



futurasmus
KNX GROUP

TOTAL SATISFACTION GUARANTEE



RECOMMENDED KNX PRODUCTS CATALOGUE

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PRODUCTS BY MANUFACTURER



Everything you need in one place

ANÁSUS LAB



What makes us different, all the support for the KNX integrator.

4 COMM Unit

This all-inclusive communications module allows the end user to interact remotely with his KNX system in multiple ways: SMS, missed calls, e-mail and web visualization. As the device has a GPRS connection, it is not necessary to have Internet in order to use the email service or the remote web visualization. In addition, it has a very powerful logic controller.

- 42 visualization objects (DPT up to 4 bytes).
- Alarms, actions and KNX group addresses status requests via SMS.
- Telephone book that allows the classification of contacts in different groups to address various recipients.
- KNX telegram transmission via missed calls.
- Warnings via e-mail as a response to KNX telegrams.
- Alerts with power supply failure and return.
- Visualization compatible with web browsers of any mobile device.
- Remote GPRS access to be able to control KNX systems where there is no Internet connection.
- Integrated web server for the visualization and the configuration of the device.
- KNX time switch (It can obtain the time from NTP servers).
- Logic controller functions:
 - Logic and arithmetic gates, comparators, converters, etc.
 - Scenes module with delays.
 - Weekly time schedules.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
9788	10100503	COMMUNICATIONS MODULE 4 COMM UNIT	645,00	5

ARCUS



arcus-eds
electronic design services gmbh

What makes us different, all the support for the KNX integrator.

Touch_IT C3

Touch display 3,5" for the visualization and control of KNX systems. Configuration takes place from the ETS with no need of additional software. The end user can choose from the different outlines and available colour patterns in order to change the appearance of the interface, directly from the display!

- Display resolution: 320x240, 256K colours.
- 196 Communication objects.
- 5 pages with up to 8 visualization/control elements each.
- Customized icons.
- RGB Control.
- Weekly schedules that can be edited by the end user.
- Alarm clock and countdown (it beeps and send group addresses) functions.
- Room thermostat function.
- It allows the protection of each control element with a password.
- It shows KNX text chains messages (14 bytes).
- Additional page for alarm management.
- Buzzer for alarm signal.
- Optionally, micro SD slot for on-line KNX telegram logging.
- Screen saver with fixed image or animated .gif.
- Additional power supply (9-32VDC, 1.5VA) needed.
- Standard flush-mounting box.
- Integrated Bus Coupling Unit.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
9992	22310200	TOUCH DISPLAY TOUCH_IT C3, ALUMINIUM	396,00	7

Water Quality Sensor

For measuring all necessary parameters which determine the quality of water in swimming pools, fish tanks, ponds, service water systems, etc.

- Measurement of pH Value (concentration of hydrogen ions).
- Measurement of ORP level (Redox potential).
- Measurement of water temperature (using a PT1000 sensor, not included).
- The pH and ORP values can be sent as 1 byte, 2 bytes or 4 bytes.
- Two-point, PI or PWM control of pH and ORP levels.
- Communication objects for manual calibration.
- Automatic calibration, if using the temperature sensor.
- Maximum and minimum thresholds.
- 2 potential-free inputs.
- Integrated Bus Coupling Unit.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
9151	30802001	WATER QUALITY SENSOR	398,00	5

Soil Temperature And Humidity Sensor

Equipped with a external sensor that must be inserted into the ground for the measurement of soil temperature and humidity. It has multiple applications, from an advanced and precise watering system (not only based in time schedules) to the humidity management for special crops, insect breeding, etc.

- Measurement of soil temperature value.
- Measurement of soil humidity value (suction power) in hPa.
- The values can be sent as 2 bytes or 4 bytes.
- Two-point, PI or PWM control of temperature.
- Two-point, PI or PWM control of humidity.
- Maximum and minimum thresholds.
- Also available with P1000 additional sensor for measuring temperature and humidity of the air.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
9169	30805001	SOIL TEMPERATURE AND HUMIDITY SENSOR	298,00	5
10023	30805021	SOIL AND AIR TEMPERATURE AND HUMIDITY SENSOR	335,00	5

DMX Gateway

Interface between the KNX bus and the DMX bus. The DMX bus is generally used for the control of stage lighting, as well as LED illumination in homes, offices, buildings, etc. This gateway is a master device in the DMX bus and allows the control of 512 channels.

- ETS configuration is not required.
- Functions per channel:
 - On/Off.
 - Dimming.
 - Set value.
- 2 firmware versions available:
 - Firmware 512 channels:
 - Control of 512 DMX channels.
 - 8 scenes.
 - Firmware 32 channels:
 - Control of 32 DMX channels.
 - 64 scenes.
 - It sends the status value (1 byte) of all 32 channels.
 - Up to 4 sequences that can be programmed by the end user.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
7982	40120186	DMX GATEWAY	325,00	7

Gateway RS-232/RS-485

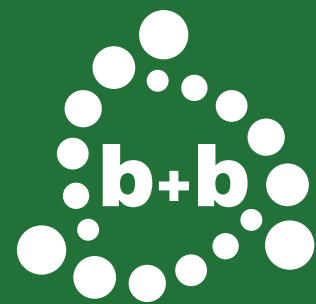
Bidirectional interface between KNX and the serial interface RS232 and RS485. It allows the easy integration in the KNX bus of conventional components which have RS-232 or RS-485 ports.

- Bidirectional: KNX telegrams are created when a serial telegram is received; also, it receives KNX telegrams and generates serial telegrams.
- RS232: 115,2 KBaud max.
- RS485: 250.0 KBaud max.
- Up to 200 serial strings.
- The strings sent by the serial port might include the value of the triggering group address.
- The strings received by the serial port might be analysed to extract a value and send it like the value of the linked group address.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
9653	40220186	GATEWAY RS-232/RS-485	325,00	7

B+B



**Automations-und
Steuerungstechnik GmbH**

What makes us different, all the support for the KNX integrator.

KNXGuard

It protects your KNX installation against unauthorised reprogramming, which can be extremely useful in installations such as hotels, etc. The device detects the transmission of programming telegrams and eliminates them. It does not affect the normal operation telegrams.

- As it does not occupy a physical address, the guard cannot be located in the ETS.
- 3 different versions available:
 - Highest security:
 - Programming telegrams are cut off.
 - It does not allow the use of the group monitor for diagnostic purposes.
 - The KNX system operates further as usual.
 - The protection can only cease by actually removing the hardware from the installation.
 - High security:
 - Programming telegrams are cut off.
 - It does allow the use of the group monitor for diagnostic purposes.
 - The KNX system operates further as usual.
 - The protection can only cease by actually removing the hardware from the installation.
 - User specific:
 - Using the EIBDoktor software, via the Bus, you can parameterise, activate or deactivate the different protection levels. This communication is hidden and encrypted.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
8118	E001-H017001	KNXGUARD, HIGHEST SECURITY	420,00	5
8119	E001-H017002	KNXGUARD, HIGH SECURITY	420,00	5
8120	E001-H017003	KNXGUARD, USER SPECIFIC	530,00	5

EIBAnalyzer

Diagnostic module for DIN-rail mounting that allows the recording of KNX telegrams in a USB stick (easy to plug in/out and exchangeable) for later examination and error detection. No need to leave a PC with the ETS at the site for the logging of telegrams during long time periods in order to detect punctual problems or to analyse the Bus traffic.

- 2GB USB-Stick included.
- Analysis of the data with the EIBDoktor software, also included.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
5029	E001-B902800	EIBANALYZER	680,00	5

ASCII Terminal

RS-232 bidirectional gateway with closed protocol

- Unlimited group addresses.
- All data point types supported.
- Own RS-232 protocol from manufacturer (not configurable).



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
5163	E001-H003011	EIB ASCII TERMINAL	640,00	5

BILTON

BILTON®

What makes us different, all the support for the KNX integrator.

LED Dimmer Sequencer Actuator

Dimmer actuator with outputs for the direct connection of LED lighting devices (no DMX, DALI gateways, etc. required). Since it has 3 independent channels, it allows a complete RGB control; also, it has special functions to create colour lighting effects. Available versions: constant voltage and constant current.

- 10 scenes per channel (this means, 10 RGB colors).
- Colour changing sequence (activated via a 1 bit object).
- Direct or progressive transition to new values.
- Delay time in switching on and off.
- Adjustable minimum and maximum brightness values.



WEB CODE	ORDER Nr.	OUTPUT	DESCRIPTION	LIST PRICE	G.D.
9953	S-24903	VOLTAGE CONTROLLED	DIMMER LED STEEL	379,00	7
9952	C-03903	CONSTANT CURRENT	DIMMER LED CURVE	399,00	7

ELSNER



elsner[®]
elektronik

What makes us different, all the support for the KNX integrator.

Power Supply KNX PS640

640 mA KNX power supply with backlight display and operation buttons for the supervision of the line status, error diagnostic and Bus reset.

- Its display allows the real-time visualization of operating data:
 - Voltage and current Bus consumption.
 - Overload, overvoltage, short-circuit.
 - etc.
- Additional 24 VDC voltage output (not reduced) ,with up to 150 mA (apart from the 640mA for the Bus).
- PS640+ y PS640-IP versions also include communication objects so that the displayed values can be sent to the Bus.
- The PS640-IP version has Ethernet connection to be used as:
 - KNXnet/IP (Tunneling): IP Programmer for the ETS, and visualization gateway.
 - KNXnet/IP Routing: to link lines and/or areas via IP.



WEB CODE	ORDER Nr.	DESCRIPTION	DATA TRANSFER TO DE BUS	KNXnet/IP	LIST PRICE	P.G.
6331	70140	KNX PS640	NO	NO	348,00	7
8136	70141	KNX PS640+	YES	NO	428,00	7
9360	70142	KNX PS640-IP	YES	YES	630,00	7

Suntracer Basic

Compact weather station, with no moving parts.

- It sends information to the bus regarding:
 - Temperature.
 - Wind speed.
 - Precipitation.
 - Brightness.
 - Twilight.
- Various 1 bit thresholds for each and every measure mentioned before.
- Integrated logic functions:
 - 8 AND logic gates.
 - 8 OR logic gates.
 - 4 inputs per gate.
 - The output of each gate may optionally be configured as 1 bit or 2 x 8 bits.
- Additional power supply required Two versions available:
 - 230VAC o 24VDC.



WEB CODE	ORDER Nr.	DESCRIPTION	ADDITIONAL POWER SUPPLY	LIST PRICE	P.G.
5667	3095	SUNTRACER KNX BASIC 230VAC	230VAC	549,00	7
6117	3096	SUNTRACER KNX BASIC 24VDC	24VDC	549,00	7

Suntracer

In addition to the functions of the Suntracer Basic model, this version also offers:

- Calculation of the exact position of the sun (azimuth and elevation are sent to the Bus).
- Setting of 5 position areas of the sun (each one has a communication object that indicates if the sun is in this area or not).
- Obtains the date and current time via DC77 radio signals.
- Week and annual time switch.



WEB CODE	ORDER Nr.	DESCRIPTION	ADDITIONAL POWER SUPPLY	LIST PRICE	P.G.
5688	3090	SUNTRACER KNX 230VAC	230VAC	799,00	7
8135	3091	SUNTRACER KNX 24VDC	24VDC	799,00	7

Suntracer GPS

On top of the functions of the Suntracer model, Suntracer GPS also:

- Receives its GPS position.
- Obtains the date and current time from the GPS signal.
- Automatic control of up to 6 independent façades.

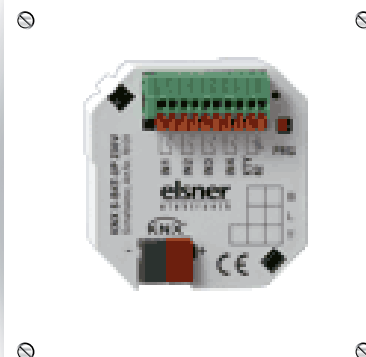


WEB CODE	ORDER Nr.	DESCRIPTION	ADDITIONAL POWER SUPPLY	LIST PRICE	P.G.
9404	3093	SUNTRACER KNX-GPS	24VDC	949,00	7

Blind Actuator for in-wall mounting

1-fold, in-wall mounting blind actuator, with the most complete application program available in the market. Available in different versions: with or without binary inputs, for 230VAC or 24VDC engines.

- Blind movement basic functions.
- Adjustable position of the blinds and Slat tracking for blinds according to the position of the sun.
- Forwarding of values as a façade controller.
- Master-slave function.
- Various security supervision and alarm objects (wind, rain, blocking, etc.).
- Reference movement.
- Movement limitation for safety purposes.
- Blocking depending on exterior and/or interior temperature.



WEB CODE	ORDER Nr.	DESCRIPTION	TYPE OF ENGINE	NR. OF OUTPUTS	LIST PRICE	P.G.
6036	70135	KNX S-UP 230 VAC	230VAC	0	105,00	7
6035	70133	KNX S-B2-UP 230 VAC	230VAC	2	130,00	7
6034	70131	KNX S-B4T-UP 230 VAC	230VAC	4	159,00	7
6037	70134	KNX S-UP 24 VDC	24VDC	0	110,00	7
6039	70132	KNX S-B2-UP 24 VDC	24VDC	2	135,00	7
6038	70130	KNX S-B4T-UP 24 VDC	24VDC	4	169,00	7

KNX Touch One

5,7" Colour touch display with advanced functions for façades and HVAC control.

- Available with design frame in aluminium/graphite or white/grey.
- Surface mounting.
- Control of lights, dimmers, blinds, etc.
- Automatic functions for façade and HVAC control (ventilation, heating, air conditioning) that can be edited by the end user.
- Temperature and humidity measurement.
- Time switches.
- Scenes.
- 4 potential-free binary inputs (50m max. cable length).
- Integrated Bus Coupling Unit.
- Optionally, RF control remote with 8 channels:
 - Magnetic wall-mounting.
 - Available in aluminium or white colour.



WEB CODE	ORDER Nr.	DESCRIPTION	COLOUR	LIST PRICE	P.G.
10037	70195	KNX TOUCH ONE WHITE	WHITE/GREY	599,00	7
10038	70196	KNX TOUCH ONE ALU	ALULMINIUM/GRAPHITE	599,00	7

WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
10039	60511	RR REMOTE CONTROL FOR TOUCH ONE, WHITE	136,00	7
10040	60512	RR REMOTE CONTROL FOR TOUCH ONE, ALUMINIUM	136,00	7

KNX WS1000 Color

8,4" Colour touch display with advanced functions for façades and HVAC control.

- Same functionality as the KNX One Touch display, but extended number of functions.
- Optionally, interface for the connection of two analogue cameras.



WEB CODE	ORDER Nr.	DESCRIPTION	COLOUR	LIST PRICE	P.G.
10062	70191	KNX WS1000 WHITE	WHITE/GREY	1.390,00	7
10063	70192	KNX WS1000 ALU	ALULMINIUM/GRAPHITE	1.390,00	7

WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
10039	60511	RR REMOTE CONTROL FOR TOUCH ONE, WHITE	136,00	7
10040	60512	RR REMOTE CONTROL FOR TOUCH ONE, ALUMINIUM	136,00	7
10064	60532	INTERFACE FOR TWO ANALOGIC CAMERAS	183,00	7

GEPRO



What makes us different, all the support for the KNX integrator.

KNX-Tab

KNX Push-buttons range with integrated Bus Coupling Unit. They are manufactured in aluminium, which makes them very robust. That is why they have become the ideal solution for public buildings, such as hospitals, sport centres, schools, etc. Customization is possible by pre-engraved label plates and key switch.

- Available with 8, 12, 16 or 32 push buttons.
- Push button functions: switch on/off, dimming, blinds, scenes, etc.
- The blocking of the push buttons can simultaneously trigger an action.
- Integrated buzzer adjustable via communication object.
- Status LED for each push button:
 - Modifiable per communication object.
 - Fixed or brief on/off switching, blinking.
 - Red/green/off.
- The front with customized engravings can be replaced.
- In-wall mounting box included.



WEB CODE	ORDER Nr.	PUSH BUTTONS	MOUNTING	LIST PRICE	P.G.
10053	KNX-TAB 8 UP	8	IN-WALL	535,00	5
10054	KNX-TAB 8 HW	8	CAVITY WALL	540,00	5
10055	KNX-TAB 8 APAL	8	SURFACE	695,00	5

* For more information about the versions with 12, 16 and 32 push buttons, please visit our web site or contact us via telephone or e-mail.

IDDERO



iddero

What makes us different, all the support for the KNX integrator.

HC1-KNX

5,7" colour Touch Panel for the visualization and control of KNX systems with a wide-ranging and full functionality, a very attractive user interface and a exceptionally easy to use by the end customer. In addition, its consumption is extremely low: 6W in operation, 1W in stand-by state.

- 5,7" Display, 4096 colours, 320x240 resolution.
- Methacrylate design frames available in various colours. *
Browsing based on plans, areas and function menus.
- 4 access levels protected with password, to restrain certain functions according to the different levels.
- Scenes, time schedules, logic functions, time switches by range of dates, presence simulation, etc.
- Management of technical alarms, with acoustic signals and events logging.
- Integrated thermostat.
- KNX time switch with backup battery.
- Buzzer and status LEDs.
- Integrated web server for remote access from standard web browsers, even from PDAs, iPhones, etc.
- RS-485 port for expansion modules (e.g. GSM).
- Firmware configuration and update via IP.
- Integrated Bus Coupling Unit.
- Power supply included.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
9171	DW-HC1-KNX-0	TOUCH PANEL HC1-KNX	820,00	6
9172	DW-HC1-MKG	GREY METHACRYLATE DESIGN FRAME	30,00	6
9173	DW-HC1-MKA	ANODIZED ALUMINIUM DESIGN FRAME	55,00	6
9174	DW-HC1-MKC	WHITE CRYSTAL DESIGN FRAME	75,00	6
10283	DW-HC1-MKB	MATT BLACK METHACRYLATE DESIGN FRAME	30,00	6
10319	DW-HC1-MKW	WHITE METHACRYLATE DESIGN FRAME	30,00	6
10320	DW-HC1-MKS	STAINLESS STEEL DESIGN FRAME	60,00	6
8777	E-C557	IN-WALL MOUNTING BOX FOR HC1-KNX AND HC2-KNX	10,00	6

* For enquiries regarding customized design frames (colours and sizes), please contact us.

HC2-KNX

7" colour Touch Panel in panoramic format, specially conceived to guarantee the highest quality and hardware durability. On top of the full functionality of HC1-KNX, it has:

- 7" Panoramic screen (15:9), 16.7 million colours, 800x480 resolution.
- Direct integration (no additional hardware required) of IP Helios and Mobotix door communication systems.
- Integration of Ferman ADS or conventional 4+N door communication systems using additional hardware.
- Integration of IP cameras.
- Hardware and software advanced solution to reduce echo (for the purposes of the door communication system).
- Integrated stereo speakers and microphone.
- Same in-wall mounting box as HC1-KNX.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
10193	DW-HC2-KNX-0	TOUCH PANEL HC2-KNX	1.120,00	6
10049	DW-HC2-MKG	GREY METHACRYLATE DESIGN FRAME	30,00	6
10050	DW-HC2-MKA	ANODIZED ALUMINIUM DESIGN FRAME	55,00	6
10051	DW-HC2-MKC	WHITE CRYSTAL DESIGN FRAME	75,00	6
10285	DW-HC2-MKB	MATT BLACK METHACRYLATE DESIGN FRAME	30,00	6
10321	DW-HC2-MKW	WHITE METHACRYLATE DESIGN FRAME	30,00	6
10322	DW-HC2-MKS	STAINLESS STEEL DESIGN FRAME	60,00	6
8777	E-C557	IN-WALL MOUNTING BOX FOR HC1-KNX AND HC2-KNX	10,00	6

* For enquiries regarding customized design frames (colours and sizes), please contact us.

HC2L-KNX

Same functionality as HC2-KNX touch panel, but bigger sized screen: 10,4"

- It can also perform all functions of the HC1-KNX version.
- 10.4" screen, 16.7 million colours, 800x600 resolution.
- Direct integration (no additional hardware required) of IP Helios and Mobotix door communication systems.
- Integration of Fermax ADS or conventional 4+N door communication systems using additional hardware.
- Integration of IP cameras.
- Hardware and software advanced solution to reduce echo (for the purposes of the door communication system).
- Integrated stereo speakers and microphone.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
10317	DW-HC2L-KNX-0	TOUCH PANEL HC2L-KNX	1.750,00	6
10323	DW-HC2L-MKG	GREY METHACRYLATE DESIGN FRAME	50,00	6
10326	DW-HC2L-MKA	ANODIZED ALUMINIUM DESIGN FRAME	85,00	6
10328	DW-HC2L-MKC	WHITE CRYSTAL DESIGN FRAME	125,00	6
10325	DW-HC2L-MKB	MATT BLACK METHACRYLATE DESIGN FRAME	50,00	6
10324	DW-HC2L-MKW	WHITE METHACRYLATE DESIGN FRAME	50,00	6
10327	DW-HC2L-MKS	STAINLESS STEEL DESIGN FRAME	95,00	6
10318	E-C610	IN-WALL MOUNTING BOX FOR HC2L-KNX	25,00	6

* For enquiries regarding customized design frames (colours and sizes), please contact us.

DW-GSM

GSM extension module for the Iddero touch panels that allows the remote warnings and control of KNX systems via SMS and missed calls.

- Connection to the RS485 port of the Iddero touch panels.
- Carrying out actions, status enquiries and receipt of alerts via SMS.
- Sends commands via missed calls.
- Telephone book for authorized numbers with configurable permits.
- Status LED for the GSM network.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
9592	DW-GSM	GSM EXTENSION MODULE	250,00	6

IPAS



What makes us different, all the support for the KNX integrator.

ComBridge NCI

KNXnet/IP Gateway for the connection to KNX systems via TCP/IP. It can be used as an interface for CBS visualizations thanks to its two independent connections (tunnelling and object server) without interrupting the ETS connection.

- KNX programming and diagnostic via the ETS software (using the tunnelling connection).
- IP Gateway for the ComBridge Studio Evolution visualization software (using the object server or the tunnelling connection).
- IP address obtained via DHCP or manually assigned in the ETS.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
5613	3622-141-07	COMBRIDGE NCI TPC/IP GATEWAY	275,00	7

ComBridge MCG

In addition to all the ComBridge NCI features, this device also works as a KNX logic controller.

- Same functionality as the ComBridge NCI.
- KNX time sender (sends date and time to the bus) with internal battery to keep date/time in case of power failure.
- It can obtain the time from NTP servers or be manually introduced.
- Astronomical calculation (obtains the sunset and sunrise time for each day of the year).
- 80 communication objects with configurable DPT for the controller functionality.
- Weekly, annual and one-time event calendar with 100 time switches and 50 periods.
- 30 events.
- Scenes with up to 200 actions.
- 30 logic gates.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
3805	3622-141-01	COMBRIDGE MCG TPC/IP GATEWAY	645,00	7

ComBridge WCI

KNXnet/IP Gateway for the connection to KNX systems via TCP/IP. It contains an integrated web server that allows the visualizations of small systems from any web browser.

- KNX programming and diagnostic via the ETS software (using the tunnelling connection).
- IP Gateway for the ComBridge Studio Evolution visualization software (using the object server or the tunnelling connection).
- IP address obtained via DHCP or manually assigned in the ETS.
- Web visualization of 40 KNX functions, automatically generated once parameterised in the ETS.
- Compatible with web browsers from PCs, PDAs, iPhones and other Smartphones.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
4743	3622-141-08	WCI	408,00	7

DaliControl SC64 IP

Allows controlling the DALI lighting bus from KNX systems. Thanks to its Ethernet connection and integrated web server, it facilitates the commissioning process of the DALI Bus via the integrated web page.

- Operates as a DALI master.
- Complete control of the 16 Dali groups.
- Single function control (switching, dimming or set defined value) of each one of the 64 individual ECGs.
- Launching and saving of the 16 DALI light scenes.
- 2 binary inputs.
- Error status of lamps and ECGs available for each of the 64 ECGs.
- Integrated web for the commissioning of the DALI bus compatible with PDAs and Smartphones.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
8208	3927-145-52	DALICONTROL SC64 IP	552,00	7

Axesso

KNX access control system based on chip cards or transponders for hotels and office buildings. Its intuitive web management software allows users registration, permission assignment, presence control (time tracking), access and time reporting, alarms, etc. In addition, since they are KNX card readers, it is possible to assign different scenes to the different users (cards).

The readers are completely autonomous (after a new card is programmed, the PC with Axesso is not required for the card readers to recognize the assigned access codes). The data sent through the KNX bus is encrypted in order to avoid any unauthorised attempt to manipulate the door access by sending KNX telegrams.

- Robust card readers made of aluminium.
- Different colour-finishings.
- Available in 2 versions: chip (insertion) or transponder (proximity).
- With two, one or no push buttons.
- Up to 3 status LEDs.
- Binary output for door opener (12-24 VAC/VDC).
- 2 binary inputs.
- The magnetic contact located in the in-wall mounting box, combined with the binary output, allows the detection of any attempt to remove card reader.
- Customized engravings with no additional cost (e.g.: name of the company or room number).
- Integrated Bus Coupling Unit.



Chip card readers

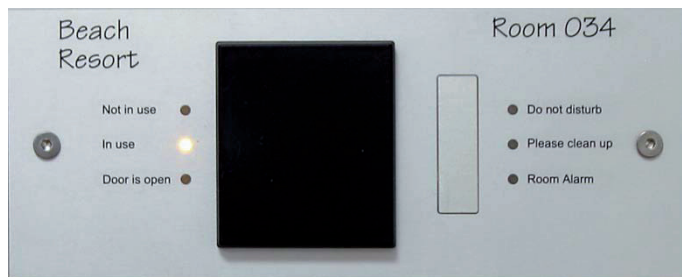
WEB CODE	ORDER Nr.	DESCRIPTION	Nr. OF BUTTONS	LIST PRICE	P.G.
9405	3706-161-02	CHIP CARD READER	0	289,00	7
9406	3706-161-04	CHIP CARD READER	1	299,00	7
9407	3706-161-06	CHIP CARD READER	2	309,00	7

Transponder card readers

WEB CODE	ORDER Nr.	DESCRIPTION	Nr. OF BUTTONS	LIST PRICE	P.G.
9408	3707-162-14	TRANSPONDER CARD READER	0	329,00	7
9409	3707-162-16	TRANSPONDER CARD READER	1	339,00	7
10716	3707-162-18	TRANSPONDER CARD READER	2	349,00	7

Axesso

Special card readers for hotels



* Contact us for more information

Software

WEB CODE	ORDER Nr.	DESCRIPTION	Nr. OF USERS	LIST PRICE	G.D
3790	3705-39-02	AXESSO LICENSE	10	990,00	1
3791	3705-39-03	AXESSO LICENSE	50	1.990,00	1
3792	3705-39-04	AXESSO LICENSE	100	2.990,00	1
3793	3705-39-05	AXESSO LICENSE	500	3.990,00	1

The price of all licenses include the programming device

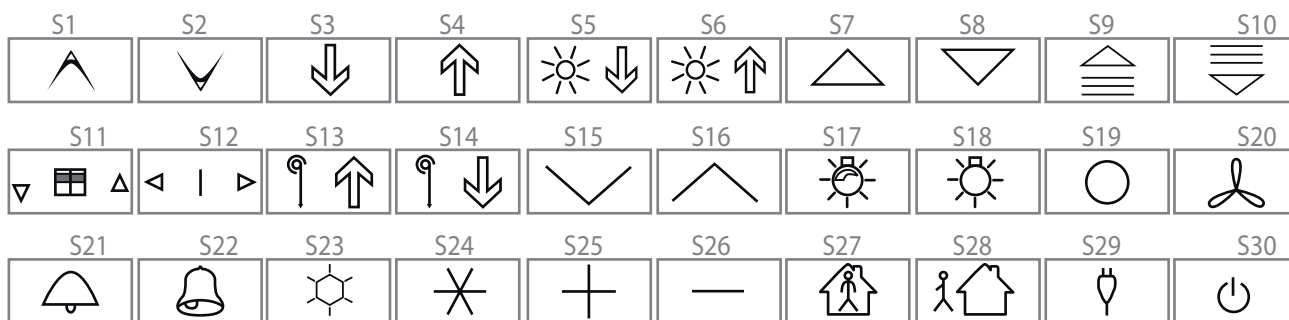


Accessories

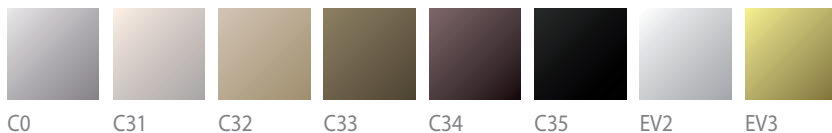
WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
3787	3705-19-01	CHIP CARD	3,10	5
6023	3705-19-02	TRANSPONDER CARD	6,20	5
3788	3705-19-03	CHIP CARDS PROGRAMMER	74,00	5
8244	3705-19-04	TRANSPONDER CARD PROGRAMMER	239,00	5
3783	3705-191-01	PLASTIC IN-WALL MOUNTING BOX	25,00	7
8243	3705-191-02	GALVANIZED STEEL IN-WALL MOUNTING BOX	32,00	7
8894	3705-191-05	GALVANIZED STEEL SURFACE MOUNTING BOX	45,00	7
3784	3705-191-03	SECURITY SCREW SET + TOOL	64,00	5
3785	3705-191-04	SECURITY SCREW SET	6,00	5

Axesso

Engraving options for keys



Available colour-finishings



Largho Push-buttons

The Largho push-buttons are manufactured in aluminium or stainless steel, which makes them specially suitable for very busy locations. Customized engravings can be ordered, for example indicating the room number or the name of the company or the owner. Engravings on keys and under them to indicate their function can also be requested.

