862 2	26	63
6116-0-0195	6126/01-81-500	40 11395 13985 1	26	105	6132-0-0320	6179-500	40 11395 16865 3	26	63
6116-0-0196	6126/01-82-500	40 11395 13986 8	26	105	6132-0-0342	6131/20-24-500	40 11395 18588 9	26	59
6116-0-0197	6126/01-83-500	40 11395 13987 5	26	105	6132-0-0343	6131/20-183-500	40 11395 18589 6	26	59
6116-0-0201	6126/01-866-500	40 11395 13993 6	26	105	6132-0-0344	6131/21-24-500	40 11395 18590 2	26	59
6116-0-0202	6126/01-803-500	40 11395 13994 3	26	105	6132-0-0345	6131/21-183-500	40 11395 18591 9	26	59
6116-0-0204	6126/01-884-500	40 11395 13996 7	26	105	6132-0-0346	6131/30-24-500	40 11395 18592 6	26	60
6116-0-0205	6126/01-885-500	40 11395 13997 4	26	105	6132-0-0347	6131/30-183-500	40 11395 18593 3	26	60
6116-0-0206	6126/02-81-500	40 11395 13998 1	26	108	6132-0-0348	6131/31-24-500	40 11395 18594 0	26	60
6116-0-0207	6126/02-82-500	40 11395 13999 8	26	108	6132-0-0349	6131/31-183-500	40 11395 18596 4	26	60
6116-0-0208	6126/02-83-500	40 11395 14001 7	26	108	6132-0-0350	6131/40-24-500	40 11395 18597 1	26	61
6116-0-0209	6126/02-84-500	40 11395 14002 4	26	108	6132-0-0351	6131/29-24-500	40 11395 18598 8	26	62
6116-0-0213	6126/02-866-500	40 11395 14006 2	26	108	6132-0-0352	6131/29-183-500	40 11395 18599 5	26	62
6116-0-0214	6126/02-803-500	40 11395 14007 9	26	108	6132-0-0353	6131/39-24-500	40 11395 18600 8	26	62
6116-0-0216	6126/02-884-500	40 11395 14009 3	26	108	6132-0-0354	6131/39-183-500	40 11395 18601 5	26	62
6116-0-0217	6126/02-885-500	40 11395 14011 6	26	108	6132-0-0373	6122/10-212-500	40 11395 21123 6	24	111
6116-0-0218	6126/20-981-500	40 11395 15784 8	26	144	6132-0-0374	6122/10-214-500	40 11395 21124 3	24	111
6116-0-0219	6126/98-509	40 11395 15785 5	26	152	6132-0-0376	6122/10-81-500	40 11395 21126 7	24	111
6116-0-0227	6126/02-840-500	40 11395 19554 3	26	108	6132-0-0377	6122/10-82-500	40 11395 21127 4	24	111
6117-0-0200	6127/01-84-500	40 11395 13588 4	26	105	6132-0-0378	6122/10-83-500	40 11395 21128 1	24	111
6117-0-0221	6127/01-81-500	40 11395 14024 6	26	105	6132-0-0379	6122/10-84-500	40 11395 21129 8	24	111
6117-0-0222	6127/01-82-500	40 11395 14025 3	26	105	6132-0-0380	6122/10-884-500	40 11395 21131 1	24	111
6117-0-0223	6127/01-83-500	40 11395 14026 0	26	105	6132-0-0381	6122/10-885-500	40 11395 21132 8	24	111
6117-0-0227	6127/01-866-500	40 11395 14030 7	26	105	6132-0-0382	6122/10-803-500	40 11395 21133 5	24	111
6117-0-0228	6127/01-803-500	40 11395 14031 4	26	105	6132-0-0385	6122/10-866-500	40 11395 21136 6	24	111
6117-0-0230	6127/01-884-500	40 11395 14033 8	26	105	6132-0-0399	6131/50-24-500	40 11395 21644 6	26	61
6117-0-0231	6127/01-885-500	40 11395 14034 5	26	105	6132-0-0400	6131/50-183-500	40 11395 21645 3	26	61
6117-0-0232	6127/02-81-500	40 11395 14035 2	26	108	6132-0-0403	6131/38-24-500	40 11395 21655 2	26	63
6117-0-0233	6127/02-82-500	40 11395 14036 9	26	108	6132-0-0404	6131/38-183-500	40 11395 21658 3	26	63
6117-0-0234	6127/02-83-500	40 11395 14037 6	26	108	6132-0-0407	6122/10-840-500	40 11395 21863 1	24	111
6117-0-0235	6127/02-84-500	40 11395 14038 3	26	108	6132-0-0413	6131/51-24-500	40 11395 22229 4	26	62
6117-0-0239	6127/02-866-500	40 11395 14043 7	26	108	6132-0-0414	6131/51-183-500	40 11395 22231 7	26	62
6117-0-0240	6127/02-803-500	40 11395 14044 4	26	108	6133-0-0201	6149/21-500	40 11395 21896 2	26	103
6117-0-0242	6127/02-884-500	40 11395 14046 8	26	108	6133-0-0221	6108/06-500	40 11395 21092 5	26	127
6117-0-0243	6127/02-885-500	40 11395 14047 5	26	108	6133-0-0223	6108/07-500	40 11395 21094 9	26	131
6117-0-0252	6127/02-840-500	40 11395 19556 7	26	108	6133-0-0225	6108/06-AP-500	40 11395 21096 3	26	126
6118-0-0104	6129/20-981-500	40 11395 15787 9	26	144	6133-0-0227	6108/07-AP-500	40 11395 21098 7	26	126
6118-0-0105	6129/96-509	40 11395 15788 6	26	153	6134-0-0308	6108/08-500	40 11395 18911 5	26	136
6118-0-0107	6129/21-981-500	40 11395 15791 6	26	144	6134-0-0309	6124/08-981-500	40 11395 18912 2	26	145
6118-0-0108	6129/98-509	40 11395 15792 3	26	153	6134-0-0310	6124/88-509	40 11395 18913 9	26	154
6120-0-0072	6120/13-500	40 11395 10227 5	26	98	6134-0-0313	6109/08-500	40 11395 20875 5	26	136
6120-0-0073	6120/13-508	40 11395 11658 6	26	98	6134-0-0315	6109/18-500	40 11395 20877 9	26	139
6120-0-0075	6120/12-101-500	40 11395 13548 8	26	98	6134-0-0317	6109/28-500	40 11395 20879 3	26	139
6120-0-0076	6120/12-101-508	40 11395 14733 7	26	98	6134-0-0319	6108/18-500	40 11395 21101 4	26	138
6123-0-0001	6123/20-500	40 11395 15797 8	26	145	6134-0-0331	6128/28-81-500	40 11395 21381 0	26	112
6123-0-0001	6123/20-500	40 11395 15797 8	26	155	6134-0-0332	6128/28-82-500	40 11395 21382 7	26	112
6123-0-0002	6123/21-500	40 11395 15798 5	26	145	6134-0-0333	6128/28-83-500	40 11395 21383 4	26	112
6123-0-0002	6123/21-500	40 11395 15798 5	26	155	6134-0-0334	6128/28-84-500	40 11395 21384 1	26	112
6123-0-0003	6123/22-500	40 11395 15799 2	26	145	6134-0-0335	6128/28-866-500	40 11395 21385 8	26	112
6123-0-0003	6123/22-500	40 11395 15799 2	26	155	6134-0-0336	6128/28-803-500	40 11395 21386 5	26	112
6123-0-0004	6123/23-500	40 11395 15801 2	26	145	6134-0-0338	6128/28-884-500	40 11395 21388 9	26	112
6123-0-0004	6123/23-500	40 11395 15801 2	26	155	6134-0-0339	6128/28-885-500	40 11395 21389 6	26	112
6123-0-0005	6123/24-500	40 11395 17645 0	26	145	6134-0-0342	6128/28-840-500	40 11395 21724 5	26	112
6123-0-0005	6123/24-500	40 11395 17645 0	26	155	6135-0-0146	6129/01-84-500	40 11395 13616 4	26	109
6123-0-0006	6123/26-500	40 11395 17646 7	26	145	6135-0-0156	6129/01-81-500	40 11395 14094 9	26	109
6123-0-0006	6123/26-500	40 11395 17646 7	26	155	6135-0-0157	6129/01-82-500	40 11395 14095 6	26	109
6132-0-0263	6122/02-84-500	40 11395 13521 1	26	110	6135-0-0158	6129/01-83-500	40 11395 14096 3	26	109
6132-0-0283	6122/02-81-500	40 11395 14060 4	26	110	6135-0-0162	6129/01-866-500	40 11395 14100 7	26	109
6132-0-0284	6122/02-82-500	40 11395 14061 1	26	110	6135-0-0163	6129/01-803-500	40 11395 14101 4	26	109
6132-0-0285	6122/02-83-500	40 11395 14062 8	26	110	6135-0-0165	6129/01-884-500	40 11395 14103 8	26	109
6132-0-0289	6122/02-866-500	40 11395 14066 6	26	110	6135-0-0166	6129/01-885-500	40 11395 14104 5	26	109
6132-0-0290	6122/02-803-500	40 11395 14067 3	26	110	6136/UP		40 11395 04437 7	26	82
6132-0-0292	6122/02-884-500	40 11395 14069 7	26	110	6136-0-0139	6136/10-500	40 11395 07927 0	26	82
6132-0-0293	6122/02-885-500	40 11395 14070 3	26	110	6136-0-0141	6136/11-500	40 11395 07929 4	26	82
6132-0-0306	6122/20-981-500	40 11395 15794 7	26	145	6136-0-0185	6136/100 C-102-500	40 11395 10675 4	26	82

