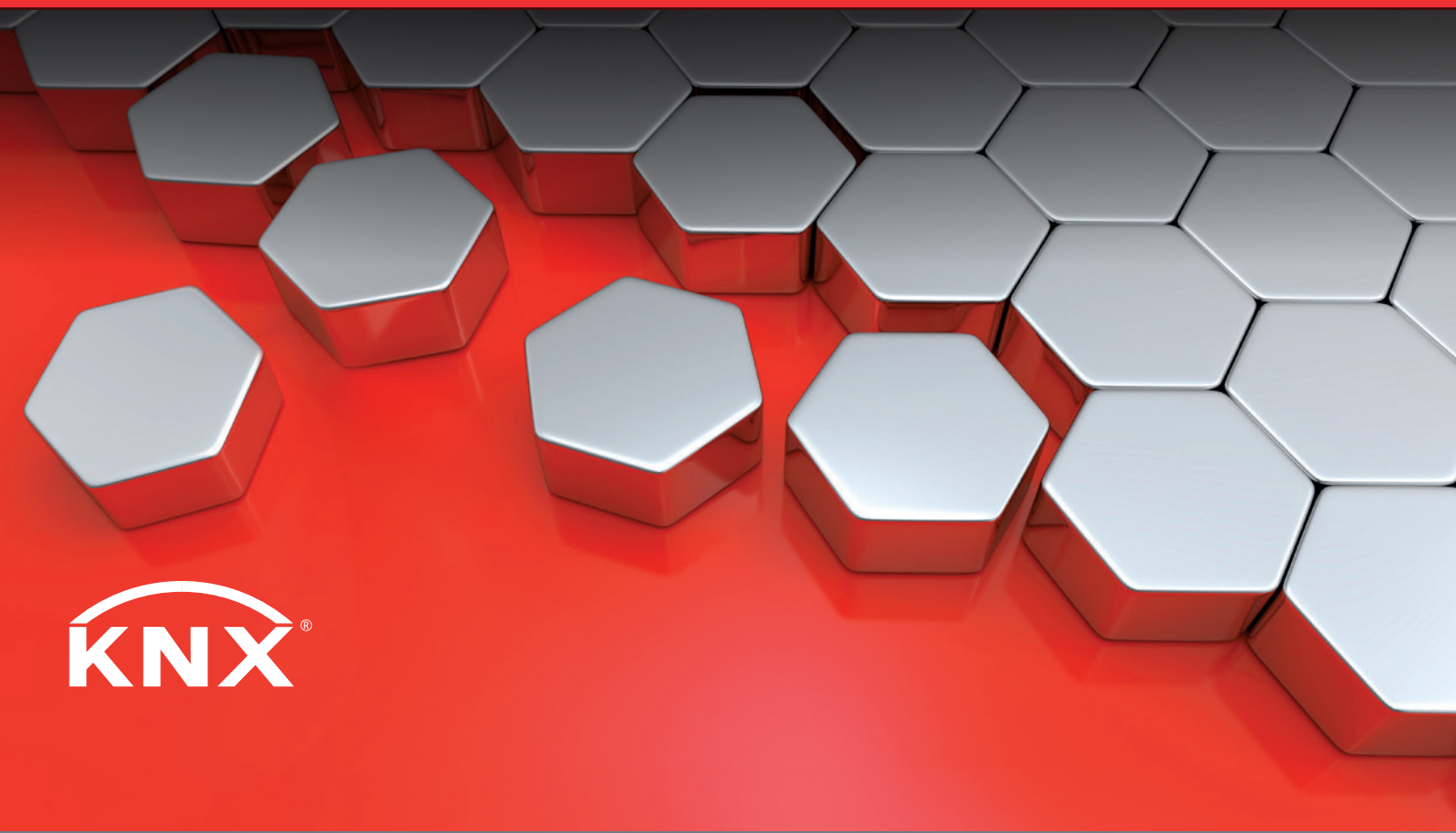
EN

B.E.G. Feel comfortable in your building

Your KNX project with B.E.G.





beg-luxomat.com

Efficient, comfortable, safe and flexible buildings

B.E.G. DX sensors, quality for your KNX project

The energy transition is currently at the centre of attention. The building sector is one of the most energy-intensive sectors and offers considerable potential for savings. Savings can be achieved not only through one-off construction measures such as insulation or replacing heating and lights. Rather, an intelligent interlinking of technologies reduces energy consumption in the long term, so reducing costs and emissions in building operations. Integrated systems are already specified for energy-intensive buildings and even stricter requirements are in preparation so that the European Union can achieve its declared goal of climate neutrality.