- The aluminium versions can be chosen with flush or highlighted keys. Different colour-finishing are available for aluminium versions.
- Available with 6, 8, 10 or 12 keys.
- Versions with thermostat, display and LEDs, in which it is easy to recognize the status of the thermostat no need to check the display.
- Optionally, they can include status LEDs in each key or pair of keys (only for versions without thermostat).
- Integrated Bus Coupling Unit.



Aluminium push-buttons Largho series with highlighted keys

WEB CODE	ORDER Nr.	Nr. OF BUTTONS	THERMOSTAT	SIZE	LIST PRICE	P.G.
10530	60601-1121-02-0B	6	SIN TERMOSTATO	80x160 mm	289,00	5
10536	60601-1121-09-0B	8	SIN TERMOSTATO	80x160 mm	299,00	5
10542	60601-1121-13-0B	10	SIN TERMOSTATO	80x200 mm	319,00	5
10544	60601-1121-18-0B	12	SIN TERMOSTATO	80x200 mm	329,00	5
10533	60601-1121-06-0B	6	TERMOSTATO CON LEDS	80x160 mm	359,00	5
10539	60601-1121-08-0B	8	TERMOSTATO CON LEDS	80x160 mm	369,00	5
10682	60601-1121-19-0B	10	TERMOSTATO CON LEDS	80x200 mm	379,00	5
10686	60601-1121-20-0B	12	TERMOSTATO CON LEDS	80x200 mm	389,00	5
10651	60601-1121-07-0B	6	TERMOSTATO CON DISPLAY Y LEDS	80x200 mm	389,00	5
10656	60601-1121-12-0B	8	TERMOSTATO CON DISPLAY Y LEDS	80x200 mm	399,00	5
10654	60601-1121-16-0B	10	TERMOSTATO CON DISPLAY Y LEDS	80x212 mm	409,00	5
10660	60601-1121-17-0B	12	TERMOSTATO CON DISPLAY Y LEDS	80x212 mm	419,00	5

Largho Push-buttons

Aluminium push-buttons Largho series with flush keys

WEB CODE	ORDER Nr.	Nr. OF BUTTONS	THERMOSTAT	SIZE	LIST PRICE	P.G.
10531	60601-112-02-0B	6	WITHOUT THERMOSTAT	80x160 mm	289,00	5
10537	60601-112-09-0B	8	WITHOUT THERMOSTAT	80x160 mm	299,00	5
10543	60601-112-13-0B	10	WITHOUT THERMOSTAT	80x200 mm	319,00	5
10618	60601-112-18-0B	12	WITHOUT THERMOSTAT	80x200 mm	329,00	5
10534	60601-112-06-0B	6	THERMOSTAT WITH LED _s	80x160 mm	359,00	5
10540	60601-112-08-0B	8	THERMOSTAT WITH LED _s	80x160 mm	369,00	5
10683	60601-112-19-0B	10	THERMOSTAT WITH LED _s	80x200 mm	379,00	5
10687	60601-112-20-0B	12	THERMOSTAT WITH LED _s	80x200 mm	389,00	5
10652	60601-112-07-0B	6	THERMOSTAT WITH DISPLAY AND LED _s	80x200 mm	389,00	5
10657	60601-112-12-0B	8	THERMOSTAT WITH DISPLAY AND LED _s	80x200 mm	399,00	5
10655	60601-112-16-0B	10	THERMOSTAT WITH DISPLAY AND LED _s	80x212 mm	409,00	5
10661	60601-112-17-0B	12	THERMOSTAT WITH DISPLAY AND LED _s	80x212 mm	419,00	5

Stainless steel push-buttons Largho series

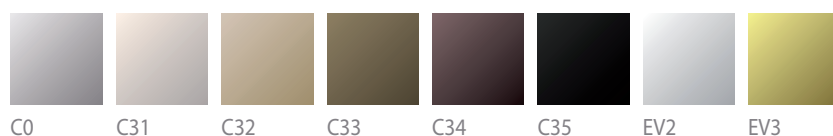
WEB CODE	ORDER Nr.	Nr. OF BUTTONS	THERMOSTAT	SIZE	LIST PRICE	P.G.
10532	60601-111-02-0B	6	WITHOUT THERMOSTAT	80x160 mm	335,00	5
10538	60601-111-09-0B	8	WITHOUT THERMOSTAT	80x160 mm	345,00	5
10619	60601-111-13-0B	10	WITHOUT THERMOSTAT	80x200 mm	355,00	5
10650	60601-111-18-0B	12	WITHOUT THERMOSTAT	80x200 mm	375,00	5
10535	60601-111-06-0B	6	THERMOSTAT WITH LED _s	80x160 mm	395,00	5
10541	60601-111-08-0B	8	THERMOSTAT WITH LED _s	80x160 mm	415,00	5
10684	60601-111-19-0B	10	THERMOSTAT WITH LED _s	80x200 mm	425,00	5
10688	60601-111-20-0B	12	THERMOSTAT WITH LED _s	80x200 mm	435,00	5
10653	60601-111-07-0B	6	THERMOSTAT WITH DISPLAY AND LED _s	80x200 mm	435,00	5
10658	60601-111-12-0B	8	THERMOSTAT WITH DISPLAY AND LED _s	80x200 mm	445,00	5
10659	60601-111-16-0B	10	THERMOSTAT WITH DISPLAY AND LED _s	80x212 mm	455,00	5
10662	60601-111-17-0B	12	THERMOSTAT WITH DISPLAY AND LED _s	80x212 mm	465,00	5

Largho Push-buttons

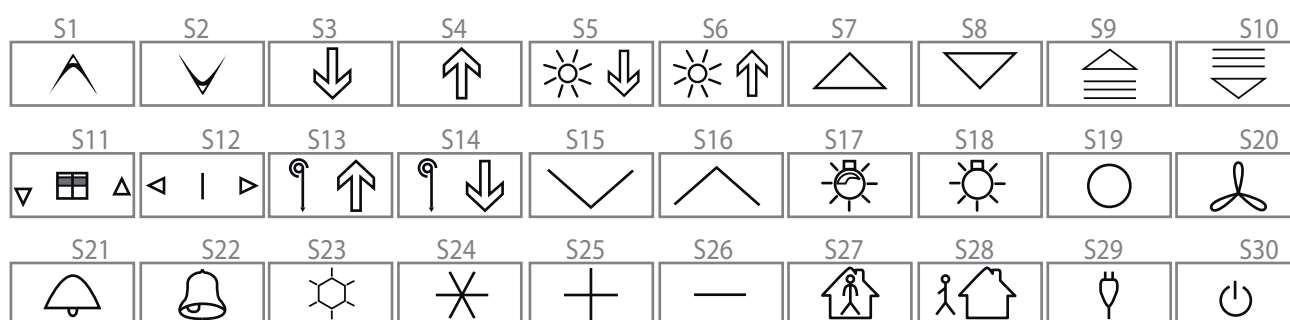
Accessories

WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
5850	60601-191-01	PLASTIC IN-WALL MOUNTING BOX FOR 160MM PUSH BUTTONS	9,90	7
5851	60601-191-02	STEEL IN-WALL MOUNTING BOX FOR 160MM PUSH BUTTONS	25,90	7
5852	60601-191-03	STEEL IN-WALL MOUNTING BOX FOR 200MM PUSH BUTTONS	27,90	7
5853	60601-191-04	STEEL IN-WALL MOUNTING BOX FOR 212MM PUSH BUTTONS	28,90	7

Available colour-finishings (for aluminium versions)



Engraving options for keys



Free for aluminium push-buttons

Please, enquire price for stainless steel push-buttons

ComBridge Studio Evolution

Over 10 years of existence and multiple installations of all types (from basic homes to hotels and even airports) have turned Combridge Studio in one of the most appreciated KNX management and visualization software programs in the market. Keeping the software core intact, its graphic interface has been renewed to meet the new market demands and needs, taking up the name of Combridge Studio Evolution.

- Embedded hardware with pre-installed software.
- Flash-based Web visualization (independent from the operating system).
- Static and animated icons that can also be rotated or redimensioned with no deterioration of the quality of the image.
- Browsing based on desktops, windows and gadgets.
- Management of users and permits.
- Allows control of multiple independent systems from a single visualization.
- Requires an IP Combridge gateway.
- The basic version includes:
 - Weekly and annual time switches.
 - Scenes.
 - Presence simulation.
 - Alarms services.
 - Warnings via e-mail.
 - Logic module with graphic editor.
 - Mathematical operations.
 - Weather forecast (via Internet).
 - Integration of IP cameras.
 - Creation of customized charts.
 - Slide show of own images.
 - Basic energy management.
 - License for 3 users.
 - License for 1 gateway.
 - Etc.
- On top of these, there are many upgrade options (see price table).



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
10019	63101-32-40	COMBRIDGE STUDIO EVOLUTION	1.995,00	1

WEB CODE	ORDER Nr.	ADDITIONAL MODULES	LIST PRICE	P.G.
10616	63102-32-50	CBSE LICENCE EXTENSION – FOR 5 USER	250,00	1
10693	63102-32-51	CBSE LICENCE EXTENSION – FOR 5 GATEWAYS	250,00	1
10382	63102-32-52	EXTENSION MODULE SMART METERING - 5 METERS	250,00	1

MDT



What makes us different, all the support for the KNX integrator.

Power Supplies

- 160, 320 and 640 mA versions.
- Status LEDs: normal operation, reset (short circuit) and overload.
- Reset button.
- 3 year warranty.



WEB CODE	ORDER Nr.	DESCRIPTION	CHOKE FREE OUTPUT	SIZE	LIST PRICE	P.G.
10149	STV-0160.01	KNX POWER SUPPLY 160mA	NO	4 DIN MODULES	134,00	7
9753	STV-0320.01	KNX POWER SUPPLY 320mA	NO	4 DIN MODULES	184,00	7
9754	STV-0640.01	KNX POWER SUPPLY 640MA	YES	6 DIN MODULES	249,00	7

Switch Actuators

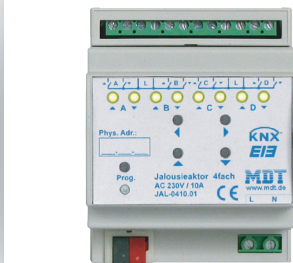
- Manual operation (power supply required).
- LED indicators for each gang.
- Time functions (switch-on/switch-off delay, staircase light function).
- Independent blocking for each channel.
- 8 scenes per channel.
- AND/OR Logic function for each channel with up to 2 additional objects.
- 3 year warranty.



WEB CODE	ORDER Nr.	Nr. OF OUTPUTS	CURRENT	C-LOAD	TAMAÑO	LIST PRICE	P.G.
9734	AKK-0810.01	8	10A	NO	4 DIN MODULES	234,00	7
9735	AKS-0810.01	8	10A	NO	4 DIN MODULES	308,00	7
9736	AKS-0816.01	8	16A	NO	4 DIN MODULES	322,00	7
9732	AKI-0816.01	8	16A	YES	8 DIN MODULES	344,00	7
9737	AKS-1210.01	12	10A	NO	12 DIN MODULES	372,00	7
9738	AKS-1216.01	12	16A	NO	12 DIN MODULES	388,00	7
9733	AKI-1216.01	12	16A	YES	12 DIN MODULES	412,00	7
9731	AKK-1610.01	16	10A	NO	8 DIN MODULES	348,00	7

Shutter Actuators

- For shutter motors of up to 600W.
- Manual operation (power supply required).
- LED indicators for each gang.
- One of the best application programs in the market with multiple functions and communication objects.
- 3 year warranty.



WEB CODE	ORDER Nr.	DESCRIPTION	Nr. OF OUTPUTS	SIZE	LIST PRICE	P.G.
9751	JAL-0410.01	SHUTTER ACTUATOR 4-FOLD	4	4 DIN MODULES	234,00	7
9752	JAL-0810.01	SHUTTER ACTUATOR 8-FOLD	8	8 DIN MODULES	348,00	7

Binary Inputs

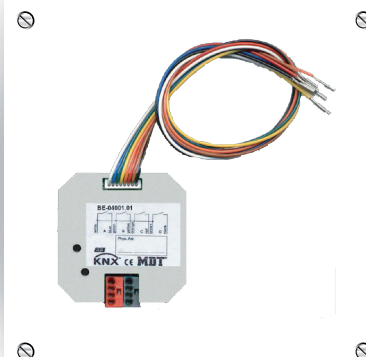
- Versions for potential-free contact, 24VAC/DC and 230VAC.
- LED indicators for each gang.
- Switching, dimming, shutters, scenes and counting of pulses.
- Possibility of 1-button control of dimmers and shutters.
- Operation with short/long button push (for 2 x 1 bit independent functions).
- Independent blocking for each channel.
- 3 AND/OR logic functions:
 - In addition to its inputs, two additional external objects can be involved in each logic function.
 - Inputs/outputs inversion possible.
 - Output options: 1 bit or a scene (1 byte).
 - Etc.
- 3 year warranty.



WEB CODE	ORDER Nr.	Nr. OF INPUTS	TYPE OF INPUTS	SIZE	LIST PRICE	P.G.
9745	BE-08000.01	8	POTENCIAL-FREE	4 DIN MODULES	228,00	7
9746	BE-08024.01	8	24VAC/DC	4 DIN MODULES	228,00	7
9747	BE-08230.01	8	230VAC	4 DIN MODULES	228,00	7
9748	BE-16000.01	16	POTENCIAL-FREE	8 DIN MODULES	348,00	7
9749	BE-16024.01	16	24VAC/DC	8 DIN MODULES	348,00	7
9750	BE-16230.01	16	230VAC	8 DIN MODULES	348,00	7

Push-button Interfaces

- Each output can be set as:
 - Binary input.
 - Output for low current LED (fix or blinking).
- Switching, dimming, shutters, scenes and counting of pulses.
- Possibility of 1-button control of dimmers and shutters.
- Operation with short/long button push (for 2 x 1 bit independent functions).
- Independent blocking for each channel.
- 3 AND/OR logic functions:
 - In addition to its inputs, two additional external objects can be involved in each logic function.
 - Inputs/outputs inversion possible.
 - Output options: 1 bit or a scene (1 byte).
 - Etc.
- 3 year warranty.

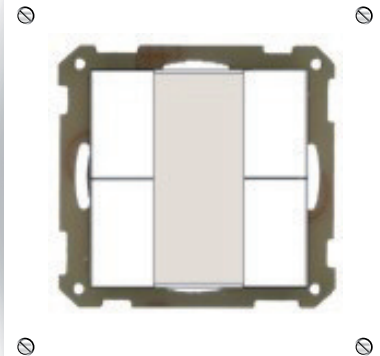


WEB CODE	ORDER Nr.	DESCRIPTION	Nr. OF INPUTS	LIST PRICE	P.G.
9739	BE-02001.01	UNIVERSAL INTERFACE 2-FOLD	2	49,00	7
9743	BE-04001.01	UNIVERSAL INTERFACE 4-FOLD	4	68,00	7

Push Buttons

KNX Push Button Range, great value for money.

- Versions available: 2-, 4-, 6- and 8-fold.
- Switching, dimming, shutters and scenes.
- Possibility of 1-button control of dimmers and shutters.
- Operation with short/long button push (for 2 x 1 bit independent functions).
- Independent blocking for each channel.
- Fits all standard 55x55 mm frames.
- Integrated bus coupling unit.
- On top of that, the Plus version offers:
 - Orientation LED that can be controlled from an external communication object.
 - Status LED for each rocker:
 - It can be configured to go off or glow green or red in case the object value is "1", but also when it is "0".
 - It can be controlled from an external communication object.
 - 4 AND/OR logic functions:
 - In addition to its inputs, two additional external objects can be involved in each logic function.
 - Inputs/outputs inversion possible.
 - Output options: 1 bit or a scene (1 byte).
 - Etc.
- 3 years warranty.



WEB CODE	ORDER Nr.	SIZE	DESCRIPTION	LIST PRICE	P.G.
9978	BE-TA5502.01	2	KNX PUSH BUTTON 2-FOLD	75,00	7
9979	BE-TA5504.01	4	KNX PUSH BUTTON 4-FOLD	85,00	7
9980	BE-TA5506.01	6	KNX PUSH BUTTON 6-FOLD	95,00	7
9981	BE-TA5508.01	8	KNX PUSH BUTTON 8-FOLD	105,00	7
9982	BE-TA55P2.01	2	KNX PUSH BUTTON 2-FOLD PLUS	102,00	7
9983	BE-TA55P4.01	4	KNX PUSH BUTTON 4-FOLD PLUS	112,00	7
9984	BE-TA55P6.01	6	KNX PUSH BUTTON 6-FOLD PLUS	122,00	7
9985	BE-TA55P8.01	8	KNX PUSH BUTTON 8-FOLD PLUS	132,00	7

TCI



What makes us different, all the support for the KNX integrator.

Amena

Touch Panel PC for built-in mounting, ready to use with any external visualization software of your choice. Consumption: only 4W

- Display sizes available: 3.5" y 7".
- ARM9 400MHz CPU.
- 128MB System-Memory.
- 128MB Storage-Memory.
- The 7" version includes handsfree intercom.
- Optionally, PoE (Power-over-Ethernet).
- Optionally, integrated WLAN in the 7" version.
- Ethernet 10/100Mbps.
- USB 2.0.
- Integrated microphone and loudspeakers.
- Integrated brightness and temperature sensors available.



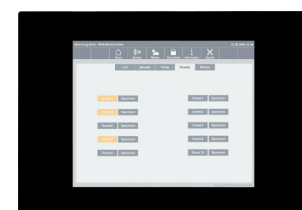
WEB CODE	ORDER Nr.	SIZE	DESCRIPTION	LIST PRICE	P.G.
10084	AMENA35 BASE-EOS	3.5"	3.5", WINCE TOUCH PANEL	640,00	6
10711	AMENA35 POE-EOS	3.5"	3.5", WINCE, POE TOUCH PANEL	670,00	6
10086	AMENA70 BASE-EOS	7"	7", WINCE TOUCH PANEL	830,00	6
10087	AMENA70 POE-EOS	7"	7", WINCE, POE TOUCH PANEL	860,00	6
10088	AMENA70 WLAN-EOS	7"	7", WINCE, WLAN TOUCH PANEL	880,00	6

* For more information about the design frames and other upgrade options, please visit our web site or contact us via telephone or e-mail

Mura

Ultra flat Touch Panel PC with panoramic screen for built-in / flush mounting. The PoE option allows its full operation via network cable (no need of additional cables or power supplies) Consumption: only 11W.

- Display sizes available: 8.4", 15" y 19".
- Special 15" version for vertical (portrait) mounting.
- HDD or flash disk (depending on the operating system).
- Ethernet 10/100/1000Mbps.
- USB 2.0.
- Upgrade options: Push-to-Talk, integrated webcam, etc.
- Mounting box, power supply and operating system required.



Mura

WEB CODE	ORDER Nr.	SIZE	MICRO	RAM	POWER SUPPLY	LIST PRICE	P.G.
6061	8MURA(R2)	8.4"	AMD, 500 MHz	512 MB	12VDC	1.840,00	5
10712	8MURA(R2) SUP	8.4"	ATOM 1.6 GHz	1 GB	18-36VDC	2.140,00	5
10713	15MURA(HR2)	15"	ATOM 1.1 GHz	1 GB	12-27VDC	2.140,00	5
10080	15MURA(HR2) SUP	15"	AMD 1.0 GHz	1 GB	18-36VDC	2.140,00	5
10715	15MURA(VR2)	15"	ATOM 1.1 GHz	1 GB	12-27VDC	2.240,00	5
10714	15MURA(VR2) SUP	15"	AMD 1.0 GHz	1 GB	18-36VDC	2.240,00	5
6063	19MURA	19"	AMD 1.0 GHz	1 GB	18-36VDC	2.840,00	5
10083	19MURA SUP	19"	CELERON 1.06 GHz	2 GB	18-36VDC	3.240,00	5

* For more information about the design frames, mounting boxes, power supplies and other upgrade options, please visit our web site or contact us via telephone or e-mail.

Kit ambientomura Futurasmus

WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
8232	KIT AMBIENTO15MURA	SCOPE OF DELIVERY: TOUCH SCREEN PC 15MURA(HR2), BLACK DESIGN FRAME, POWER SUPPLY AND PUSH-TO-TALK (MOUNTING BOX NOT INCLUDED)	1.939,00	1

Ambiento

Touch Screen PC in elegant aluminium housing for surface mounting.

- Display sizes available: 15" and 19".
- Surface mounting.
- Capacitive or resistive touch display.
- HDD or flash disk (depending on the operating system).
- Ethernet 10/100/1000Mbps.
- USB 2.0.
- Intel Atom, 1.6 GHz CPU.
- 2Gb RAM memory.
- Upgrade options: Push-to-Talk, WLAN, etc.
- Touch housing and operating system required.



WEB CODE	ORDER Nr.	SIZE	DESCRIPTION	LIST PRICE	P.G.
10092	AMBIENTO15RT	15"	SURFACE MOUNTING TOUCH SCREEN PC, RESISTIVE	3.890,00	3
5538	AMBIENTO15GT	15"	SURFACE MOUNTING TOUCH SCREEN PC, CAPACITIVE	4.090,00	3
10093	AMBIENTO19RT	19"	SURFACE MOUNTING TOUCH SCREEN PC, RESISTIVE	4.490,00	3
10094	AMBIENTO19GT	19"	SURFACE MOUNTING TOUCH SCREEN PC, CAPACITIVE	4.690,00	3

* For more information about the touch housings, mounting boxes, power supplies and other upgrade options, please visit our web site or contact us via telephone or e-mail.

WHD

WHD

What makes us different, all the support for the KNX integrator.

KNX Audio System

KNX-controlled multiroom system for audio distribution. Thanks to its scalability, it allows a great number of zones and speakers. Moreover, its functionality includes the possibility of sending announcements over speakers to all zones or just some of them.

- Up to 8 mono sources or 4 stereo sources, transmitted with no quality loss.
- The output of each zone can be mono or stereo.
- For each zone, the following functions can be controlled via KNX:
 - Switch on/off.
 - Source selection.
 - Volume.
 - Mute.
 - Equalizer (low / high tones).
 - Loudness function to highlight low frequencies at low volume.
- Public address announcements over speakers.
- Great range of speakers to meet any need.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
8019	EIBPREAMP800A	8 CHANNEL PREAMPLIFIER (8 MONO OR 4 STEREO)	1.037,90	7
4490	EIBAM840	4 CHANNEL KNX AUDIO ACTUATOR (4 MONO OR 2 STEREO) AND 8 INPUTS	1.123,20	7
9887	EIBKABELSUBDAM840	CASCADING CABLE FOR AM 840	18,70	7
8020	AMP10DCHS	10 W / 4 OHM MONO AMPLIFIER FOR DIN RAIL	115,80	7
10022	UP142W8	2-WAY HIFI CEILING SPEAKER	66,80	7

* For more information about the speaker range, amplifiers, microphones, etc., please visit our web site or contact us via telephone or e-mail.

DAM 6000 System

Advanced system for audio distribution. On the basis of the same functions of the AM 840 system, the DAM 6000 represents a step up as far as functionality and installation is concerned: same as an Ethernet network.

- 5 analogue (RCA) and 1 digital (S/P-DIF optical toslink or coaxial RCA) input in the central unit.
- Optionally, 4 additional inputs per zone along with DAM V3 LI.
- Up to 254 stereo zones.
- IR output for source control via KNX.
- Integrated IR learning lens.
- Alarm clock function.
- For each zone, the following functions can be controlled via KNX:
 - Switch on/off.
 - Source selection.
 - Transmission of source name in DPT 14bytes.
 - Volume.
 - Mute.
 - Sending of IR commands.
 - Activation / deactivation of alarm clock function.
 - Equalizer (low, medium and high tones).
 - Etc.
- Public address announcements over speakers.
- 6 present buttons at the front to save different configurations.
- In combination with an eibPort (manufacturer bab-tec), it allows the control of multimedia servers and the transmission of the currently playing MP3 data to the Bus (format 14bytes).
- Integrated web server to control functionality and system configuration.
- Application for the control of the system via iPhone available (please, enquire price).
- KNXnet/IP gateway required.
- Great range of speakers to meet any need.



WEB CODE	ORDER Nr.	DESCRIPTION	LIST PRICE	P.G.
8373	DAMV3ZENTRALES	CENTRAL UNIT, BLACK	3.099,00	7
10058	DAMV3ZENTRALEA	CENTRAL UNIT, SILVER	3.099,00	7
8375	DAMV3LSS	STEREO SPEAKER MODULE, 2 X 20 W	790,40	7
10059	DAMV3LSLO	LINE-OUT SPEAKER MODULE	632,30	7
10060	DAMV3LI	LOCAL INPUT MODULE	1.206,40	7
7068	DAMV3KNX-LINK	KNX INTERFACE FOR DAM CONTROL	946,40	7
10022	UP142W8	2-WAY HIFI CEILING SPEAKER	66,80	7

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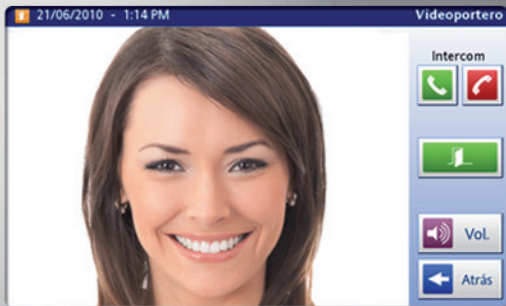


iddero

HC1



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iddero

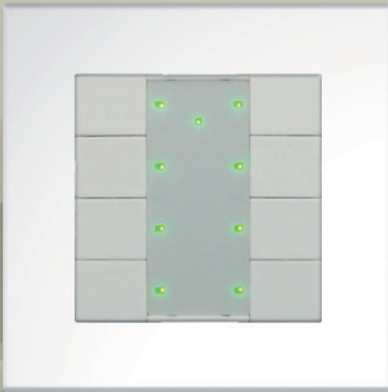
HC2

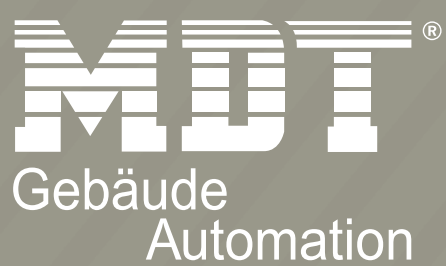




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OVERVIEW TABLES



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KNX SENSORS - TEMPERATURE/HUMIDITY/CLIMATE



10001010111010101110 / 10000101* // 1011011 / 1010101
1000001000 / 10000111**** 1111 // 1000010101011100/
// 101011000101 /// enter /// 100000100101101***



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WEB CODE	REF. 1	REF. 2	MONT.	DESCRIPTION 1	CONNECTION CABLE	PROBLE MAT.	DIM.	IMAGE	PAGE
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KNX SENSORS - TEMPERATURE



9993	30101000	SK01-T	ON-WALL, OUTDOOR, DAMP ROOM, IP65	SK01 WITHOUT TEMPERATURE PROBE					73
6158	30101001	SK01-T-OFTF		SK01 WITH SURFACE-CONTACTING PROBE		ALUMINIUM	8x8x40		73
6130	30101002	SK01-T-HTF PVC 1,5 m		SK01 WITH SLEEVE SENSOR	PVC 1,5 m				73
6112	30101003	SK01-T-HTF SILICONA 1,5 m			SILICONE 1,5 m				74
6131	30101055	SK01-T-HTF TEFLON 1,5 m			TEFLON 1,5 m				74
6332	30101004	SK01-T-ALTF1 PVC 1,5 m		SK01 WITH CONTACTING/TUBE CONTACTING PROBE	PVC 1,5 m				74
9212	30101005	SK01-T-ALTF1 SILICONA 1,5 m			SILICONE 1,5 m				75
8390	30101006	SK01-T-ALTF2							75
8275	30101007	SK01-T-ATF2		SK01 WITH EXTERNAL PROBE		V4A STEEL	30 mm, Ø 6 mm		75
10011	30101008	SK01-T-ESTF 50 mm PVC 1,5 m		SK01 WITH SCREW-IN/IMMERSION PROBE-CABLE CONNECTION	PVC 1,5 m	V4A STEEL (30 mm, Ø 6 mm)	G1/2", 50 mm		76
10012	30101009	SK01-T-ESTF 100 mm PVC 1,5 m			PVC 1,5 m	V4A STEEL (30 mm, Ø 6 mm)	G1/2", 100 mm		76
10013	30101010	SK01-T-ESTF 50 mm SILIKON 1,5 m			SILIKON 1,5 m	V4A STEEL (30 mm, Ø 6 mm)	G1/2", 50 mm		76
10014	30101011	SK01-T-ESTF 100 mm SILIKON 1,5 m			SILIKON 1,5 m	V4A STEEL (30 mm, Ø 6 mm)	G1/2", 100 mm		77
6026	30101013	SK01-T-ETF1 50 mm BRASS		SK01 WITH SCREW-IN/IMMERSION PROBE, BRASS IMMERSION SLEEVE		BRASS	G1/2", 50 mm		77
6083	30101014	SK01-T-ETF1 100 mm BRASS				BRASS	G1/2", 100 mm		77
5945	30101015	SK01-T-ETF1 150 mm BRASS				BRASS	G1/2", 150 mm		78
6084	30101016	SK01-T-ETF1 200 mm BRASS				BRASS	G1/2", 200 mm		78
6085	30101017	SK01-T-ETF1 250 mm BRASS				BRASS	G1/2", 250 mm		78
6086	30101018	SK01-T-ETF1 300 mm BRASS				BRASS	G1/2", 300 mm		79
6087	30101019	SK01-T-ETF1 400 mm BRASS				BRASS	G1/2", 400 mm		79



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WEB CODE	REF. 1	REF. 2	MONT.	DESCRIPTION 1	CONNECTION CABLE	PROBLE MAT.	DIM.	IMAGE	PAGE
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KNX SENSORS - TEMPERATURE