Selection Table According to Order Code

C

Order code	Type	EAN	PG	Page	Order code	Type	EAN	PG	Page
6136-0-0186	6136/100 CB-102	40 11395 10676 1	26	82	6220-0-0174	SRS-2-R-83	40 11395 18231 4	24	134
6136-0-0196	6136/15-500	40 11395 15694 0	26	82	6220-0-0175	SRS-2-R-84	40 11395 18196 6	24	134
6136-0-0202	6136/APP-500	40 11395 21292 9	26	84	6220-0-0182	SR-1-212	40 11395 18074 7	24	127
6136-0-0205	6136/07-811-500	40 11395 22343 7	26	80	6220-0-0183	SR-1-214	40 11395 18113 3	24	127
6136-0-0206	6136/07-825-500	40 11395 22344 4	26	80	6220-0-0184	SRL-1-212	40 11395 18075 4	24	128
6136-0-0209	6136/27-811-500	40 11395 22348 2	26	80	6220-0-0185	SRL-1-214	40 11395 18114 0	24	128
6136-0-0210	6136/27-825-500	40 11395 22349 9	26	80	6220-0-0186	SRB-1-212	40 11395 18076 1	24	129
6136-0-0212	6136/07 UP-500	40 11395 22352 9	26	80	6220-0-0187	SRB-1-214	40 11395 18115 7	24	129
6138-0-0003	6138/11-84-500	40 11395 11609 8	26	70	6220-0-0188	SRS-1-212	40 11395 18077 8	24	130
6138-0-0005	6138/11-83-500	40 11395 11613 5	26	70	6220-0-0189	SRS-1-214	40 11395 18117 1	24	130
6151-0-0245	6151/11 U-500	40 11395 16395 5	26	26	6220-0-0190	SRD-1-212	40 11395 18078 5	24	131
6151-0-0247	6164/11 U-500	40 11395 16399 3	26	26	6220-0-0191	SRD-1-214	40 11395 18118 8	24	131
6151-0-0249	6173/11 U-500	40 11395 16402 0	26	26	6220-0-0192	SR-2-212	40 11395 18079 2	24	132
6151-0-0254	6155/30-500	40 11395 20208 1	33	56	6220-0-0193	SR-2-214	40 11395 18119 5	24	132
6151-0-0256	6155/40-500	40 11395 20211 1	33	56	6220-0-0194	SRL-2-L-212	40 11395 18080 8	24	133
6152-0-0040	6152/11 U-500	40 11395 16397 9	26	26	6220-0-0195	SRL-2-L-214	40 11395 18121 8	24	133
6155-0-0051	6109/03-803-500	40 11395 20903 5	26	140	6220-0-0196	SRB-2-212	40 11395 18081 5	24	132
6155-0-0052	6109/03-214-500	40 11395 20904 2	26	140	6220-0-0197	SRB-2-214	40 11395 18122 5	24	132
6155-0-0060	6109/03-81-500	40 11395 20921 9	26	140	6220-0-0198	SRS-2-L-212	40 11395 18083 9	24	134
6155-0-0061	6109/03-82-500	40 11395 20922 6	26	140	6220-0-0199	SRS-2-L-214	40 11395 18123 2	24	134
6155-0-0062	6109/03-83-500	40 11395 20923 3	26	140	6220-0-0200	SRD-2-L-212	40 11395 18084 6	24	135
6155-0-0063	6109/03-84-500	40 11395 20924 0	26	140	6220-0-0201	SRD-2-L-214	40 11395 18124 9	24	135
6155-0-0064	6109/03-884-500	40 11395 20925 7	26	140	6220-0-0202	SRL-2-R-212	40 11395 18085 3	24	133
6155-0-0065	6109/03-885-500	40 11395 20926 4	26	140	6220-0-0203	SRL-2-R-214	40 11395 18126 3	24	133
6155-0-0066	6109/03-803-500	40 11395 20927 1	26	140	6220-0-0206	SRS-2-R-212	40 11395 18088 4	24	134
6155-0-0069	6109/03-866-500	40 11395 20931 8	26	140	6220-0-0207	SRS-2-R-214	40 11395 18128 7	24	134
6155-0-0114	6109/03-840-500	40 11395 22079 5	26	140	6220-0-0242	CP-FCC-81	40 11395 18745 6	24	138
6181-0-0013	6109/05-500	40 11395 20873 1	26	136	6220-0-0243	CP-FCC-83	40 11395 18746 3	24	138
6186-0-0023	6186/01 UP-500	40 11395 15886 9	34	81	6220-0-0244	CP-FCC-84	40 11395 18747 0	24	138
6197-0-0036	6197/12-101-500	40 11395 16366 5	33	56	6220-0-0245	CP-FCC-212	40 11395 18748 7	24	138
6197-0-0037	6197/13-101-500	40 11395 16367 2	33	56	6220-0-0246	CP-FCC-214	40 11395 18749 4	24	138
6197-0-0038	6197/14-101-500	40 11395 16368 9	33	56	6220-0-0258	SRD-2-R-81	40 11395 18847 7	24	135
6197-0-0039	6197/15-101-500	40 11395 16369 6	33	56	6220-0-0259	SRD-2-R-83	40 11395 18848 4	24	135
6197-0-0040	6197/52-101-500	40 11395 16371 9	33	56	6220-0-0260	SRD-2-R-84	40 11395 18849 1	24	135
6197-0-0041	6197/53-101-500	40 11395 16372 6	33	56	6220-0-0261	SRD-2-R-212	40 11395 18850 7	24	135
6220-0-0137	SR-1-81	40 11395 18149 2	24	127	6220-0-0262	SRD-2-R-214	40 11395 18851 4	24	135
6220-0-0138	SR-1-83	40 11395 18217 8	24	127	6220-0-0371	SR-1-840	40 11395 19559 8	24	127
6220-0-0139	SR-1-84	40 11395 18183 6	24	127	6220-0-0372	SRL-1-840	40 11395 19560 4	24	128
6220-0-0140	SRL-1-81	40 11395 18151 5	24	128	6220-0-0373	SRB-1-840	40 11395 19561 1	24	129
6220-0-0141	SRL-1-83	40 11395 18218 5	24	128	6220-0-0374	SRS-1-840	40 11395 19562 8	24	130
6220-0-0142	SRL-1-84	40 11395 18184 3	24	128	6220-0-0375	SRD-1-840	40 11395 19563 5	24	131
6220-0-0143	SRB-1-81	40 11395 18152 2	24	129	6220-0-0376	SR-2-840	40 11395 19564 2	24	132
6220-0-0144	SRB-1-83	40 11395 18219 2	24	129	6220-0-0377	SRL-2-L-840	40 11395 19565 9	24	133
6220-0-0145	SRB-1-84	40 11395 18185 0	24	129	6220-0-0378	SRB-2-840	40 11395 19566 6	24	132
6220-0-0146	SRS-1-81	40 11395 18153 9	24	130	6220-0-0379	SRS-2-L-840	40 11395 19567 3	24	134
6220-0-0147	SRS-1-83	40 11395 18221 5	24	130	6220-0-0380	SRD-2-L-840	40 11395 19568 0	24	135
6220-0-0148	SRS-1-84	40 11395 18186 7	24	130	6220-0-0381	SRL-2-R-840	40 11395 19569 7	24	133
6220-0-0149	SRD-1-81	40 11395 18154 6	24	131	6220-0-0382	SRS-2-R-840	40 11395 19571 0	24	134
6220-0-0150	SRD-1-83	40 11395 18222 2	24	131	6220-0-0383	SRD-2-R-840	40 11395 19572 7	24	135
6220-0-0151	SRD-1-84	40 11395 18187 4	24	131	6220-0-0516	SR-1-82	40 11395 20345 3	24	127
6220-0-0152	SR-2-81	40 11395 18155 3	24	132	6220-0-0517	SRL-1-82	40 11395 20346 0	24	128
6220-0-0153	SR-2-83	40 11395 18223 9	24	132	6220-0-0518	SRB-1-82	40 11395 20347 7	24	129
6220-0-0154	SR-2-84	40 11395 18188 1	24	132	6220-0-0519	SRS-1-82	40 11395 20348 4	24	130
6220-0-0155	SRL-2-L-81	40 11395 18156 0	24	133	6220-0-0520	SRD-1-82	40 11395 20349 1	24	131
6220-0-0156	SRL-2-L-83	40 11395 18224 6	24	133	6220-0-0521	SR-2-82	40 11395 20350 7	24	132
6220-0-0157	SRL-2-L-84	40 11395 18189 8	24	133	6220-0-0522	SRL-2-L-82	40 11395 20360 6	24	133
6220-0-0158	SRB-2-81	40 11395 18122 5	24	132	6220-0-0523	SRB-2-82	40 11395 20361 3	24	132
6220-0-0159	SRB-2-83	40 11395 18225 3	24	132	6220-0-0524	SRS-2-L-82	40 11395 20362 0	24	134
6220-0-0160	SRB-2-84	40 11395 18191 1	24	132	6220-0-0525	SRD-2-L-82	40 11395 20363 7	24	135
6220-0-0161	SRS-2-L-81	40 11395 18158 4	24	134	6220-0-0526	SRD-2-R-82	40 11395 20364 4	24	135
6220-0-0162	SRS-2-L-83	40 11395 18226 0	24	134	6220-0-0527	SRL-2-R-82	40 11395 20365 1	24	133
6220-0-0163	SRS-2-L-84	40 11395 18192 8	24	134	6220-0-0528	SRS-2-R-82	40 11395 20366 8	24	134
6220-0-0164	SRD-2-L-81	40 11395 18159 1	24	135	6220-0-0532	CP-FCC-82	40 11395 20571 6	24	138
6220-0-0165	SRD-2-L-83	40 11395 18227 7	24	135	6220-0-0533	SR-1-866	40 11395 20369 9	24	127
6220-0-0166	SRD-2-L-84	40 11395 18193 5	24	135	6220-0-0534	SRL-1-866	40 11395 20370 5	24	128
6220-0-0167	SRL-2-R-81	40 11395 18161 4	24	133	6220-0-0535	SRB-1-866	40 11395 20371 2	24	129
6220-0-0168	SRL-2-R-83	40 11395 18228 4	24	133	6220-0-0536	SRS-1-866	40 11395 20372 9	24	130
6220-0-0169	SRL-2-R-84	40 11395 18194 2	24	133	6220-0-0537	SRD-1-866	40 11395 20374 3	24	131
6220-0-0173	SRS-2-R-81	40 11395 18163 8	24	134	6220-0-0538	SR-2-866	40 11395 20375 0	24	132

Selection Table According to Order Code

Order code	Type	EAN	PG	Page	Order code	Type	EAN	PG	Page
6220-0-0539	SRL-2-L-866	40 11395 20376 7	24	133	6310-0-0130	6344-866-101-500	40 11395 13114 5	34	100
6220-0-0540	SRB-2-866	40 11395 20377 4	24	132	6310-0-0132	6344-825-101-500	40 11395 13116 9	34	100
6220-0-0541	SRS-2-L-866	40 11395 20378 1	24	134	6310-0-0133	6344-24G-101-500	40 11395 13117 6	34	100
6220-0-0542	SRD-2-L-866	40 11395 20379 8	24	135	6310-0-0135	6346/10-101-500	40 11395 13119 0	34	99
6220-0-0543	SRD-2-R-866	40 11395 20381 1	24	135	6310-0-0137	6346/11-101-500	40 11395 13122 0	34	99
6220-0-0544	SRL-2-R-866	40 11395 20382 8	24	133	6310-0-0139	6346/12-101-500	40 11395 13124 4	34	99
6220-0-0545	SRS-2-R-866	40 11395 20383 5	24	134	6310-0-0144	6348-866-101-500	40 11395 13129 9	34	101
6220-0-0549	CP-FCC-866	40 11395 20573 0	24	138	6310-0-0146	6348-825-101-500	40 11395 13131 2	34	101
6220-0-0550	SR-1-803	40 11395 20386 6	24	127	6310-0-0147	6348-24G-101-500	40 11395 13132 9	34	101
6220-0-0551	SRL-1-803	40 11395 20387 3	24	128	6310-0-0152	6349-860-101-500	40 11395 13137 4	34	101
6220-0-0552	SRB-1-803	40 11395 20388 0	24	129	6310-0-0154	6349-825-101-500	40 11395 13140 4	34	101
6220-0-0553	SRS-1-803	40 11395 20389 7	24	130	6310-0-0155	6349-24G-101-500	40 11395 13142 8	34	101
6220-0-0554	SRD-1-803	40 11395 20391 0	24	131	6310-0-0157	6350-825-101-500	40 11395 13144 2	34	101
6220-0-0555	SR-2-803	40 11395 20392 7	24	132	6310-0-0162	6352-860-101-500	40 11395 13149 7	34	102
6220-0-0556	SRL-2-L-803	40 11395 20393 4	24	133	6310-0-0164	6352-825-101-500	40 11395 13151 0	34	102
6220-0-0557	SRB-2-803	40 11395 20394 1	24	132	6310-0-0165	6352-24G-101-500	40 11395 13152 7	34	102
6220-0-0558	SRS-2-L-803	40 11395 20395 8	24	134	6310-0-0168	6340-811-101-500	40 11395 13157 2	34	99
6220-0-0559	SRD-2-L-803	40 11395 20396 5	24	135	6310-0-0170	6341-811-101-500	40 11395 15676 6	34	100
6220-0-0560	SRD-2-R-803	40 11395 20397 2	24	135	6310-0-0172	6342-811-101-500	40 11395 15678 0	34	100
6220-0-0561	SRL-2-R-803	40 11395 20398 9	24	133	6310-0-0174	6344-811-101-500	40 11395 15681 0	34	100
6220-0-0562	SRB-2-L-803	40 11395 20399 6	24	134	6310-0-0176	6345-811-101-500	40 11395 15683 4	34	101
6220-0-0566	CP-FCC-803	40 11395 20575 4	24	138	6310-0-0178	6348-811-101-500	40 11395 15685 8	34	101
6220-0-0601	SR-1-884	40 11395 20433 7	24	127	6310-0-0180	6349-811-101-500	40 11395 15687 2	34	101
6220-0-0602	SRL-1-884	40 11395 20434 4	24	128	6310-0-0182	6352-811-101-500	40 11395 15689 6	34	102
6220-0-0603	SRB-1-884	40 11395 20436 8	24	129	6310-0-0183	6351/08-825-500	40 11395 19840 7	34	102
6220-0-0604	SRS-1-884	40 11395 20435 1	24	130	6320-0-0002	6320/10-20-500	40 11395 13857 1	26	122
6220-0-0605	SRD-1-884	40 11395 20438 2	24	131	6320-0-0004	6320/10-24G-500	40 11395 13873 1	26	122
6220-0-0606	SR-2-884	40 11395 20439 9	24	132	6320-0-0006	6320/10-79-500	40 11395 13875 5	26	122
6220-0-0607	SRL-2-L-884	40 11395 20441 2	24	133	6320-0-0008	6320/10-83-500	40 11395 13877 9	26	122
6220-0-0608	SRB-2-884	40 11395 20442 9	24	132	6320-0-0010	6320/10-260-500	40 11395 13879 3	26	122
6220-0-0609	SRS-2-L-884	40 11395 20443 6	24	134	6320-0-0012	6320/30-20-500	40 11395 13882 3	26	122
6220-0-0610	SRD-2-L-884	40 11395 20444 3	24	135	6320-0-0014	6320/30-24G-500	40 11395 13885 4	26	122
6220-0-0611	SRD-2-R-884	40 11395 20445 0	24	135	6320-0-0016	6320/30-79-500	40 11395 13887 8	26	122
6220-0-0612	SRL-2-R-884	40 11395 20446 7	24	133	6320-0-0018	6320/30-83-500	40 11395 13889 2	26	122
6220-0-0613	SRS-2-R-884	40 11395 20447 4	24	134	6320-0-0020	6320/30-260-500	40 11395 13892 2	26	122
6220-0-0617	CP-FCC-884	40 11395 20582 2	24	138	6320-0-0032	6320/50-20-500	40 11395 13911 0	26	123
6220-0-0618	SR-1-885	40 11395 20451 1	24	127	6320-0-0034	6320/50-24G-500	40 11395 13914 1	26	123
6220-0-0619	SRL-1-885	40 11395 20452 8	24	128	6320-0-0036	6320/50-79-500	40 11395 13916 5	26	123
6220-0-0620	SRB-1-885	40 11395 20453 5	24	129	6320-0-0038	6320/50-83-500	40 11395 13918 9	26	123
6220-0-0621	SRS-1-885	40 11395 20454 2	24	130	6320-0-0040	6320/50-260-500	40 11395 13921 9	26	123
6220-0-0622	SRD-1-885	40 11395 20455 9	24	131	6320-0-0052	6321/38-20-500	40 11395 20132 9	26	123
6220-0-0623	SR-2-885	40 11395 20456 6	24	132	6320-0-0054	6321/38-24G-500	40 11395 20135 0	26	123
6220-0-0624	SRL-2-L-885	40 11395 20457 3	24	133	6320-0-0056	6321/38-79-500	40 11395 20137 4	26	123
6220-0-0625	SRB-2-885	40 11395 20458 0	24	132	6320-0-0058	6321/38-83-500	40 11395 20139 8	26	123
6220-0-0626	SRS-2-L-885	40 11395 20459 7	24	134	6320-0-0060	6321/38-260-500	40 11395 20142 8	26	123
6220-0-0627	SRD-2-L-885	40 11395 20461 0	24	135	6320-0-0062	6321/58-20-500	40 11395 20144 2	26	124
6220-0-0628	SRD-2-R-885	40 11395 20462 7	24	135	6320-0-0064	6321/58-24G-500	40 11395 20146 6	26	124
6220-0-0629	SRL-2-R-885	40 11395 20463 4	24	133	6320-0-0066	6321/58-79-500	40 11395 20148 0	26	124
6220-0-0630	SRS-2-R-885	40 11395 20464 1	24	134	6320-0-0068	6321/58-83-500	40 11395 20150 3	26	124
6220-0-0634	CP-FCC-885	40 11395 20584 6	24	138	6320-0-0070	6321/58-260-500	40 11395 20152 7	26	124
6310-0-0078	6345-866-101-500	40 11395 11868 9	34	101	6401-0-0055	6404 U	40 11395 09383 2	14	194
6310-0-0080	6345-825-101-500	40 11395 11872 6	34	101	6590-0-0188	6595 U	40 11395 09385 6	14	194
6310-0-0081	6345-24G-101-500	40 11395 11873 3	34	101	6599-0-2832	6541-82	40 11395 99569 3	19	137
6310-0-0093	6353/20-860-500	40 11395 11892 4	34	102	6599-0-2835	6541-84	40 11395 99663 8	19	137
6310-0-0094	6353/30-860-500	40 11395 11893 1	34	102	6599-0-2844	6541-87	40 11395 99917 2	19	137
6310-0-0095	6353/40-860-500	40 11395 11894 8	34	102	6599-0-2882	6541-81	40 11395 05642 4	19	137
6310-0-0096	6353/50-860-500	40 11395 11895 5	34	102	6599-0-2885	6541-83	40 11395 07445 9	19	137
6310-0-0097	6354 U-500	40 11395 11897 9	34	98	6599-0-2924	6541-866	40 11395 08815 9	19	137
6310-0-0098	6355 U-500	40 11395 11898 6	34	98	6599-0-2940	6541-803	40 11395 11115 4	19	137
6310-0-0099	6356 U-500	40 11395 11899 3	34	98	6599-0-2962	6541-884	40 11395 12964 7	19	137
6310-0-0106	6340-866-101-500	40 11395 13088 9	34	99	6599-0-2967	6541-885	40 11395 12965 4	19	137
6310-0-0108	6340-825-101-500	40 11395 13091 9	34	99	6599-0-3008	2114-214-500	40 11395 17517 0	19	137
6310-0-0109	6340-24G-101-500	40 11395 13092 6	34	99	6700-0-0023	6702-500	40 11395 13434 4	16	190
6310-0-0114	6341-866-101-500	40 11395 13097 1	34	100	6700-0-0024	6703-500	40 11395 13436 8	16	190
6310-0-0116	6341-825-101-500	40 11395 13099 5	34	100	6700-0-0025	6704-500	40 11395 13437 5	16	191
6310-0-0117	6341-24G-101-500	40 11395 13100 8	34	100	6700-0-0035	6747 AGM-204-500	40 11395 17588 0	29	189
6310-0-0122	6342-866-101-500	40 11395 13105 3	34	100	6700-0-0036	6747 AGM-208-500	40 11395 17589 7	29	189
6310-0-0124	6342-825-101-500	40 11395 13107 7	34	100	6700-0-0037	6747 AGM-35-500	40 11395 17590 3	29	189
6310-0-0125	6342-24G-101-500	40 11395 13108 4	34	100	6700-0-0038	6747 AGM-201-500	40 11395 17591 0	29	189