Automating buildings with KNX

Today, KNX is the becoming more widespread and well-known solution for building automation. Over 500 manufacturers produce more than 8,000 KNX product families for more than 100,000 applications. The KNX bus system opens up almost unlimited possibilities and is future-orientated as it is constantly being further developed.

B.E.G. Brück Electronic GmbH offers numerous KNX system components such as sensors, system devices and switching actuators, dimming and control actuators, room control units, a B.E.G. ViSTATION for easy visualisation and manual operation of individual KNX projects as well as BIM data for planning. B.E.G. is internationally recognised above all for its wide range of solutions with high-quality PIR sensors for numerous applications and a wide variety of requirements.

Multifunctional Deluxe sensors for KNXs

Terms such as „motion and presence detectors“ will soon seem outdated. These multifunctional sensors not only detect changes in the infrared thermal image (presence) and the presence of light. The new generation of sensors can do much more. In those models where it makes sense from an application point of view, sensors react to a wide range of physical or chemical variables such as air quality, temperature, humidity and acoustics. They process these and send control signals to other devices and actuators. B.E.G. sensors thus form the basis of building automation. In the KNX segment, B.E.G. sensors are characterised as the key to efficient energy use and at the same time ensure comfort and safety for building users.

KNX system and control devices

The helpers that make your KNX system successfully up and running

In addition to our high-quality detectors and sensors, we manufacture KNX system devices such as DIN rail mounted devices, flush-mounted devices and wall-mounted devices. They get the automated building up and running successfully.



Every KNX system requires various system devices to create the basic topology. These can be:

- Power supply
- Line coupler
- USB- or IP interface
- IP router

External control signals can also be processed. These devices bring the binary signals into the KNX:

- Binary input modules
- Push-button coupler, 4-way

Wall-mounted devices enable convenient operation and control of the systems:

- Wall switch with 2, 4, 6 or 8 buttons
- Wall sensor for temperature, humidity and VOC control





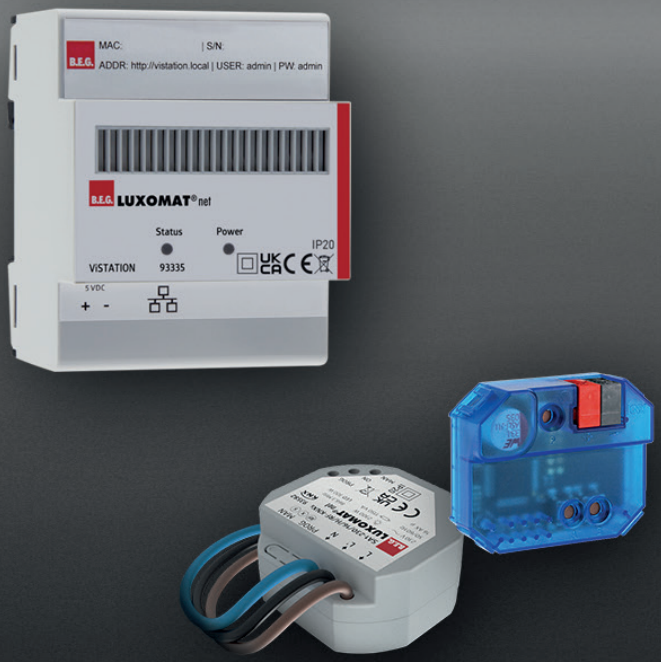
KNX®

Actuators in a wide variety of designs bring the control requirements into the system:

- Switch actuators, 4-gang or 12-gang
- Blind actuators, 4-way
- DALI gateway with a DALI line and integration of DALI-LINK sensors

Professional visualisation enables individual operation and the output of all available values and system states, whether on a PC, tablet or smartphone. Visualisations for small and large KNX systems can be created quickly and easily, without time-consuming project planning.