6081	30101020	SK01-T-ETF2 50 mm V4A	ON-WALL, OUTDOOR, DAMP ROOM, IP65	SK01 WITH SCREW-IN IMMERSION PROBE, IMMERSION SLEEVE V4A		V4A	G1/2", 50 mm		79
6134	30101021	SK01-T-ETF2 100 mm V4A				V4A	G1/2", 100 mm		80
6135	30101022	SK01-T-ETF2 150 mm V4A				V4A	G1/2", 150 mm		80
6136	30101023	SK01-T-ETF2 200 mm V4A				V4A	G1/2", 200 mm		80
6137	30101024	SK01-T-ETF2 250 mm V4A				V4A	G1/2", 250 mm		81
6138	30101025	SK01-T-ETF2 300 mm V4A				V4A	G1/2", 300 mm		81
6139	30101026	SK01-T-ETF2 400 mm V4A				V4A	G1/2", 400 mm		81
9995	30101027	SK01-T-ETF3 50 mm		SK01 WITH SCREW-IN/ IMMERSION PROBE, IMMERSION SLEEVE WITH EXTENDED SHAFT V4A		V4A	G1/2", 50 mm		82
9996	30101028	SK01-T-ETF3 100 mm				V4A	G1/2", 100 mm		82
9997	30101029	SK01-T-ETF3 150 mm				V4A	G1/2", 150 mm		82
9998	30101030	SK01-T-ETF3 200 mm				V4A	G1/2", 200 mm		83
9999	30101031	SK01-T-ETF3 250 mm				V4A	G1/2", 250 mm		83
10000	30101032	SK01-T-ETF3 300 mm				V4A	G1/2", 300 mm		83
10001	30101033	SK01-T-ETF3 400 mm				V4A	G1/2", 400 mm		84
10002	30101034	SK01-T-ETF7 100 mm		SK01 WITH SCREW-IN/ IMMERSION PROBE WITH EXTENDED SHAFT WITH NECK TUBE FOR QUICK RESPONSIVITY		V4A	G1/2", 100 mm		84
10003	30101035	SK01-T-ETF7 150 mm				V4A	G1/2", 150 mm		84
10004	30101036	SK01-T-ETF7 250 mm				V4A	G1/2", 250 mm		85
10005	30101037	SK01-T-KTF1 50 mm		SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A		V4A	50 mm		85
10006	30101038	SK01-T-KTF1 100 mm				V4A	100 mm		85



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WEB CODE	REF. 1	REF. 2	MONT.	DESCRIPTION 1	CONNECTION CABLE	PROBLE MAT. DIM.		IMAGE	PAGE
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KNX SENSORS - TEMPERATURE



10007	30101039	SK01-T-KTF1 150 mm	ON-WALL, OUTDOOR, DAMP ROOM, IP65	SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A		V4A	150 mm		86
8880	30101040	SK01-T-KTF1 200 mm				V4A	200 mm		86
10008	30101041	SK01-T-KTF1 250 mm				V4A	250 mm		86
9165	30101042	SK01-T-KTF1 300 mm				V4A	300 mm		87
9093	30101043	SK01-T-KTF1 400 mm				V4A	400 mm		87
10009	30101050	SK01-T-RPTF1	ON-WALL, OUTDOOR, DAMP ROOM, IP65	SK01 WITH PENDULUM ROOM PROBE	PVC 1,5 m	STAINLESS STEEL 1.4571	100 mm, M12/1,5 mm		87
10010	30101051	SK01-T-RPTF2		SK01 WITH PENDULUM ROOM PROBE (GLOBE THERMOMETER)	PVC 1,5 m	BLACK PLASTIC BALL	Ø = 50 mm		88
7715	30102201	SK02-T	ON-WALL, INDOOR	TEMPERATURE PROBE INTEGRATED IN BOX					88
6075	30103201	SK03-T BLANCO	IN-WALL, INDOOR	TEMPERATURE PROBE INTEGRATED IN BOX					88
6076	30103202	SK03-T ANTRACITA							89
9917	30801000	SK08-T8	INDOOR/OUTDOOR	MULTIPLE-PT1000 8 CHANNEL					89

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WEB CODE	REF. 1	REF. 2	MONT.	DESCRIPTION 1	CONNECTION CABLE LENGTH	PROBLE LENGTH	IMAGE	PAGE

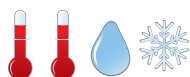
KNX SENSORS - TEMPERATURE/HUMIDITY/CLIMATE



6090	30301053	SK01-TFK-AFF	INDOOR/OUTDOOR AND DAMP LOCATIONS	SK01 WITH EXTERNAL PROBE	2 m	45 mm		91
10015	30301054	SK01-TFK-RPFF		SK01 WITH PENDULUM ROOM PROBE	2 m	100 mm		91
10016	30301056	SK01-TFK-MMF			2 m	100 mm		91
10017	30301057	SK01-TFK-KFF		SK01 WITH DUCT PROBE		230 mm		92
5881	30302201	SK02-TFK	ON-WALL, INDOOR	SENSOR INTEGRATED IN BOX				92
6079	30303201	SK03-TFK WHITE	IN-WALL, INDOOR	SENSOR INTEGRATED IN BOX				92
6080	30303202	SK03-TFK ANTHRACITE						93

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WEB CODE	REF. 1	REF. 2	MONT.	DESCRIPTION 1	CONNECTION CABLE LENGTH	PROBLE LENGTH	IMAGE	PAGE

KNX SENSORS - TEMPERATURE/TEMPERATURE/HUMIDITY/CLIMATE



6091	30401053	SK01-TTFK-AFF	INDOOR/OUTDOOR AND DAMP LOCATIONS	SK01 WITH EXTERNAL PROBE		45 mm, Ø = 14mm		95
10046	30401054	SK01-TTFK-RPFF		SK01 WITH PENDULUM ROOM PROBE	2 m	100 mm		95
10047	30401056	SK01-TTFK-MMF			2 m	100 mm		95
10048	30401057	SK01-TTFK-KFF		SK01 WITH DUCT PROBE		230 mm		96
8221	30403201	SK03-TTFK WHITE	IN-WALL, INDOOR	SENSOR INTEGRATED IN BOX				96
8222	30403202	SK03-TTFK ANTHRACITE						96



TECHNICAL DATA

KNX SENSORS - TEMPERATURE

Sensors with integrated KNX-Bus Coupler for measuring and regulating temperature.

No auxiliary voltage necessary.

ETS Application:

- Measured values of temperature.
- PI or two-point controller for temperature with steady or PWM output.
- Various operating methods for temperature control: relative RTC, absolute RTC, standard.
- Alarm thresholds with presetting via KNX Bus: temperature.
- Minimum/Maximum temperature saved.
- Adjustable frost protection alarm.
- Post-adjustment of all thresholds and regulation objects.
- Actual value adjustment for temperature.



KNX SENSORS - TEMPERATURE



KNX SENSORS - TEMPERATURE

WEB CODE	9993	6158	6130
IMAGE			
ARTICLE NUMBER	30101000	30101001	30101002
MANUFACTURER REF.	SK01-T	SK01-T-OFTF	SK01-T-HTF PVC 1,5 m
DESCRIPTION 1	SK01 WITHOUT TEMPERATURE PROBE	SK01 WITH SURFACE-CONTACTING PROBE	SK01 WITH SLEEVE SENSOR
DESCRIPTION 2		SQUARE, FOR FLAT SURFACES	PT1000
TEMPERATURE RANGE		-30...+105°C	-35...+105°C
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65
APPLICATION			LIQUID AND GASEOUS MEDIA
CONNECTION CABLE			MAT. DIM. PVC 1,5 m
PROBLE		MAT. DIM. ALUMINIUM 8x8x40	
SEALING	IP65	IP65	IP65
LISTPRICE	143,00 €	161,90 €	154,75 €



KNX SENSORS - TEMPERATURE

WEB CODE	6112	6131	6332												
IMAGE															
ARTICLE NUMBER	30101003	30101055	30101004												
MANUFACTURER REF.	SK01-T-HTF SILICONE 1,5 m	SK01-T-HTF TEFLON 1,5 m	SK01-T-ALTF1 PVC 1,5 m												
DESCRIPTION 1	SK01 WITH SLEEVE SENSOR	SK01 WITH SLEEVE SENSOR	SK01 WITH CONTACTING/TUBE CONTACTING PROBE												
DESCRIPTION 2	PT1000	PT1000	AXIAL SENSOR TUBE												
TEMPERATURE RANGE	-50...+180°C	-50...+250°C	-35...+105°C												
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65												
APPLICATION	LIQUID AND GASEOUS MEDIA	LIQUID AND GASEOUS MEDIA	LIQUIDS AND GASEOUS MEDIA IN PIPES AND TUBES												
CONNECTION CABLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>SILICONE</td><td>1,5 m</td></tr></table>	MAT.	DIM.	SILICONE	1,5 m	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>TEFLON</td><td>1,5 m</td></tr></table>	MAT.	DIM.	TEFLON	1,5 m	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>PVC</td><td>1,5 m</td></tr></table>	MAT.	DIM.	PVC	1,5 m
MAT.	DIM.														
SILICONE	1,5 m														
MAT.	DIM.														
TEFLON	1,5 m														
MAT.	DIM.														
PVC	1,5 m														
PROBLE															
SEALING		IP68	IP65												
LISTPRICE	159,10 €	171,90 €	157,00 €												



KNX SENSORS - TEMPERATURE



KNX SENSORS - TEMPERATURE

WEB CODE	9212	8390	8275
IMAGE			
ARTICLE NUMBER	30101005	30101006	30101007
MANUFACTURER REF.	SK01-T-ALTF1 SILIKON 1,5 m	SK01-T-ALTF2	SK01-T-ATF2
DESCRIPTION 1	SK01 WITH CONTACTING/TUBE CONTACTING PROBE	SK01 WITH CONTACTING/TUBE CONTACTING PROBE	SK01 WITH EXTERNAL PROBE
DESCRIPTION 2	CONTACTING/ TUBE CONTACTING PROBE	CONTACTING SENSOR (PT1000)	THE PT1000 SENSOR ENCLOSED IN SHEATH TUBE
TEMPERATURE RANGE	-35...+180°C	-30...+110°C	-50...+90°C
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65
APPLICATION	LIQUIDS AND GASEOUS MEDIA IN PIPES AND TUBES	LIQUIDS AND GASEOUS MEDIA IN PIPES AND TUBES	
CONNECTION CABLE	MAT. SILICONE	DIM. 1,5 m	
PROBE			MAT. V4A STEEL
SEALING		IP65	DIM. 30 mm, Ø 6 mm
LISTPRICE	158,10 €	160,10 €	170,80 €



KNX SENSORS - TEMPERATURE

WEB CODE	10011	10012	10013												
IMAGE															
ARTICLE NUMBER	30101008	30101009	30101010												
MANUFACTURER REF.	SK01-T-ESTF 50 mm PVC 1,5 m	SK01-T-ESTF 100 mm PVC 1,5 m	SK01-T-ESTF 50 mm SILICONE 1,5 m												
DESCRIPTION 1	SK01 WITH SCREW-IN/IMMERSION PROBE-CABLE CONNECTION	SK01 WITH SCREW-IN/IMMERSION PROBE-CABLE CONNECTION	SK01 WITH SCREW-IN/IMMERSION PROBE-CABLE CONNECTION												
DESCRIPTION 2	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø8MM MAX. PRESSURE 40 BAR) MADE OF V4A STEEL WITH CABLE CONNECTION	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø8MM MAX. PRESSURE 40 BAR) MADE OF V4A STEEL WITH CABLE CONNECTION	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø8MM MAX. PRESSURE 40 BAR) MADE OF V4A STEEL WITH CABLE CONNECTION												
TEMPERATURE RANGE	-35...+105°C	-35...+105°C	-50...+180°C												
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65												
APPLICATION	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY												
CONNECTION CABLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>PVC</td><td>1,5 m</td></tr></table>	MAT.	DIM.	PVC	1,5 m	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>PVC</td><td>1,5 m</td></tr></table>	MAT.	DIM.	PVC	1,5 m	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>SILICONE</td><td>1,5 m</td></tr></table>	MAT.	DIM.	SILICONE	1,5 m
MAT.	DIM.														
PVC	1,5 m														
MAT.	DIM.														
PVC	1,5 m														
MAT.	DIM.														
SILICONE	1,5 m														
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A STEEL (30 mm, Ø 6 mm)</td><td>G1/2", 50 mm</td></tr></table>	MAT.	DIM.	V4A STEEL (30 mm, Ø 6 mm)	G1/2", 50 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A STEEL (30 mm, Ø 6 mm)</td><td>G1/2", 100 mm</td></tr></table>	MAT.	DIM.	V4A STEEL (30 mm, Ø 6 mm)	G1/2", 100 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A STEEL (30 mm, Ø 6 mm)</td><td>G1/2", 50 mm</td></tr></table>	MAT.	DIM.	V4A STEEL (30 mm, Ø 6 mm)	G1/2", 50 mm
MAT.	DIM.														
V4A STEEL (30 mm, Ø 6 mm)	G1/2", 50 mm														
MAT.	DIM.														
V4A STEEL (30 mm, Ø 6 mm)	G1/2", 100 mm														
MAT.	DIM.														
V4A STEEL (30 mm, Ø 6 mm)	G1/2", 50 mm														
SEALING	IP65	IP65	IP65												
LISTPRICE	171,50 €	172,50 €	172,50 €												



KNX SENSORS - TEMPERATURE

WEB CODE	10014	6026	6083
IMAGE			
ARTICLE NUMBER	30101011	30101013	30101014
MANUFACTURER REF.	SK01-T-ESTF 100 mm SILICONE 1,5 m	SK01-T-ETF 50 mm BRASS	SK01-T-ETF 1100 mm BRASS
DESCRIPTION 1	SK01 WITH SCREW-IN/IMMERSION PROBE-CABLE CONNECTION	SK01 WITH SCREW-IN/IMMERSION PROBE, BRASS IMMERSION SLEEVE	SK01 WITH SCREW-IN/IMMERSION PROBE, BRASS IMMERSION SLEEVE
DESCRIPTION 2	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø8MM MAX. PRESSURE 40 BAR) MADE OF V4A STEEL WITH CABLE CONNECTION	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A BRASS IMMERSION SLEEVE (Ø 8MM)(MAX. PRESSURE 10 BAR).	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A BRASS IMMERSION SLEEVE (Ø 8MM)(MAX. PRESSURE 10 BAR).
TEMPERATURE RANGE	-50...+180°C	-30...+150°C	-30...+150°C
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65
APPLICATION	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY
CONNECTION CABLE	MAT. DIM. SILICONE 1,5 m		
PROBE	MAT. DIM. V4A STEEL (30 mm, Ø 6 mm) G1/2", 100 mm	MAT. DIM. BRASS G1/2", 50 mm	MAT. DIM. BRASS G1/2", 100 mm
SEALING	IP65	IP65	IP65
LISTPRICE	173,60 €	176,75 €	177,95 €



KNX SENSORS - TEMPERATURE

WEB CODE	5945	6084	6085												
IMAGE															
ARTICLE NUMBER	30101015	30101016	30101017												
MANUFACTURER REF.	SK01-T-ETF1 150 mm BRASS	SK01-T-ETF1 200 mm BRASS	SK01-T-ETF1 250 mm BRASS												
DESCRIPTION 1	SK01 WITH SCREW-IN/IMMERSION PROBE, BRASS IMMERSION SLEEVE	SK01 WITH SCREW-IN/IMMERSION PROBE, BRASS IMMERSION SLEEVE	SK01 WITH SCREW-IN/IMMERSION PROBE, BRASS IMMERSION SLEEVE												
DESCRIPTION 2	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A BRASS IMMERSION SLEEVE (Ø 8MM)(MAX. PRESSURE 10 BAR).	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A BRASS IMMERSION SLEEVE (Ø 8MM)(MAX. PRESSURE 10 BAR).	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A BRASS IMMERSION SLEEVE (Ø 8MM)(MAX. PRESSURE 10 BAR).												
TEMPERATURE RANGE	-30...+150°C	-30...+150°C	-30...+150°C												
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65												
APPLICATION	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY												
CONNECTION CABLE															
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>BRASS</td><td>G1/2", 150 mm</td></tr></table>	MAT.	DIM.	BRASS	G1/2", 150 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>BRASS</td><td>G1/2", 200 mm</td></tr></table>	MAT.	DIM.	BRASS	G1/2", 200 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>BRASS</td><td>G1/2", 250 mm</td></tr></table>	MAT.	DIM.	BRASS	G1/2", 250 mm
MAT.	DIM.														
BRASS	G1/2", 150 mm														
MAT.	DIM.														
BRASS	G1/2", 200 mm														
MAT.	DIM.														
BRASS	G1/2", 250 mm														
SEALING	IP65	IP65	IP65												
LISTPRICE	178,60 €	180,20 €	181,15 €												



KNX SENSORS - TEMPERATURE



KNX SENSORS - TEMPERATURE

WEB CODE	6086		6087		6081													
IMAGE																		
ARTICLE NUMBER	30101018		30101019		30101020													
MANUFACTURER REF.	SK01-T-ETF1 300 mm BRASS		SK01-T-ETF1 400 mm BRASS		SK01-T-ETF2 50 mm V4A													
DESCRIPTION 1	SK01 WITH SCREW-IN/IMMERSION PROBE, BRASS IMMERSION SLEEVE		SK01 WITH SCREW-IN/IMMERSION PROBE, BRASS IMMERSION SLEEVE		SK01 WITH SCREW-IN IMMERSION PROBE, IMMERSION SLEEVE V4A													
DESCRIPTION 2	THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A BRASS IMMERSION SLEEVE (Ø 8MM)(MAX. PRESSURE 10 BAR).		THE PT1000 SENSOR IS IN A BRASS SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A BRASS IMMERSION SLEEVE (Ø 8MM)(MAX. PRESSURE 10 BAR).		THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A IMMERSION SLEEVE (Ø 8MM) (MAX. PRESSURE 40 BAR)													
TEMPERATURE RANGE	-30...+150°C		-30...+150°C		-30...+150°C													
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65													
APPLICATION	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY		LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY		LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY													
CONNECTION CABLE																		
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>BRASS</td><td>G1/2", 300 mm</td></tr></table>		MAT.	DIM.	BRASS	G1/2", 300 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>BRASS</td><td>G1/2", 400 mm</td></tr></table>		MAT.	DIM.	BRASS	G1/2", 400 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 50 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 50 mm
MAT.	DIM.																	
BRASS	G1/2", 300 mm																	
MAT.	DIM.																	
BRASS	G1/2", 400 mm																	
MAT.	DIM.																	
V4A	G1/2", 50 mm																	
SEALING	IP65		IP65		IP65													
LISTPRICE	183,95 €		185,15 €		181,90 €													



KNX SENSORS - TEMPERATURE

WEB CODE	6134	6135	6136												
IMAGE															
ARTICLE NUMBER	30101021	30101022	30101023												
MANUFACTURER REF.	SK01-T-ETF2 100 mm V4A	SK01-T-ETF2 150 mm V4A	SK01-T-ETF2 200 mm V4A												
DESCRIPTION 1	SK01 WITH SCREW-IN IMMERSION PROBE, IMMERSION SLEEVE V4A	SK01 WITH SCREW-IN IMMERSION PROBE, IMMERSION SLEEVE V4A	SK01 WITH SCREW-IN IMMERSION PROBE, IMMERSION SLEEVE V4A												
DESCRIPTION 2	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A IMMERSION SLEEVE (Ø 8MM) (MAX. PRESSURE 40 BAR)	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A IMMERSION SLEEVE (Ø 8MM) (MAX. PRESSURE 40 BAR)	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A IMMERSION SLEEVE (Ø 8MM) (MAX. PRESSURE 40 BAR)												
TEMPERATURE RANGE	-30...+150°C	-30...+150°C	-30...+150°C												
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65												
APPLICATION	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY												
CONNECTION CABLE															
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 100 mm</td></tr></table>	MAT.	DIM.	V4A	G1/2", 100 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 150 mm</td></tr></table>	MAT.	DIM.	V4A	G1/2", 150 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 200 mm</td></tr></table>	MAT.	DIM.	V4A	G1/2", 200 mm
MAT.	DIM.														
V4A	G1/2", 100 mm														
MAT.	DIM.														
V4A	G1/2", 150 mm														
MAT.	DIM.														
V4A	G1/2", 200 mm														
SEALING	IP65	IP65	IP65												
LISTPRICE	184,73 €	187,10 €	189,20 €												



KNX SENSORS - TEMPERATURE

WEB CODE	6137		6138		6139													
IMAGE																		
ARTICLE NUMBER	30101024		30101025		30101026													
MANUFACTURER REF.	SK01-T-ETF2 250 mm V4A		SK01-T-ETF2 300 mm V4A		SK01-T-ETF2 400 mm V4A													
DESCRIPTION 1	SK01 WITH SCREW-IN IMMERSION PROBE, IMMERSION SLEEVE V4A		SK01 WITH SCREW-IN IMMERSION PROBE, IMMERSION SLEEVE V4A		SK01 WITH SCREW-IN IMMERSION PROBE, IMMERSION SLEEVE V4A													
DESCRIPTION 2	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A IMMERSION SLEEVE (Ø 8MM) (MAX. PRESSURE 40 BAR)		THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A IMMERSION SLEEVE (Ø 8MM) (MAX. PRESSURE 40 BAR)		THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A IMMERSION SLEEVE (Ø 8MM) (MAX. PRESSURE 40 BAR)													
TEMPERATURE RANGE	-30...+150°C		-30...+150°C		-30...+150°C													
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65													
APPLICATION	LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY		LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY		LIQUID OR GASEOUS MEDIA, IN HEATING PLANTS, CIRCULATION AND CLIMATE TECHNOLOGY													
CONNECTION CABLE																		
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 250 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 250 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 300 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 300 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 400 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 400 mm
MAT.	DIM.																	
V4A	G1/2", 250 mm																	
MAT.	DIM.																	
V4A	G1/2", 300 mm																	
MAT.	DIM.																	
V4A	G1/2", 400 mm																	
SEALING	IP65		IP65		IP65													
LISTPRICE	190,50 €		196,10 €		197,90 €													



KNX SENSORS - TEMPERATURE

WEB CODE	9995	9996	9997												
IMAGE															
ARTICLE NUMBER	30101027	30101028	30101029												
MANUFACTURER REF.	SK01-T-ETF3 50 mm	SK01-T-ETF3 100 mm	SK01-T-ETF3 150 mm												
DESCRIPTION 1	SK01 WITH SCREW-IN/IMMERSION PROBE. IMMERSION SLEEVE WITH EXTENDED SHAFT V4A	SK01 WITH SCREW-IN/IMMERSION PROBE. IMMERSION SLEEVE WITH EXTENDED SHAFT V4A	SK01 WITH SCREW-IN/IMMERSION PROBE. IMMERSION SLEEVE WITH EXTENDED SHAFT V4A												
DESCRIPTION 2	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A STAINLESS STEEL IMMERSION SLEEVE (MAX. PRESSURE 40 BAR)	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A STAINLESS STEEL IMMERSION SLEEVE (MAX. PRESSURE 40 BAR)	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A STAINLESS STEEL IMMERSION SLEEVE (MAX. PRESSURE 40 BAR)												
TEMPERATURE RANGE	-30...+150°C	-30...+150°C	-30...+150°C												
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65												
APPLICATION															
CONNECTION CABLE															
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 50 mm</td></tr></table>	MAT.	DIM.	V4A	G1/2", 50 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 100 mm</td></tr></table>	MAT.	DIM.	V4A	G1/2", 100 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 150 mm</td></tr></table>	MAT.	DIM.	V4A	G1/2", 150 mm
MAT.	DIM.														
V4A	G1/2", 50 mm														
MAT.	DIM.														
V4A	G1/2", 100 mm														
MAT.	DIM.														
V4A	G1/2", 150 mm														
SEALING	IP65	IP65	IP65												
LISTPRICE	199,00 €	199,60 €	200,85 €												



KNX SENSORS - TEMPERATURE



KNX SENSORS - TEMPERATURE

WEB CODE	9998		9999		10000													
IMAGE																		
ARTICLE NUMBER	30101030		30101031		30101032													
MANUFACTURER REF.	SK01-T-ETF3 200 mm		SK01-T-ETF3 250 mm		SK01-T-ETF3 300 mm													
DESCRIPTION 1	SK01 WITH SCREW-IN/IMMERSION PROBE. IMMERSION SLEEVE WITH EXTENDED SHAFT V4A		SK01 WITH SCREW-IN/IMMERSION PROBE. IMMERSION SLEEVE WITH EXTENDED SHAFT V4A		SK01 WITH SCREW-IN/IMMERSION PROBE. IMMERSION SLEEVE WITH EXTENDED SHAFT V4A													
DESCRIPTION 2	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A STAINLESS STEEL IMMERSION SLEEVE (MAX. PRESSURE 40 BAR)		THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A STAINLESS STEEL IMMERSION SLEEVE (MAX. PRESSURE 40 BAR)		THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A STAINLESS STEEL IMMERSION SLEEVE (MAX. PRESSURE 40 BAR)													
TEMPERATURE RANGE	-30...+150°C		-30...+150°C		-30...+150°C													
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65													
APPLICATION																		
CONNECTION CABLE																		
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 200 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 200 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 250 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 250 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 300 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 300 mm
MAT.	DIM.																	
V4A	G1/2", 200 mm																	
MAT.	DIM.																	
V4A	G1/2", 250 mm																	
MAT.	DIM.																	
V4A	G1/2", 300 mm																	
SEALING	IP65		IP65		IP65													
LISTPRICE	202,40 €		203,50 €		207,10 €													



KNX SENSORS - TEMPERATURE

WEB CODE	10001		10002		10003													
IMAGE																		
ARTICLE NUMBER	30101033		30101034		30101035													
MANUFACTURER REF.	SK01-T-ETF3 400 mm		SK01-T-ETF7 100 mm		SK01-T-ETF7 150 mm													
DESCRIPTION 1	SK01 WITH SCREW-IN/IMMERSION PROBE. IMMERSION SLEEVE WITH EXTENDED SHAFT V4A		SK01 WITH SCREW-IN/IMMERSION PROBE WITH EXTENDED SHAFT WITH NECK TUBE FOR QUICK RESPONSIVITY		SK01 WITH SCREW-IN/IMMERSION PROBE WITH EXTENDED SHAFT WITH NECK TUBE FOR QUICK RESPONSIVITY													
DESCRIPTION 2	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM), WHICH IS INSIDE A V4A STAINLESS STEEL IMMERSION SLEEVE (MAX. PRESSURE 40 BAR)		TEMPERATURE PROBE (PT1000) WITH NECK TUBE AND PLAIN TAPERED SHEATH TUBE, VERY QUICK RESPONSE TIME. PIPE LENGTH: 25MM PROTECTIVE MATERIAL: STAINLESS STEEL 1.4571 PIPE MEASUREMENTS: Ø=6MM, PLAIN TAPERED Ø=4MM		TEMPERATURE PROBE (PT1000) WITH NECK TUBE AND PLAIN TAPERED SHEATH TUBE, VERY QUICK RESPONSE TIME. PIPE LENGTH: 25MM PROTECTIVE MATERIAL: STAINLESS STEEL 1.4571 PIPE MEASUREMENTS: Ø=6MM, PLAIN TAPERED Ø=4MM													
TEMPERATURE RANGE	-30...+150°C		-35...+150 °C		-35...+150 °C													
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65													
APPLICATION			ESPECIALLY SUITABLE FOR VERY SWIFT TEMPERATURE AND CONTROL PROCESSES SUCH AS HOT WATER SYSTEMS		ESPECIALLY SUITABLE FOR VERY SWIFT TEMPERATURE AND CONTROL PROCESSES SUCH AS HOT WATER SYSTEMS													
CONNECTION CABLE																		
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 400 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 400 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 100 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 100 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 150 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 150 mm
MAT.	DIM.																	
V4A	G1/2", 400 mm																	
MAT.	DIM.																	
V4A	G1/2", 100 mm																	
MAT.	DIM.																	
V4A	G1/2", 150 mm																	
SEALING	IP65		IP65		IP65													
LISTPRICE	209,40 €		265,30 €		267,05 €													



KNX SENSORS - TEMPERATURE



KNX SENSORS - TEMPERATURE

WEB CODE	10004		10005		10006													
IMAGE																		
ARTICLE NUMBER	30101036		30101037		30101038													
MANUFACTURER REF.	SK01-T-ETF7 250 mm		SK01-T-KTF1 50 mm		SK01-T-KTF1 100 mm													
DESCRIPTION 1	SK01 WITH SCREW-IN/IMMERSION PROBE WITH EXTENDED SHAFT WITH NECK TUBE FOR QUICK RESPONSIVITY		SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A		SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A													
DESCRIPTION 2	TEMPERATURE PROBE (PT1000) WITH NECK TUBE AND PLAIN TAPERED SHEATH TUBE, VERY QUICK RESPONSE TIME. PIPE LENGTH: 25MM PROTECTIVE MATERIAL: STAINLESS STEEL 1.4571 PIPE MEASUREMENTS: Ø=6MM, PLAIN TAPERED Ø=4MM		THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM)		THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM)													
TEMPERATURE RANGE	-35...+150 °C		-30...+150°C		-30...+150°C													
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65		ON-WALL, OUTDOOR, DAMP ROOM, IP65													
APPLICATION	ESPECIALLY SUITABLE FOR VERY SWIFT TEMPERATURE AND CONTROL PROCESSES SUCH AS HOT WATER SYSTEMS		AIR DUCTS AND HEATING AND CLIMATE TECHNOLOGY		AIR DUCTS AND HEATING AND CLIMATE TECHNOLOGY													
CONNECTION CABLE																		
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>G1/2", 250 mm</td></tr></table>		MAT.	DIM.	V4A	G1/2", 250 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>50 mm</td></tr></table>		MAT.	DIM.	V4A	50 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>100 mm</td></tr></table>		MAT.	DIM.	V4A	100 mm
MAT.	DIM.																	
V4A	G1/2", 250 mm																	
MAT.	DIM.																	
V4A	50 mm																	
MAT.	DIM.																	
V4A	100 mm																	
SEALING	IP65		IP65		IP65													
LISTPRICE	269,65 €		174,10 €		174,50 €													