C

Order code	Type	EAN	PG	Page
6700-0-0040	6701-101-500	40 11395 18264 2	16	190
6700-0-0042	6705-101-500	40 11395 18266 6	16	191
6720-0-0001	6720-64	40 11395 09372 6	16	195
6720-0-0002	6720-65	40 11395 09381 8	16	195
6720-0-0003	6720-66	40 11395 09382 5	16	195
6720-0-0004	6721-64	40 11395 11211 3	16	195
6720-0-0005	6721-65	40 11395 11212 0	16	195
6720-0-0008	6725-500	40 11395 18271 0	16	188
6730-0-0001	6730-212	40 11395 09336 8	16	192
6730-0-0002	6730-214	40 11395 09337 5	16	192
6730-0-0005	6730-260	40 11395 09351 1	16	192
6730-0-0006	6730-266	40 11395 09352 8	16	192
6730-0-0007	6730-20	40 11395 09353 5	16	192
6730-0-0008	6730-21	40 11395 09354 2	16	192
6730-0-0009	6730-22G	40 11395 09355 9	16	192
6730-0-0010	6730-24	40 11395 09356 6	16	192
6730-0-0011	6730-24G	40 11395 09357 3	16	192
6730-0-0014	6730-81	40 11395 09361 0	16	193
6730-0-0015	6730-82	40 11395 09362 7	16	193
6730-0-0016	6730-83	40 11395 09363 4	16	193
6730-0-0017	6730-84	40 11395 09364 1	16	193
6730-0-0023	6730-866	40 11395 09371 9	16	193
6730-0-0024	6730-815	40 11395 11119 2	16	193
6730-0-0025	6730-803	40 11395 11120 8	16	193
6730-0-0026	6730-884	40 11395 13035 3	16	193
6730-0-0027	6730-885	40 11395 13036 0	16	193
6730-0-0028	6731-212-500	40 11395 13404 7	16	186
6730-0-0029	6732-212-500	40 11395 13405 4	16	186
6730-0-0030	6731-214-500	40 11395 13406 1	16	186
6730-0-0031	6732-214-500	40 11395 13407 8	16	186
6730-0-0032	6731-82-500	40 11395 13408 5	16	186
6730-0-0033	6732-82-500	40 11395 13409 2	16	187
6730-0-0034	6733-82-500	40 11395 13421 4	16	187
6730-0-0035	6731-83-500	40 11395 13422 1	16	186
6730-0-0036	6732-83-500	40 11395 13423 8	16	187
6730-0-0037	6733-83-500	40 11395 13424 5	16	187
6730-0-0038	6731-84-500	40 11395 13425 2	16	186
6730-0-0039	6732-84-500	40 11395 13427 6	16	187
6730-0-0040	6733-84-500	40 11395 13428 3	16	187
6730-0-0041	6731-866-500	40 11395 13429 0	16	186
6730-0-0042	6732-866-500	40 11395 13431 3	16	187
6730-0-0043	6733-866-500	40 11395 13432 0	16	187
6730-0-0066	6730-896-500	40 11395 16710 6	16	193
6730-0-0094	6731-840-500	40 11395 19586 4	16	186
6730-0-0095	6732-840-500	40 11395 19588 8	16	187
6770-0-0002	6770-500	40 11395 14797 9	26	17
6770-0-0002	6770-500	40 11395 14797 9	16	191
6780-0-0001	6780-500	40 11395 13433 7	16	188
6800-0-2514	6828	40 11395 13745 1	14	181
6800-0-2515	6829-84	40 11395 13746 8	14	181
6800-0-2516	6824-84	40 11395 13747 5	14	181
6800-0-2720	6833-84-500	40 11395 18696 1	14	181
6800-0-2721	6833/01-84-500	40 11395 18697 8	14	181
6800-0-2723	6835/01-84-500	40 11395 18699 2	14	181
8100-0-0344	8186/03-500	40 11395 17146 2	32	15
8100-0-0346	8186/04-500	40 11395 17146 6	32	15
8136-0-0024	8136/09-811-500	40 11395 15877 7	34	81
8136-0-0026	8136/09-825-500	40 11395 15879 1	34	81
8136-0-0028	8136/12-811-500	40 11395 15882 1	34	81
8136-0-0030	8136/12-825-500	40 11395 15884 5	34	81
8136-0-0032	8136/01 UP-500	40 11395 15891 3	34	82
GHQ3050008R0001	SGL	40 16779 53313 3	50	177
GHQ3050017R0001	SSF/G	40 16779 53466 6	50	180
GHQ3050018R0001	SSF/GB	40 16779 53467 3	50	180
GHQ3050023R0001	WEL/A, ES	40 16779 58570 5	50	173
GHQ3050024R0001	WELT/A, ES	40 16779 58571 2	50	173
GHQ3050027R0001	SCS	40 16779 58575 0	50	173
GHQ3050031R0001	L240/BS	40 16779 58561 3	50	174
GHQ3201972R0001	MRS/W	40 16779 50660 1	50	175

[illegible]

Selection Table According to Type

Type	Order code	EAN	PG	Page	Type	Order code	EAN	PG	Page
1721-181K	1754-0-4240	40 11395 05080 4	04	113	1722-843-500	1754-0-4596	40 11395 19523 9	04	117
1721-182K-500	1754-0-4506	40 11395 17460 9	01	113	1722-84-500	1754-0-4539	40 11395 17616 0	01	114
1721-183K-500	1754-0-4529	40 11395 17594 1	04	113	1722-845-500	1754-0-4586	40 11395 19512 3	04	117
1721-184K-500	1754-0-4498	40 11395 17452 4	01	113	1722-846-500	1754-0-4591	40 11395 19517 8	04	117
1721-280	1754-0-4437	40 11395 15695 7	04	115	1722-848-500	1754-0-4581	40 11395 19502 4	04	117
1721-281	1754-0-4409	40 11395 12636 3	04	115	1722-860	1754-0-4255	40 11395 05681 3	04	114
1721-283	1754-0-4543	40 11395 18556 8	04	115	1722-866K-500	1754-0-4501	40 11395 17455 5	04	115
1721-284	1754-0-4331	40 11395 11324 0	01	115	1722-884K	1754-0-4415	40 11395 12825 1	01	113
1721-285	1754-0-4334	40 11395 11327 1	04	115	1722-885K-500	1754-0-4534	40 11395 17600 9	04	113
1721-286	1754-0-4337	40 11395 11331 8	04	115	1723-181K	1754-0-4242	40 11395 05082 8	04	113
1721-287	1754-0-4340	40 11395 11334 9	04	115	1723-182K	1754-0-4232	40 11395 05071 2	01	113
1721-288	1754-0-4343	40 11395 11337 0	04	115	1723-183K-500	1754-0-4533	40 11395 17599 6	04	113
1721-291-500	1754-0-4471	40 11395 16507 2	04	115	1723-184K-500	1754-0-4502	40 11395 17456 2	01	113
1721-295-500	1754-0-4491	40 11395 16509 6	04	115	1723-280	1754-0-4439	40 11395 15697 1	04	116
1721-296-500	1754-0-4486	40 11395 16512 6	01	115	1723-281	1754-0-4411	40 11395 12638 7	04	116
1721-297-500	1754-0-4476	40 11395 16515 7	04	115	1723-283	1754-0-4545	40 11395 18558 2	04	116
1721-299-500	1754-0-4481	40 11395 16517 1	04	115	1723-284	1754-0-4333	40 11395 11326 4	01	116
1721-80-500	1754-0-4535	40 11395 17611 5	04	114	1723-285	1754-0-4336	40 11395 11329 5	04	116
1721-80G-500	1754-0-4538	40 11395 17615 3	04	114	1723-286	1754-0-4339	40 11395 11333 2	04	116
1721-811	1754-0-4442	40 11395 15701 5	04	114	1723-287	1754-0-4342	40 11395 11336 3	04	116
1721-821	1754-0-4258	40 11395 05687 5	04	114	1723-288	1754-0-4345	40 11395 11339 4	04	116
1721-823-101	1754-0-4356	40 11395 11522 0	04	114	1723-291-500	1754-0-4473	40 11395 16531 7	04	116
1721-825	1754-0-4322	40 11395 08891 3	04	114	1723-295-500	1754-0-4493	40 11395 16533 1	04	116
1721-826-101	1754-0-4360	40 11395 11526 8	04	114	1723-296-500	1754-0-4488	40 11395 16535 5	01	116
1721-831-500	1754-0-4605	40 11395 19533 8	04	117	1723-297-500	1754-0-4478	40 11395 16537 9	04	116
1721-832-500	1754-0-4600	40 11395 19527 7	04	117	1723-299-500	1754-0-4483	40 11395 16539 3	04	116
1721-833-500	1754-0-4575	40 11395 19495 9	04	117	1723-80-500	1754-0-4540	40 11395 17617 7	04	114
1721-835-500	1754-0-4565	40 11395 19484 3	04	117	1723-80G	1754-0-4328	40 11395 11307 3	04	114
1721-836-500	1754-0-4570	40 11395 19489 8	04	117	1723-811	1754-0-4444	40 11395 15703 9	04	114
1721-838-500	1754-0-4560	40 11395 19478 2	04	117	1723-821	1754-0-4260	40 11395 05691 2	04	114
1721-843-500	1754-0-4595	40 11395 19522 2	04	117	1723-823-101	1754-0-4358	40 11395 11524 4	04	114
1721-84-500	1754-0-4536	40 11395 17612 2	01	114	1723-826-101	1754-0-4362	40 11395 11528 2	04	114
1721-845-500	1754-0-4585	40 11395 19506 2	04	117	1723-831-500	1754-0-4607	40 11395 19535 2	04	117
1721-846-500	1754-0-4590	40 11395 19516 1	04	117	1723-832-500	1754-0-4602	40 11395 19529 1	04	117
1721-848-500	1754-0-4580	40 11395 19501 7	04	117	1723-833-500	1754-0-4577	40 11395 19497 3	04	117
1721-860	1754-0-4254	40 11395 05679 0	04	114	1723-835-500	1754-0-4567	40 11395 19486 7	04	117
1721-866K-500	1754-0-4500	40 11395 17454 8	04	115	1723-836-500	1754-0-4572	40 11395 19492 8	04	117
1721-884K-500	1754-0-4531	40 11395 17596 5	01	113	1723-838-500	1754-0-4562	40 11395 19481 2	04	117
1721-885K-500	1754-0-4532	40 11395 17597 2	04	113	1723-843-500	1754-0-4597	40 11395 19524 6	04	117
1722-181K	1754-0-4241	40 11395 05081 1	04	113	1723-84-500	1754-0-4541	40 11395 17623 8	01	114
1722-182K	1754-0-4231	40 11395 05070 5	01	113	1723-845-500	1754-0-4587	40 11395 19513 0	04	117
1722-183K-500	1754-0-4530	40 11395 17595 8	04	113	1723-846-500	1754-0-4592	40 11395 19518 5	04	117
1722-184K-500	1754-0-4499	40 11395 17453 1	01	113	1723-848-500	1754-0-4582	40 11395 19503 1	04	117
1722-280	1754-0-4438	40 11395 15696 4	04	115	1723-860	1754-0-4256	40 11395 05683 7	04	114
1722-281	1754-0-4410	40 11395 12637 0	04	115	1723-866K	1754-0-4319	40 11395 08837 1	04	115
1722-283	1754-0-4544	40 11395 18557 5	04	115	1723-884K	1754-0-4416	40 11395 12826 8	01	113
1722-284	1754-0-4332	40 11395 11325 7	01	115	1723-885K	1754-0-4421	40 11395 12832 9	04	113
1722-285	1754-0-4335	40 11395 11328 8	04	115	1724-181K	1754-0-4243	40 11395 05083 5	04	113
1722-286	1754-0-4338	40 11395 11332 5	04	115	1724-182K	1754-0-4233	40 11395 05073 6	01	113
1722-287	1754-0-4341	40 11395 11335 6	04	115	1724-183K	1754-0-4309	40 11395 07483 1	04	113
1722-288	1754-0-4344	40 11395 11338 7	04	115	1724-184K	1754-0-4238	40 11395 05078 1	01	113
1722-291-500	1754-0-4472	40 11395 16519 5	04	115	1724-280	1754-0-4440	40 11395 15698 8	04	116
1722-295-500	1754-0-4492	40 11395 16522 5	04	115	1724-281	1754-0-4412	40 11395 12639 4	04	116
1722-296-500	1754-0-4487	40 11395 16524 9	01	115	1724-283	1754-0-4546	40 11395 18559 9	04	116
1722-297-500	1754-0-4477	40 11395 16526 3	04	115	1724-284	1754-0-4346	40 11395 11341 7	01	116
1722-299-500	1754-0-4482	40 11395 16528 7	04	115	1724-285	1754-0-4348	40 11395 11343 1	04	116
1722-80-500	1754-0-4537	40 11395 17613 9	04	114	1724-286	1754-0-4350	40 11395 11345 5	04	116
1722-80G	1754-0-4327	40 11395 11306 6	04	114	1724-287	1754-0-4352	40 11395 11347 9	04	116
1722-811	1754-0-4443	40 11395 15702 2	04	114	1724-288	1754-0-4354	40 11395 11349 3	04	116
1722-821	1754-0-4259	40 11395 05689 9	04	114	1724-291-500	1754-0-4474	40 11395 16542 3	04	116
1722-823-101	1754-0-4357	40 11395 11523 7	04	114	1724-295-500	1754-0-4494	40 11395 16544 7	04	116
1722-825	1754-0-4323	40 11395 08892 0	04	114	1724-296-500	1754-0-4489	40 11395 16546 1	01	116
1722-826-101	1754-0-4361	40 11395 11527 5	04	114	1724-297-500	1754-0-4479	40 11395 16548 5	04	116
1722-831-500	1754-0-4606	40 11395 19534 5	04	117	1724-299-500	1754-0-4484	40 11395 16551 5	04	116
1722-832-500	1754-0-4601	40 11395 19528 4	04	117	1724-80	1754-0-4107	40 11395 99488 7	04	114
1722-833-500	1754-0-4576	40 11395 19496 6	04	117	1724-80G	1754-0-4329	40 11395 11308 0	04	114
1722-835-500	1754-0-4566	40 11395 19485 0	04	117	1724-811	1754-0-4445	40 11395 15704 6	04	114
1722-836-500	1754-0-4571	40 11395 19491 1	04	117	1724-821	1754-0-4261	40 11395 05693 6	04	114
1722-838-500	1754-0-4561	40 11395 19479 9	04	117	1724-823-101	1754-0-4359	40 11395 11525 1	04	114