- ViSTATION for up to 1600 devices
- ViSTATION Windows Server for even more devices



We are constantly expanding our programme to cover the wide range of requirements in building automation:

- System devices and switching actuators
- Dimming and control actuators
- Room operating units
- KNX RF devices

Temperature sensor in B.E.G. KNXs-DX

Additional temperature sensors are integrated in DX models ideal for applications with integrated demand. The temperature sensors can be used to regulate the room temperature: Heating, air conditioning, ventilation and shading are then automatic. This is highly convenient.



Lighting control with B.E.G. KNXs-DX sensors

B.E.G. motion detectors control lighting wherever and whenever it is needed. They thus ensure safety and energy savings. Presence detectors permanently measure the existing illuminance and dim the lighting to a preset value, e.g. in accordance with the DIN EN 12464-1:2021-11 standard applicable to workplaces, thus protecting luminaires and saving even more energy. Dimming can also draw the attention of the audience and create an atmosphere at events and meetings. HCL and RGB round off the outstanding illumination of the rooms.





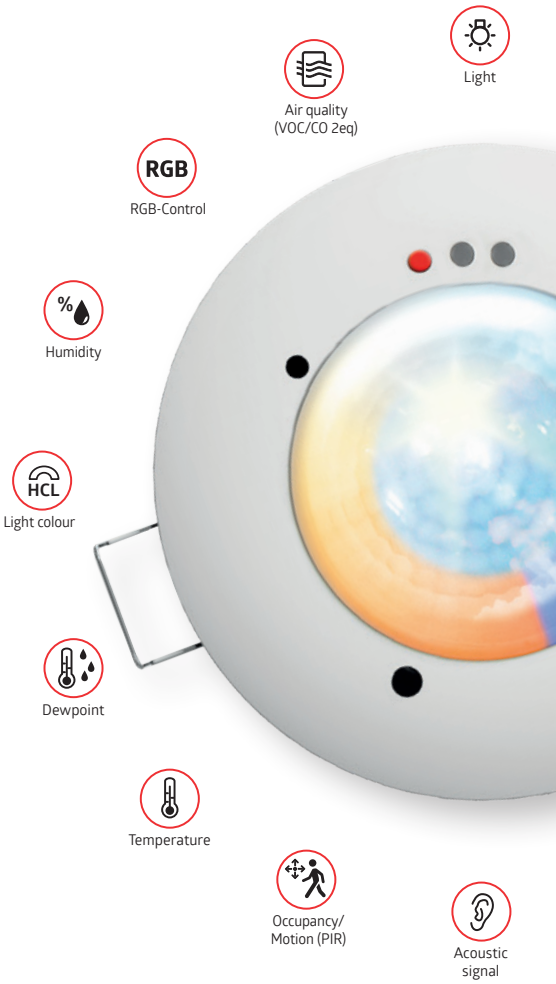
Buildings for well-being and a better future

Buildings have always offered protection from wind, weather and external forces. They convey safety and security. Today new working structures, rapid digitalisation and the challenges of the climate crisis are changing our way of life. People in industrialised countries spend up to 90 % of their time indoors every day. Building automation helps to integrate the positive effects of lighting, fresh air and pleasant temperatures into the building.

Where the user no longer has to intervene, the building automation system ensures the desired energy balance: for example, there is no heat loss from not closing the shutters overnight (savings of up to 30 %) and no unnecessary energy wastage from lighting when there is already sufficient daylight or rooms are not being used (savings of up to 80 % depending on the application).

Excellent air quality with the PD2N-KNXs-OCCULOG-DX

The PD2N-KNXs-OCCULOG-DX is a feel-good multi-sensor with numerous functions. In addition to temperature and humidity, the measurement of VOCs (Volatile Organic Compounds) and the output of CO2 equivalents are of particular interest. Higher concentrations of VOCs can lead to indoor pollution and discomfort (sick building syndrome). These volatile, organic components in indoor air include, for example, evaporating paints, varnishes, solvents, adhesives and cleaning agents, as well as alcohols (deodorant, perfume) and sulphur-containing compounds (onions, garlic). Carbon dioxide (CO2) is an end product of breathing. It itself does not cause any health problems, but it does indicate a decreasing oxygen content in the room air. If you consider the up to 20,000 litres of air that an adult breathes in and out every day, you can imagine how quickly the oxygen content in an occupied conference room or open-plan office can drop. The PD2N-KNXs-OCCULOG-DX triggers the supply of fresh air.