KNX SENSORS - TEMPERATURE

WEB CODE	10007	8880	10008												
IMAGE															
ARTICLE NUMBER	30101039	30101040	30101041												
MANUFACTURER REF.	SK01-T-KTF1 150 mm	SK01-T-KTF1 200 mm	SK01-T-KTF1 250 mm												
DESCRIPTION 1	SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A	SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A	SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A												
DESCRIPTION 2	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM)	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM)	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM)												
TEMPERATURE RANGE	-30...+150°C	-30...+150°C	-30...+150°C												
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65												
APPLICATION	AIR DUCTS AND HEATING AND CLIMATE TECHNOLOGY	AIR DUCTS AND HEATING AND CLIMATE TECHNOLOGY	AIR DUCTS AND HEATING AND CLIMATE TECHNOLOGY												
CONNECTION CABLE															
PROBLE	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>150 mm</td></tr></table>	MAT.	DIM.	V4A	150 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>200 mm</td></tr></table>	MAT.	DIM.	V4A	200 mm	<table><tr><th>MAT.</th><th>DIM.</th></tr><tr><td>V4A</td><td>250 mm</td></tr></table>	MAT.	DIM.	V4A	250 mm
MAT.	DIM.														
V4A	150 mm														
MAT.	DIM.														
V4A	200 mm														
MAT.	DIM.														
V4A	250 mm														
SEALING	IP65	IP65	IP65												
LISTPRICE	175,00 €	175,62 €	178,10 €												



KNX SENSORS - TEMPERATURE



KNX SENSORS - TEMPERATURE

WEB CODE	9165	9093	10009
IMAGE			
ARTICLE NUMBER	30101042	30101043	30101050
MANUFACTURER REF.	SK01-T-KTF1 300 mm	SK01-T-KTF1 400 mm	SK01-T-RPTF1
DESCRIPTION 1	SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A	SK01 WITH DUCT/AIR DUCT PROBE INCL. MOUNTING FLANGE V4A	SK01 WITH PENDULUM ROOM PROBE
DESCRIPTION 2	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM)	THE PT1000 SENSOR IS IN A V4A STEEL SHEATH TUBE (Ø 6MM)	TEMPERATURE SENSOR PT1000 IS IN SHEATH TUBE
TEMPERATURE RANGE	-30...+150°C	-30...+150°C	-30...+75 °C
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, OUTDOOR, DAMP ROOM, IP65
APPLICATION	AIR DUCTS AND HEATING AND CLIMATE TECHNOLOGY	AIR DUCTS AND HEATING AND CLIMATE TECHNOLOGY	ESPECIALLY DESIGNED FOR ROOMS WITH A HIGH CEILING
CONNECTION CABLE			MAT. DIM. PVC 1,5 m
PROBLE	MAT. DIM. V4A 300 mm	MAT. DIM. V4A 400 mm	MAT. DIM. ACERO INOXIDABLE 1.4571 100 mm, M12/1,5 mm
SEALING	IP65	IP65	IP65
LISTPRICE	179,80 €	182,10 €	191,50 €



KNX SENSORS - TEMPERATURE

WEB CODE	10010	7715	6075
IMAGE			
ARTICLE NUMBER	30101051	30102201	30103201
MANUFACTURER REF.	SK01-T-RPTF2	SK02-T	SK03-T WHITE
DESCRIPTION 1	SK01 WITH PENDULUM ROOM PROBE (GLOBE THERMOMETER)	TEMPERATURE PROBE INTEGRATED IN BOX	TEMPERATURE PROBE INTEGRATED IN BOX
DESCRIPTION 2	TEMPERATURE SENSOR PT1000 IS IN A BLACK PLASTIC BALL (Ø 50 MM). DARK RADIATION PROBE DETECTS RADIATION AND RADIATION WARMTH	DETECTION AND CONTROLL OF ROOM TEMPERATURE	DETECTION AND CONTROLL OF ROOM TEMPERATURE. COMPATIBLE WITH SWITCHING SYSTEMS (E.G. GIRA, MERTEN IN STANDARD 55MM)
TEMPERATURE RANGE	-30...+80 °C	-25...+55°C	-25...+55°C
INSTALLATION	ON-WALL, OUTDOOR, DAMP ROOM, IP65	ON-WALL, INDOOR	IN-WALL, INDOOR
APPLICATION	ESPECIALLY DESIGNED FOR ROOMS WITH A HIGH CEILING	IN HOMES, HOTELS, OFFICES, EXHIBITION AREAS AND SCHOOLS	IN HOMES, HOTELS, OFFICES, EXHIBITION AREAS AND SCHOOLS
CONNECTION CABLE	MAT. DIM. PVC 1,5 m		
PROBLE	MAT. DIM. BLACK PLASTIC BALL Ø = 50 mm		
SEALING	IP65	IP20	IP20
LISTPRICE	189,50 €	156,00 €	153,00 €



KNX SENSORS - TEMPERATURE



KNX SENSORS - TEMPERATURE

WEB CODE	6076	9917	
IMAGE			
ARTICLE NUMBER	30103202	30801000	
MANUFACTURER REF.	SK03-T ANTHRACITE	SK08-T8	
DESCRIPTION 1	TEMPERATURE PROBE INTEGRATED IN BOX	MULTIPLE-PT1000 8 CHANNEL	
DESCRIPTION 2	DETECTION AND CONTROLL OF ROOM TEMPERATURE. COMPATIBLE WITH SWITCHING SYSTEMS (E.G. GIRA, MERTEN IN STANDARD 55MM)	KNX CONTROLLER 8 CHANNEL TEMPERATURE FOR MEASURING AND CONTROLLING UP TO 8 TEMPERATURES BOTH OUTDOORS AND (DAMP) INDOORS (IP 65)	
TEMPERATURE RANGE	-25...+55°C		
INSTALLATION	IN-WALL, INDOOR	INDOOR/OUTDOOR	
APPLICATION	IN HOMES, HOTELS, OFFICES, EXHIBITION AREAS AND SCHOOLS		
CONNECTION CABLE			
PROBLE			
SEALING	IP20	IP65	
LISTPRICE	153,00 €	298,00 €	



TECHNICAL DATA

KNX SENSORS - TEMPERATURE/HUMIDITY/CLIMATE

Sensors with integrated KNX bus coupler for measuring and regulating temperature and humidity.

Auxiliary voltage is not necessary.

ETS Application:

- Measured values of temperature and relative humidity.
- PI or two-position controller for temperature with steady or PWM output.
- Two-position controller for relative humidity.
- Actual value adjustment for temperature and relative humidity- Measured values of temperature and relative humidity.
- Various operating methods for temperature control: relative RTC, absolute RTC, standard.
- Maximum thresholds alarm with presetting via KNX Bus: humidity, temperature.
- Minimum/Maximum temperature saved.
- Adjustable frost protection alarm.
- Dew point alarm and dew point control.
- Post-adjustment of all standards and limits.
- Text displayed when entering/leaving the comfort field.
- Values displayed: absolute humidity, dew point temperature, enthalpy.



KNX SENSORS - TEMPERATURE/HUMIDITY/CLIMATE



KNX SENSORS - TEMPERATURE/HUMIDITY/CLIMATE

SENSOR: SENSIRION SHT71 / SHT11

WEB CODE	6090	10015	10016
IMAGE			
ARTICLE NUMBER	30301053	30301054	30301056
MANUFACTURER REF.	SK01-TFK-AFF	SK01-TFK-RPFF	SK01-TFK-MMF
DESCRIPTION 1	SK01 WITH EXTERNAL PROBE	SK01 WITH PENDULUM ROOM PROBE	SK01 WITH PENDULUM ROOM PROBE
DESCRIPTION 2	THE PROBE IS PROTECTED FROM CONDENSATION AND DUST BY A POROPLAST PROTECTIVE COATING	THE PROBE IS PROTECTED FROM CONDENSATION AND DUST BY A POROPLAST PROTECTIVE COATING	THE PROBE IS PROTECTED FROM CONDENSATION AND DUST BY A HYDROGAS METAL MEMBRANE FILTER
OPERATING RANGE TEMPERATURE			
TEMP.	-20...+80°C	-20...+80°C	-20...+80°C
HUMIDITY	10...90% r.H.	0...100% r.H.	0...100% r.H.
INSTALLATION	INDOOR/OUTDOOR AND DAMP LOCATIONS	INDOOR/OUTDOOR AND DAMP LOCATIONS	INDOOR/OUTDOOR AND DAMP LOCATIONS
APPLICATION	BUILDING AUTOMATION, REFRIGERATION, AIR-CONDITIONING AND VENTILATION SYSTEMS, CLEAN ROOMS, GREENHOUSES, ETC.	BUILDING AUTOMATION, REFRIGERATION, AIR-CONDITIONING, VENTILATION AND CLEAN ROOM TECHNOLOGY, GREENHOUSES, HALLS WITH HIGH CEILINGS	BUILDING AUTOMATION, REFRIGERATION, AIR-CONDITIONING, VENTILATION AND CLEAN ROOM TECHNOLOGY, GREENHOUSES, HALLS WITH HIGH CEILINGS
CONNECTION CABLE LENGTH	2 m	2 m	2 m
PROBLE LENGTH	45 mm	100 m	100 m
SEALING	IP65	IP65	IP65
LISTPRICE	222,00 €	264,00 €	297,00 €



KNX SENSORS - TEMPERATURE/HUMIDITY/CLIMATE

SENSOR: SENSIRION SHT71 / SHT11

WEB CODE	10017	5881	6079
IMAGE			
ARTICLE NUMBER	30301057	30302201	30303201
MANUFACTURER REF.	SK01-TFK-KFF	SK02-TFK	SK03-TFK WHITE
DESCRIPTION 1	SK01 WITH DUCT PROBE	SENSOR INTEGRATED IN BOX	SENSOR INTEGRATED IN BOX
DESCRIPTION 2	THE PROBE IS PROTECTED FROM CONDENSATION AND DUST BY A POROPLAST PROTECTIVE COATING	DETECTING AND CONTROLLING ROOM CLIMATE	DETECTING AND CONTROLLING ROOM CLIMATE. COMPATIBLE WITH SWITCHING SYSTEMS (E.G. GIRA, MERTEN IN STANDARD 55MM)
OPERATING RANGE TEMPERATURE			
TEMP.	-20...+80°C	-25...+55°C	
HUMIDITY	10...90% r.H.		
INSTALLATION	INDOOR/OUTDOOR AND DAMP LOCATIONS	ON-WALL, INDOOR	IN-WALL, INDOOR
APPLICATION	REGULATION IN HEATING SYSTEMS FOR CONSTANT KNX VALVES OR ELECTROTHERMAL VALVES, LOCAL AIR-REGULATION	DETECTING/CONTROLLING ROOM TEMPERATURE IN HOMES, HOTELS, OFFICES, EXHIBITION AREAS AND SCHOOLS	DETECTING AND CONTROLLING ROOM CLIMATE IN HOMES, HOTELS, OFFICES, EXHIBITION AREAS AND SCHOOLS
CONNECTION CABLE LENGTH			
PROBLE LENGTH	230 mm		
SEALING	IP65	IP20	IP20
LISTPRICE	248,00 €	196,00 €	193,00 €



KNX SENSORS - TEMPERATURE/HUMIDITY/CLIMATE



KNX SENSORS - TEMPERATURE/HUMIDITY/CLIMATE

SENSOR: SENSIRION SHT71 / SHT11

WEB CODE	6080		
IMAGE			
ARTICLE NUMBER	30303202		
MANUFACTURER REF.	SK03-TFK ANTHRACITE		
DESCRIPTION 1	SENSOR INTEGRATED IN BOX		
DESCRIPTION 2	DETECTING AND CONTROLLING ROOM CLIMATE. COMPATIBLE WITH SWITCHING SYSTEMS (E.G. GIRA, MERTEN IN STANDARD 55MM)		
OPERATING RANGE TEMPERATURE			
TEMP.	-25...+55°C		
HUMIDITY			
INSTALLATION	IN-WALL, INDOOR		
APPLICATION	DETECTING AND CONTROLLING ROOM CLIMATE IN HOMES, HOTELS, OFFICES, EXHIBITION AREAS AND SCHOOLS		
CONNECTION CABLE LENGTH			
PROBLE LENGTH			
SEALING	IP20		
LISTPRICE	193,00 €		



TECHNICAL DATA

KNX SENSORS - TEMPERATURE/TEMPERATURE/HUMIDITY/CLIMATE

Sensors with integrated KNX Bus Coupler for measuring and regulating temperature and humidity.

WITH CONNECTOR FOR ADDITIONAL PT1000-PROBE.

AN ADDITIONAL PT1000 SENSOR (NOT INCLUDED IN DELIVERY) FOR SURFACE, SCREW-IN OR CONTACTING SENSOR WITH CUSTOMIZED CABLE-LENGTH CAN BE ORDERED.



No auxiliary voltage necessary.

ETS-Application:

- Measured values of temperature and relative humidity (Sensorion-Sensor).
- PI or two-position controller for temperature with steady or PWM output.
- Two-position controller for relative humidity.
- Various operating methods for temperature control: relative RTC, absolute RTC, standard.
- Maximum thresholds alarm with presetting via KNX Bus: humidity, temperature.
- Minimum/Maximum temperature saved.
- Adjustable frost protection alarm.
- Dew point alarm and dew point control.
- Post-adjustment of all standards and limits.
- Text displayed when entering/leaving the comfort field.
- Values displayed: absolute humidity, dew point temperature, enthalpy.
- Actual value adjustment for temperature and relative humidity.
- Measured value of the second temperature (additional sensor PT1000) with two-position controller.

The additional temperature reading is especially useful in preventing structural damage. The SK01-TTFK-E-53 calculates the dew point temperature with its integrated probe by measuring the room temperature and humidity content. The additional external sensor is placed directly on the coldest part of the structure and activates an alarm or makes an adjustment when the dew point temperature is reached.



KNX SENSORS - TEMPERATURE/TEMPERATURE/HUMIDITY/CLIMATE



KNX SENSORS - TEMPERATURE/TEMPERATURE/HUMIDITY/CLIMATE

SENSOR: SHT11/PT1000

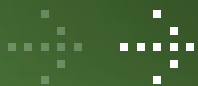
WEB CODE	6091	10046	10047
IMAGE			
ARTICLE NUMBER	30401053	30401054	30401056
MANUFACTURER REF.	SK01-TTFK-AFF	SK01-TTFK-RPFF	SK01-TTFK-MMF
DESCRIPTION 1	SK01 WITH EXTERNAL PROBE	SK01 WITH PENDULUM ROOM PROBE	SK01 WITH PENDULUM ROOM PROBE
DESCRIPTION 2	THE TEMPERATURE/HUMIDITY PROBE IS PROTECTED FROM CONDENSATION AND DUST BY A POROPLAST PROTECTIVE COATING	THE PROBE IS PROTECTED FROM CONDENSATION AND DUST BY A POROPLAST PROTECTIVE COATING	THE PROBE IS PROTECTED FROM CONDENSATION AND DUST BY A HYDROGAS METAL MEMBRANE FILTER
OPERATING RANGE TEMPERATURE			
TEMP.	-25...+55°C	-25...+55°C	-25...+55°C
HUMIDITY	0...100% r.H.	0...100% r.H.	0...100% r.H.
INSTALLATION	INDOOR/OUTDOOR AND DAMP LOCATIONS	INDOOR/OUTDOOR AND DAMP LOCATIONS	INDOOR/OUTDOOR AND DAMP LOCATIONS
APPLICATION	BUILDING AUTOMATION, REFRIGERATION, AIR-CONDITIONING AND VENTILATION TECHNOLOGY, GREENHOUSES ETC.	BUILDING AUTOMATION, REFRIGERATION, AIRCONDITIONING AND VENTILATION TECHNOLOGY, GREENHOUSES, IN HALLS WITH HIGH CEILINGS, ETC.	BUILDING AUTOMATION, REFRIGERATION, AIRCONDITIONING AND VENTILATION TECHNOLOGY, GREENHOUSES, IN HALLS WITH HIGH CEILINGS, ETC.
CONNECTION CABLE LENGTH		2 m	2 m
PROBLE LENGTH	45 mm, Ø = 14mm	100 m	100 m
SEALING	IP65	IP65	IP65
LISTPRICE	262,00 €	300,00 €	333,00 €



KNX SENSORS - TEMPERATURE/TEMPERATURE/HUMIDITY/CLIMATE

SENSOR: SHT11/PT1000

WEB CODE	10048	8221	8222
IMAGE			
ARTICLE NUMBER	30401057	30403201	30403202
MANUFACTURER REF.	SK01-TTFK-KFF	SK03-TTFK WHITE	SK03-TTFK ANTHRACITE
DESCRIPTION 1	SK01 WITH DUCT PROBE	SENSOR INTEGRATED IN BOX	SENSOR INTEGRATED IN BOX
DESCRIPTION 2	THE PROBE IS PROTECTED FROM CONDENSATION AND DUST BY A POROPLAST PROTECTIVE COATING	DETECTING AND CONTROLLING ROOM CLIMATE. COMPATIBLE WITH SWITCHING SYSTEMS (E.G. GIRA, MERTEN IN STANDARD 55MM).	DETECTING AND CONTROLLING ROOM CLIMATE. COMPATIBLE WITH SWITCHING SYSTEMS (E.G. GIRA, MERTEN IN STANDARD 55MM).
OPERATING RANGE TEMPERATURE			
TEMP.	-20...+80°C	-25...+55°C	-25...+55°C
HUMIDITY	10...90% r.H.	0...100% r.H.	0...100% r.H.
INSTALLATION	INDOOR/OUTDOOR AND DAMP LOCATIONS	IN-WALL, INDOOR	IN-WALL, INDOOR
APPLICATION	DETECTION OF TEMPERATURE IN AIR DUCTS, LOCAL REGULATION IN HEATING SYSTEMS FOR CONSTANT KNX VALVES OR ELECTROTHERMAL VALVES, LOCAL AIR-REGULATION	IN HOMES, HOTELS, OFFICES, EXHIBITION AREAS AND SCHOOLS.	IN HOMES, HOTELS, OFFICES, EXHIBITION AREAS AND SCHOOLS.
CONNECTION CABLE LENGTH			
PROBLE LENGTH	230 m		
SEALING	IP65	IP20	IP20
LISTPRICE	284,00 €	245,00 €	245,00 €



MOTION AND PRESENCE DETECTORS FROM B.E.G.

✦ Main features:

- ✦ Dimming version (BEG_DIM_HKL_V4.0) with 4 different modes: switching, dimming (constant light control), slave mode, permanent dimmer.
- ✦ Three set values.
- ✦ Reflection factor.
- ✦ HVAC channels with push button switchable.



INDEX



MOTION AND
PRESENCE DETECTORS

OUTDOOR MOTION DETECTOR

100

OCCUPANCY DETECTORS

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WALL SWITCH

103



MOTION AND PRESENCE DETECTORS FROM B.E.G.



POWER SUPPLY

DETECTION AREA

RANGE IN M (MAX.)

MOUNTING
HEIGHT

POWER
CONSUMPTION

PROTECTION TYPE

DIMENSIONS

OUTDOOR MOTION DETECTOR

RC-plus next 230

24VDC from KNX

230°

20 m

2 - 3m

< 1W

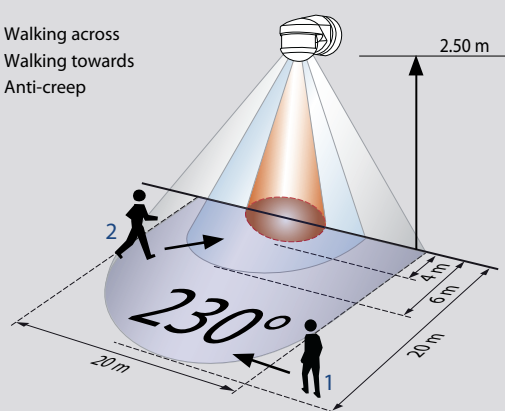
IP54 / Class II

L 121 x W 71 x
H 85mm

WEB CODE	COLOUR	REF. NUMBER	LIST PRICE
10230	white	97052	223,51 €
10702	black	97053	223,51 €



- 1 Walking across
- 2 Walking towards
- Anti-creep



OCCUPANCY DETECTORS

PD2-DIM-KNX/EIB

24VDC from KNX

circular, 360°

Seated:
4m (radius 2m)
Walking across:
10m (radius 5m)
Walking towards:
6m (radius 3m)

2 - 3m

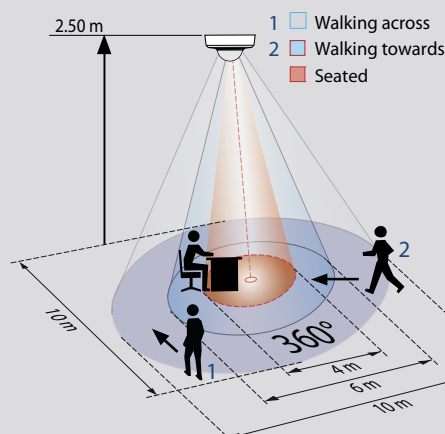
< 1W

IP20 (with accessory IP54) Ø 98 x H 50mm

IP20 (with accessory IP23) Ø 80 x H 84.5mm

IP20 Ø 98 x H 65mm

WEB CODE	MOUNTING	REF. NUMBER	LIST PRICE
10235	Surface	92430	247,20 €
10703	False ceiling	92431	233,60 €
10704	Flush mounted	92432	233,60 €





MOTION AND PRESENCE DETECTORS FROM B.E.G.



POWER SUPPLY	DETECTION AREA	RANGE IN M (MAX.)	MOUNTING HEIGHT	POWER CONSUMPTION	PROTECTION TYPE	DIMENSIONS
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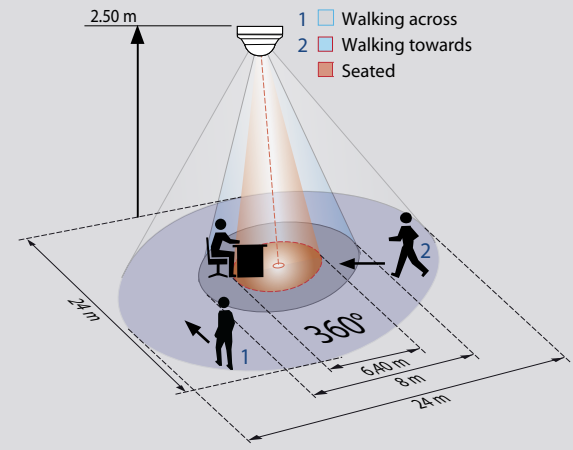
OCCUPANCY DETECTORS

PD4-DIM-KNX/EIB

24VDC from KNX	circular, 360°	Seated: 6.4m (radius 3.2m) Walking across: 24m (radius 12m) Walking towards: 8m (radius 4m)	2 - 3m	< 1W	IP20 (with accessory IP54) Ø 101 x H 63mm IP20 (with accessory IP23) Ø 97 x H 103mm IP20 Ø 97 x H 84mm
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WEB CODE	MOUNTING	REF. NUMBER	LIST PRICE
10238	Surface	92433	271,10 €
10705	False ceiling	92434	247,20 €
10706	Flush mounted	92435	247,20 €



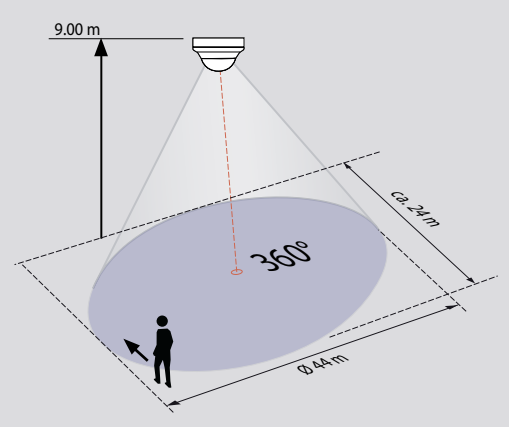


PD4-DIM-KNX/EIB-GH

24VDC from KNX	oval, 360°	Ø 44m	2 - 10m	< 1W	IP20 (with accessory IP54)	Ø 98 x H 65mm
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WEB CODE	MOUNTING	REF. NUMBER	LIST PRICE
10246	Surface	92454	245,14 €







MOTION AND PRESENCE DETECTORS FROM B.E.G.



POWER SUPPLY

DETECTION AREA

RANGE IN M (MAX.)

MOUNTING
HEIGHT

POWER
CONSUMPTION

PROTECTION TYPE

DIMENSIONS

OCCUPANCY DETECTORS

PD4-DIM-KNX/EIB-K

24VDC from KNX

circular, 360°

Walking across:
40m (radius 20m)
Walking towards:
20m (radius 10m)

2 - 3m

< 1W

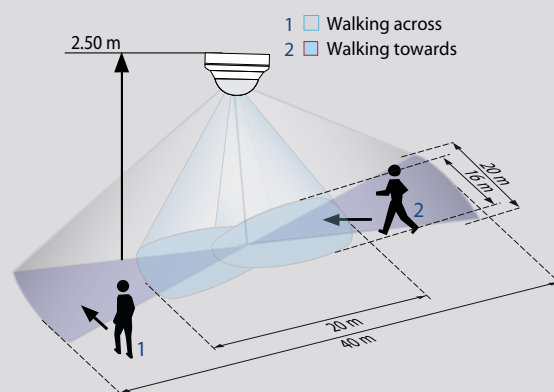
IP20

Ø 98 x H 65mm

Ø 97 x H 103mm

Ø 97 x H 84mm

WEB CODE	MOUNTING	REF. NUMBER	LIST PRICE
10419	Surface	92461	271,10 €
10707	False ceiling	92456	247,20 €
10708	Flush mounted	92459	247,20 €



PD9-DIM-KNX/EIB

24VDC from KNX

circular, 360°

Seated:
4m (radius 2m)
Walking across:
10m (radius 5m)
Walking towards:
6m (radius 3m)

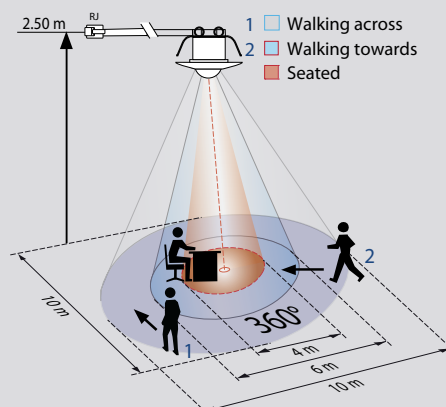
2 - 3m

< 1W

IP20

Detector:
Ø 45 x H 40mm
Power supply:
L 120 x W 29 x
H 22mm

WEB CODE	MOUNTING	REF. NUMBER	LIST PRICE
10245	False ceiling	92437	247,20 €





MOTION AND PRESENCE DETECTORS FROM B.E.G.



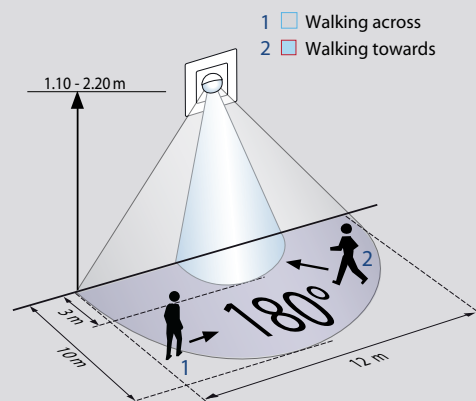
POWER SUPPLY	DETECTION AREA	RANGE IN M (MAX.)	MOUNTING HEIGHT	POWER CONSUMPTION	PROTECTION TYPE	DIMENSIONS
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WALL SWITCH

180-DIM-KNX/EIB

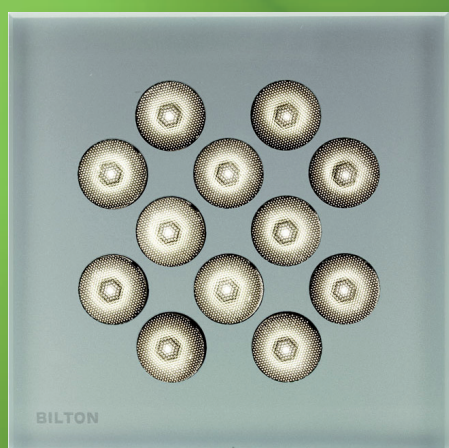
24VDC from KNX	semi circular, 180°	10m	1.1 - 2.2m	< 1W	IP20 with accessory (92139) also IP54	L 86 x W 86 x D 44mm
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WEB CODE	MOUNTING	REF. NUMBER	LIST PRICE
10234	Flush mounted	92436	221,45 €



CATALOGUE OF BILTON LED LIGHTING

✦ HIGH QUALITY LEDs



BILTON®
LED LIGHTING

Compilation of the most demanded LED lights and stripes of manufacturer Bilton. Please, contact us if you can not find here the solution you are looking for or even if you need a customized product.