Selection Table According to Type

C

Type	Order code	EAN	PG	Page	Type	Order code	EAN	PG	Page
1724-825	1754-0-4325	40 11395 08894 4	04	114	6109/05-500	6181-0-0013	40 11395 20873 1	26	136
1724-826-101	1754-0-4363	40 11395 11529 9	04	114	6109/08-500	6134-0-0313	40 11395 20875 5	26	136
1724-831-500	1754-0-4608	40 11395 19536 9	04	118	6109/18-500	6134-0-0315	40 11395 20877 9	26	139
1724-832-500	1754-0-4603	40 11395 19531 4	04	118	6109/28-500	6134-0-0317	40 11395 20879 3	26	139
1724-833-500	1754-0-4578	40 11395 19498 0	04	118	6120/12-101-500	6120-0-0075	40 11395 13548 8	26	98
1724-835-500	1754-0-4568	40 11395 19487 4	04	118	6120/12-101-508	6120-0-0076	40 11395 14733 7	26	98
1724-836-500	1754-0-4573	40 11395 19493 5	04	118	6120/13-500	6120-0-0072	40 11395 10227 5	26	98
1724-838-500	1754-0-4563	40 11395 19482 9	04	118	6120/13-508	6120-0-0073	40 11395 11658 6	26	98
1724-84	1754-0-4112	40 11395 99617 1	01	114	6122/02-803-500	6132-0-0290	40 11395 14067 3	26	110
1724-843-500	1754-0-4598	40 11395 19525 3	04	118	6122/02-81-500	6132-0-0283	40 11395 14060 4	26	110
1724-845-500	1754-0-4588	40 11395 19514 7	04	118	6122/02-82-500	6132-0-0284	40 11395 14061 1	26	110
1724-846-500	1754-0-4593	40 11395 19519 2	04	118	6122/02-83-500	6132-0-0285	40 11395 14062 8	26	110
1724-848-500	1754-0-4583	40 11395 19504 8	04	118	6122/02-84-500	6132-0-0263	40 11395 13521 1	26	110
1724-860	1754-0-4257	40 11395 05685 1	04	114	6122/02-866-500	6132-0-0289	40 11395 14066 6	26	110
1724-866K	1754-0-4320	40 11395 08839 5	04	115	6122/02-884-500	6132-0-0292	40 11395 14069 7	26	110
1724-884K	1754-0-4417	40 11395 12827 5	01	113	6122/02-885-500	6132-0-0293	40 11395 14070 3	26	110
1724-885K	1754-0-4422	40 11395 12833 6	04	113	6122/10-212-500	6132-0-0373	40 11395 21127 6	24	111
1725-181K	1754-0-4244	40 11395 05084 2	04	113	6122/10-214-500	6132-0-0374	40 11395 21124 3	24	111
1725-182K	1754-0-4234	40 11395 05074 3	01	113	6122/10-803-500	6132-0-0382	40 11395 21133 5	24	111
1725-183K	1754-0-4310	40 11395 07484 8	04	113	6122/10-81-500	6132-0-0376	40 11395 21126 7	24	111
1725-184K-500	1754-0-4517	40 11395 17472 2	01	113	6122/10-82-500	6132-0-0377	40 11395 21127 4	24	111
1725-280	1754-0-4441	40 11395 15699 5	04	116	6122/10-83-500	6132-0-0378	40 11395 21128 1	24	111
1725-281	1754-0-4413	40 11395 12661 5	04	116	6122/10-840-500	6132-0-0407	40 11395 21863 1	24	111
1725-283	1754-0-4547	40 11395 18561 2	04	116	6122/10-84-500	6132-0-0379	40 11395 21129 8	24	111
1725-284	1754-0-4347	40 11395 11342 4	01	116	6122/10-866-500	6132-0-0385	40 11395 21136 6	24	111
1725-285	1754-0-4349	40 11395 11344 8	04	116	6122/10-884-500	6132-0-0380	40 11395 21131 1	24	111
1725-286	1754-0-4351	40 11395 11346 2	04	116	6122/10-885-500	6132-0-0381	40 11395 21132 8	24	111
1725-287	1754-0-4353	40 11395 11348 6	04	116	6122/20-981-500	6132-0-0306	40 11395 15794 7	26	145
1725-288	1754-0-4355	40 11395 11351 6	04	116	6122/98-509	6132-0-0307	40 11395 15795 4	26	154
1725-291-500	1754-0-4475	40 11395 16553 9	04	116	6123/20-500	6123-0-0001	40 11395 15797 8	26	145
1725-295-500	1754-0-4495	40 11395 16555 3	04	116	6123/20-500	6123-0-0001	40 11395 15797 8	26	155
1725-296-500	1754-0-4490	40 11395 16557 7	01	116	6123/21-500	6123-0-0002	40 11395 15798 5	26	145
1725-297-500	1754-0-4480	40 11395 16559 1	04	116	6123/21-500	6123-0-0002	40 11395 15798 5	26	155
1725-299-500	1754-0-4485	40 11395 16562 1	04	116	6123/22-500	6123-0-0003	40 11395 15799 2	26	145
1725-80	1754-0-4108	40 11395 99492 4	04	114	6123/22-500	6123-0-0003	40 11395 15799 2	26	155
1725-80G	1754-0-4330	40 11395 11309 7	04	114	6123/23-500	6123-0-0004	40 11395 15801 2	26	145
1725-831-500	1754-0-4609	40 11395 19537 6	04	118	6123/23-500	6123-0-0004	40 11395 15801 2	26	155
1725-832-500	1754-0-4604	40 11395 19532 1	04	118	6123/24-500	6123-0-0005	40 11395 17645 0	26	145
1725-833-500	1754-0-4579	40 11395 19499 7	04	118	6123/24-500	6123-0-0005	40 11395 17645 0	26	155
1725-835-500	1754-0-4569	40 11395 19488 1	04	118	6123/26-500	6123-0-0006	40 11395 17646 7	26	145
1725-836-500	1754-0-4574	40 11395 19494 2	04	118	6123/26-500	6123-0-0006	40 11395 17646 7	26	155
1725-838-500	1754-0-4564	40 11395 19483 6	04	118	6124/08-981-500	6134-0-0309	40 11395 18912 2	26	145
1725-84	1754-0-4113	40 11395 99619 5	01	114	6124/88-509	6134-0-0310	40 11395 18913 9	26	154
1725-843-500	1754-0-4599	40 11395 19526 0	04	118	6125/01-803-500	6115-0-0212	40 11395 13954 7	26	105
1725-845-500	1754-0-4589	40 11395 19515 4	04	118	6125/01-81-500	6115-0-0205	40 11395 13947 9	26	105
1725-846-500	1754-0-4594	40 11395 19521 5	04	118	6125/01-82-500	6115-0-0206	40 11395 13948 6	26	105
1725-848-500	1754-0-4584	40 11395 19505 5	04	118	6125/01-83-500	6115-0-0207	40 11395 13949 3	26	105
1725-866K	1754-0-4321	40 11395 08842 5	04	115	6125/01-84-500	6115-0-0183	40 11395 13559 4	26	105
1725-884K	1754-0-4418	40 11395 12828 2	01	113	6125/01-866-500	6115-0-0211	40 11395 13953 0	26	105
1725-885K	1754-0-4423	40 11395 12834 3	04	113	6125/01-884-500	6115-0-0214	40 11395 13956 1	26	105
2114-214-500	6599-0-3008	40 11395 17517 0	19	137	6125/01-885-500	6115-0-0215	40 11395 13957 8	26	105
6010-25-500	6020-0-1133	40 11395 93850 8	19	124	6125/02-803-500	6115-0-0224	40 11395 13967 7	26	108
6108/06-500	6133-0-0221	40 11395 21092 5	26	127	6125/02-81-500	6115-0-0216	40 11395 13958 5	26	108
6108/06-AP-500	6133-0-0225	40 11395 21096 3	26	126	6125/02-82-500	6115-0-0217	40 11395 13959 2	26	108
6108/07-500	6133-0-0223	40 11395 21094 9	26	131	6125/02-83-500	6115-0-0218	40 11395 13961 5	26	108
6108/07-AP-500	6133-0-0227	40 11395 21098 7	26	126	6125/02-840-500	6115-0-0452	40 11395 19553 6	26	108
6108/08-500	6134-0-0308	40 11395 18911 5	26	136	6125/02-84-500	6115-0-0219	40 11395 13962 2	26	108
6108/18-500	6134-0-0319	40 11395 21101 4	26	138	6125/02-866-500	6115-0-0223	40 11395 13968 0	26	108
6109/03-212-500	6155-0-0051	40 11395 20903 5	26	140	6125/02-884-500	6115-0-0226	40 11395 13969 1	26	108
6109/03-214-500	6155-0-0052	40 11395 20904 2	26	140	6125/02-885-500	6115-0-0227	40 11395 13971 4	26	108
6109/03-803-500	6155-0-0066	40 11395 20927 1	26	140	6125/20-981-500	6115-0-0443	40 11395 15781 7	26	144
6109/03-81-500	6155-0-0060	40 11395 20921 9	26	140	6125/98-509	6115-0-0444	40 11395 15782 4	26	152
6109/03-82-500	6155-0-0061	40 11395 20922 6	26	140	6126/01-803-500	6116-0-0202	40 11395 13994 3	26	105
6109/03-83-500	6155-0-0062	40 11395 20923 3	26	140	6126/01-81-500	6116-0-0195	40 11395 13985 1	26	105
6109/03-840-500	6155-0-0114	40 11395 22079 5	26	140	6126/01-82-500	6116-0-0196	40 11395 13986 8	26	105
6109/03-84-500	6155-0-0063	40 11395 20924 0	26	140	6126/01-83-500	6116-0-0197	40 11395 13987 5	26	105
6109/03-866-500	6155-0-0069	40 11395 20931 8	26	140	6126/01-84-500	6116-0-0174	40 11395 13574 7	26	105
6109/03-884-500	6155-0-0064	40 11395 20925 7	26	140	6126/01-866-500	6116-0-0201	40 11395 13993 6	26	105
6109/03-885-500	6155-0-0065	40 11395 20926 4	26	140	6126/01-884-500	6116-0-0204	40 11395 13996 7	26	105