KNX Multisensor-DX



93530	PD2N-KNXs-OCCULOG-DX-FC
93531	PD2N-KNXs-OCCULOG-DX-FM

KNX convenience now without BUS cable

KNX enthusiasts have been waiting for it, the first high-quality sensor and the first KNX sensor with radio transmission and relay included. With the B.E.G. PD2N-RF-KNXs-DX-FC, lighting, heating, ventilation, air conditioning and extensive comfort settings can be precisely controlled. Without any physical BUS cable, but via the KNX-RF standard, additionally extra secure via KNX Secure, the presence detector also conquers existing properties. The usual "3 wires" are sufficient for the power supply and lighting control.

The fast and secure KNX transmission of the recorded signals takes place via the 868.3 MHz centre frequency. And if an additional relay channel is required, e.g. to activate additional switchable lights via the presence of people, the new integrated relay channel can be used.

The new KNX RF flush-mounted switching actuator SA1-230/16/H/RF-KNXs can be used to trigger additional switching actions by radio. KNX RF is a bidirectional radio system in which the devices within an RF line communicate with each other independently. With a B.E.G. TP/RF media coupler LK-RF/KNXs, the radio version (KNX RF; Radio Frequency) is connected to the classic version via KNX BUS lines (KNX TP; Twisted Pair).

As with the TP devices, the new RF devices are commissioned using the ETS. The new RF version includes all the functionalities of the PD2N-KNXs-DX-FC, a deluxe version (DX) of the latest KNX generation and a successful model from B.E.G. Brück Electronic GmbH. The B.E.G. PD2N-RF-KNXs-DX-FC underpins the future viability of the successful KNX bus system, boosts the business of planners, KNX integrators and installers and raises convenience and energy efficiency to a new level.