10001010111010101110 / 10000101* // 1011011/1010101
1000001000 / 10000111**** 1111// 1000010101011100/
//101011000101 ///enter///100000100101101***

KNX®

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BILTON LED LIGHTING

PRINTET CIRCUIT BOARD FLEXIBLE

4,8 W/m	IP 20	106
	IP 65	106
7,2 W/m	IP 20	107
	IP 65	107
14,4 W/m	IP 20	108
	IP 65	108

LED LIGHTNING

CUBE	109
GLOBE	111
TRIMLESS 1	113

BILTON LED LIGHTING								
ADHESIVE TAPE	SEPARABLE EACH	LED/m	V DC	W/m	EMISSION ANGLE	WIDE	HEIGHT	IP

SMD LED / PRINTET CIRCUIT BOARD FLEXIBLE · 18-FL-2448

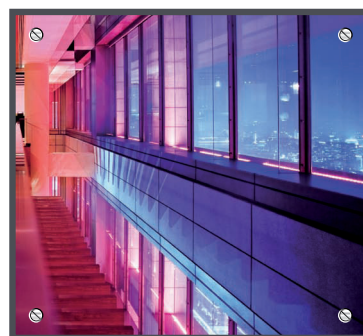
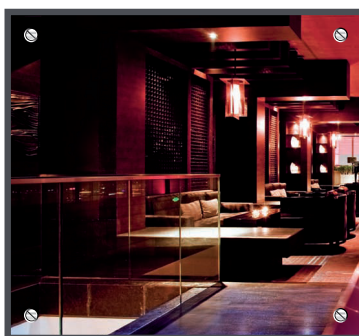
tipo 3M	50 mm	60	24	4,8	120°	10 mm	4 mm	20
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	Ref.	PVP/m
AMBER	18-FL-2448-IP20-A	29,00 €
RED	18-FL-2448-IP20-R	29,00 €
GREEN	18-FL-2448-IP20-G	29,00 €
BLUE	18-FL-2448-IP20-B	29,00 €
WHITE	18-FL-2448-IP20-NW	29,00 €
WHITE WARM	18-FL-2448-IP20-WW	29,00 €



tipo 3M	50 mm	60	24	4,8	120°	10 mm	5 mm	65
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	Ref.	PVP/m
AMBER	18-FL-2448-IP65-A	34,00 €
RED	18-FL-2448-IP65-R	34,00 €
GREEN	18-FL-2448-IP65-G	34,00 €
BLUE	18-FL-2448-IP65-B	34,00 €
WHITE	18-FL-2448-IP65-NW	34,00 €
WHITE WARM	18-FL-2448-IP65-WW	34,00 €



BILTON LED LIGHTING								
ADHESIVE TAPE	SEPARABLE EACH	LED/m	V DC	W/m	EMISSION ANGLE	WIDE	HEIGHT	IP

SMD LED / PRINTET CIRCUIT BOARD FLEXIBLE · 18-FL-2472

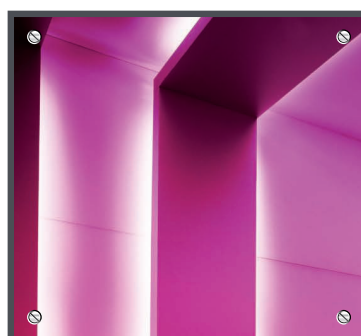
tipo 3M	100 mm	30	24	7,2	120°	10 mm	4 mm	20
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	Ref.	PVP/m
AMBER	18-FL-2472-IP20-A	39,00 €
RED	18-FL-2472-IP20-R	39,00 €
GREEN	18-FL-2472-IP20-G	39,00 €
BLUE	18-FL-2472-IP20-B	39,00 €
WHITE	18-FL-2472-IP20-NW	39,00 €
WHITE WARM	18-FL-2472-IP20-WW	39,00 €
RGB	18-FL-2472-IP20-RGB	39,00 €



tipo 3M	100 mm	30	24	7,2	120°	10 mm	4 mm	65
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	Ref.	PVP/m
AMBER	18-FL-2472-IP65-A	49,00 €
RED	18-FL-2472-IP65-R	49,00 €
GREEN	18-FL-2472-IP65-G	49,00 €
BLUE	18-FL-2472-IP65-B	49,00 €
WHITE	18-FL-2472-IP65-NW	49,00 €
WHITE WARM	18-FL-2472-IP65-WW	49,00 €
RGB	18-FL-2472-IP65-RGB	49,00 €



BILTON LED LIGHTING								
ADHESIVE TAPE	SEPARABLE EACH	LED/m	V DC	W/m	EMISSION ANGLE	WIDE	HEIGHT	IP

SMD LED WITH POWER / PRINTET CIRCUIT BOARD FLEXIBLE · 18-FL-24144

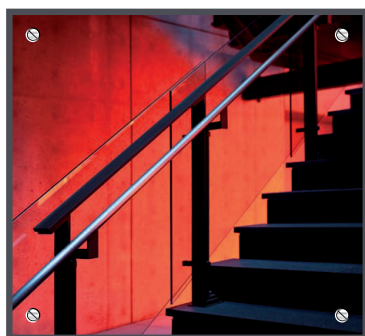
tipo 3M	100 mm	60	24	14,4	120°	10 mm	4 mm	20
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	Ref.	PVP/m
AMBER	18-FL-24144-IP20-A	59,00 €
RED	18-FL-24144-IP20-R	59,00 €
GREEN	18-FL-24144-IP20-G	59,00 €
BLUE	18-FL-24144-IP20-B	59,00 €
WHITE	18-FL-24144-IP20-NW	59,00 €
WHITE WARM	18-FL-24144-IP20-WW	59,00 €
RGB	18-FL-24144-IP20-RGB	59,00 €



tipo 3M	100 mm	60	24	14,4	120°	10 mm	4 mm	65
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	Ref.	PVP/m
AMBER	18-FL-24144-IP65-A	64,00 €
RED	18-FL-24144-IP65-R	64,00 €
GREEN	18-FL-24144-IP65-G	64,00 €
BLUE	18-FL-24144-IP65-B	64,00 €
WHITE	18-FL-24144-IP65-NW	64,00 €
WHITE WARM	18-FL-24144-IP65-WW	64,00 €
RGB	18-FL-24144-IP65-RGB	64,00 €

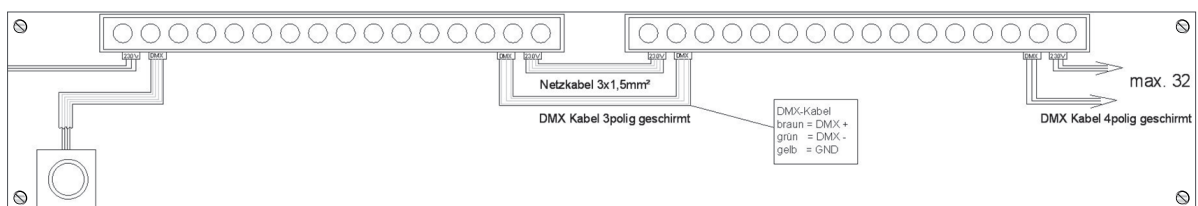
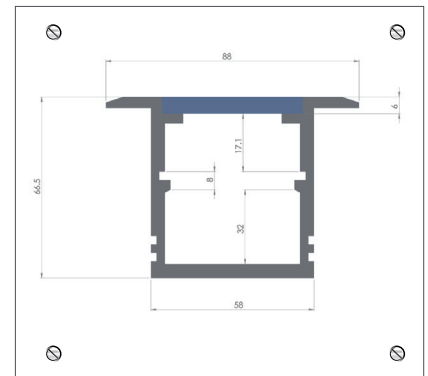


BILTON LED LIGHTING

LED LIGHTNING

CUBE

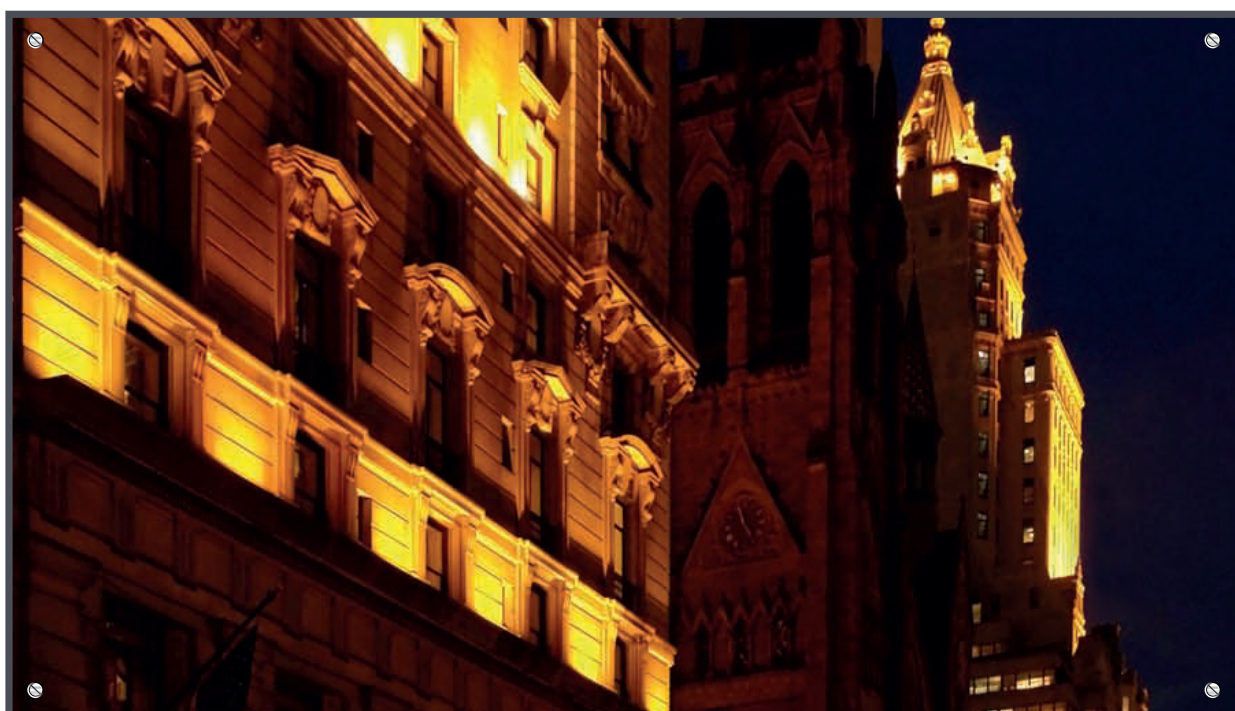
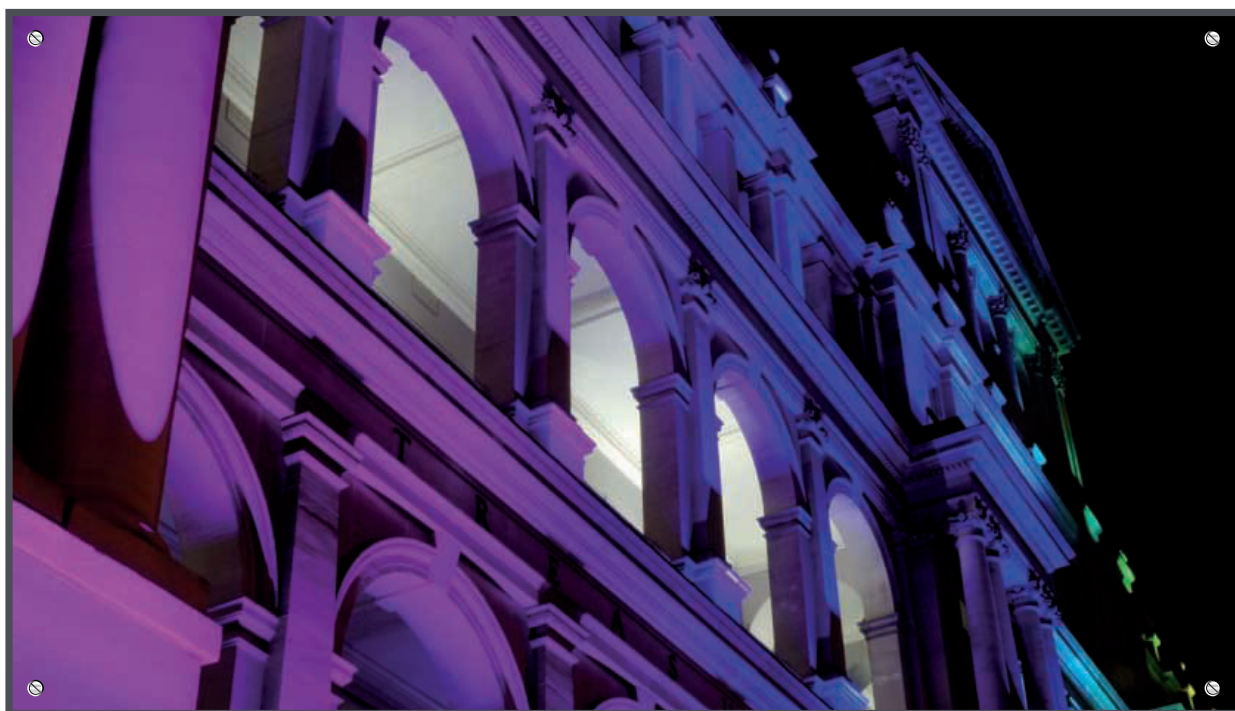
- Aluminium light form, high light yield using high power LEDs.
- RGB and single colour available, with various lenses.
- IP 65.



SINGLE 240 V

ART. NR.	L mm	LED COLOUR	LIST PRICE
95lm/W			
80-112898	400	1x12W COLD WHITE	659,00
80-124898	800	1x24W COLD WHITE	948,00
80-136898	1200	1x36W COLD WHITE	1.147,00
80lm/W			
WARM WHITE			
80-112897	400	1x12W WARM WHITE	659,00
80-124897	800	1x24W WARM WHITE	948,00
80-136897	1200	1x36W WARM WHITE	1.147,00
36lm/W			
RED			
80-112896	400	1x12W RED	659,00
80-124896	800	1x24W RED	948,00
80-136896	1200	1x36W RED	1.147,00

ART. NR.	L mm	LED COLOUR	LIST PRICE
24lm/W			
80-112895	400	1x12W BLUE	659,00
80-124895	800	1x24W BLUE	948,00
80-136895	1200	1x36W BLUE	1.147,00
50lm/W			
AMBER			
80-112893	400	1x12W AMBER	659,00
80-124893	800	1x24W AMBER	948,00
80-136893	1200	1x36W AMBER	1.147,00



BILTON LED LIGHTING

LED LIGHTNING

GLOBE

- Aluminium installation lighting IP 65.
- max. 3x2W using high power LEDs.
- 10mm safety glass cover.
- RGB and single colour available, with various lenses.



SINGLE 240V 3 x 1,2W

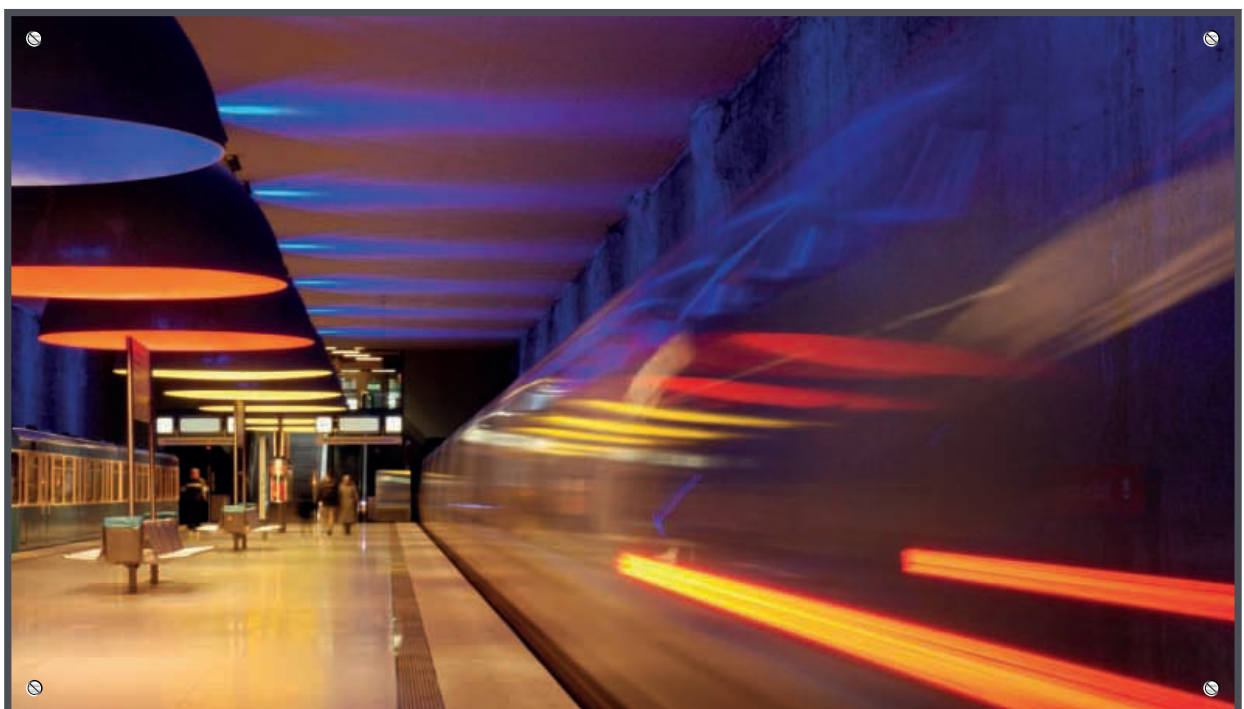
ART. NR.	LED COLOUR	LIST PRICE
60-405098	COLD WHITE	198,00
60-405097	NEUTRAL WHITE	198,00
60-405096	WARM WHITE	198,00
60-405095	RED	198,00
60-405094	GREY	198,00
60-405093	BLUE	198,00
60-405092	AMBER	195,00

WHITE EMOTION 500mA 3 X 2W

ART. NR.	LED COLOUR	LIST PRICE
60-405091	2700-6000K	195,00

RGB 500mA 3 X 2W

ART. NR.	LED COLOUR	LIST PRICE
60-405099	RGB	195,00

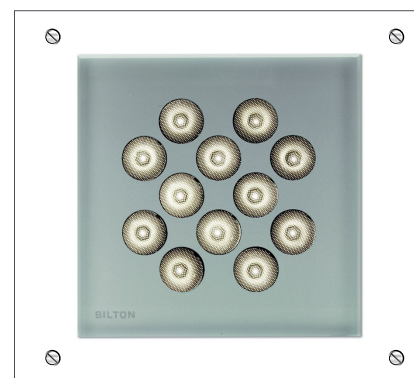


BILTON LED LIGHTING

LED LIGHTNING

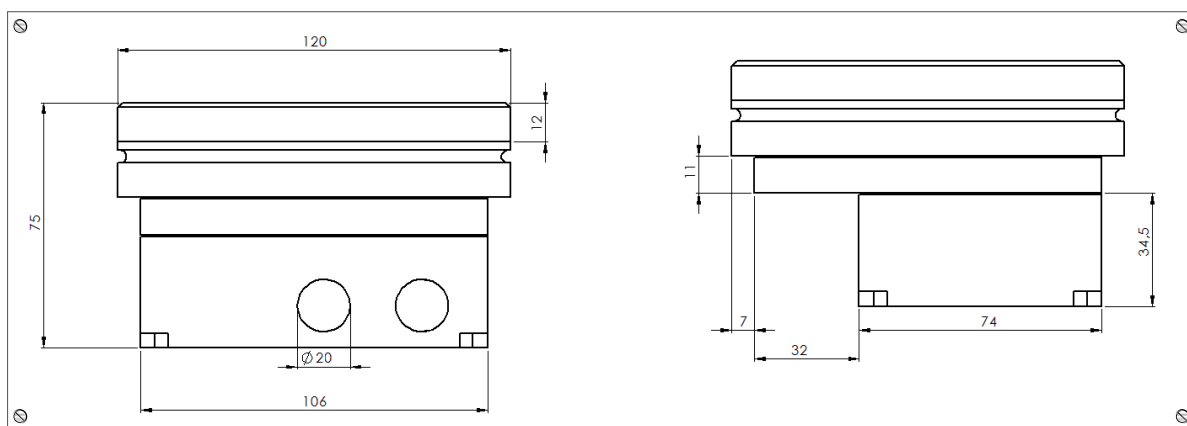
TRIMLESS 1

- Integrated floor lighting for the highest desing demands.
- Low surface temperature.
- 230V 12x1,2W IP 65.
- Easily operated using the integrated DMX interface.



SINGLE 240V 12 x 1,2W

ART. NR.	LED COLOUR	LIST PRICE
90-112098	COLD WHITE	589,00
90-112097	NEUTRAL WHITE	589,00
90-112096	WARM WHITE	589,00
90-112095	RED	589,00
90-112094	GREEN	589,00
90-112093	BLUE	589,00
90-112092	AMBER	589,00







Intesis
software

- ✦ Those meant to integrate other subsystems into a KNX project (even without deep knowledge of the other protocol).
- ✦ Those meant to integrate a KNX system into other control systems.

A white plastic KNX AC unit. The top left features the 'IntesisBox' logo with a registered trademark symbol and the website 'www.intesis.com'. The top right has the 'KNX' logo and a 'CE' mark. Below the logo is a rectangular label area with the text 'Phys. Addr.' underneath. The front face has a red and black terminal block with '+' and '-' signs. To the left of the terminal block is the text 'AC Unit' and 'KNX'. To the right is 'ME AC-KNX-1x2' and 'PROG'.



INDEX



IntesisBox®

KNX EIB GATEWAYS AND INTERFACES DESIGNED
FOR INTEGRATION OF THIRD PARTY SYSTEMS
INTO KNX CONTROL SYSTEMS

118

KNX EIB GATEWAYS DESIGNED FOR INTEGRATION
OF KNX INSTALLATIONS INTO OTHER CONTROL
SYSTEMS (BMS, SCADA, HMI, TOUCH PANELS....)

119



WEB CODE	MANUF. REFERENCE	DESCRIPTION	LOGO OTHER SYSTEMS	DES. RANGE	LIST PRICE	IMAGE
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KNX EIB GATEWAYS AND INTERFACES DESIGNED FOR INTEGRATION OF THIRD PARTY SYSTEMS INTO KNX CONTROL SYSTEMS

8214	ME-AC-KNX-1-V2	GATEWAY KNX - MITSUBISHI ELECTRIC (DOMESTIC/MR.SLIM)			IntesisBox® KNX - XXX	193,00 €	
9114	ME-AC-KNX-15	GATEWAY KNX - MITSUBISHI ELECTRIC (CITY MULTI)	15 groups		IntesisBox® KNX - XXX	1.580,00 €	
9115	ME-AC-KNX-100	GATEWAY KNX - MITSUBISHI ELECTRIC (CITY MULTI)	100 groups		IntesisBox® KNX - XXX	2.108,00 €	
9111	IBOX-KNX-BAC-A	GATEWAY KNX - BACNET/IP CLIENT	500 points		IntesisBox® KNX - XXX	1.580,00 €	
9107	IBOX-KNX-BAC-B	GATEWAY KNX - BACNET/IP CLIENT	4000 points		IntesisBox® KNX - XXX	2.400,00 €	
10035	IBOX-KNX-LON-100	GATEWAY KNX - LON	100 points		IntesisBox® KNX - XXX	770,00 €	
8389	IBOX-KNX-LON-A	GATEWAY KNX - LON	500 points		IntesisBox® KNX - XXX	1.580,00 €	
7840	IBOX-KNX-LON-B	GATEWAY KNX - LON	4000 points		IntesisBox® KNX - XXX	2.400,00 €	
9575	DK-AC-KNX-1	GATEWAY KNX - DAIKIN	domestic line		IntesisBox® KNX - XXX	155,00 €	
9539	DK-RC-KNX-1	GATEWAY KNX - DAIKIN	SKY Y VRV		IntesisBox® KNX - XXX	193,00 €	
9117	IBOX-KNX-AIRZONE	GATEWAY KNX - AIRZONE INNOBUS			IntesisBox® KNX - XXX	380,00 €	
8999	IBOX-KNX-MBRTU-100	GATEWAY KNX - MODBUS RTU MASTER	100 points	Modbus®	IntesisBox® KNX - XXX	500,00 €	
9112	IBOX-KNX-MBRTU-A	GATEWAY KNX - MODBUS RTU MASTER	500 points		IntesisBox® KNX - XXX	1.200,00 €	
9113	IBOX-KNX-MBRTU-B	GATEWAY KNX - MODBUS RTU MASTER	3000 points		IntesisBox® KNX - XXX	2.200,00 €	
9108	IBOX-KNX-MBTCP-100	GATEWAY KNX - MODBUS TCP MASTER	100 points		IntesisBox® KNX - XXX	550,00 €	
9109	IBOX-KNX-MBTCP-A	GATEWAY KNX - MODBUS TCP MASTER	500 points		IntesisBox® KNX - XXX	1.200,00 €	



OVERVIEW IntesisBox® from INTESIS



WEB CODE	MANUF. REFERENCE	DESCRIPTION	LOGO OTHER SYSTEMS	DES. RANGE	LIST PRICE	IMAGE
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KNX EIB GATEWAYS AND INTERFACES DESIGNED FOR INTEGRATION OF THIRD PARTY SYSTEMS INTO KNX CONTROL SYSTEMS

9110	IBOX-KNX-MBTCP-B	PASARELA KNX - MODBUS TCP MASTE	3000 points	Modbus®	IntesisBox® KNX - XXX	2.200,00 €	
 10483	LG-AC-KNX-4	GATEWAY KNX - LG AIR CONDITIONING	4 Int. Units		IntesisBox® KNX - XXX	525,00 €	
 10484	LG-AC-KNX-8	GATEWAY KNX - LG AIR CONDITIONING	8 Int. Units		IntesisBox® KNX - XXX	890,00 €	
9919	LG-AC-KNX-16	GATEWAY KNX - LG AIR CONDITIONING	16 Int. Units		IntesisBox® KNX - XXX	1.300,00 €	
9920	LG-AC-KNX-64	GATEWAY KNX - LG AIR CONDITIONING	64 Int. Units		IntesisBox® KNX - XXX	2.500,00 €	
 10485	SM-AC-KNX-4	GATEWAY KNX - SAMSUNG AIR CONDITIONING	4 Int. Units		IntesisBox® KNX - XXX	525,00 €	
 10486	SM-AC-KNX-8	GATEWAY KNX - SAMSUNG AIR CONDITIONING	8 Int. Units		IntesisBox® KNX - XXX	890,00 €	
9921	SM-AC-KNX-16	GATEWAY KNX - SAMSUNG AIR CONDITIONING	16 Int. Units		IntesisBox® KNX - XXX	1.300,00 €	
9922	SM-AC-KNX-64	GATEWAY KNX - SAMSUNG AIR CONDITIONING	64 Int. Units		IntesisBox® KNX - XXX	2.500,00 €	
9923	SM-AC-KNX-128	GATEWAY KNX - SAMSUNG AIR CONDITIONING	128 Int. Units		IntesisBox® KNX - XXX	3.500,00 €	
 10482	PA-AC-KNX-1	GATEWAY KNX - PANASONIC AIR CONDITIONING		Panasonic	IntesisBox® KNX - XXX	193,00 €	
 10489	IBOX-KNX-ENO-A1	GATEWAY KNX - ENOCEAN	868 MHz EUROPE		IntesisBox® KNX - XXX	CONSULT	
 10490	IBOX-KNX-ENO-A1C	GATEWAY KNX - ENOCEAN	315 MHz USA and ASIA		IntesisBox® KNX - XXX	CONSULT	

KNX EIB GATEWAYS DESIGNED FOR INTEGRATION OF KNX INSTALLATIONS INTO OTHER CONTROL SYSTEMS (BMS, SCADA, HMI, TOUCH PANELS....)

9122	IBOX-LON-KNX-200	GATEWAY LON - KNX	200 points		IntesisBox® KNX - XXX	650,00 €	
9123	IBOX-LON-KNX-A	GATEWAY LON - KNX	500 points		IntesisBox® KNX - XXX	1.400,00 €	



WEB CODE	MANUF. REFERENCE	DESCRIPTION		LOGO OTHER SYSTEMS	DES. RANGE	LIST PRICE	IMAGE
KNX EIB GATEWAYS DESIGNED FOR INTEGRATION OF KNX INSTALLATIONS INTO OTHER CONTROL SYSTEMS (BMS, SCADA, HMI, TOUCH PANELS....)							
9124	IBOX-LON-KNX-B	GATEWAY LON - KNX	4000 points		IntesisBox® KNX - XXX	2.400,00 €	
 10487	IBOX-KNX-BAC-100	GATEWAY BACNET/IP SERVER - KNX	100 points		IntesisBox® KNX - XXX	770,00 €	
9120	IBOX-BAC-KNX-A	GATEWAY BACNET/IP SERVER - KNX	500 points		IntesisBox® KNX - XXX	1.400,00 €	
9121	IBOX-BAC-KNX-B	GATEWAY BACNET/IP SERVER - KNX	3000 points		IntesisBox® KNX - XXX	2.400,00 €	
9116	IBOX-MBS-KNX-100	GATEWAY MODBUS SERVER - KNX	100 points	Modbus®	IntesisBox® KNX - XXX	500,00 €	
9118	IBOX-MBS-KNX-A	GATEWAY MODBUS SERVER - KNX	500 points		IntesisBox® KNX - XXX	990,00 €	
9119	IBOX-MBS-KNX-B	GATEWAY MODBUS SERVER - KNX	3000 points		IntesisBox® KNX - XXX	2.200,00 €	
9125	IBOX-ASCII-KNX	GATEWAY ASCII SERVER - KNX		ASCII	IntesisBox® KNX - XXX	750,00 €	

IntesisBox® is a small microcontrolled device allowing DIN rail mounting for installation inside industrial cabinet and with RS232, RS485, Ethernet, KNX TP1 (EIB), and LonWorks TP/FT-10 interfaces designed specifically to offer Intesis's range of integrations in a robust and small device with null maintenance. With this autonomous device it is possible to interconnect directly the internal system (building automation, industrial automation, BACnet, ModBus, KNX, LonWorks...) to the external system (fire system, access control system, security system, HVAC, cold/warm generation, energy generation & measurement, lighting, hotel management, home automation...).