Selection Table According to Type

Type	Order code	EAN	PG	Page	Type	Order code	EAN	PG	Page
6126/01-885-500	6116-0-0205	40 11395 13997 4	26	105	6136/07 UP-500	6136-0-0212	40 11395 22352 9	26	80
6126/02-803-500	6116-0-0214	40 11395 14007 9	26	108	6136/07-811-500	6136-0-0205	40 11395 22343 7	26	80
6126/02-81-500	6116-0-0206	40 11395 13998 1	26	108	6136/07-825-500	6136-0-0206	40 11395 22344 4	26	80
6126/02-82-500	6116-0-0207	40 11395 13999 8	26	108	6136/100 C-102-500	6136-0-0185	40 11395 10675 4	26	82
6126/02-83-500	6116-0-0208	40 11395 14001 7	26	108	6136/100 CB-102	6136-0-0186	40 11395 10676 1	26	82
6126/02-840-500	6116-0-0227	40 11395 19554 3	26	108	6136/10-500	6136-0-0139	40 11395 07927 0	26	82
6126/02-84-500	6116-0-0209	40 11395 14002 4	26	108	6136/11-500	6136-0-0141	40 11395 07929 4	26	82
6126/02-866-500	6116-0-0213	40 11395 14006 2	26	108	6136/15-500	6136-0-0196	40 11395 15694 0	26	82
6126/02-884-500	6116-0-0216	40 11395 14009 3	26	108	6136/27-811-500	6136-0-0209	40 11395 22348 2	26	80
6126/02-885-500	6116-0-0217	40 11395 14011 6	26	108	6136/27-825-500	6136-0-0210	40 11395 22349 9	26	80
6126/20-981-500	6116-0-0218	40 11395 15784 8	26	144	6136/APP-500	6136-0-0202	40 11395 21292 9	26	84
6126/98-509	6116-0-0219	40 11395 15785 5	26	152	6136/UP	6136-0-0124	40 11395 04437 7	26	82
6127/01-803-500	6117-0-0228	40 11395 14031 4	26	105	6138/11-83-500	6138-0-0005	40 11395 11613 5	26	70
6127/01-81-500	6117-0-0221	40 11395 14024 6	26	105	6138/11-84-500	6138-0-0003	40 11395 11609 8	26	70
6127/01-82-500	6117-0-0222	40 11395 14025 3	26	105	6149/21-500	6133-0-0201	40 11395 11896 2	26	103
6127/01-83-500	6117-0-0223	40 11395 14026 0	26	105	6151/11 U-500	6151-0-0245	40 11395 16395 5	26	26
6127/01-84-500	6117-0-0200	40 11395 14044 4	26	105	6152/11 U-500	6152-0-0040	40 11395 16862 9	26	26
6127/01-866-500	6117-0-0227	40 11395 14030 7	26	105	6155/30-500	6151-0-0254	40 11395 20208 1	33	56
6127/01-884-500	6117-0-0230	40 11395 14033 8	26	105	6155/40-500	6151-0-0256	40 11395 20211 1	33	56
6127/01-885-500	6117-0-0231	40 11395 14034 5	26	105	6164/11 U-500	6151-0-0247	40 11395 16399 3	26	26
6127/02-803-500	6117-0-0240	40 11395 14044 4	26	108	6173/11 U-500	6151-0-0249	40 11395 16402 0	26	26
6127/02-81-500	6117-0-0232	40 11395 14035 2	26	108	6179/01-204-500	6132-0-0313	40 11395 16854 7	26	63
6127/02-82-500	6117-0-0233	40 11395 14036 9	26	108	6179/01-208-500	6132-0-0314	40 11395 16856 1	26	63
6127/02-83-500	6117-0-0234	40 11395 14037 6	26	108	6179/02-204-500	6132-0-0317	40 11395 16861 5	26	63
6127/02-840-500	6117-0-0252	40 11395 19556 7	26	108	6179/02-208-500	6132-0-0318	40 11395 16862 2	26	63
6127/02-84-500	6117-0-0235	40 11395 14038 3	26	108	6179-500	6132-0-0320	40 11395 16865 3	26	63
6127/02-866-500	6117-0-0239	40 11395 14043 7	26	108	6186/01 UP-500	6186-0-0023	40 11395 15886 9	34	81
6127/02-884-500	6117-0-0242	40 11395 14046 8	26	108	6197/12-101-500	6197-0-0036	40 11395 16366 5	33	56
6127/02-885-500	6117-0-0243	40 11395 14047 5	26	108	6197/13-101-500	6197-0-0037	40 11395 16367 2	33	56
6128/28-803-500	6134-0-0336	40 11395 21386 5	26	112	6197/14-101-500	6197-0-0038	40 11395 16368 9	33	56
6128/28-81-500	6134-0-0331	40 11395 21381 0	26	112	6197/15-101-500	6197-0-0039	40 11395 16369 6	33	56
6128/28-82-500	6134-0-0332	40 11395 21382 7	26	112	6197/52-101-500	6197-0-0040	40 11395 16371 9	33	56
6128/28-83-500	6134-0-0333	40 11395 21383 4	26	112	6197/53-101-500	6197-0-0041	40 11395 16372 6	33	56
6128/28-840-500	6134-0-0342	40 11395 21724 5	26	112	6320/10-20-500	6320-0-0002	40 11395 13857 1	26	122
6128/28-84-500	6134-0-0334	40 11395 21384 1	26	112	6320/10-24G-500	6320-0-0004	40 11395 13873 1	26	122
6128/28-866-500	6134-0-0335	40 11395 21385 8	26	112	6320/10-260-500	6320-0-0010	40 11395 13879 3	26	122
6128/28-884-500	6134-0-0338	40 11395 21388 9	26	112	6320/10-79-500	6320-0-0006	40 11395 13875 5	26	122
6128/28-885-500	6134-0-0339	40 11395 21389 6	26	112	6320/10-83-500	6320-0-0008	40 11395 13877 9	26	122
6129/01-803-500	6135-0-0163	40 11395 14101 4	26	109	6320/30-20-500	6320-0-0012	40 11395 13882 3	26	122
6129/01-81-500	6135-0-0156	40 11395 14094 9	26	109	6320/30-24G-500	6320-0-0014	40 11395 13885 4	26	122
6129/01-82-500	6135-0-0157	40 11395 14095 6	26	109	6320/30-260-500	6320-0-0020	40 11395 13892 2	26	122
6129/01-83-500	6135-0-0158	40 11395 14096 3	26	109	6320/30-79-500	6320-0-0016	40 11395 13887 8	26	122
6129/01-84-500	6135-0-0146	40 11395 13616 4	26	109	6320/30-83-500	6320-0-0018	40 11395 13889 2	26	122
6129/01-866-500	6135-0-0162	40 11395 14100 7	26	109	6320/50-20-500	6320-0-0032	40 11395 13911 0	26	123
6129/01-884-500	6135-0-0165	40 11395 14103 8	26	109	6320/50-24G-500	6320-0-0034	40 11395 13914 1	26	123
6129/01-885-500	6135-0-0166	40 11395 14104 5	26	109	6320/50-260-500	6320-0-0040	40 11395 13921 9	26	123
6129/20-981-500	6118-0-0104	40 11395 15787 9	26	144	6320/50-79-500	6320-0-0036	40 11395 13916 5	26	123
6129/21-981-500	6118-0-0107	40 11395 15791 6	26	144	6320/50-83-500	6320-0-0038	40 11395 13918 9	26	123
6129/96-509	6118-0-0105	40 11395 15788 6	26	153	6321/38-20-500	6320-0-0052	40 11395 20132 9	26	123
6129/98-509	6118-0-0108	40 11395 15792 3	26	153	6321/38-24G-500	6320-0-0054	40 11395 20135 0	26	123
6131/20-183-500	6132-0-0343	40 11395 18589 6	26	59	6321/38-260-500	6320-0-0060	40 11395 20142 8	26	123
6131/20-24-500	6132-0-0342	40 11395 18588 9	26	59	6321/38-79-500	6320-0-0056	40 11395 20137 4	26	123
6131/21-183-500	6132-0-0345	40 11395 18591 9	26	59	6321/38-83-500	6320-0-0058	40 11395 20139 8	26	123
6131/21-24-500	6132-0-0344	40 11395 18590 2	26	59	6321/58-20-500	6320-0-0062	40 11395 20144 2	26	124
6131/29-183-500	6132-0-0352	40 11395 18599 5	26	62	6321/58-24G-500	6320-0-0064	40 11395 20146 6	26	124
6131/29-24-500	6132-0-0351	40 11395 18598 8	26	62	6321/58-260-500	6320-0-0070	40 11395 20152 7	26	124
6131/30-183-500	6132-0-0347	40 11395 18593 3	26	60	6321/58-79-500	6320-0-0066	40 11395 20148 0	26	124
6131/30-24-500	6132-0-0346	40 11395 18592 6	26	60	6321/58-83-500	6320-0-0068	40 11395 20150 3	26	124
6131/31-183-500	6132-0-0349	40 11395 18596 4	26	60	6340-24G-101-500	6310-0-0109	40 11395 13092 6	34	99
6131/31-24-500	6132-0-0348	40 11395 18594 0	26	60	6340-811-101-500	6310-0-0168	40 11395 15674 2	34	99
6131/38-183-500	6132-0-0404	40 11395 21658 3	26	63	6340-825-101-500	6310-0-0108	40 11395 13091 9	34	99
6131/38-24-500	6132-0-0403	40 11395 21655 2	26	63	6340-866-101-500	6310-0-0106	40 11395 13088 9	34	99
6131/39-183-500	6132-0-0354	40 11395 18601 5	26	62	6341-24G-101-500	6310-0-0117	40 11395 13100 8	34	100
6131/39-24-500	6132-0-0353	40 11395 18600 8	26	62	6341-811-101-500	6310-0-0170	40 11395 15676 6	34	100
6131/40-24-500	6132-0-0350	40 11395 18597 1	26	61	6341-825-101-500	6310-0-0116	40 11395 13099 5	34	100
6131/50-183-500	6132-0-0400	40 11395 21645 3	26	61	6341-866-101-500	6310-0-0114	40 11395 13097 1	34	100
6131/50-24-500	6132-0-0399	40 11395 21644 6	26	61	6342-24G-101-500	6310-0-0125	40 11395 13108 4	34	100
6131/51-183-500	6132-0-0414	40 11395 22231 7	26	62	6342-811-101-500	6310-0-0172	40 11395 15678 0	34	100
6131/51-24-500	6132-0-0413	40 11395 22229 4	26	62	6342-825-101-500	6310-0-0124	40 11395 13107 7	34	100