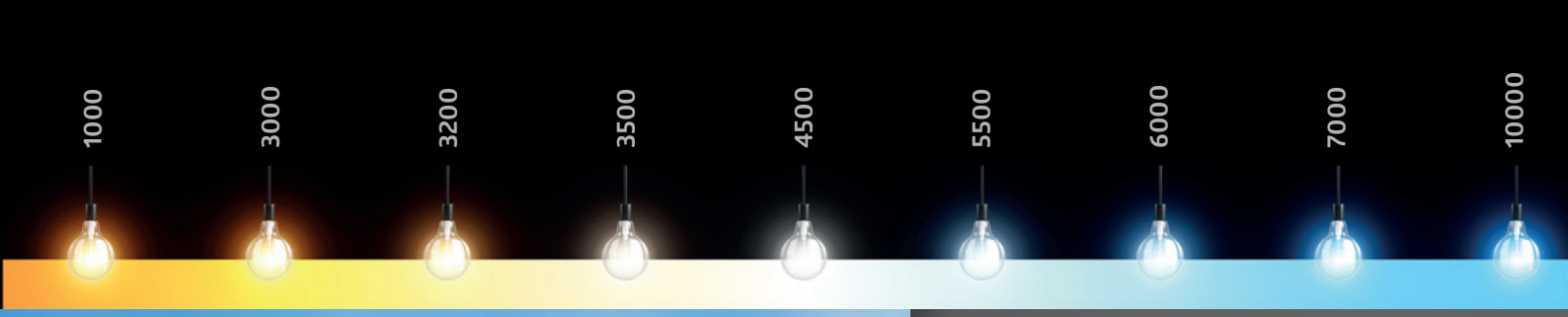
93580
PD2N-RF-KNXs-DX



93582
SA1-230/16/
H/RF-KNXs



90407
LK-RF/KNXs

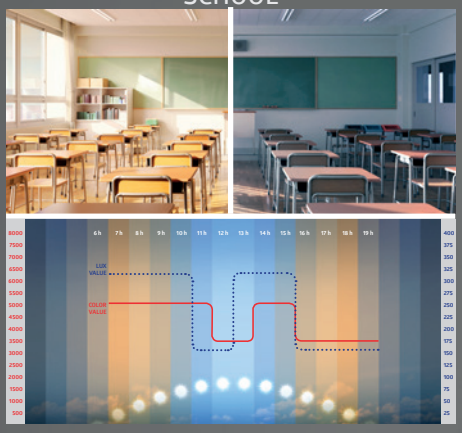


HCL

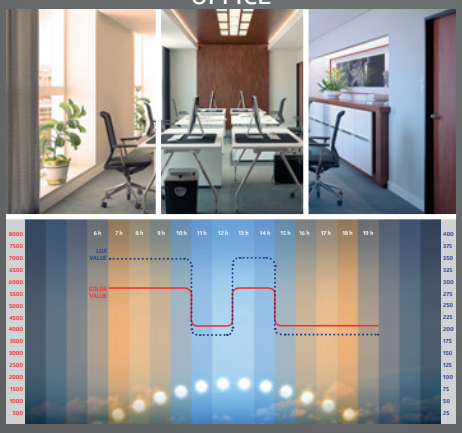
Human Centric Lighting (HCL) in B.E.G. KNXs-DX

Building automation enables a high level of convenience. The Deluxe sensors are therefore equipped with HCL, among other features. HCL focuses on the well-being of building users by simulating the natural course of daylight and activating the release of hormones to stabilise the user's circadian cycle. Light colour and lighting intensity support relaxation, prevent phases of fatigue and increase concentration. Building users thus benefit from the advantages of biodynamic light. The Deluxe sensors offer light curves that have been developed for a wide range of applications.

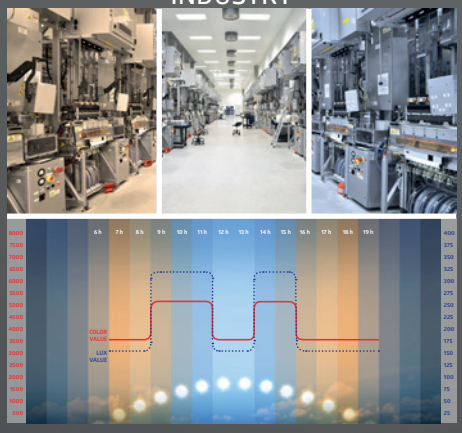
SCHOOL



OFFICE



INDUSTRY



RGB

RGB in B.E.G. KNXs-DX

RGB is an additive colour model in which up to 16.7 million different colours can be generated from the three light colours red, green and blue. The B.E.G. KNX Deluxe sensors therefore enable atmospheric lighting at any time. It is also possible to implement lighting in colours that match the corporate design - e.g. the lighting of a foyer to create an external effect. When presence is detected, a quick change from coloured lighting to neutral lighting can be made.

ENVIRONMENT

Acoustic sensor in B.E.G. KNXs-DX

The acoustic sensor in DX models is used for additional noise detection - not only in winding stairwells, the acoustic sensor can also be used for additional presence detection in sanitary facilities. For example, additional presence detectors in individual toilet cubicles or in the shower area can be dispensed with.

The plus in comfort

Heating, air conditioning, ventilation, shading, lighting and optimisation to the needs of the room users are all automatic. A higher level of comfort and safety with lower energy consumption can only be achieved through intelligent control and monitoring of all the products used.

Whether colour variants or technical details - the high-quality sensors from B.E.G. offer a wide range. Further device details can be found on the Internet and in the current B.E.G. KNX brochure or you can obtain advice from your electrical wholesaler.

KNX Secure

For a long time, no thought was given to securing KNX-controlled buildings. Like any other communication technology, home and building automation can also be a target for hackers. All new KNX sensors with the identifier KNXs - the s stands for „Security“ - have been revised by B.E.G. to protect the building system technology and offer the possibility of secure building operation. First and foremost, it is particularly important that the security concept is applied when setting up KNX and that passwords are stored securely. KNX Secure itself then fulfils the highest encryption standards (in accordance with ISO 18033-3, for example AES 128 CCM encryption). KNX Data Secure effectively protects user data against manipulation through encryption and authentication. KNX IP Secure ensures complete encryption of transmitted telegrams and data.