A console RS232/USB port is also available to connect a laptop PC for programming and monitoring the device. IntesisBox® also offers the possibility to be connected to Ethernet/LAN/WAN networks expanding thus its possibilities with connection to ethernet/IP based protocol systems, such as ModBus IP, BACnet/IP, XML, etc.

Inside its internal structure IntesisBox® incorporates a high performance and reliability microcontroller with ash (non volatile) memory where is saved the operating system and the integration code (firmware). This internal structure, along with a watchdog system, ensures a suitable operation of the device in every moment, even in front of power irregularities such as micro-cuts or long power failures.

It has no mechanical mobile components (fans, hard discs...) reducing this way potential malfunctions and reducing also the maintenance needed almost to zero, making this device ideal for industrial environments.

IntesisBox® allows DIN rail mounting for its easy installation inside industrial cabinet and allows a wide range of input supply voltage, from 9 to 30VDC and also 24VAC, with a low power consumption of 1.4 watts.

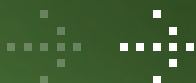
The operating temperature range is from -40°C to +70°C and the relative humidity from 5% to 95% (non condensing).

It is not necessary any external RS232/RS485 converter because IntesisBox® has RS485 port and can be directly connected to a RS485 bus. IntesisBox® also incorporates a KNX TP1 (EIB) optocoupled port to connect to KNX EIB networks, and a LonWorks TP/FT-10 port to connect to LonWorks networks.

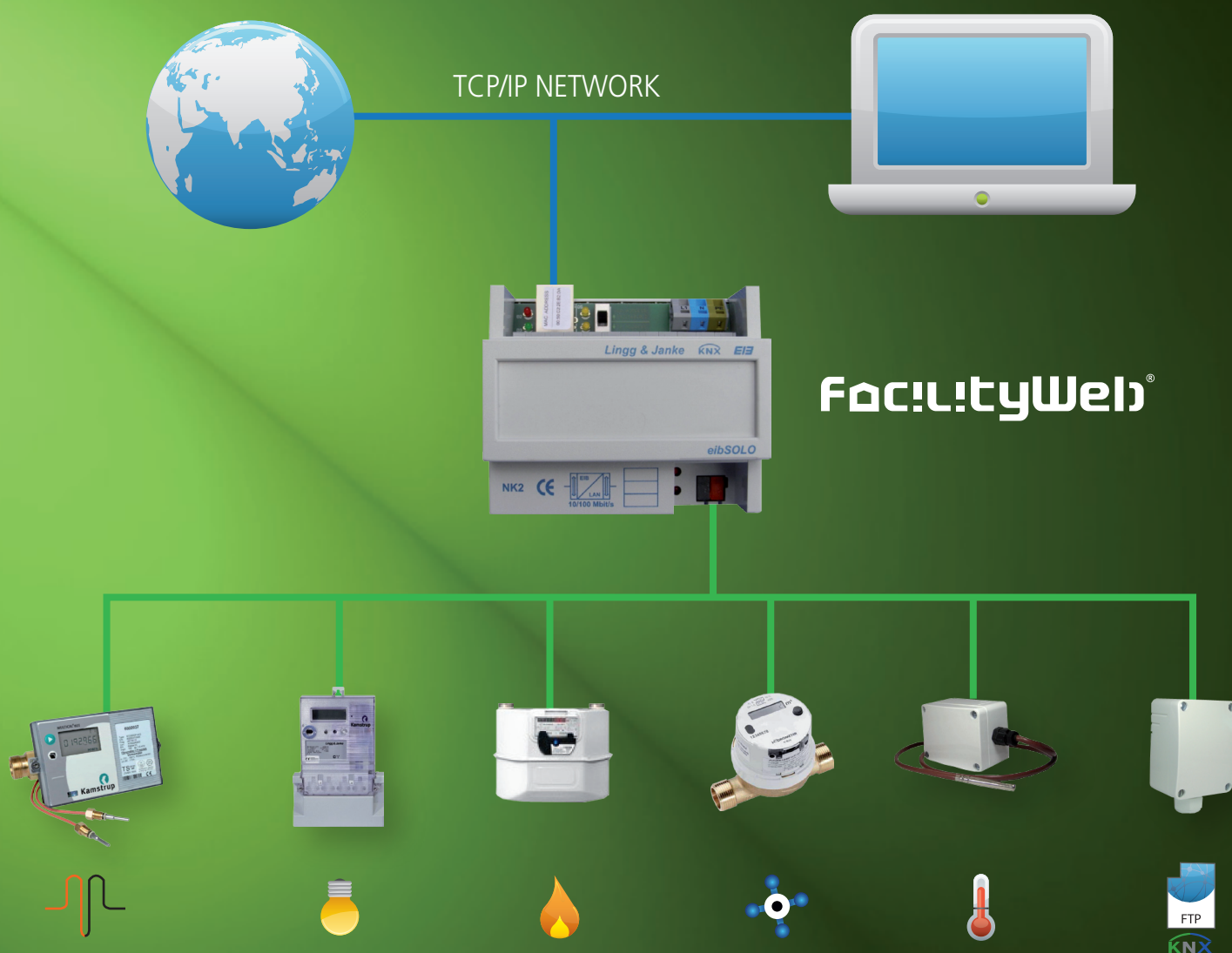
All available IntesisBox® hardware versions are compliant with RoHS directive (2002/95/CE).

Along with the device, it is also supplied (with no additional cost) LinkBox software, a software tool needed for configuring and monitoring the IntesisBox®. LinkBox software runs on MS Windows® operating systems and uses a serial port to communicate to IntesisBox®. It is possible to use LinkBox Software off-line (not connected to IntesisBox®) to configure the IntesisBox® more comfortably in the office and later download the configuration to the device using the serial connection in the field.

Along with IntesisBox®, it is also supplied the console cable needed to configure the device, this is a standard DB9 male - DB9 female cable, and can be also supplied (on demand) an external plug-in power supply (european plug) 230VAC/12VDC 300mA to power the IntesisBox®.



OVERVIEW FACILITY WEB FROM LINGG & JANKE



Lingg & Janke

100010101110101110 / 10000101*//1011011/1010101
1000001000 / 10000111**** 1111// 1000010101011100/
//101011000101 ///enter///100000100101101***

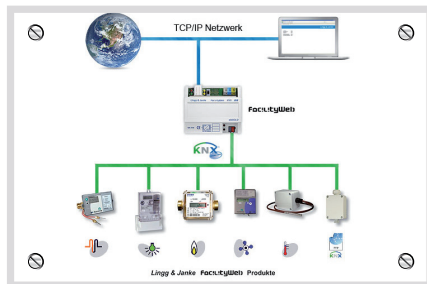
FacilityWeb from Lingg & Janke

Introduction

FacilityWeb is an extension of the KNX/EIB bus standard according to ISO/IEC 14543. It was developed by Lingg & Janke in cooperation with the KNX-association and its members.

FacilityWeb provides highly effective functions for measuring, visualizing and controlling the consumption of different energy sources via Intranet or Internet.

The consumption data is transmitted over the KNX bus to a web page where consumers can be switched on or off directly via the web browser's user interface.



Visualize / Control

With Facility Web you can surf directly into the KNX devices to display for instance the status values and/or to control the functions of the device.

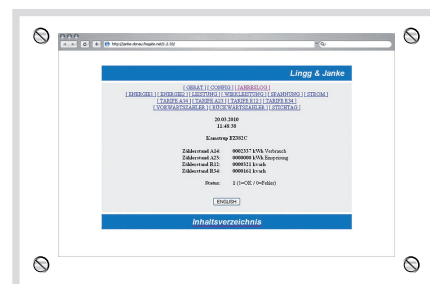


Energie Monitoring

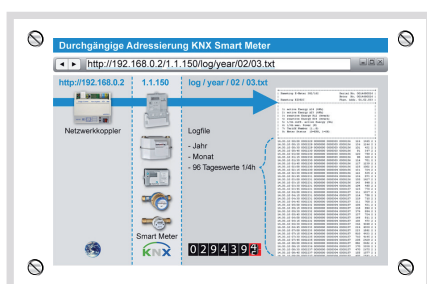
The online values of the different meters can be displayed on a web page and the historic data, stored in the devices, can be downloaded via FTP.

IP-KNX Connection

The TCP/IP gateways NK-FW can be used as the connection between the KNX installation and the IP network. This gives the possibility to use a standard Internet browser and/or an FTP client to communicate with KNX products.



Online consumption values displayed using a web browser



PROPERTIES METERS / SENSORS

- 1.- full FacilityWeb functionality (+NK-FW)
- 2.- integrated data logging (1 year)
- 3.- HTTP protocol (+NK-FW)
- 4.- dedicated homepage

NETWORK COUPLER

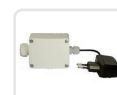
TCP/IP NK-FW GATEWAYS



DATA LOGGER



KNX POWER SUPPLY WITH CHOKE



ELECTRICAL ENERGY METERS Kamstrup



including integrated KNX-interface

TEMPERATURE / HUMIDITY SENSORS



including integrated KNX-interface

GAS METER Elster / Itron



WEB. CODE	MAN. REF.	DESCRIPTION	PRICE
8188	87310	STANDARD	445,00 €
10167	87320	WITH INTEGRATED BATTERY-BACKED CLOCK	487,00 €
10180	87330	WITH INTEGRATED BATTERY-BACKED CLOCK AND KNX-POWERSUPPL	563,50 €
WEB. CODE	MAN. REF.	DESCRIPTION	PRICE
9105	87910	-	137,00 €
WEB. CODE	MAN. REF.	DESCRIPTION	PRICE
10181	87900	BUS CURRENT MAX. 80MA / 5 DEVICES	76,50 €

WEB. CODE	MAN. REF.	DESCRIPTION	PRICE
9530	87722	SINGLE-PHASE 2-QUADRANT	245,00 €
9531	87731	THREE-PHASE 1-QUADRANT	275,00 €
9532	87732	THREE-PHASE 2-QUADRANT	275,00 €
9533	87744	THREE-PHASE 4-QUADRANT REG	340,00 €
9889	87750	THREE-PHASE 4-QUADRANT	555,00 €
9890	87751	CURRENT TRANSFORMER	590,00 €

WEB. CODE	MAN. REF.	DESCRIPTION	PRICE
9459	87130	PIPE MOUNTING TEMP. SENSOR	155,00 €
9453	87101	DUCT TEMP. SENSORS 135MM	163,00 €
9454	87102	DUCT TEMP. SENSORS 240MM	173,00 €
9455	87103	DUCT TEMP. SENSORS 392MM	183,00 €
9456	87104	CABLE TEMP. SENSORS 1M	163,00 €
9457	87105	CABLE TEMP. SENSORS 3M	173,00 €
9458	87120	OUTDOOR TEMP. SENSOR	155,00 €
9460	87140	INDOOR TEMP. SENSOR	142,00 €
10200	87150	INDOOR TEMP./ HUMID. SENSOR	142,00 €

WEB. CODE	MAN. REF.	DESCRIPTION	NOMINAL DIAMETER	MEASURING RANGE	TYPE	PRICE
10182	85801	DIAPHRAGM GAS METER	G4 DN25	0,04-6 m³/h	BK-GxA/ AE2	372,00 €
10199	85811	DIAPHRAGM GAS METER	G4 DN25	0,04-6 m³/h	Gx-RF1	Consultar

including integrated KNX-interface

including KNX-interface in separate, wall mounted box



FACILITY WEB FROM LINGG & JANKE

COLD WATER /
WARM WATER METERSHOUSEHOLD
Andrae

WEB. CODE	MAN. REF.	DESCRIPTION	NOMINAL FLOW	LENGHT	CON. THREAD	°C MAX.	PRICE
10201	85101	SINGLE-JET DRY RUNNER WATER METER	Qn=1,5m³/h	80mm - 16bar	3/4" = DN15mm	40	193,00 €
10202	85102			110mm - 16bar			193,00 €
10203	85103			130mm - 16bar	1" = DN20mm		194,00 €
10204	85111			80mm - 16bar	3/4" = DN15mm	90	195,00 €
10205	85112			110mm - 16bar			195,00 €
10206	85113			130mm - 16bar	1" = DN20mm		196,00 €

including KNX-interface in separate, wall mounted box

WEB. CODE	MAN. REF.	DESCRIPTION	NOMINAL FLOW	LENGHT	CON. THREAD	°C MAX.	PRICE
10207	85140	MULTI-JET DRY RUNNER WATER METER	Qn=2,5m³/h	190mm	3/4" = DN15mm	40	234,00 €
10208	85141		Qn=6m³/h	260mm			263,00 €
10209	85142		Qn=10m³/h	300mm	1" = DN20mm		328,00 €
10210	85150		Qn=2,5m³/h	190mm	3/4" = DN15mm	90	246,00 €
10211	85151		Qn=6m³/h	260mm			275,00 €
10212	85152		Qn=10m³/h	300mm	1" = DN20mm		338,00 €

including KNX-interface in separate, wall mounted box

TYPE MTK-HWX
Andrae

WEB. CODE	MAN. REF.	DESCRIPTION	NOMINAL FLOW	LENGHT	CON. THREAD	°C MAX.	DIRECTION	PRICE	
10213	85010	MULTI-JET DRY RUNNER ELECTRONIC WATER METER	Qn=1,5m³/h	100mm	G3/4"	30	ANY	290,00 €	
10214	85011					90		321,50 €	
10215	85030		Qn=2,5m³/h	130mm	G1"	30	HORIZONTAL	349,00 €	
10216	85031					90		380,50 €	
10218	85040			190mm		30		349,00 €	
10219	85041					90		380,50 €	
10220	85050			105mm		30	STANDPIPE	365,00 €	
10221	85051					90		396,50 €	

including KNX-interface in separate, wall mounted box

ELECTRONIC, TYPE CORONA E
Hydrometer

WEB. CODE	MAN. REF.	DESCRIPTION	NOMINAL FLOW	LENGHT	CON. THREAD	°C MAX.	PRICE
10222	85201	DRY RUNNER, WITH SHIELDED MAGNETIC COUPLING	Qn=2,5m³/h	190mm	DN20, G1"	40	327,00 €

including KNX-interface in separate, wall mounted box



ROTARY PISTON / Sensus

WEB. CODE	MAN. REF.	DESCRIPTION	NOMINAL FLOW	LENGHT	CON. THREAD	°C MAX.	DIRECTION	PRICE
10223	85220	SINGLE-JET DRY RUNNER, WITH SHIELDED MAGNETIC COUPLING	Qn=1,5m³/h	110mm	DN15 G3/4"	30	ANY	240,00 €
10224	85221					90		244,00 €
10225	85230		Qn=2,5m³/h	130mm	DN20 G1"	30		249,00 €
10226	85231					90		253,00 €

including KNX-interface in separate, wall mounted box



HOUSEHOLD / Sensus



HEAT METERS

TYPE ZELSIUS / Zenner



WEB. CODE	MAN. REF.	DESCRIPTION	NOMINAL FLOW	LENGHT	CON. THREAD	°C MAX.	PRICE
10196	85951	HEAT METER WITH MULTI-JET FLOW SENSOR	Qn=0,6m³/h	110mm	G3/4 B	0-105°C	327,00 €
10197	85952		Qn=1,5m³/h				327,00 €
10198	85953		Qn=2,5m³/h	130mm	G1 B		332,00 €

including KNX-interface in separate, wall mounted box

WEB. CODE	MAN. REF.	DESCRIPTION	NOMINAL FLOW	LENGHT	CON. THREAD	°C MAX.	PRICE
10183	85901	HEAT METER WITH ULTRASONIC FLOW SENSOR	Qn=0,6m³/h	110mm	G3/4 B	15-130°C	429,00 €
10184	85902		Qn=1,5m³/h				
10185	85903			165mm			464,00 €
10186	85904		Qn=0,6m³/h	130mm	G1B		429,00 €
10187	85905		Qn=1,5m³/h				
10188	85906			165mm			464,00 €
10189	85907		Qn=0,6m³/h	190mm			464,00 €
10190	85908		Qn=1,5m³/h				464,00 €
10191	85909		Qn=2,5m³/h				464,00 €
10192	85910		Qn=3,5m³/h	260mm	G5/4B		721,00 €
10194	85911		Qn=6m³/h				802,00 €
10195	85912		Qn=10m³/h	300mm	G2B		1004,00 €

including integrated KNX-interface



TYPE MULTICAL 601 / ULTRAFLOW Kamstrup



KNX IP SWITCHES

Lingg & Janke

KNX IP switches by Lingg & Janke comprise a main module with KNX bus coupling unit. Up to three extension modules, connected by prefabricated cables, open out the functional range of the KNX IP switch main module. As many as 16 switching functions can thus be implemented without great expense, using just one bus coupling unit.

Both, main and extension modules, can accommodate single or double rocker switches. The rockers are designed as pushbuttons with neutral position so that they can provide different switching functions, such as ON/OFF, dimmer, or louvre blinds control.

Easy Parameter Definition

In the ETS application software, you always go through the same steps when setting the module parameters, be it the main module or the extension module. For every module you decide whether the switch function is to be implemented by a rocker switch action or a single-key pushbutton action. The switch action itself can be an ON/OFF or dimmer operation, louvre blinds or scenario control, or a value setting function.

Our Range of Switches

The switching rockers are available in the color arctic-white and with laser-engraved labeling. All IP switching modules are offered with single or double rocker unit. KNX IP switches are compatible with the Kopp Design HK05 switch range and can thus be freely combined with these devices.



Fac!lityWeb®

10001010111010101110 / 10000101* // 1011011 / 1010101
 1000001000 / 10000111**** 1111 // 1000010101011100/
 // 101011000101 // enter // 100000100101101***

INDEX



IP SWITCHES	MAIN AND EXTENSION MODULES	130
	ROCKER UNITS FOR IP PUSH BUTTON	130
	STANDARD MODULES	
	FLUSH-MOUNTED STANDARD MODULE INSERTS	130
	SCHUKO SOCKET OUTLET	131
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IP SWITCHES FROM FACILITY WEB LINGG & JANKE



WEB CODE	MANUF. REFERENCE	DESCRIPTION	DES. RANGE	COLOUR	LIST PRICE	IMAGE
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IP SWITCHES / MAIN AND EXTENSION MODULES

9841	87800	MAIN MODULE	HK05 FACILITY WEB		55,00 €	
9842	87801	EXTENSION MODULE (CONNECTING CABLE 20 CM)	HK05 FACILITY WEB		41,00 €	
9843	87802	EXTENSION MODULE (CONNECTING CABLE 27 CM)	HK05 FACILITY WEB		41,10 €	
9844	87803	EXTENSION MODULE (CONNECTING CABLE 35 CM)	HK05 FACILITY WEB		41,25 €	
9845	87804	EXTENSION MODULE (CONNECTING CABLE 50 CM)	HK05 FACILITY WEB		41,40 €	

IP SWITCHES / ROCKER UNITS FOR IP PUSH BUTTON

9846	87810	ROCKER 1-FOLD WITHOUTH LABEL	HK05 FACILITY WEB	1	2,10 €	
9848	87813	ROCKER 2-FOLD WITHOUTH LABEL	HK05 FACILITY WEB	1	3,50 €	
9849	87811	ROCKER 1-FOLD WITH LABEL FOR LIGHT	HK05 FACILITY WEB	1	2,80 €	
9850	87814	ROCKER 2-FOLD WITH LABEL FOR LIGHT	HK05 FACILITY WEB	1	4,25 €	
9851	87812	ROCKER 1-FOLD WITH LABEL FOR SHUTTERS	HK05 FACILITY WEB	1	2,80 €	
9852	87815	ROCKER 2-FOLD WITH LABEL FOR SHUTTERS	HK05 FACILITY WEB	1	4,25 €	

IP SWITCHES / STANDARD MODULES / FLUSH-MOUNTED STANDARD MODULE INSERTS

9853	86006	STANDARD MODULE INSERTS 10AX, 250V, - ROCKER SWITCH CHANGE OVER	HK05		3,35 €	
9854	86002	STANDARD MODULE INSERTS 10AX, 250V, - ROCKER SWITCH 2 POLE ON/OFF	HK05		6,53 €	
9855	86007	STANDARD MODULE INSERTS 10AX, 250V, - ROCKER SWITCH INTERMEDIATE	HK05		5,94 €	



IP SWITCHES FROM FACILITY WEB LINGG & JANKE



WEB CODE	MANUF. REFERENCE	DESCRIPTION	DES. RANGE	COLOUR	LIST PRICE	IMAGE
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IP SWITCHES / STANDARD MODULES / FLUSH-MOUNTED STANDARD MODULE INSERTS

9856	86016	STANDARD MODULE INSERTS 10AX, 250V, - ROCKER SWITCH CHANGE OVER ILLUMINATED	HK05		7,06 €	
9857	86005	STANDARD MODULE INSERTS 10AX, 250V, - ROCKER SWITCH SERIES	HK05		4,24 €	
9858	86031	STANDARD MODULE INSERTS 10AX, 250V, - ROCKER PUSH BUTTON (NO)	HK05		3,86 €	
9859	86010	STANDARD MODULE INSERTS 10AX, 250V, - GLOW LAMP	HK05		2,29 €	

IP SWITCHES / STANDARD MODULES / SCHUKO SOCKET OUTLET

9870	86110	SCHUKO SOCKET OUTLET	HK05	 1	2,53 €	
9871	86111	SCHUKO SOCKET OUTLET WITH CHILD PROTECTION	HK05	 1	3,68 €	
9872	86112	SCHUKO SOCKET OUTLET WITH HINGED COVER	HK05	 1	5,33 €	
9873	86113	SCHUKO SOCKET OUTLET WITH OVERVOLTAGE PROTECTION (MAX. 3600 W)	HK05	 1	39,80 €	
9874	86114	SCHUKO SOCKET OUTLET WITH OVERVOLTAGE PROTECTION (MAX. 3600 W)	HK05		41,43 €	

IP SWITCHES / STANDARD MODULES / ROCKER UNITS, CENTRE PLATES ...

9861	86100	ROCKER WITHOUT LENS	HK05	 1	1,47 €	
9862	86101	ROCKER WITH LENS	HK05	 1	1,94 €	
9863	86102	ROCKER WITHOUT LENS (SERIES)	HK05	 1	2,10 €	
9864	86103	ROCKER WITH LABELING FIELD	HK05	 1	3,14 €	
9865	86104	BLANK PLATE WITH CENTRE PLATE	HK05	 1	5,71 €	



IP SWITCHES FROM FACILITY WEB LINGG & JANKE



WEB CODE	MANUF. REFERENCE	DESCRIPTION	DES. RANGE	COLOUR	LIST PRICE	IMAGE
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IP SWITCHES / STANDARD MODULES / ROCKER UNITS, CENTRE PLATES ...

9866	86105	CENTRE PLATE FOR AERIAL SOCKET 2 HOLE (TV/RADIO)	HK05	 1	2,69 €	
9867	86106	CENTRE PLATE FOR AERIAL SOCKET 3 HOLE (TV/RADIO/SAT)	HK05	 1	3,06 €	
9868	86107	CENTRE PLATE FOR TAE SOCKET OUTLET	HK05	 1	3,04 €	
9869	86108	CENTRE PLATE FOR FCC/IAE/Telekom ISDN SOCKET OUTLET	HK05	 1	3,04 €	

IP SWITCHES / FRAMES FOR IP PUSH BUTTONS

9875	86121	FRAME 1-GANG	HK05	 1	1,18 €	
9876	86122	FRAME 2-GANG	HK05	 1	2,02 €	
9877	86123	FRAME 3-GANG	HK05	 1	3,16 €	
9878	86124	FRAME 4-GANG	HK05	 1	4,53 €	

LEGEND



RED



1 ARCTIC WHITE

COMPARATIVE TABLES



Everything you need in one place



COMPARATIVE TABLE – ENERGY METERS / ACTUATORS

The importance of Smart Metering in Home and Building Automation is growing bigger everyday. Not only is it a very useful feature for any home / building owner, but it has also become a compulsory element in order to comply with more and more legal regulations and directives all around the world.

There are quite a few hardware / software solutions for the control and monitoring of Smart Metering in a KNX System, but first of all you need to obtain all the consumption data and have it sent to the Bus.

Choosing the right counter is not always easy because there are numerous factors to take into account (Ex.: current, phases, tariffs, type of energy, etc.). With this Comparative Table of Energy Meters for KNX we are hoping to make this task much easier.



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KNX ENERGY METERS / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	LINGG & JANKE	
IMAGE		
WEB CODE	9530	
MANUF REFERENCE	87722	
DESCRIPTION	DIRECT CONNECTION- SINGLE-PHASE AC 2 QUADRANT MULTI-TARIFF- ACTIVE ENERGY COUNTER	
DES. RANGE	FACILITYWEB	
VOLTAGE V AC	1 X 230	
CURRENT A AC	85	
DIN U	FLUSH MOUNTED	
OTHER FEATURES		
PHASES	1	
TARIFFS	8	
PRECISION CLASS	C	
QUADRANT (SUPPLY AND PURCHASE)	2	
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	
BUS CONNECTION	KNX	
ACTIVE ENERGIE	YES	
REACTIVE ENERGIE	NO	
DIRECT CONNECTION	X	
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM FIXED BY ORDER	
LIST PRICE	245,00 €	

 ENERGY METERS / ACTUATORS

KNX ENERGY METERS / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	HAGER	LINGG & JANKE
IMAGE		
WEB CODE	9891	9531
MANUF REFERENCE	TE360	87731
DESCRIPTION	DIRECT CONNECTION, THREE-PHASE ACTIVE ENERGY COUNTER WITH REACTIVE ENERGY MEASUREMENT +/- 15%	DIRECT CONNECTION, THREE-PHASE MULTI-TARIFF- ACTIVE ENERGY COUNTER
DES. RANGE	TEBIS KNX	FACILITYWEB
VOLTAGE V AC	3 x 230/400V AC	3x230/400V
CURRENT A AC	100	85
DIN U	7	FLUSH MOUNTED
OTHER FEATURES		
PHASES	3	3
TARIFFS	2	2
PRECISION CLASS	ACTIVE = B, 1% BLIND = +/- 15%	2
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	NO	YES
BUS CONNECTION	KNX	KNX
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	+/- 15%	NO
DIRECT CONNECTION	YES	YES
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM FIXED BY ORDER	APPLIC. PROGRAM FIXED BY ORDER
LIST PRICE	400,40 €	275,00 €

KNX ENERGY METERS / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	LINGG & JANKE			LINGG & JANKE		
IMAGE						
WEB CODE	9532			9533		
MANUF REFERENCE	87732			87744		
DESCRIPTION	DIRECT CONNECTION, THREE-PHASE 2 QUADRANT MULTI-TARIFF- ACTIVE ENERGY COUNTER			DIRECT CONNECTION- THREE-PHASE 4 QUADRANT ACTIVE- AND REACTIVE ENERGYZÄHLER		
DES. RANGE	FACILITYWEB			FACILITYWEB		
VOLTAGE V AC	3 x 230/400V			3 x 230/400V		
CURRENT A AC	85			85		
DIN U	FLUSH MOUNTED			NO		
OTHER FEATURES						
PHASES	3			3		
TARIFFS	8			8		
PRECISION CLASS	C			C		
QUADRANT (SUPPLY AND PURCHASE)	2			4		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	KNX			KNX		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			YES		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	275,00 €			340,00 €		

ENERGY METERS / ACTUATORS

KNX ENERGY METERS / THREE-PHASE / TRANSFORMER RATED

MANUFACTURER	HAGER	LINGG & JANKE
IMAGE		
WEB CODE	9892	9889
MANUF REFERENCE	TE370	87750
DESCRIPTION	ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER WITH REACTIVE ENERGY MEASUREMENT +/- 15%	ACTIVE AND REACTIVE ENERGY THREE-PHASE 4 QUADRANT TRANSFORMER RATED COUNTER 5 A/5 A
DES. RANGE	TEBIS KNX	FACILITYWEB
VOLTAGE V AC	3X230/400V AC	NO
CURRENT A AC	0,01 UP 6 A	5
DIN U	4	NO
OTHER FEATURES		
PHASES	3	3
TARIFFS	2	8
PRECISION CLASS	ACTIVE = B, 1% BLIND = +/- 15%	C
QUADRANT (SUPPLY AND PURCHASE)	1	4
MID (MEASURING INSTRUMENT DIRECTIVE)	NO	YES
BUS CONNECTION	KNX	KNX
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	+/- 15%	YES
DIRECT CONNECTION	NO	NO
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM FIXED BY ORDER YES	APPLIC. PROGRAM FIXED BY ORDER YES
LIST PRICE	390,00 €	555,00 €



KNX ENERGY METERS / THREE-PHASE / TRANSFORMER RATED

MANUFACTURER	LINGG & JANKE		
IMAGE			
WEB CODE	9890		
MANUF REFERENCE	87751		
DESCRIPTION	ACTIVE AND REACTIVE ENERGY THREE-PHASE 4 QUADRANT TRANSFORMER RATED COUNTER 5 A/5 A		
DES. RANGE	FACILITYWEB		
VOLTAGE V AC	NO		
CURRENT A AC	5		
DIN U	NO		
OTHER FEATURES			
PHASES	3		
TARIFFS	8		
PRECISION CLASS	C		
QUADRANT (SUPPLY AND PURCHASE)	4		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		
BUS CONNECTION	KNX		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	YES		
DIRECT CONNECTION	NO		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER YES
LIST PRICE	590,00 €		

ENERGY METERS / ACTUATORS

CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9900			9907		
MANUF REFERENCE	DBB21000			FBB 11200		
DESCRIPTION	DIRECT CONNECTION - SINGLE - PHASE AC ACTIVE ENERGY COUNTER			DIRECT CONNECTION - SINGLE - PHASE AC SINGLE-TARIFF		
DES. RANGE	DELTAPLUS DIREKTMESSENDE ZÄHLER			DELTASINGLE		
VOLTAGE V AC	1x57 ... 288			230		
CURRENT A AC	5(80)			5(80)		
DIN U	7			4		
OTHER FEATURES				WITH PULSE OUTPUT		
PHASES	1			1		
TARIFFS	NO			1		
PRECISION CLASS	2			1		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	284,00 €			194,00 €		

CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9908			9909		
MANUF REFERENCE	FBB 11205			FBB 11206		
DESCRIPTION	DIRECT CONNECTION - SINGLE - PHASE AC MULTI-TARIFF COUNTER - 2 TARIFF			DIRECT CONNECTION - SINGLE - PHASE AC MULTI-TARIFF COUNTER - 4 TARIFF		
DES. RANGE	DELTASINGLE			DELTASINGLE		
VOLTAGE V AC	230			230		
CURRENT A AC	5(80)			5(80)		
DIN U	4			4		
OTHER FEATURES	WITH INTEGR. WATCH & PULSE OUTPUT			WITH INTEGR. WATCH & PULSE OUTPUT		
PHASES	1			1		
TARIFFS	2			3		
PRECISION CLASS	1			1		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	205,00 €			244,00 €		

 ENERGY METERS / ACTUATORS

CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9910			9911		
MANUF REFERENCE	FBU 11200			FBU 11205		
DESCRIPTION	DIRECT CONNECTION - SINGLE - PHASE AC SINGLE-TARIFF			DIRECT CONNECTION - SINGLE - PHASE AC MULTI-TARIFF COUNTER - 2 TARIFF		
DES. RANGE	DELTASINGLE			DELTASINGLE		
VOLTAGE V AC	230			230		
CURRENT A AC	5(80)			5(80)		
DIN U	4			4		
OTHER FEATURES				WITH INTEGR. WATCH		
PHASES	1			1		
TARIFFS	1			2		
PRECISION CLASS	1			1		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	192,00 €			201,00 €		

CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9912			9913		
MANUF REFERENCE	FBU 11206			OD 1065		
DESCRIPTION	DIRECT CONNECTION - SINGLE - PHASE			DIRECT CONNECTION - SINGLE - PHASE AC ACTIVE ENERGY COUNTER		
DES. RANGE	DELTASINGLE			ODINSINGLE (i)		
VOLTAGE V AC	230			230		
CURRENT A AC	5(80)			65		
DIN U	4			2		
OTHER FEATURES	WITH INTEGR. WATCH					
PHASES	1			1		
TARIFFS	4			NO		
PRECISION CLASS	1			1		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	242,00 €			163,00 €		

(i) DOES NOT COMPLY DIN TYPE

 ENERGY METERS / ACTUATORS

CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / TRANSFORMER RATED

MANUFACTURER	ABB							
IMAGE								
WEB CODE	9901							
MANUF REFERENCE	DAB11000							
DESCRIPTION	ACTIVE ENERGY - SINGLE - PHASE AC TRANSFORMER RATED COUNTER							
DES. RANGE	DELTAPLUS STANDARD-ZÄHLER							
VOLTAGE V AC	1x57 ... 288							
CURRENT A AC	1 (6)							
DIN U	7							
OTHER FEATURES								
PHASES	1							
TARIFFS	NO							
PRECISION CLASS	1							
QUADRANT (SUPPLY AND PURCHASE)	1							
MID (MEASURING INSTRUMENT DIRECTIVE)	YES							
BUS CONNECTION	+ ZS/S 1.1							
ACTIVE ENERGIE	YES							
REACTIVE ENERGIE	NO							
DIRECT CONNECTION	NO							
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	<table> <tr> <td>APPLIC. PROGRAM</td><td>FIXED</td><td>BY ORDER</td></tr> <tr> <td>YES</td><td></td><td></td></tr> </table>	APPLIC. PROGRAM	FIXED	BY ORDER	YES			
APPLIC. PROGRAM	FIXED	BY ORDER						
YES								
LIST PRICE	284,00 €							

CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9894			9895		
MANUF REFERENCE	DBB12000			DBB22000		
DESCRIPTION	DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER			DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER		
DES. RANGE	DELTAPLUS DIREKTMESSENDE ZÄHLER			DELTAPLUS DIREKTMESSENDE ZÄHLER		
VOLTAGE V AC	3x100 ... 500			3x100 ... 500		
CURRENT A AC	5(80)			5(80)		
DIN U	7			7		
OTHER FEATURES						
PHASES	3			3		
TARIFFS	NO			NO		
PRECISION CLASS	1			2		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	X			X		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	503,00 €			431,00 €		

 ENERGY METERS / ACTUATORS

CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9896			9897		
MANUF REFERENCE	DBB13000			DBB23000		
DESCRIPTION	DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER			DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER		
DES. RANGE	DELTAPLUS DIREKTMESSENDE ZÄHLER			DELTAPLUS DIREKTMESSENDE ZÄHLER		
VOLTAGE V AC	3 x 57/100 UP TO 3 x 288/500			3 x 57/100 UP TO 3 x 288/500		
CURRENT A AC	5(80)			5(80)		
DIN U	7			7		
OTHER FEATURES						
PHASES	3			3		
TARIFFS	NO			NO		
PRECISION CLASS	1			2		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	460,00 €			391,00 €		

CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9898			9899		
MANUF REFERENCE	DBB23002			DBB23004		
DESCRIPTION	DIRECT CONNECTION, THREE - PHASE MULTI-TARIFF COUNTER - 4 TARIFF, (CONTROL OF THE 4 TARIFFS VIA 230 V INPUT)			DIRECT CONNECTION, THREE - PHASE MULTI-TARIFF COUNTER - 4 TARIFF (CONTROL OF THE 4 TARIFFS VIA COMUNICATION)		
DES. RANGE	DELTAPLUS DIREKTMESSENDE ZÄHLER			DELTAPLUS DIREKTMESSENDE ZÄHLER		
VOLTAGE V AC	3 x 57/100 UP TO 3 x 288/500			3 x 57/100 UP TO 3 x 288/500		
CURRENT A AC	5(80)			5(80)		
DIN U	7			7		
OTHER FEATURES						
PHASES	3			3		
TARIFFS	4			4		
PRECISION CLASS	2			2		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	505,00 €			505,00 €		

 ENERGY METERS / ACTUATORS

CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9915			9914		
MANUF REFERENCE	OD 4165			OD 1365		
DESCRIPTION	DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER 4-LEITER			DIRECT CONNECTION - SINGLE - PHASE AC ACTIVE ENERGY COUNTER		
DES. RANGE	ODIN-METER ⁽ⁱ⁾			ODINSINGLE ⁽ⁱ⁾		
VOLTAGE V AC	3 x 230/400			230		
CURRENT A AC	65			65		
DIN U	6			2		
OTHER FEATURES				WITH RESETABLE INTERMEDIATE COUNTER & PULSE OUTPUT		
PHASES	3			1		
TARIFFS	NO			NO		
PRECISION CLASS	2			1		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	267,00 €			187,00 €		

(i) DOES NOT COMPLY DIN TYPE



CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB		
IMAGE			
WEB CODE	9902		
MANUF REFERENCE	DDB13000		
DESCRIPTION	DIRECT CONNECTION - THREE - PHASE ACTIVE - AND REACTIVE ENERGYZÄHLER		
DES. RANGE	DELTAPLUS DIREKTMESSENDE ZÄHLER		
VOLTAGE V AC	3 x 57/100 UP TO 3 x 288/500		
CURRENT A AC	5 (80)		
DIN U	7		
OTHER FEATURES			
PHASES	3		
TARIFFS	NO		
PRECISION CLASS	1		
QUADRANT (SUPPLY AND PURCHASE)	1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		
BUS CONNECTION	+ ZS/S 1.1		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	YES		
DIRECT CONNECTION	YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	661,00 €		

 ENERGY METERS / ACTUATORS

CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / TRANSFORMER RATED

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9903			2120		
MANUF REFERENCE	DAB12000			DAB13000		
DESCRIPTION	ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER			ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER		
DES. RANGE	DELTAPLUS STANDARD-ZÄHLER			DELTAPLUS STANDARD-ZÄHLER		
VOLTAGE V AC	3 x 100 ... 500			3 x 57/100 UP TO 3 x 288/500		
CURRENT A AC	1(6)			1(6)		
DIN U	7			7		
OTHER FEATURES						
PHASES	3			3		
TARIFFS	NO			NO		
PRECISION CLASS	1			1		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	YES			YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
	YES			YES		
LIST PRICE	414,00 €			369,00 €		

CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / TRANSFORMER RATED

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9904			9905		
MANUF REFERENCE	DAB13002			DAB13004		
DESCRIPTION	MULTI-TARIFF COUNTER - 4 TARIFF, ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER (CONTROL OF THE 4 TARIFFS VIA 230 V INPUT)			MULTI-TARIFF COUNTER - 4 TARIFF, ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER (CONTROL OF THE 4 TARIFFS VIA COMUNICATION)		
DES. RANGE	DELTAPLUS STANDARD-ZÄHLER			DELTAPLUS STANDARD-ZÄHLER		
VOLTAGE V AC	3 x 57/100 UP TO 3 x 288/500			3 x 57/100 UP TO 3 x 288/500		
CURRENT A AC	1(6)			1(6)		
DIN U	7			7		
OTHER FEATURES						
PHASES	3			3		
TARIFFS	4			4		
PRECISION CLASS	1			1		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			NO		
DIRECT CONNECTION	NO			NO		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
	YES			YES		
LIST PRICE	493,00 €			493,00 €		

 ENERGY METERS / ACTUATORS

CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / TRANSFORMER RATED

MANUFACTURER	ABB			ABB		
IMAGE						
WEB CODE	9916			9906		
MANUF REFERENCE	OD 4110			DCB12000		
DESCRIPTION	ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER 4-LEITER			ACTIVE AND REACTIVE ENERGY THREE-PHASE TRANSFORMER RATED COUNTER		
DES. RANGE	ODIN-METER(i)			DELTAPLUS STANDARD-ZÄHLER		
VOLTAGE V AC	3 x 230/400			3 x 100 ... 500		
CURRENT A AC	5			1(6)		
DIN U	6			7		
OTHER FEATURES						
PHASES	3			3		
TARIFFS	NO			NO		
PRECISION CLASS	2			1		
QUADRANT (SUPPLY AND PURCHASE)	1			1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES			YES		
BUS CONNECTION	+ ZS/S 1.1			+ ZS/S 1.1		
ACTIVE ENERGIE	YES			YES		
REACTIVE ENERGIE	NO			YES		
DIRECT CONNECTION	NO			NO		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
	YES			YES		
LIST PRICE	253,00 €			738,00 €		

(i) DOES NOT COMPLY DIN TYPE



CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / TRANSFORMER RATED

MANUFACTURER	ABB		
IMAGE			
WEB CODE	2121		
MANUF REFERENCE	DCB13000		
DESCRIPTION	ACTIVE AND REACTIVE ENERGY THREE-PHASE TRANSFORMER RATED COUNTER		
DES. RANGE	DELTAPLUS STANDARD-ZÄHLER		
VOLTAGE V AC	3 x 57/100 UP TO 3 x 288/500		
CURRENT A AC	1(6)		
DIN U	7		
OTHER FEATURES			
PHASES	3		
TARIFFS	NO		
PRECISION CLASS	1		
QUADRANT (SUPPLY AND PURCHASE)	1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		
BUS CONNECTION	+ ZS/S 1.1		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	YES		
DIRECT CONNECTION	NO		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM YES	FIXED	BY ORDER
LIST PRICE	661,00 €		

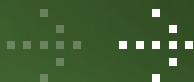
 ENERGY METERS / ACTUATORS

KNX DEVICES / KNX ACTUATORS

MANUFACTURER	ABB		
IMAGE			
WEB CODE	9893		
MANUF REFERENCE	SE/S 3.16.1		
DESCRIPTION	ENERGY ACTUATOR		
DES. RANGE	ABB I-BUS KNX		
VOLTAGE V AC	95...265		
CURRENT A AC	0,025...20		
DIN U	4		
OTHER FEATURES	3 SCHALTAUSGÄNGE 20A C LAST 3 ZÄHLER + GESAMT		
PHASES	3 X 1		
TARIFFS	NO		
PRECISION CLASS	"(500mA... 5A) ± 3 % (5...20 A) ± 2 % "		
QUADRANT (SUPPLY AND PURCHASE)	1		
MID (MEASURING INSTRUMENT DIRECTIVE)	NO		
BUS CONNECTION	KNX		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	YES		
DIRECT CONNECTION	YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	402,90 €		

KNX DEVICES / INTERFACES FOR METERS

MANUFACTURER	ABB		
IMAGE			
WEB CODE	6166		
MANUF REFERENCE	ZS/S 1.1		
DESCRIPTION	KNX METER INTERFACE MODULE, REG FOR ABB ENERGY METERS TYPES DELTAPLUS, DELTASINGLE, ODIN OR ODINSINGLE		
DES. RANGE	ABB I-BUS KNX		
VOLTAGE V AC	KNX		
CURRENT A AC	KNX		
DIN U	2		
OTHER FEATURES	INFRAROTSCHNITTSTELLE		
PHASES	NO		
TARIFFS	NO		
PRECISION CLASS	NO		
QUADRANT (SUPPLY AND PURCHASE)	NO		
MID (MEASURING INSTRUMENT DIRECTIVE)	NO		
BUS CONNECTION	KNX		
ACTIVE ENERGIE	NO		
REACTIVE ENERGIE	NO		
DIRECT CONNECTION	NO		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	187,00 €		



COMPARATIVE TABLE POWER SUPPLIES

The power supply of a KNX system is one of the most important components and it is a mistake to think they are all the same.

In the following pages you can find a Comparative Table of most KNX power supplies in the market, divided by:

- ✦ 160mA
- ✦ 320mA
- ✦ 640mA

As you will see, KNX power supplies often have additional features to perform very useful functions, such as:

- ✦ **AUXILIARY VOLTAGE:** it can be used for devices that can not be supplied exclusively from the Bus voltage.
- ✦ **UNINTERRUPTIBLE POWER SUPPLY:** in order to avoid Bus voltage failure with a Mains failure via the 12V battery it must be connected to.
- ✦ **DIAGNOSIS INFORMATION:** it can be very practical to have all the information related to the cause of a problem in the Bus stored and sent by the PSU.
- ✦ **KNX NET/IP ROUTER:** more and more frequently the KNX topology with normal TP Line and Area couplers is substituted by the new topology using KNX Net/IP Routers. The PSU with integrated router make this new topology very easy to install.



INDEX



COMPARATIVE TABLE
POWER SUPPLIES

160mA

320mA

640mA



POWER SUPPLIES



WEB CODE	MANUFACTURER	MANUF. REFERENCE	SIZE	AUXI. ⁽¹⁾	UNIN. ⁽²⁾	LIST PRICE	IMAGE
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160mA

10149	MDT	STV-0160.01	4U	NO	NO	134,00 €	
10130	L&J	88407	4U	YES	NO	170,00 €	
4190	SIEMENS	5WG1 125-1AB01	4U	NO	NO	173,00 €	
7693	ABB	SV/S 30.160.5	4U	NO	NO	175,00 €	
9220	MERTEN	684016	4U	NO	NO	175,50 €	
9225	MERTEN	683816	4U	NO	YES	190,50 €	

POWER SUPPLIES							
WEB CODE	MANUFACTURER	MANUF. REFERENCE	SIZE	AUXI. ⁽¹⁾	UNIN. ⁽²⁾	LIST PRICE	IMAGE

320mA

9795	CONTROLTRONIC	PS.30.320.1	4U	YES	NO	179,00 €	
9753	MDT	STV-0320.01	4U	NO	NO	184,00 €	
10131	L&J	88406	4U	YES	NO	185,00 €	
2773	JUNG	2005 REG	4U	YES	NO	242,05 €	
1252	GIRA	1086 00	4U	YES	NO	242,10 €	
28	BERKER	7501 00 09	4U	YES	NO	242,25 €	
9221	MERTEN	684032	4U	NO	NO	249,00 €	
1	ABB	SV/S 30.320.5	4U	NO	NO	254,00 €	
722	BUSCH-JAEGER	6180/10	4U	NO	NO	254,00 €	
4191	SIEMENS	5WG1 125-1AB11	4U	NO	NO	259,00 €	
9374	HAGER	TXA111	4U	NO	NO	263,40 €	
9226	MERTEN	683832	4U	NO	YES	267,00 €	



POWER SUPPLIES



WEB CODE	MANUFACTURER	MANUF. REFERENCE	SIZE	AUXI. ⁽¹⁾	UNIN. ⁽²⁾	INFO. ⁽³⁾	IROUTER	LIST PRICE	IMAGE
640mA									
10132	L&J	88405	4U	YES	NO	NO	NO	205,00 €	
9796	CONTROLTRONIC	PS.30.640.1	6U	YES	NO	NO	NO	209,00 €	
9754	MDT	STV-0640.01	6U	YES	NO	NO	NO	249,00 €	
9375	HAGER	TXA112	4U	NO	NO	NO	NO	326,90 €	
9222	MERTEN	684064	4U	NO	NO	NO	NO	345,00 €	
6331	ELSNER	70140	7U	YES	NO	NO	NO	348,00 €	
2235	THEBEN	907 0 364	6U	YES	NO	NO	NO	352,00 €	
4192	SIEMENS	5WG1 125-1AB21	4U	YES	NO	NO	NO	358,00 €	
725	BUSCH-JAEGER	6180-102	6U	YES	NO	NO	NO	359,00 €	
1965	ABB	SV/S 30.640.5	6U	YES	NO	NO	NO	359,00 €	
2772	JUNG	2002 REG	7U	YES	NO	NO	NO	359,04 €	
29	BERKER	7501 00 10	7U	YES	NO	NO	NO	359,25 €	
9227	MERTEN	683890	4U	NO	YES	NO	NO	363,00 €	
1253	GIRA	1087 00	7U	YES	NO	NO	NO	370,10 €	
8136	ELSNER	70141	7U	YES	NO	YES	NO	428,00 €	

POWER SUPPLIES									
WEB CODE	MANUFACTURER	MANUF. REFERENCE	SIZE	AUXI. ⁽¹⁾	UNIN. ⁽²⁾	INFO. ⁽³⁾	IROUTER	LIST PRICE	IMAGE

640mA

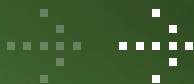
8908	BERKER	7501 00 15	8U	NO	YES	NO	NO	442,78 €	
1250	GIRA	1079 00	8U	NO	YES	NO	NO	442,80 €	
2505	JUNG	USV 640 MA	8U	NO	YES	NO	NO	442,80 €	
1966	ABB	SU/S 30.640.1	8U	NO	YES	NO	NO	444,00 €	
723	BUSCH-JAEGER	6180/11	8U	NO	YES	NO	NO	444,00 €	
9360	ELSNER	70142	7U	YES	NO	YES	YES	630,00 €	

AUXI.⁽¹⁾: AUXILIARY VOLTAGEUNIN.⁽²⁾: UNINTERRUPTIBLE POWER SUPPLY (FOR BATTERY CONNECTION)INFO.⁽³⁾: IT SENDS DIAGNOSIS INFORMATION TO THE BUS

DIAGRAMS & SOLUTIONS



Complete support to all KNX professionals is what makes us unique



futurasmus
KNX GROUP

SWITCHING ACTUATORS - COMPARATIVE DIAGRAMS

10001010111010101110/10000101*//1011011/1010101
1000001000 / 10000111**** 1111// 1000010101011100/
//101011000101 ///enter///100000100101101***