Selection Table According to Type

C

Type	Order code	EAN	PG	Page	Type	Order code	EAN	PG	Page
6342-866-101-500	6310-0-0122	40 11395 13105 3	34	100	6730-84	6730-0-0017	40 11395 09364 1	16	193
6344-24G-101-500	6310-0-0133	40 11395 13117 6	34	100	6730-866	6730-0-0023	40 11395 09371 9	16	193
6344-811-101-500	6310-0-0174	40 11395 15681 0	34	100	6730-884	6730-0-0026	40 11395 13035 3	16	193
6344-825-101-500	6310-0-0132	40 11395 13116 9	34	100	6730-885	6730-0-0027	40 11395 13036 0	16	193
6344-866-101-500	6310-0-0130	40 11395 13114 5	34	100	6730-896-500	6730-0-0066	40 11395 16710 6	16	193
6345-24G-101-500	6310-0-0081	40 11395 11873 3	34	101	6731-212-500	6730-0-0028	40 11395 13404 7	16	186
6345-811-101-500	6310-0-0176	40 11395 15683 4	34	101	6731-214-500	6730-0-0030	40 11395 13406 1	16	186
6345-825-101-500	6310-0-0080	40 11395 11872 6	34	101	6731-82-500	6730-0-0032	40 11395 13408 5	16	186
6345-866-101-500	6310-0-0078	40 11395 11868 9	34	101	6731-83-500	6730-0-0035	40 11395 13422 1	16	186
6346/10-101-500	6310-0-0135	40 11395 13119 0	34	99	6731-840-500	6730-0-0094	40 11395 19586 4	16	186
6346/11-101-500	6310-0-0137	40 11395 13122 0	34	99	6731-84-500	6730-0-0038	40 11395 13425 2	16	186
6346/12-101-500	6310-0-0139	40 11395 13124 4	34	99	6731-866-500	6730-0-0041	40 11395 13429 0	16	186
6348-24G-101-500	6310-0-0147	40 11395 13132 9	34	101	6732-212-500	6730-0-0029	40 11395 13405 4	16	186
6348-811-101-500	6310-0-0178	40 11395 15685 8	34	101	6732-214-500	6730-0-0031	40 11395 13407 8	16	186
6348-825-101-500	6310-0-0146	40 11395 13131 2	34	101	6732-82-500	6730-0-0033	40 11395 13409 2	16	187
6348-866-101-500	6310-0-0144	40 11395 13129 9	34	101	6732-83-500	6730-0-0036	40 11395 13423 8	16	187
6349-24G-101-500	6310-0-0155	40 11395 13142 8	34	101	6732-840-500	6730-0-0095	40 11395 19588 8	16	187
6349-811-101-500	6310-0-0180	40 11395 15687 2	34	101	6732-84-500	6730-0-0039	40 11395 13427 6	16	187
6349-825-101-500	6310-0-0154	40 11395 13140 4	34	101	6732-866-500	6730-0-0042	40 11395 13431 3	16	187
6349-860-101-500	6310-0-0152	40 11395 13137 4	34	101	6733-82-500	6730-0-0034	40 11395 13421 4	16	187
6350-825-101-500	6310-0-0157	40 11395 13144 2	34	101	6733-83-500	6730-0-0037	40 11395 13424 5	16	187
6351/08-825-500	6310-0-0183	40 11395 19840 7	34	102	6733-84-500	6730-0-0040	40 11395 13428 3	16	187
6352-24G-101-500	6310-0-0165	40 11395 13152 7	34	102	6733-866-500	6730-0-0043	40 11395 13432 0	16	187
6352-811-101-500	6310-0-0182	40 11395 15689 6	34	102	6747 AGM-201-500	6700-0-0038	40 11395 17591 0	29	189
6352-825-101-500	6310-0-0164	40 11395 13151 0	34	102	6747 AGM-204-500	6700-0-0035	40 11395 17588 0	29	189
6352-860-101-500	6310-0-0162	40 11395 13149 7	34	102	6747 AGM-208-500	6700-0-0036	40 11395 17589 7	29	189
6353/20-860-500	6310-0-0093	40 11395 11892 4	34	102	6747 AGM-35-500	6700-0-0037	40 11395 17590 3	29	189
6353/30-860-500	6310-0-0094	40 11395 11893 1	34	102	6770-500	6770-0-0002	40 11395 14797 9	26	17
6353/40-860-500	6310-0-0095	40 11395 11894 8	34	102	6770-500	6770-0-0002	40 11395 14797 9	16	191
6353/50-860-500	6310-0-0096	40 11395 11895 5	34	102	6780-500	6780-0-0001	40 11395 13433 7	16	188
6354 U-500	6310-0-0097	40 11395 11897 9	34	98	6824-84	6800-0-2516	40 11395 13747 5	14	181
6355 U-500	6310-0-0098	40 11395 11898 6	34	98	6828	6800-0-2514	40 11395 13745 1	14	181
6356 U-500	6310-0-0099	40 11395 11899 3	34	98	6829-84	6800-0-2515	40 11395 13746 8	14	181
6404 U	6401-0-0055	40 11395 09383 2	14	194	6833/01-84-500	6800-0-2721	40 11395 18697 8	14	181
6541-803	6599-0-2940	40 11395 11115 4	19	137	6833-84-500	6800-0-2720	40 11395 18696 1	14	181
6541-81	6599-0-2882	40 11395 05642 4	19	137	6835/01-84-500	6800-0-2723	40 11395 18699 2	14	181
6541-82	6599-0-2832	40 11395 09569 3	19	137	8136/01 UP-500	8136-0-0032	40 11395 15891 3	34	82
6541-83	6599-0-2885	40 11395 07445 9	19	137	8136/09-811-500	8136-0-0024	40 11395 15877 7	34	81
6541-84	6599-0-2835	40 11395 09663 8	19	137	8136/09-825-500	8136-0-0026	40 11395 15879 1	34	81
6541-866	6599-0-2924	40 11395 08815 9	19	137	8136/12-811-500	8136-0-0028	40 11395 15882 1	34	81
6541-87	6599-0-2844	40 11395 09917 2	19	137	8136/12-825-500	8136-0-0030	40 11395 15884 5	34	81
6541-884	6599-0-2962	40 11395 12964 7	19	137	8186/03-500	8100-0-0344	40 11395 17146 2	32	15
6541-885	6599-0-2967	40 11395 12965 4	19	137	8186/04-500	8100-0-0346	40 11395 17148 6	32	15
6595 U	6590-0-0188	40 11395 09385 6	14	194	AA/A 2.1.2	2CDG110203R0011	40 16779 95407 5	26	37
6701-101-500	6700-0-0040	40 11395 18264 2	16	190	AA/S 4.1.2	2CDG110202R0011	40 16779 96237 7	26	37
6702-500	6700-0-0023	40 11395 13434 4	16	190	ABA/S 1.2.1	2CDG110192R0011	40 16779 92993 6	26	74
6703-500	6700-0-0024	40 11395 13436 8	16	190	ABL/S 2.1	2CDG110073R0011	40 16779 65264 3	26	74
6704-500	6700-0-0025	40 11395 13437 5	16	191	ABZ/S 2.1	2CDG110072R0011	40 16779 65236 0	26	74
6705-101-500	6700-0-0042	40 11395 18266 6	16	191	AE/A 2.1	2CDG110086R0011	40 16779 66401 1	26	30
6720-64	6720-0-0001	40 11395 09372 6	16	195	AE/S 4.1.1.3	2CDG110190R0011	40 1677992929 5	26	30
6720-65	6720-0-0002	40 11395 09381 8	16	195	AM/S 12.1	GHQ6310062R0111	40 16779 51481 1	26	9
6720-66	6720-0-0003	40 11395 09382 5	16	195	AMD5053	2CLA627190N1001	84 27238 09914 9		146
6721-64	6720-0-0004	40 11395 11211 3	16	195	AMD5153-AG	2CLA637100N1601	84 27238 09683 4		146
6721-65	6720-0-0005	40 11395 11212 0	16	195	AMD5153-MG	2CLA637100N1701	84 27238 09684 1		146
6725-500	6720-0-0008	40 11395 18271 0	16	188	AMD5153-SB	2CLA637100N1501	84 27238 09682 7		146
6730-20	6730-0-0007	40 11395 09353 5	16	192	AMD5153-ST	2CLA637100N1101	84 27238 09681 0		146
6730-21	6730-0-0008	40 11395 09354 2	16	192	AMD5253-AG	2CLA667200N1601	84 27238 09691 9		146
6730-212	6730-0-0001	40 11395 09356 8	16	192	AMD5253-MG	2CLA667200N1701	84 27238 09692 6		146
6730-214	6730-0-0002	40 11395 09337 5	16	192	AMD5253-SB	2CLA667200N1501	84 27238 09690 2		146
6730-22G	6730-0-0009	40 11395 09355 9	16	192	AMD5253-ST	2CLA667200N1101	84 27238 09689 6		146
6730-24	6730-0-0010	40 11395 09356 6	16	192	AMSE	GHV9250010V0003	40 16779 49290 4	50	174
6730-24G	6730-0-0011	40 11395 09357 3	16	192	AMSP	GHV9250010V0004	40 16779 49280 5	50	174
6730-260	6730-0-0005	40 11395 09351 1	16	192	BDB/S 1.1	2CDG110067R0011	40 16779 65753 2	26	164
6730-266	6730-0-0006	40 11395 09352 8	16	192	BE/M 4.12.1	2CDG110007R0011	40 16779 58313 8	26	22
6730-803	6730-0-0025	40 11395 11120 8	16	193	BE/M 4.230.1	2CDG110005R0011	40 16779 58311 4	26	22
6730-81	6730-0-0014	40 11395 09361 0	16	193	BE/M 4.24.1	2CDG110006R0011	40 16779 58312 1	26	22
6730-815	6730-0-0024	40 11395 11119 2	16	193	BE/S 4.20.2.1	2CDG110090R0011	40 16779 71078 7	26	30
6730-82	6730-0-0015	40 11395 09362 7	16	193	BE/S 4.230.2.1	2CDG110091R0011	40 16779 71106 7	26	30
6730-83	6730-0-0016	40 11395 09363 4	16	193	BE/S 8.20.2.1	2CDG110092R0011	40 16779 71076 3	26	30