DELUXE-SENSOR	DETECTION AREA	TYPICAL APPLICATIONS	NUMBER OF SENSORS				
			MOVEMENT	LIGHT	TEMPERATURE	ACOUSTIC	MORE
PD2N-KNXs-DX	Ø 10 m	All buildings, inside	1	2	1	1	-
PD2N-RF-KNXs-DX	Ø 10 m	All buildings, inside	1	2	1	1	-
PD2N-KNXs-OCCULOG-DX	Ø 10 m	Functional buildings, interior	1	2	1	1	2
RC-plus next N 230 KNXs-DX	20 m	Outdoor area	3	1	1	-	-
Indoor 180-KNXs-DX	10 m	All buildings, toilets, passageways, inside	1	1	1	1	-
PD11-KNXs-FLAT-DX	Ø 9 m	All buildings, interior, design	1	1	1	1	-
PD4N-KNXs-DX	Ø 24 m	Functional buildings, interior, large	4	2	1	1	-

*Further sensors available for special applications, details at www.beg-luxomat.com or in the B.E.G. KNX brochure

FUNCTION OVERVIEW SENSOR VARIANTS

Type	PD2			PD4			PD4-GH	PD9 (GH)	PD11		PICO		PD5N	Indoor 180		RC plus next-N
	BA	ST	DX	BA	ST	DX	DX	DX	ST	DX	ST	DX	DX	ST	DX	DX
Number of light sensors	2	2	2	2	2	2	1	1	1	1	1	1	2	1	1	1
Number of motion sensors	1	1	1	4	4	4	3	1	1	1	1	1	2	1	1	3
Number of HVAC outputs	–	3	3	–	3	3	3	3	3	3	3	3	3	3	3	3
Sensitivity adjustment PIR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bidirectional remote control	–	X	X	–	X	X	X	X	X	X	X	X	X	X	X	X
End customer remote control	–	–	X	–	–	X	X	X	–	X	–	X	X	–	X	X
Temperature sensor	–	–	X	–	–	X	X	X	–	X	–	X	–	–	X	X
Sound sensor	–	–	X	–	–	X	–	–	–	X	–	–	–	–	X	–
Logic module	–	–	X	–	–	X	X	X	–	X	–	X	X	–	X	X
Presence simulation	–	–	X	–	–	X	X	X	–	X	–	X	X	–	X	X
Internal push-buttons	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Internal orientation light	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Slave output	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Slave input	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Switching operation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Regular operation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Semi-automatic mode/ fully automatic mode	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Light scenes	–	X	X	–	X	X	X	X	X	X	X	X	X	X	X	X
Offset mode	–	X	X	–	X	X	X	X	X	X	X	X	X	X	X	X
Orientation light function	–	X	X	–	X	X	X	X	X	X	X	X	X	X	X	X
Burn-in function	–	X	X	–	X	X	X	X	X	X	X	X	X	X	X	X
Parameter changes via object	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Self-adjustment of run-on time	–	X	X	–	X	X	X	X	X	X	X	X	X	X	X	X
Short presence	–	X	X	–	X	X	X	X	X	X	X	X	X	X	X	X
Direction recognition	–	–	–	–	X	X	X	–	–	–	–	–	–	–	–	X
Daylight-dependent switch-off	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HCL/ RGB control	–	–	X	–	–	X	X	X	–	X	–	X	X	–	X	X
KNX Secure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

For further info

BA = Basic – Economic solution for simple requirements

ST = Standard – comprehensive solution for common requirements

DX = Deluxe – premium solution for demanding applications

KNX Sensors

BASIC



PD2N-KNXs-BA-FC
Occupancy detector
Ceiling mounting
93533



PD2N-KNXs-BA-UP
Occupancy detector
Flush mounting
93534



PD4N-KNXs-BA-FC
Occupancy detector
Ceiling mounting
93535



PD4N-KNXs-BA-UP
Occupancy detector
Flush mounting
93536

STANDARD



PD2N-KNXs-ST
Occupancy detector
Flush mounting
93511



PD2N-KNXs-ST
Occupancy detector
Ceiling mounting
93510



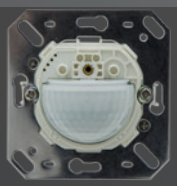
PD4N-KNXs-ST
Occupancy detector
Flush mounting
93515