INDEX



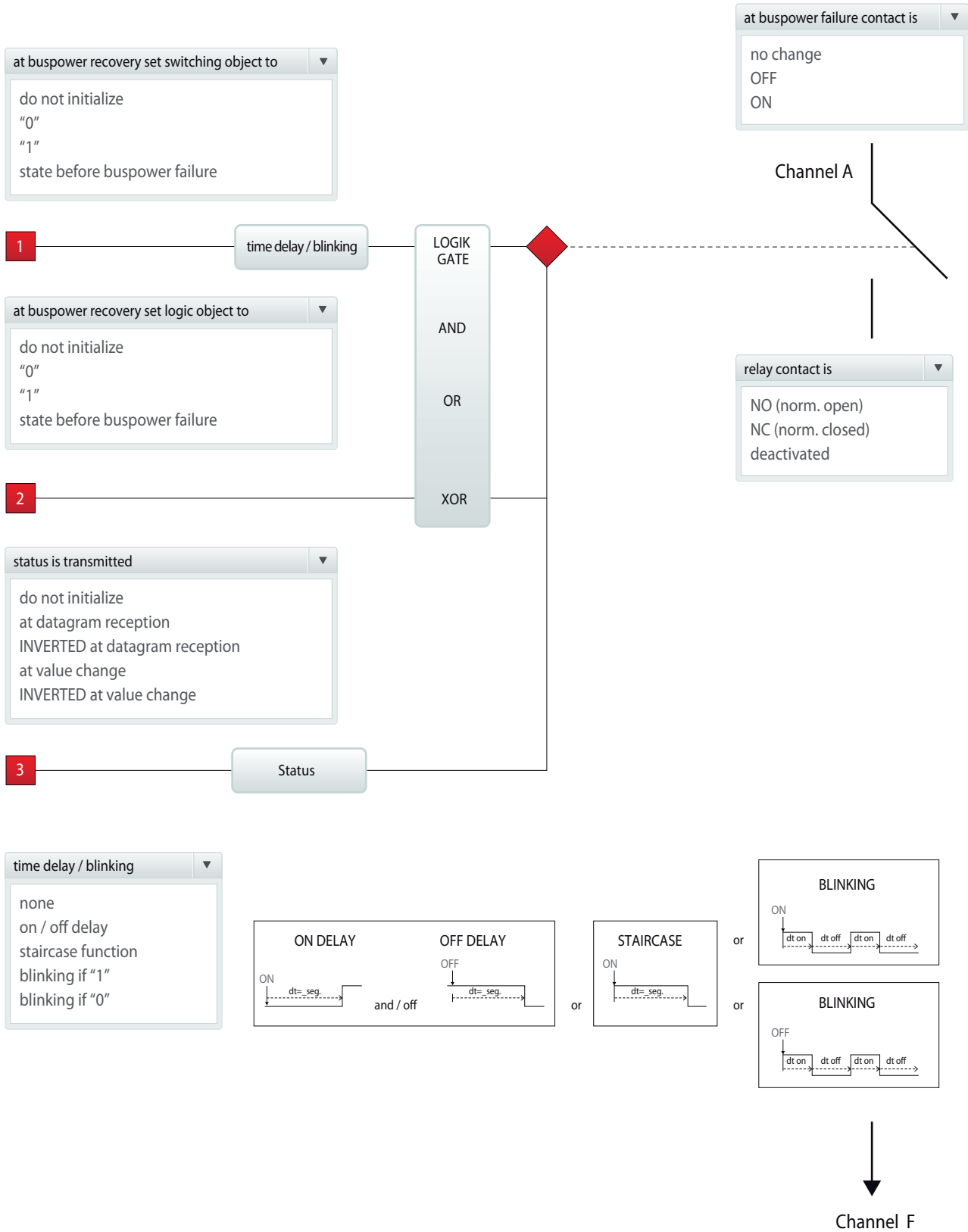
SWITCHING ACTUATORS - COMPARATIVE DIAGRAMS

LINGG & JANKE

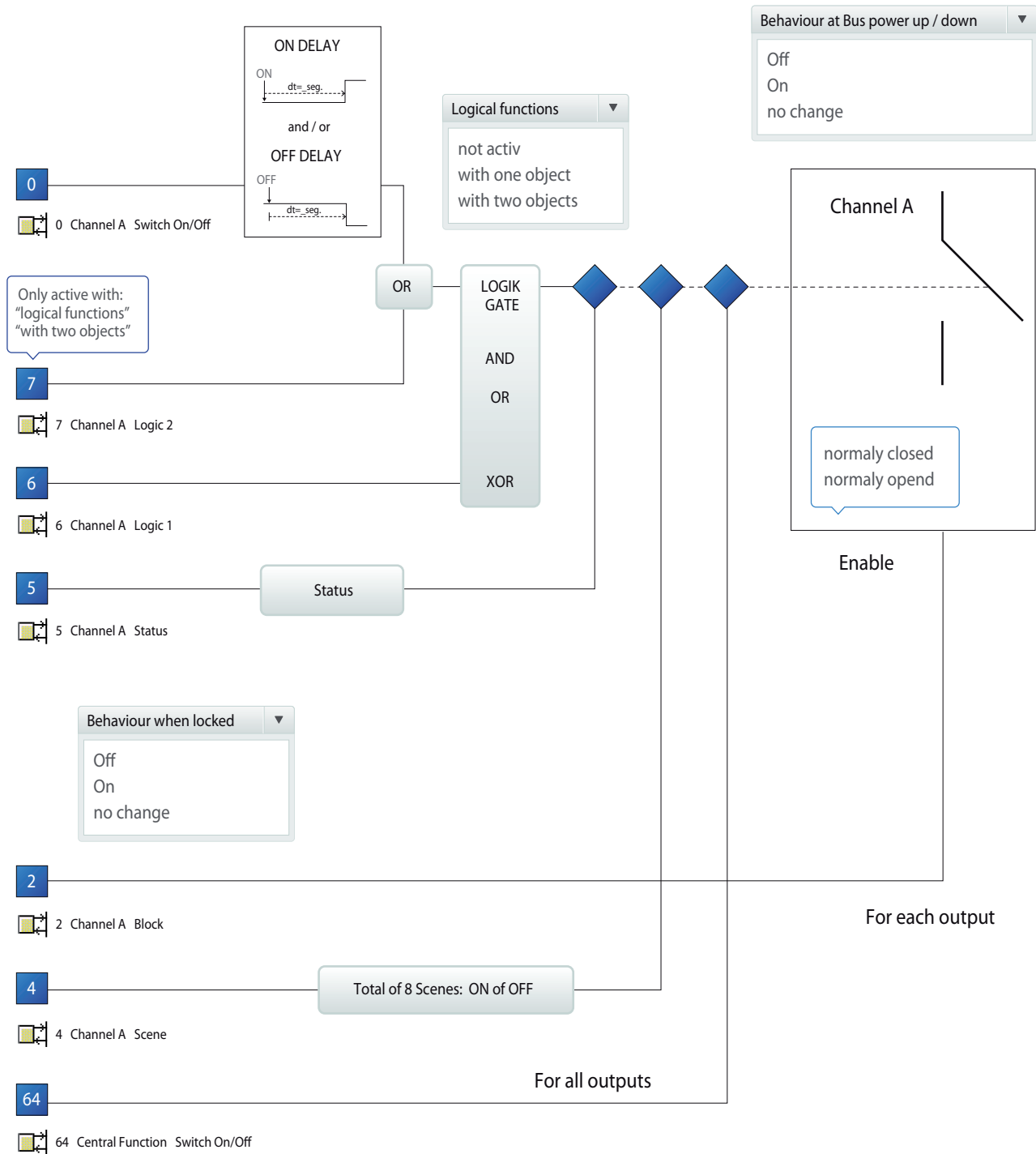
MDT

JUNG

1. Actuator-channel Switching Diagram: Ling & Janke

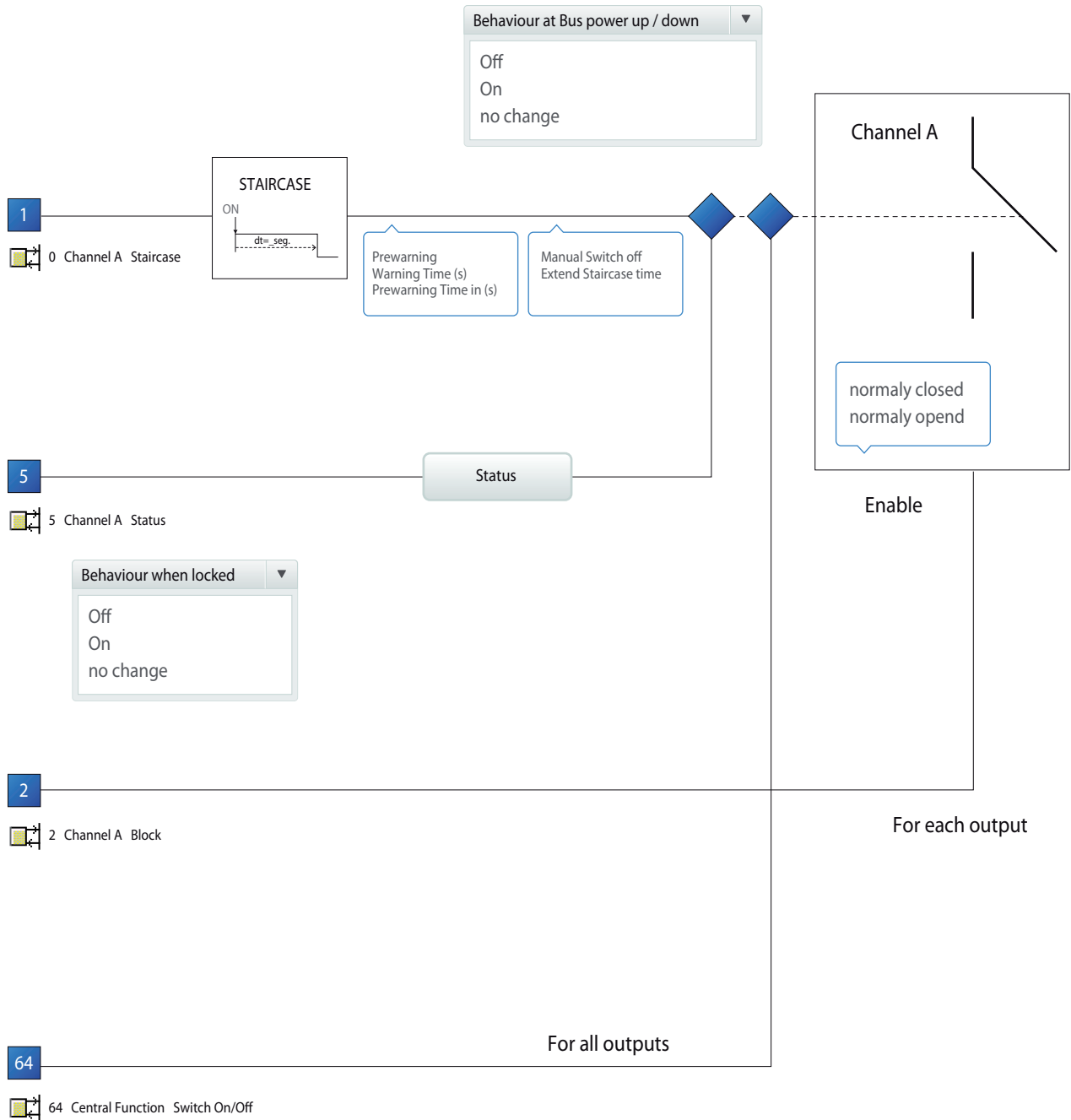


2. Actuator-channel Switching Diagram: MDT (Op. I: no Staircase)



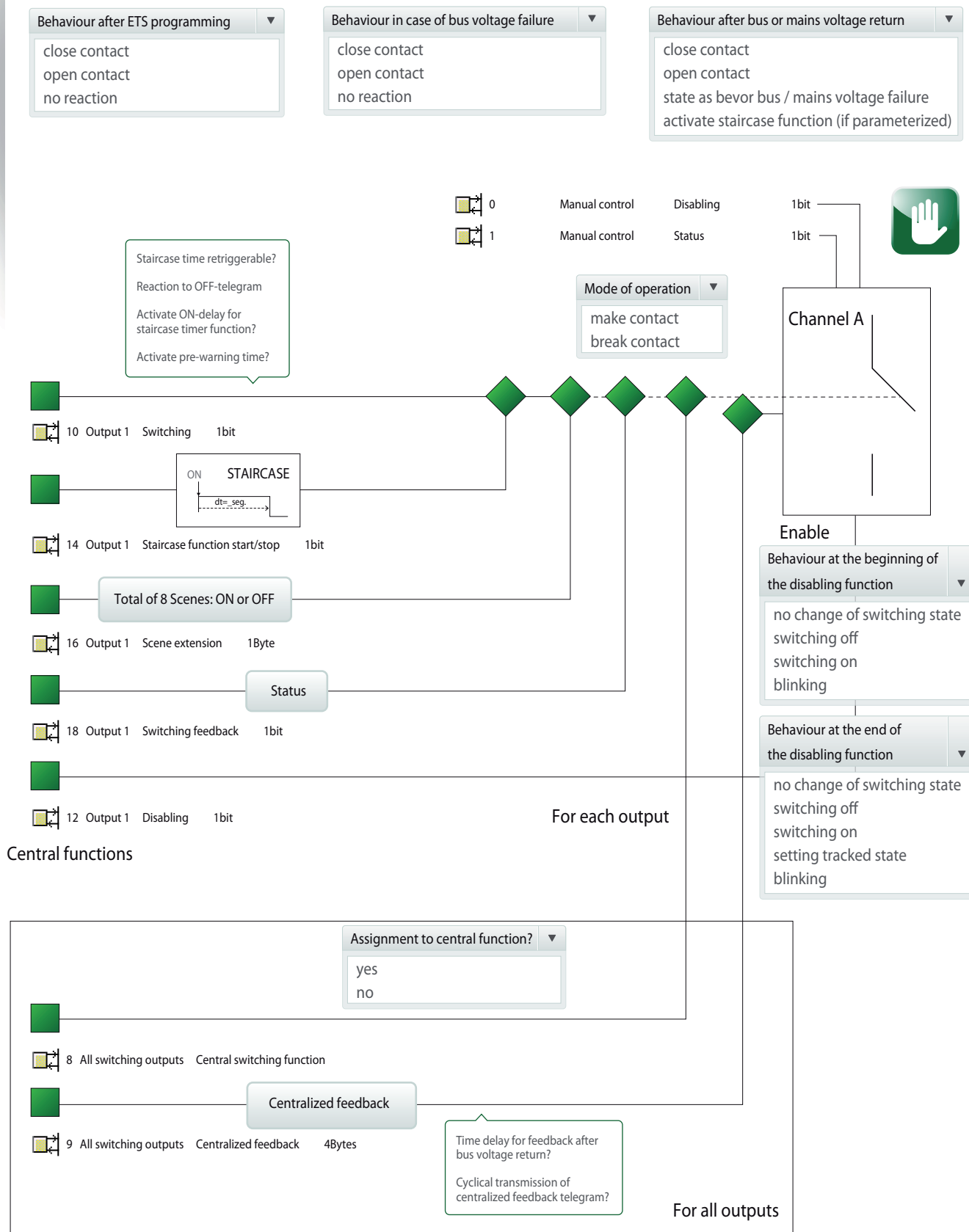
Central functions

2. Actuator-channel Switching Diagram: MDT (Op. II: Staircase)



Central functions

3. Actuator-channel Switching Diagram: Jung (Op. I: Staircase)



3. Actuator-channel Switching Diagram: Jung (Op. II: no Staircase)

Behaviour after ETS programming

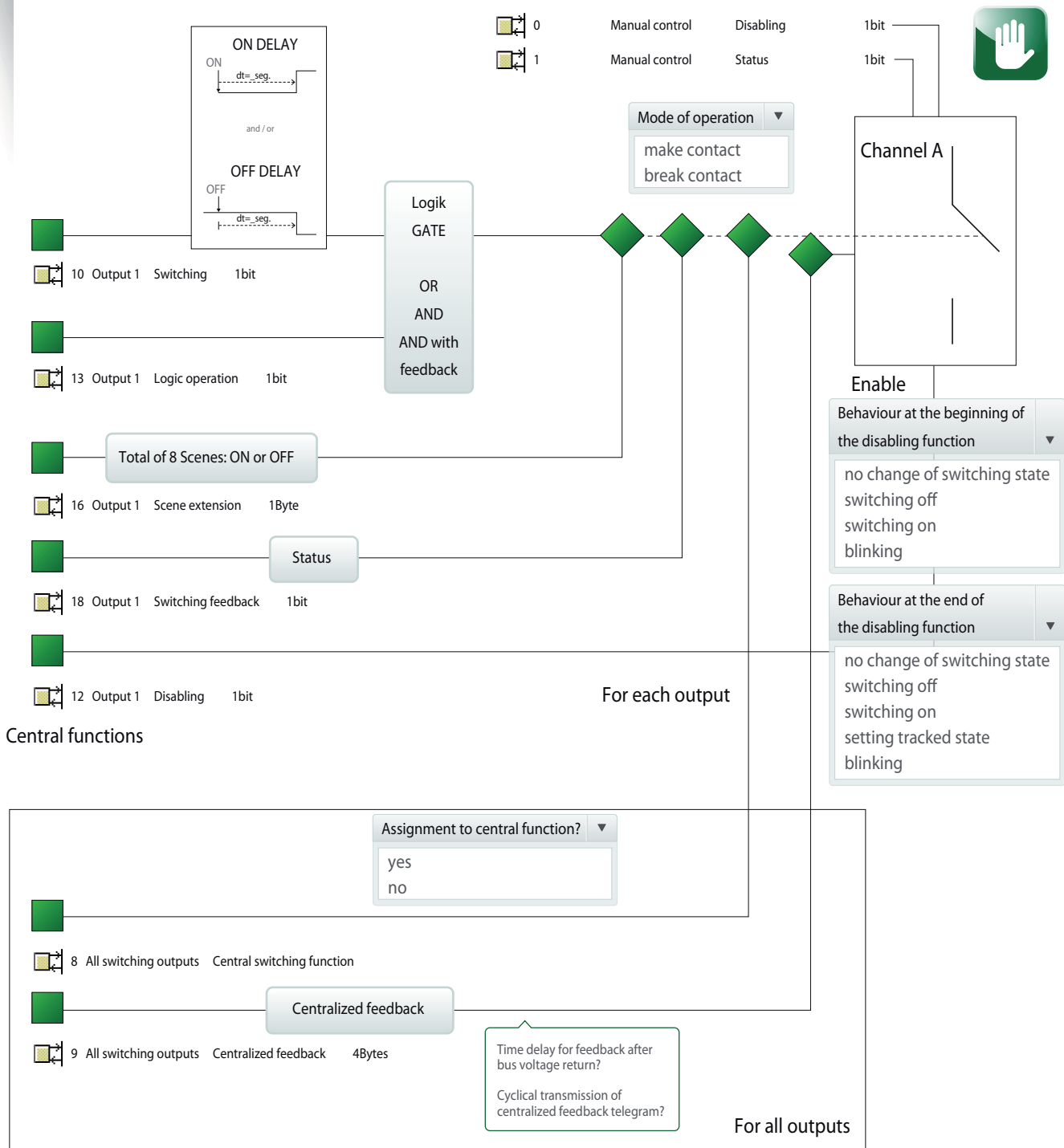
close contact
open contact
no reaction

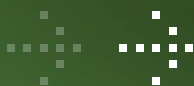
Behaviour in case of bus voltage failure

close contact
open contact
no reaction

Behaviour after bus or mains voltage return

close contact
open contact
state as bevor bus / mains voltage failure
activate staircase function (if parameterized)





CONSTANT LIGHTING REGULATION

10001010111010101110/10000101*//1011011/1010101
1000001000 / 10000111**** 1111// 1000010101011100/
//101011000101 ///enter///100000100101101***

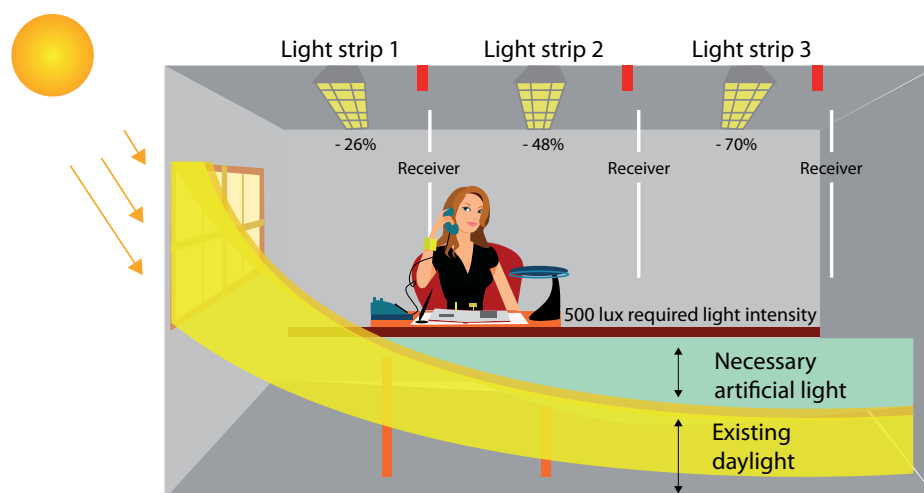


Constant Lighting Regulation (CLR)

In an advanced KNX System you do not only switch and dim lights manually, but also **continuously and progressively adjust the required level of brightness in the room** (or at the desk, for instance) **depending on the external light**. This is what we call Constant Lighting Regulation and you can achieve maximum comfort and save energy.

Learn here how to select and configure the right KNX components.

There are a couple of important things one should take into account when realizing a constant lighting regulation.



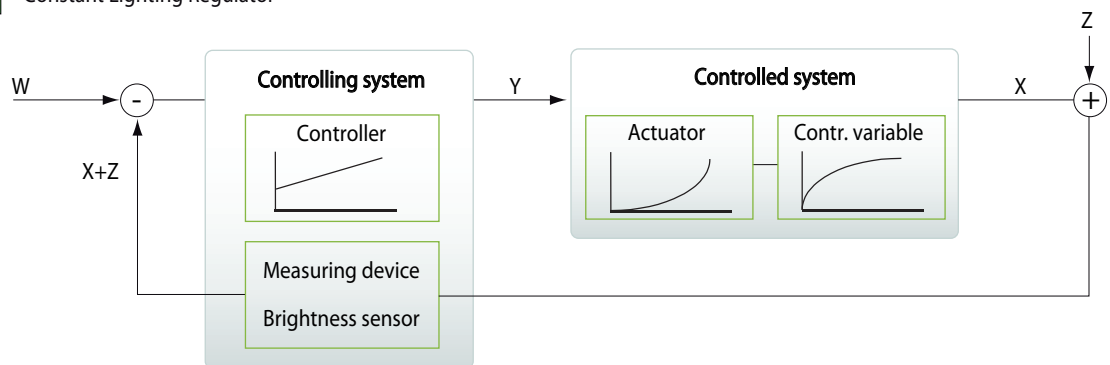
Notes about saving energy with CLR:

- Lighting: only the necessary amount of lighting used. Remember that KNX dimming actuators do save energy (opposite to conventional ones).
- Cooling: by reducing the artificial brightness, less heat is generated and thus less cooling energy is needed (1 kW lighting energy needs 3 kW of cooling energy to compensate the heat generated by the lights !!!)

Constant Lighting Regulation (CLR)

1 Components

- a. KNX dimming actuator – All (no special features needed).
- b. KNX pushbuttons – All (recommended with display).
- c. Constant Lighting Regulator



W ... Reference variable (e.g. brightness, setpoint)
Y ... Control value (dimming value 1-100%)

Z ... Interference (level of external light)
X ... Actual value (lux value at workstation)

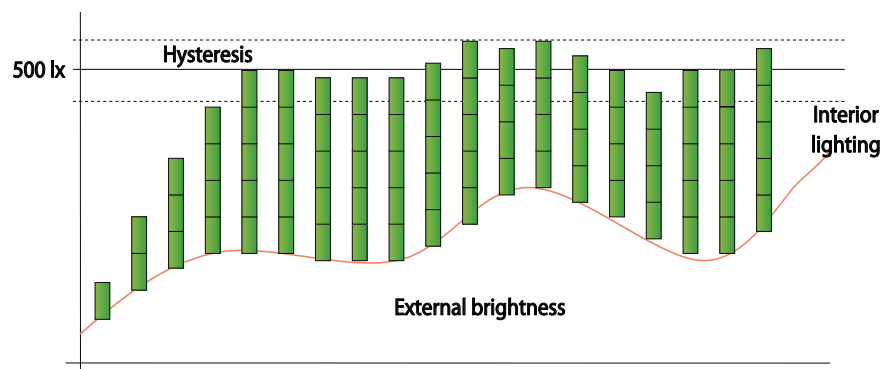
c.i. 2 Main types:

Closed loop regulation

Sends an continuous absolute value - 8bits - (I-Regulation Algorithm) to the bus depending on the difference between actual and set point value.

Integral reset

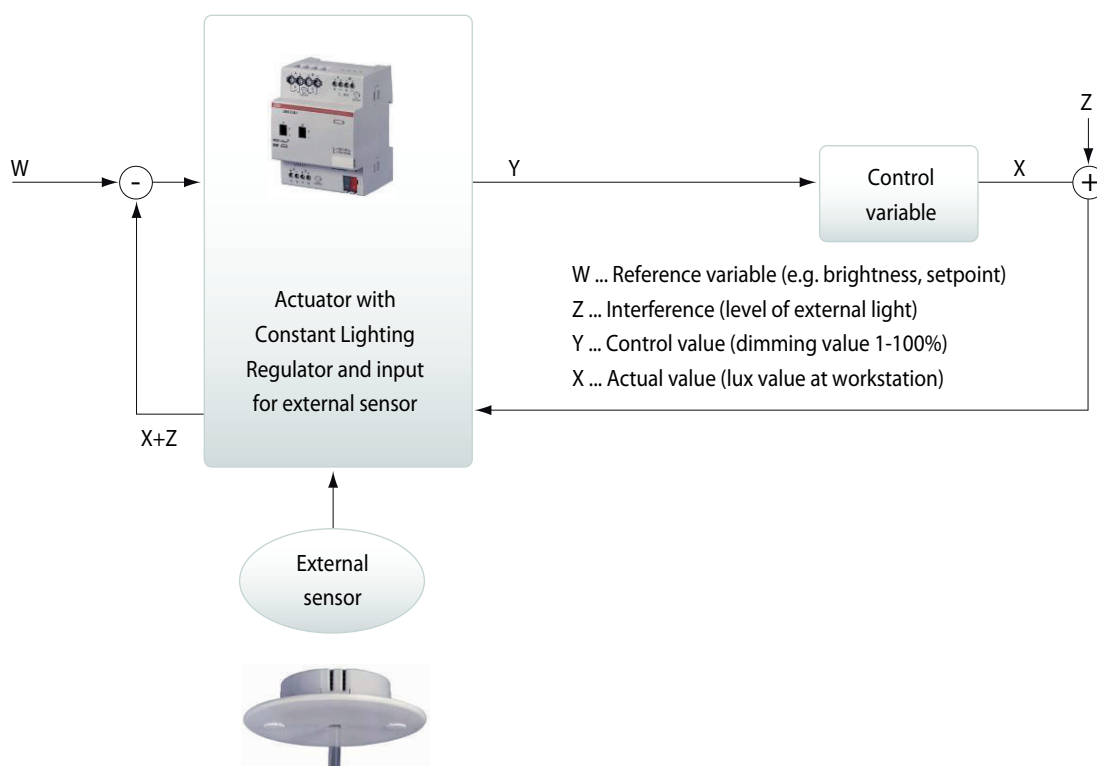
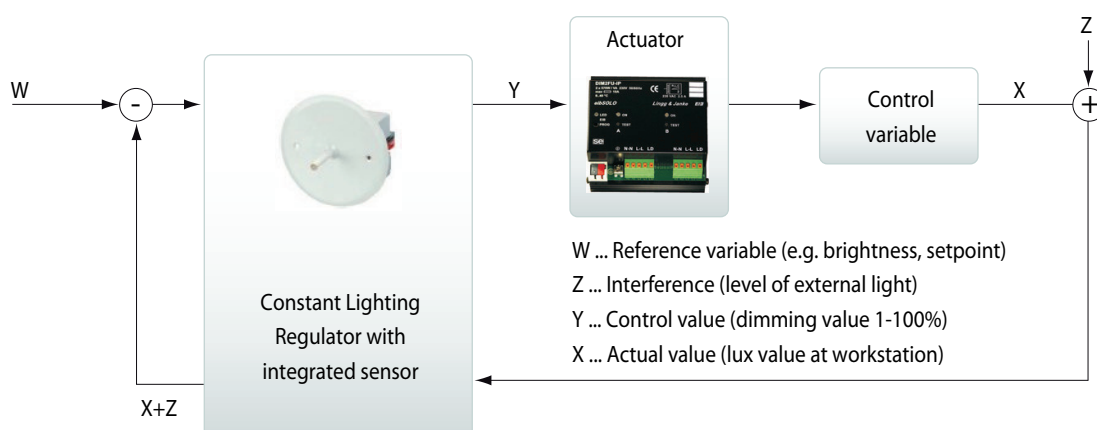
Increments or decrements with always the same step size (4bits – relative dimming or 8bits – absolute dim value) until it reaches the configured hysteresis zone (symmetrically around the set point) Attention! The hysteresis zone has to be bigger than the step size, otherwise it will oscillate.



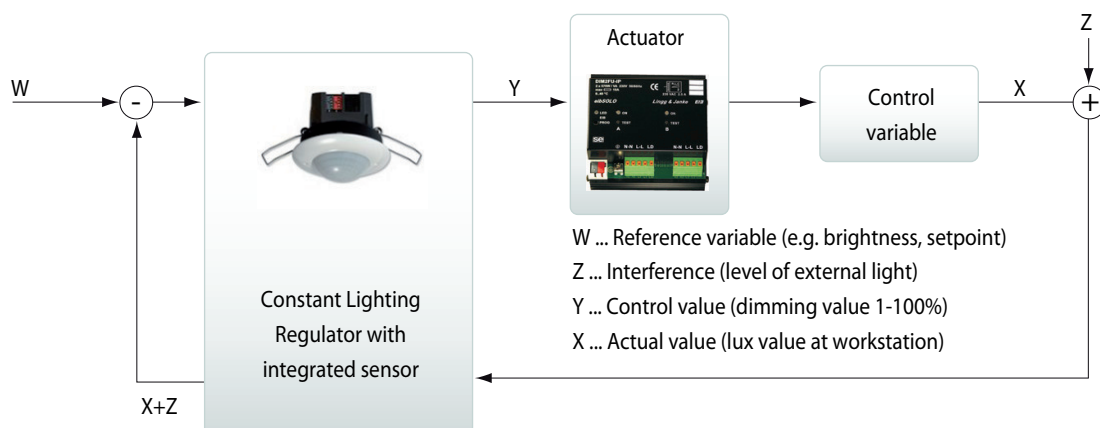
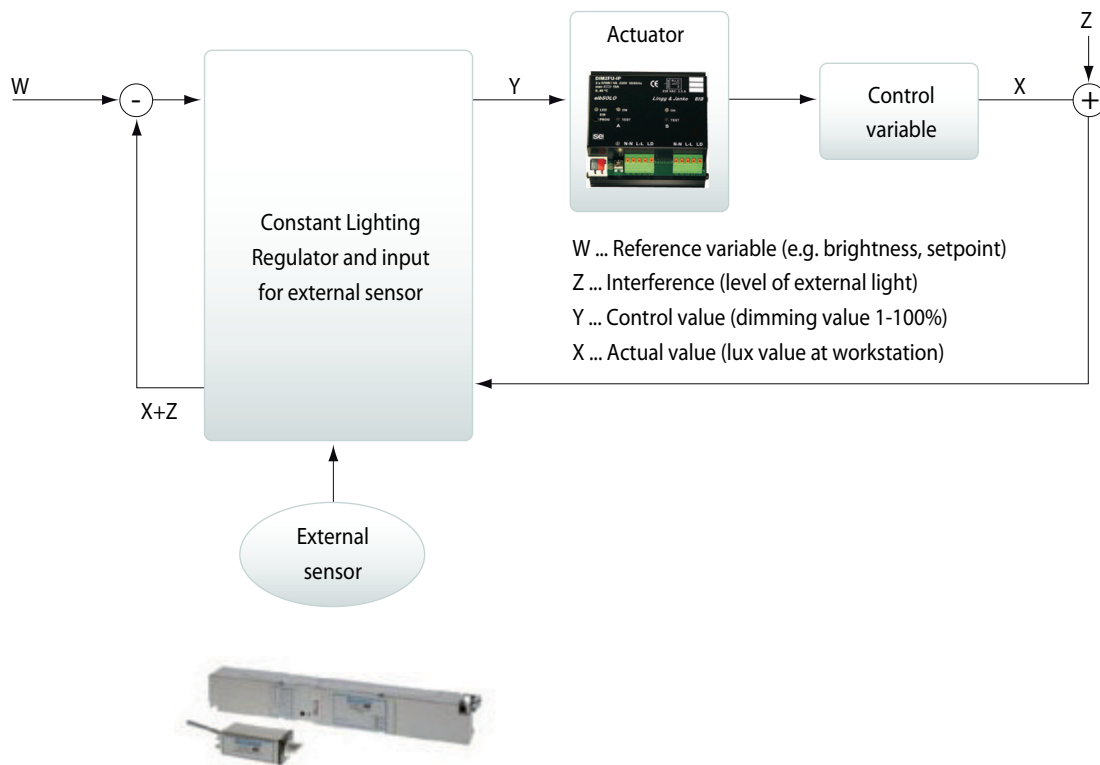
- c.ii. The brightness sensors that are used for CLR should have a measured-value resolution not more than 15% of the set point value. Ex. set point = 600 lux; tolerance < 90 lux.

Constant Lighting Regulation (CLR)

2 Different component topologies

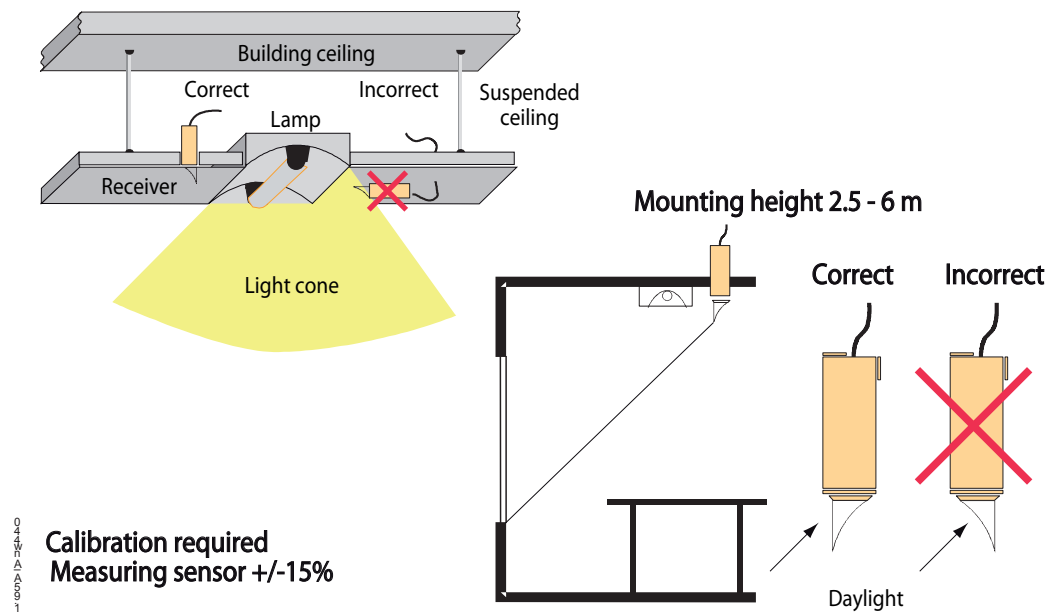


Constant Lighting Regulation (CLR)



Constant Lighting Regulation (CLR)

3 Installation / location



a. Preferable above the area to be regulated. (only if no interference with lights). When using components with light reflecting glass bars, the bar with the perpendicular lens should be used.

b. If not installed above the area, the bar with the inclined lens should be used.

Orientation of the inclined lens

- 1 Pointing to the area to be regulated.
- 2 Never pointing directly to the window.
- 3 No direct reflections (lights, sunlight, mirrors, ...).

Constant Lighting Regulation (CLR)

4 ETS configuration

Dimming Actuator

2/2/1	1	Switch
2/2/2	4	Dimming
OR		
2/2/9	8	Value
2/2/8	8	Status Value



Push buttons / Visualization

Dimm		1	Manual Switch	2/2/1
Alternate		4	Manual dim	2/2/2

Send value		8	Manual value	2/2/3
------------	--	---	--------------	-------

Alternate		1	Activate Contant Lighting Regulation (CLR)	2/2/4
-----------	--	---	--	-------

ON		1	Calibrate	2/2/5
----	--	---	-----------	-------

Send value		16	Setpoint (LUX)	2/2/6
------------	--	----	----------------	-------

Send value		8	Setpoint (LUX)	2/2/7
------------	--	---	----------------	-------

Display		16	Actual value (LUX)	2/2/6
---------	--	----	--------------------	-------

Contant lighting regulator (CLR)

2/2/1	1	Manual switch
2/2/2	4	Manual dim
2/2/3	8	Manual value
2/2/9	8	CLR Contant Lighting Regulation
OR		
2/2/9	4	CLR Contant Lighting Regulation
2/2/8	8	Status actuator CLR Contant Lighting Regulation
2/2/4	1	Activate Contant Lighting Regulation (CLR)
2/2/5	1	Calibrate
2/2/6	16	Setpoint (LUX)
2/2/7	8	Setpoint (LUX)
2/2/6	16	Actual value (LUX)



Constant Lighting Regulation (CLR)

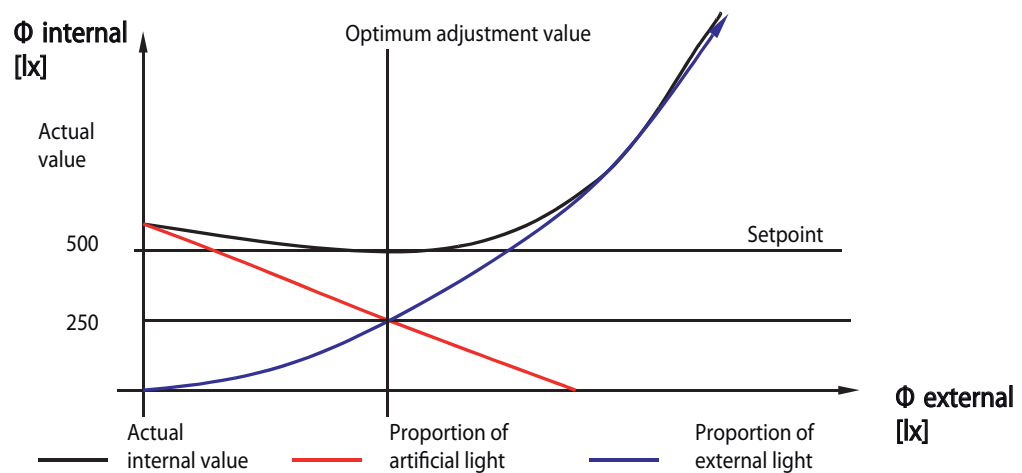
5 Calibration procedure

a. When?

1 Project evolution

Only after everything is finished. Walls painted, carpets installed, floor decking done, furniture installed ...

2 Time of day



When the natural light (sunlight) and artificial light (lighting) stand in a relation 50%/50%.

b. How? Depending on component selection some examples

1 Over 1 bit calibration object

- Regulate to desired lux value (using lux meter situated on the area to be regulated).
- Send a "1" to the 1 bit calibration object.
- Done!

2 Parameter calibration

- Regulate to desired lux value (using lux meter situated on the area to be regulated).
- Read calibration object of the CLR using ETS.
- Fill the received value in the calibration parameter setting.

Constant Lighting Regulation (CLR)

6 When it is not recommended to realize a CLR?

- a. The window too small



- b. The artificial lights too faint (cannot reach the set point value when there is no, or little natural light).