Selection Table According to Type

Type	Order code	EAN	PG	Page	Type	Order code	EAN	PG	Page
BE/S 8.230.2.1	2CDG110093R0011	40 16779 71077 0	26	30	IO/S 8.6.1.1	2CDG110169R0011	40 16779 88108 1	26	37
BT/A 1.1	2CDG280001R0011	40 16779 92556 3	26	171	IPM/S 1.1	2CDG120036R0011	40 16779 69790 3	20	16
BT/A 2.1	2CDG280002R0011	40 16779 96336 7	26	171	IPR/S 2.1	2CDG110061R0011	40 16779 65229 2	26	14
BUSKLEMME	GHQ6301901R0001	40 12233 80230 2	20	18	IPR/S 3.1.1	2CDG110175R0011	40 16779 90648 7	26	14
CP-D 12/0.83	1SVR427041R1000	40 13614 52375 5	11		IPS/S 3.1.1	2CDG110177R0011	40 16779 90651 7	26	14
CP-D 12/2.1	1SVR427043R1200	40 13614 52376 2	11		IR/KB	2CDG230027R0011	40 16779 75716 4	50	177
CP-D 24/0.42	1SVR427041R0000	40 13614 52377 9	11		IR/XB	2CDG230023R0011	40 16779 67877 3	50	172
CP-D 24/1.3	1SVR427043R0100	40 13614 52378 6	11		IR/XC	2CDG230024R0011	40 16779 67878 0	50	172
CP-D 24/2.5	2CDG120037R0011	40 16779 69789 7	20	11	ISM/S 5.1	2CDG120034R0011	40 16779 69792 7	20	15
CP-D 24/2.5	2CDG120037R0011	40 16779 69789 7	20	80	ISS/S 5.1	2CDG120035R0011	40 16779 69791 0	20	15
CP-D 24/2.5	2CDG120037R0011	40 16779 69789 7	20	84	JAM 2.230.1	2CDG110003R0011	40 16779 58315 2	26	22
CP-D 24/2.5	2CDG120037R0011	40 16779 69789 7	20	103	JAM 2.24.1	2CDG110004R0011	40 16779 58316 9	26	22
CP-D 24/4.2	1SVR427045R0400	40 13614 52379 3	11		JAS 4.SMI.1M	2CDG110028R0011	40 16779 65423 4	26	43
CP-D RU	1SVR427049R0000	40 13614 52380 9	11		JRA/S 2.230.1.1	2CDG110129R0011	40 16779 69848 1	26	43
CP-FCC-212	6220-0-0245	40 11395 18748 7	24	138	JRA/S 2.230.2.1	2CDG110120R0011	40 16779 69839 9	26	42
CP-FCC-214	6220-0-0246	40 11395 18749 4	24	138	JRA/S 2.230.5.1	2CDG110124R0011	40 16779 69843 6	26	42
CP-FCC-803	6220-0-0566	40 11395 20575 4	24	138	JRA/S 2.230.1.1	2CDG110131R0011	40 16779 69849 8	26	43
CP-FCC-81	6220-0-0242	40 11395 18745 6	24	138	JRA/S 4.230.2.1	2CDG110121R0011	40 16779 69840 5	26	42
CP-FCC-82	6220-0-0532	40 11395 20571 6	24	138	JRA/S 4.230.5.1	2CDG110125R0011	40 16779 69844 3	26	42
CP-FCC-83	6220-0-0243	40 11395 18746 3	24	138	JRA/S 4.24.5.1	2CDG110128R0011	40 16779 69847 4	26	42
CP-FCC-84	6220-0-0244	40 11395 18747 0	24	138	JRA/S 8.230.1.1	2CDG110131R0011	40 16779 69850 4	26	43
CP-FCC-866	6220-0-0549	40 11395 20573 0	24	138	JRA/S 8.230.2.1	2CDG110122R0011	40 16779 69841 2	26	42
CP-FCC-884	6220-0-0617	40 11395 20582 2	24	138	JRA/S 8.230.5.1	2CDG110126R0011	40 16779 69845 0	26	42
CP-FCC-885	6220-0-0634	40 11395 20584 6	24	138	JSB/S 1.1	GHQ6310084R0111	40 16779 57993 3	26	43
DG/S 1.1	2CDG110026R0011	40 16779 58583 5	26	49	KLEMME	GHQ6301902R0001	40 16779 07930 3	20	18
DG/S 1.16.1	2CDG110103R0011	40 16779 66950 4	26	49	KS/K 2.1	GHQ6301910R0011	40 16779 52893 1	20	10
DG/S 8.1	2CDG110025R0011	40 16779 58582 8	26	48	KS/K 4.1	GHQ6301910R0001	40 16779 51725 6	20	10
DG/S1.64.1.1	2CDG110198R0011	40 16779 94266 9	26	48	L240/BS	GHQ3050031R0001	40 16779 58561 3	50	174
DG/S2.64.1.1	2CDG110199R0011	40 16779 94285 0	26	48	LF/U 2.1	2CDG110089R0011	40 16779 07930 5	26	55
DGN/S 1.16.1	2CDG110142R0011	40 16779 84556 4	26	49	LFO/A 1.1	2CDG120045R0011	40 16779 90673 9	20	57
DLR/A 4.8.1.1	2CDG110172R0011	40 16779 88237 8	26	50	LGS/A 1.1	2CDG120038R0011	40 16779 83712 5	20	70
DLR/S 8.16.1M	2CDG110101R0011	40 16779 67656 4	26	49	LK/S 4.2	2CDG110171R0011	40 16779 88167 8	26	14
DR/S 4.1	2CDG110029R0011	40 16779 58755 6	26	10	LKS	GHQ4001906R0001	40 13232 39280 1	50	175
DSM/S 1.1	2CDG110060R0011	40 16779 65205 6	26	18	LL/S 1.1	GHQ6050053R0001	40 16779 39210 5	20	16
EG/A 32.2.1	2CDG120047R0011	40 16779 94257 7	26	16	LM/S 1.1	GHQ6310080R0111	40 16779 58121 9	26	74
EIM/D	2CDG230039R0011	40 16779 87766 4	50	177	LR/M 1.6.2	2CDG110108R0011	40 16779 68067 7	26	23
EIM/KB	2CDG230028R0011	40 16779 75717 1	50	177	LR/S 2.16.1	2CDG110087R0011	40 16779 66405 9	26	55
EIM/KC	2CDG230029R0011	40 16779 75718 8	50	177	LR/S 4.16.1	2CDG110088R0011	40 16779 66489 9	26	55
EIM/XB	2CDG230025R0011	40 16779 67879 7	50	172	MG/A 4.4.1	2CDG110186R0011	40 16779 92552 5	26	171
EIM/XC	2CDG230026R0011	40 16779 67880 3	50	172	MG/E 4.4.1	2CDG110178R0011	40 16779 92549 5	26	171
EM/S 3.16.1	2CDG110148R0011	40 16779 87706 0	26	159	MKE/A 1.868.1	2CDG120048R0011	40 16779 95066 4	20	17
EP	GHQ7132443R0003	40 13232 04220 1	50	176	MRS/B	GHQ3201972R0002	40 16779 50659 5	50	175
ER/U 1.1	GHQ6310044R0111	40 16779 49725 1	26	67	MRS/W	GHQ3201972R0001	40 16779 50660 1	50	175
ES/M 2.230.1	2CDG110013R0011	40 16779 58361 9	26	23	MT 701.2, SR	GHQ6050059R0006	40 16779 57582 9	20	76
ES/M 2.24.1	2CDG110014R0011	40 16779 58362 6	26	23	MT 701.2, WS	GHQ6050059R0005	40 16779 57581 2	20	76
ES/S 4.1.2.1	2CDG110058R0011	40 16779 67206 1	26	67	MT/S 4.12.2M	2CDG110109R0011	40 16779 71187 6	26	167
ES/S 8.1.2.1	2CDG110059R0011	40 16779 67207 8	26	67	MT/S 8.12.2M	2CDG110110R0011	40 16779 71186 9	26	167
ESPE	GHV9250010V0001	40 13232 70140 5	50	174	MT/U 2.12.2	2CDG110111R0011	40 16779 71176 0	26	167
ESPE/M	2CDG270010R0011	40 16779 94560 8	50	174	MW	GHV9230039V0020	40 13232 66580 6	50	172
EUB/S 1.1	2CDG110066R0011	40 16779 64991 9	26	164	MW	GHV9230039V0020	40 13232 66580 6	50	177
EVS	GHV9250010V0002	40 16779 44170 4	50	174	N2221.2 AN	2CLA222120N1801	84 27238 10033 3		152
FAD/A 1.1	2CDG120040R0011	40 16779 90668 5	20	75	N2221.2 BL	2CLA222120N1101	84 27238 10032 6		152
FAG/A 1.1	2CDG120041R0011	40 16779 90669 2	20	75	N2221.2 PL	2CLA222120N1301	84 27238 10034 0		152
FC/S 1.1	2CDG120001R0011	40 16779 58383 1	20	70	N2221.4 AN	2CLA222140N1801	84 27238 10044 9		152
FC600/BREL	2CDG430051R0011	40 16779 70840 1	50	179	N2221.4 BL	2CLA222140N1101	84 27238 10043 2		152
FC650/O	2CDG430079R0011	40 16779 86479 4	50	179	N2221.4 PL	2CLA222140N1301	84 27238 10045 6		152
FC650/TMAX	2CDG430081R0011	40 16779 86477 0	50	179	N2221.6 AN	2CLA222160N1801	84 27238 10054 8		153
FCA/S 1.1.1.2	2CDG110195R0011	40 16779 94219 5	26	69	N2221.6 BL	2CLA222160N1101	84 27238 10053 1		153
FCA/S 1.1.2.2	2CDG110194R0011	40 16779 94218 8	26	69	N2221.6 PL	2CLA222160N1301	84 27238 10055 5		153
FCA/S 1.2.1.2	2CDG110196R0011	40 16779 94222 5	26	69	N2221.7 AN	2CLA222170N1801	84 27238 10066 1		153
FCA/S 1.2.2.2	2CDG110193R0011	40 16779 94217 1	26	69	N2221.7 BL	2CLA222170N1101	84 27238 10065 4		153
FCL/S 1.6.1.1	2CDG110163R0011	40 16779 87788 6	26	69	N2221.7 PL	2CLA222170N1301	84 27238 10067 8		153
FCL/S 2.6.1.1	2CDG110164R0011	40 16779 87787 9	26	69	N2240.4 AN	2CLA222404N1801	84 27238 10072 2		154
FPA03	GHV9020012V0021	40 16779 53444 4	50	180	N2240.4 BL	2CLA222404N1101	84 27238 10071 5		154
FW/S 8.2.1	2CDG120039R0011	40 16779 90666 1	20	75	N2240.4 PL	2CLA222404N1301	84 27238 10073 9		154
GM/A 8.1	2CDG110150R0011	40 16779 90630 2	26	171	N2241.4 AN	2CLA2224140N1801	84 27238 10082 1		154
GP2	GHV9220004V0004	40 13232 66670 4	50	175	N2241.4 BL	2CLA2224140N1101	84 27238 10081 4		154
HS/S 4.2.1	2CDG120044R0011	40 16779 90672 2	20	57	N2241.4 PL	2CLA2224140N1301	84 27238 10083 8		154
IO/S 4.6.1.1	2CDG110168R0011	40 16779 88107 4	26	37	N2271 XX				155

Selection Table According to Type

C

Type	Order code	EAN	PG	Page	Type	Order code	EAN	PG	Page
N2271.1 XX				155	SGL	GHQ3050008R0001	40 16779 53313 3	50	177
N2271.9	2CLA227190N1001	84 27238 06670 7		155	SJR/S4.24.2.1	2CDG110143R0011	40 16779 86446 6	26	43
N2272 XX				155	SMB/S 1.1	GHQ6310085R0111	40 16779 58092 2	26	164
N2272.1 XX				155	SPGS/B	GHV9220004V0010	40 13232 61430 9	50	175
N2273 XX				155	SPGS/W	GHV9220004V0009	40 13232 61420 0	50	175
N2273.1 XX				155	SR-1-212	6220-0-0182	40 11395 18074 7	24	127
N2274 XX				155	SR-1-214	6220-0-0183	40 11395 18113 3	24	127
N2274.1 XX				155	SR-1-803	6220-0-0550	40 11395 20386 6	24	127
N2371.9V				156	SR-1-81	6220-0-0137	40 11395 18149 2	24	127
N2372.1 XX				156	SR-1-82	6220-0-0516	40 11395 20345 3	24	127
ND/W	GHQ7132443R0011	40 13232 02540 2	50	176	SR-1-83	6220-0-0138	40 11395 18217 8	24	127
NDA/W	GHQ7132443R0004	40 13232 61690 7	50	176	SR-1-84	6220-0-0139	40 11395 18183 6	24	127
NDU/W	GHQ7132443R0021	40 13232 02550 1	50	176	SR-1-840	6220-0-0371	40 11395 19559 8	24	127
NT/S 12.1600	GHQ6050056R0002	40 16779 51467 5	20	11	SR-1-866	6220-0-0533	40 11395 20369 9	24	127
NT/S 24.800	GHQ6050057R0002	40 16779 51468 2	20	11	SR-1-884	6220-0-0601	40 11395 20433 7	24	127
NTI/Z 28.30.1	2CDG110096R0011	40 16779 66316 8	26	10	SR-1-885	6220-0-0618	40 11395 20451 1	24	127
NTU/S 12.2000.1	2CDG110070R0011	40 16779 68117 9	26	11	SR-2-212	6220-0-0192	40 11395 18079 2	24	132
PK/E 2.1	2CDG120043R0011	40 16779 90671 5	20	75	SR-2-214	6220-0-0193	40 11395 18119 5	24	132
PS 1/4/6-KNX	2CDG924003R0011	40 16779 66758 6	20	18	SR-2-803	6220-0-0555	40 11395 20392 7	24	132
PS 1/60/6-KNX	2CDG924004R0011	40 16779 66759 3	20	18	SR-2-81	6220-0-0152	40 11395 18155 3	24	132
PS/E 2.1	2CDG120042R0011	40 16779 90670 8	20	75	SR-2-82	6220-0-0521	40 11395 20350 7	24	132
PS-END 1-S	2CDL000001R0001	40 16779 66698 5		18	SR-2-83	6220-0-0153	40 11395 18223 9	24	132
RC/A 4.2	2CDG110104R0011	40 16779 67647 2	26	21	SR-2-84	6220-0-0154	40 11395 18188 1	24	132
RC/A 8.2	2CDG110106R0011	40 16779 68126 1	26	21	SR-2-840	6220-0-0376	40 11395 19564 2	24	132
RL	GHV9270013V0101	40 16779 86476 3	50	180	SR-2-866	6220-0-0538	40 11395 20375 0	24	132
RM/S 1.1	2CDG110094R0011	40 16779 66556 8	26	25	SR-2-884	6220-0-0606	40 11395 20439 9	24	132
RM/S 2.1	2CDG110095R0011	40 16779 66567 4	26	25	SR-2-885	6220-0-0623	40 11395 20456 6	24	132
RM/S 3.1	2CDG110165R0011	40 16779 88106 7	26	25	SRB-1-212	6220-0-0186	40 11395 18076 1	24	129
RM/S 4.1	2CDG110170R0011	40 16779 88126 5	26	25	SRB-1-214	6220-0-0187	40 11395 18115 7	24	129
RTK	GHQ3201973R0021	40 16779 50655 7	50	175	SRB-1-803	6220-0-0552	40 11395 20388 0	24	129
SA/M 2.16.1	2CDG110100R0011	40 16779 68158 2	26	22	SRB-1-81	6220-0-0143	40 11395 18152 2	24	129
SA/M 2.6.1	2CDG110002R0011	40 16779 58314 5	26	22	SRB-1-82	6220-0-0518	40 11395 20347 7	24	129
SA/S 12.10.2.1	2CDG110158R0011	40 16779 87780 0	26	35	SRB-1-83	6220-0-0144	40 11395 18219 2	24	129
SA/S 12.16.2.1	2CDG110162R0011	40 16779 87776 3	26	35	SRB-1-84	6220-0-0145	40 11395 18185 0	24	129
SA/S 12.16.5.1	2CDG110137R0011	40 16779 71107 4	26	36	SRB-1-840	6220-0-0373	40 11395 19561 1	24	129
SA/S 12.16.6.1	2CDG110138R0011	40 16779 76516 9	26	36	SRB-1-866	6220-0-0535	40 11395 20371 2	24	129
SA/S 12.6.1.1	2CDG110154R0011	40 16779 87784 8	26	35	SRB-1-884	6220-0-0603	40 11395 20436 8	24	129
SA/S 12.6.2.1	2CDG110183R0011	40 16779 92515 0	26	35	SRB-1-885	6220-0-0620	40 11395 20453 5	24	129
SA/S 2.10.2.1	2CDG110155R0011	40 16779 87783 1	26	35	SRB-2-212	6220-0-0196	40 11395 18081 5	24	132
SA/S 2.16.2.1	2CDG110159R0011	40 16779 87779 4	26	35	SRB-2-214	6220-0-0197	40 11395 18122 5	24	132
SA/S 2.16.5.1	2CDG110132R0011	40 16779 70827 2	26	36	SRB-2-803	6220-0-0557	40 11395 20394 1	24	132
SA/S 2.16.6.1	2CDG110112R0011	40 16779 70830 2	26	36	SRB-2-81	6220-0-0158	40 11395 18122 5	24	132
SA/S 2.6.2.1	2CDG110180R0011	40 16779 92506 8	26	35	SRB-2-82	6220-0-0523	40 11395 20361 3	24	132
SA/S 4.10.2.1	2CDG110156R0011	40 16779 87782 4	26	35	SRB-2-83	6220-0-0159	40 11395 18225 3	24	132
SA/S 4.16.2.1	2CDG110160R0011	40 16779 87778 7	26	35	SRB-2-84	6220-0-0160	40 11395 18191 1	24	132
SA/S 4.16.5.1	2CDG110133R0011	40 16779 70828 9	26	36	SRB-2-840	6220-0-0378	40 11395 19566 6	24	132
SA/S 4.16.6.1	2CDG110113R0011	40 16779 70831 9	26	36	SRB-2-866	6220-0-0540	40 11395 20377 4	24	132
SA/S 4.6.1.1	2CDG110152R0011	40 16779 87786 2	26	35	SRB-2-884	6220-0-0608	40 11395 20442 9	24	132
SA/S 4.6.2.1	2CDG110181R0011	40 16779 92509 9	26	35	SRB-2-885	6220-0-0625	40 11395 20458 0	24	132
SA/S 8.10.2.1	2CDG110157R0011	40 16779 87781 7	26	35	SRD-1-212	6220-0-0190	40 11395 18078 5	24	131
SA/S 8.16.2.1	2CDG110161R0011	40 16779 87777 0	26	35	SRD-1-214	6220-0-0191	40 11395 18118 8	24	131
SA/S 8.16.5.1	2CDG110134R0011	40 16779 70829 6	26	36	SRD-1-803	6220-0-0554	40 11395 20391 0	24	131
SA/S 8.16.6.1	2CDG110114R0011	40 16779 70832 6	26	36	SRD-1-81	6220-0-0149	40 11395 18154 6	24	131
SA/S 8.6.1.1	2CDG110153R0011	40 16779 87785 5	26	35	SRD-1-82	6220-0-0520	40 11395 20349 1	24	131
SA/S 8.6.2.1	2CDG110182R0011	40 16779 92513 6	26	35	SRD-1-83	6220-0-0150	40 11395 18222 2	24	131
SAD/GAP	2CDG220021R0011	40 13614 50362 7	50	175	SRD-1-84	6220-0-0151	40 11395 18187 4	24	131
SAK12	GHV9240001V0012	40 13232 74494 9	50	10	SRD-1-840	6220-0-0375	40 11395 19563 5	24	131
SAK17	GHV9240001V0013	40 13232 74495 2	50	10	SRD-1-866	6220-0-0537	40 11395 20374 3	24	131
SAK17	GHV9240001V0013	40 13232 74495 2	50	172	SRD-1-884	6220-0-0605	40 11395 20438 2	24	131
SAK7	GHV9240001V0011	40 13232 74493 8	50	10	SRD-1-885	6220-0-0622	40 11395 20455 9	24	131
SAK7	GHV9240001V0011	40 13232 74493 8	50	172	SRD-2-L-212	6220-0-0200	40 11395 18084 6	24	135
SCM/S 1.1	2CDG110024R0011	40 16779 65931 6	26	167	SRD-2-L-214	6220-0-0201	40 11395 18124 9	24	135
SCS	GHQ3050027R0001	40 16779 58575 0	50	173	SRD-2-L-803	6220-0-0559	40 11395 20396 5	24	135
SD/M 2.6.2	2CDG110107R0011	40 16779 68066 0	26	22	SRD-2-L-81	6220-0-0164	40 11395 18159 1	24	135
SD/S 2.16.1	2CDG110079R0011	40 16779 65996 3	26	55	SRD-2-L-82	6220-0-0525	40 11395 20363 7	24	135
SD/S 4.16.1	2CDG110080R0011	40 16779 65937 6	26	55	SRD-2-L-83	6220-0-0165	40 11395 18227 7	24	135
SD/S 8.16.1	2CDG110081R0011	40 16779 65918 5	26	55	SRD-2-L-84	6220-0-0166	40 11395 18193 5	24	135
SE/K 1.868.1	2CDG120051R0011	40 16779 99699 0	20	17	SRD-2-L-840	6220-0-0380	40 11395 19568 0	24	135
SE/S 3.16.1	2CDG110136R0011	40 16779 70977 4	26	159	SRD-2-L-866	6220-0-0542	40 11395 20379 8	24	135

Selection Table According to Type

Type	Order code	EAN	PG	Page	Type	Order code	EAN	PG	Page
SRD-2-L-884	6220-0-0610	40 11395 20444 3	24	135	SRS-2-R-214	6220-0-0207	40 11395 18128 7	24	134
SRD-2-L-885	6220-0-0627	40 11395 20461 0	24	135	SRS-2-R-803	6220-0-0562	40 11395 20399 6	24	134
SRD-2-R-212	6220-0-0261	40 11395 18850 7	24	135	SRS-2-R-81	6220-0-0173	40 11395 18163 8	24	134
SRD-2-R-214	6220-0-0262	40 11395 18851 4	24	135	SRS-2-R-82	6220-0-0528	40 11395 20366 8	24	134
SRD-2-R-803	6220-0-0560	40 11395 20397 2	24	135	SRS-2-R-83	6220-0-0174	40 11395 18231 4	24	134
SRD-2-R-81	6220-0-0258	40 11395 18847 7	24	135	SRS-2-R-84	6220-0-0175	40 11395 18196 6	24	134
SRD-2-R-82	6220-0-0526	40 11395 20364 4	24	135	SRS-2-R-840	6220-0-0382	40 11395 19571 0	24	134
SRD-2-R-83	6220-0-0259	40 11395 18848 4	24	135	SRS-2-R-866	6220-0-0545	40 11395 20383 5	24	134
SRD-2-R-84	6220-0-0260	40 11395 18849 1	24	135	SRS-2-R-884	6220-0-0613	40 11395 20447 4	24	134
SRD-2-R-840	6220-0-0383	40 11395 19572 7	24	135	SRS-2-R-885	6220-0-0630	40 11395 20464 1	24	134
SRD-2-R-866	6220-0-0543	40 11395 20381 1	24	135	SSF/G	GHQ3050017R0001	40 16779 53466 6	50	180
SRD-2-R-884	6220-0-0611	40 11395 20445 0	24	135	SSF/GB	GHQ3050018R0001	40 16779 53467 3	50	180
SRD-2-R-885	6220-0-0628	40 11395 20462 7	24	135	SSM/A	2CDG240019R0011	40 16779 83746 0	50	174
SRL-1-212	6220-0-0184	40 11395 18075 4	24	128	SSS	GHV9270001V0001	40 13232 02320 0	50	180
SRL-1-214	6220-0-0185	40 11395 18114 0	24	128	ST/K 1.1	2CDG120004R0011	40 16779 63022 1	20	70
SRL-1-803	6220-0-0551	40 11395 20387 3	24	128	STR/Z 1.50.1	2CDG120149R0011	40 16779 87716 9	20	18
SRL-1-81	6220-0-0140	40 11395 18151 5	24	128	SU/S 30.640.1	GHQ6310049R0111	40 16779 90621 0	26	9
SRL-1-82	6220-0-0517	40 11395 20346 0	24	128	SV/S 30.160.1.1	2CDG110144R0011	40 16779 86666 8	26	8
SRL-1-83	6220-0-0141	40 11395 18218 5	24	128	SV/S 30.320.1.1	2CDG110166R0011	40 16779 90619 7	26	8
SRL-1-84	6220-0-0142	40 11395 18184 3	24	128	SV/S 30.320.2.1	2CDG110145R0011	40 16779 83766 8	26	9
SRL-1-840	6220-0-0372	40 11395 19560 4	24	128	SV/S 30.640.3.1	2CDG110167R0011	40 16779 90621 0	26	8
SRL-1-866	6220-0-0534	40 11395 20370 5	24	128	SV/S 30.640.5.1	2CDG110146R0011	40 16779 86669 9	26	9
SRL-1-884	6220-0-0602	40 11395 20434 4	24	128	SW MiniMAC 4.1	2CSY258202R2051	80 12542 58202 1		148
SRL-1-885	6220-0-0619	40 11395 20452 8	24	128	SWM 4	GHQ4030001R0004	40 13232 05740 3	50	178
SRL-2-L-212	6220-0-0194	40 11395 18080 8	24	133	SWM4/RN	GHQ4030001R0012	40 13232 05750 2	50	178
SRL-2-L-214	6220-0-0195	40 11395 18121 8	24	133	TH/U 1.1	2CSY265232R2021	80 12542 65232 8		147
SRL-2-L-803	6220-0-0556	40 11395 20393 4	24	133	TR/U 1.1	2CSY235683R2001	80 12542 35683 7		147
SRL-2-L-81	6220-0-0155	40 11395 18156 0	24	133	T-RAHM, SR	GHQ6050059R0012	40 16779 49586 8	20	76
SRL-2-L-82	6220-0-0522	40 11395 20360 6	24	133	T-RAHM, WS	GHQ6050059R0011	40 16779 49585 1	20	76
SRL-2-L-83	6220-0-0156	40 11395 18224 6	24	133	TS/K 1.1	2CDG120002R0011	40 16779 58381 7	20	70
SRL-2-L-84	6220-0-0157	40 11395 18189 8	24	133	TS/T 1	2CSY259412R2041	80 12542 59412 3		148
SRL-2-L-840	6220-0-0377	40 11395 19565 9	24	133	TSA/K 230.2	2CDG120049R0011	40 1677995067 1	20	71
SRL-2-L-866	6220-0-0539	40 11395 20376 7	24	133	TSA/K 24.2	2CDG120050R0011	40 1677995068 8	20	71
SRL-2-L-884	6220-0-0607	40 11395 20441 2	24	133	UD/M 1.300.1	2CDG110012R0011	40 11395 04281 6	26	23
SRL-2-L-885	6220-0-0624	40 11395 20457 3	24	133	UD/S 2.300.2	2CDG110074R0011	40 16779 66306 9	26	55
SRL-2-R-212	6220-0-0202	40 11395 18085 3	24	133	UK/S 32.2	2CDG110071R0011	40 16779 65577 4	26	76
SRL-2-R-214	6220-0-0203	40 11395 18126 3	24	133	UP-KAST 2	GHQ6050059R0014	40 16779 51396 8	20	76
SRL-2-R-803	6220-0-0561	40 11395 20398 9	24	133	US/E 1	GHQ6310009R0001	40 16779 00570 8	20	18
SRL-2-R-81	6220-0-0167	40 11395 18161 4	24	133	US/U 12.2	2CDG110065R0011	40 16779 65012 0	26	30
SRL-2-R-82	6220-0-0527	40 11395 20365 1	24	133	US/U 2.2	GHQ6310074R0111	40 16779 56483 0	26	30
SRL-2-R-83	6220-0-0168	40 11395 18228 4	24	133	US/U 2.2	GHQ6310074R0111	40 16779 56483 0	26	67
SRL-2-R-84	6220-0-0169	40 11395 18194 2	24	133	US/U 4.2	GHQ6310070R0111	40 16779 56481 6	26	30
SRL-2-R-840	6220-0-0381	40 11395 19569 7	24	133	US/U 4.2	GHQ6310070R0111	40 16779 56481 6	26	67
SRL-2-R-866	6220-0-0544	40 11395 20382 8	24	133	USB/S 1.1	2CDG110008R0011	40 16779 58921 5	26	16
SRL-2-R-884	6220-0-0612	40 11395 20446 7	24	133	VA/Z 10.1	2CDG120009R0011	40 16779 65319 0	20	71
SRL-2-R-885	6220-0-0629	40 11395 20463 4	24	133	VA/Z 50.1	2CDG120010R0011	40 16779 65320 6	20	71
SRS-1-212	6220-0-0188	40 11395 18077 8	24	130	VA/Z 78.1	2CDG120011R0011	40 16779 65321 3	20	71
SRS-1-214	6220-0-0189	40 11395 18117 1	24	130	VA/Z 80.1	2CDG120012R0011	40 16779 65322 0	20	71
SRS-1-803	6220-0-0553	40 11395 20389 7	24	130	VAA/A 6.24.1	2CDG120032R0011	40 16779 67064 7	20	67
SRS-1-81	6220-0-0146	40 11395 18153 9	24	130	VAA/S 12.230.2.1	2CDG110117R0011	40 16779 82987 8	26	67
SRS-1-82	6220-0-0519	40 11395 20348 4	24	130	VAA/S 6.230.2.1	2CDG110116R0011	40 16779 82986 1	26	67
SRS-1-83	6220-0-0147	40 11395 18221 5	24	130	VB/K 100.1	GHQ6301908R0003	40 16779 50103 3	20	18
SRS-1-84	6220-0-0148	40 11395 18186 7	24	130	VB/K 200.1	GHQ6301908R0001	40 16779 46980 7	20	18
SRS-1-840	6220-0-0374	40 11395 19562 8	24	130	VB/K 270.1	GHQ6301908R0002	40 16779 46990 6	20	18
SRS-1-866	6220-0-0536	40 11395 20372 9	24	130	VB/K 360.1	GHQ6301908R0004	40 16779 84676 9	20	18
SRS-1-884	6220-0-0604	40 11395 20435 1	24	130	VMRS/B	GHQ3201972R0012	40 16779 50657 1	50	175
SRS-1-885	6220-0-0621	40 11395 20454 2	24	130	VMRS/W	GHQ3201972R0011	40 16779 50658 8	50	175
SRS-2-L-212	6220-0-0198	40 11395 18083 9	24	134	VSUE	GHV9210018V0022	40 13232 70120 7	50	176
SRS-2-L-214	6220-0-0199	40 11395 18123 2	24	134	WA/Z 1.1	2CDG110174R0011	40 16779 90637 1	26	171
SRS-2-L-803	6220-0-0558	40 11395 20395 8	24	134	WEL/A, ES	GHQ3050023R0001	40 16779 58570 5	50	173
SRS-2-L-81	6220-0-0161	40 11395 18158 4	24	134	WELT/A, ES	GHQ3050024R0001	40 16779 58571 2	50	173
SRS-2-L-82	6220-0-0524	40 11395 20362 0	24	134	WES/A 3.1	2CDG120046R0011	40 1677992893 9	20	31
SRS-2-L-83	6220-0-0162	40 11395 18226 0	24	134	WRK/W	2CDG250003R0011	40 16779 66404 2	50	176
SRS-2-L-84	6220-0-0163	40 11395 18192 8	24	134	WS/S 4.1.1.2	2CDG110191R0011	40 1677992937 0	26	31
SRS-2-L-840	6220-0-0379	40 11395 19567 3	24	134	WZ/S 1.3.1.2	2CDG110184R0011	40 1677958612 2	26	31
SRS-2-L-866	6220-0-0541	40 11395 20378 1	24	134	ZS/S 1.1	2CDG110083R0011	40 16779 66207 9	26	159
SRS-2-L-884	6220-0-0609	40 11395 20443 6	24	134					
SRS-2-L-885	6220-0-0626	40 11395 20459 7	24	134					
SRS-2-R-212	6220-0-0206	40 11395 18088 4	24	134					

Notes

C

Contact

Further Information and Local Contacts:
www.abb.com/knx

Note:

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail.

ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents - in whole or in parts - is forbidden without prior written consent of ABB AG.

Copyright© 2016 ABB
All rights reserved