PD4N-KNXs-ST
Occupancy detector
Ceiling mounting
93514



PD11-KNXs-FLAT-ST
Occupancy detector
Ceiling mounting
93522



Indoor 180-KNXs-ST
Occupancy detector
Wall mounting
93524



PICO-KNXs-ST
Occupancy detector
Ceiling mounting
93539

DELUXE



PD2N-KNXs-OCCULOG-DX
Occupancy detector
Flush mounting
93531



PD2N-KNXs-OCCULOG-DX
Occupancy detector
Ceiling mounting
93530



PD2N-KNXs-DX
Occupancy detector
Flush mounting
93513



PD2N-KNXs-DX
Occupancy detector
Ceiling mounting
93512



PD4N-KNXs-DX
Occupancy detector
Flush mounting
93517



PD4N-KNXs-DX
Occupancy detector
Ceiling mounting
93516



PD11-KNXs-FLAT-DX
Occupancy detector
Ceiling mounting
93523



Indoor 180-KNXs-DX
Occupancy detector
Wall mounting
93525



PD9-KNXs-DX
Occupancy detector
Ceiling mounting
93520



PD9-KNXs-GH-DX
Occupancy detector
Ceiling mounting
93521



PD4-KNXs-GH-DX
Occupancy detector
Ceiling mounting
93518



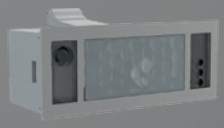
PICO-KNXs-DX
Occupancy detector
Ceiling mounting
93529



RC-plus next N 230 KNXs-DX
Occupancy detector outdoor
Wall mounting
93528



RC-plus next N 230 KNXs-DX
Occupancy detector outdoor
Wall mounting
93527



PD5N-LAMELLA-KNXs-DX WB
Installation in slatted ceilings
Ceiling mounting
93508



PD5N-LAMELLA-KNXs-DX BB
Installation in slatted ceilings
Ceiling mounting
93509

KNX DIN rail mounted devices

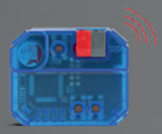
RADIO (RF)



SA1-230/16/H/RF-KNXs
1 Channel switching actuator radio
Wall mounting
93582



RF-Funk Deluxe PD2N-RF KNXs-DX
Occupancy detector radio
Ceiling mounting
93580



LK-RF/KNXs
RF/TP Media coupler
Wall mounting
90407

USB DATA INTERFACE



USB-Stick-IF/KNX
USB data interface
90409

WALL-MOUNTED DEVICES



PBM-KNX-DX-4W
4 Channel input-/output
Push button interface
93365



PB2-KNX-ST
2-multi-point
Push button
93172



PB4-KNX-ST
4-multi-point
Push button
93174



PB6-KNX-ST
6-multi-point
Push button
93176



PB8-KNX-ST
8-multi-point
Push button
93178



WS-VOC-HVAC-KNX
Temperature controller and VOC Controller/Multisensor
93806

For further information

DIN RAIL MOUNTED DEVICES



ViSTATION
Visualisation-and
remote-server
Visualisation
93335



SA4-230/16/H/KNXs REG
4 switching outputs
Switching actuator
93224



SA8-230/16/H/KNXs REG
8 switching outputs
Switching actuator
93228



SA12-230/16/H/ KNXs REG
12 switching outputs
Switching actuator
93328



SBA4-230/10/H/ KNX REG
4 Channel switching output
Blind actuators
93930



PSN-230/640/30/ KNX REG
Power supply
System device
90214



PSN-230/1280/30/ KNX REG
Power supply
System device
90215



LK-IP/KNXs REG
IP Router
System device
90403



LAN-IF/KNXs REG
LAN programming interfaces
System device
90404



DA64-230/KNX REG
1 DALI-line addressing mode
DALI-Gateway
93302



DA64-230/ KNX REG DALI-2
1 DALI-Linie addressing mode
DALI-Gateway
93338 COMING SOON 2025



LK-TP/KNXs REG
TP Line coupler
System device
90410



BIA4-KNXs REG
4 input active
Binary inputs
90411
COMING SOON 2025



BIP4-KNXs REG
4 input passive
Binary inputs
90412
COMING SOON 2025



USB-C-IF/ KNX REG
USB-C data interface
System device
90408

Feel comfortable in your building

Our project service for your plans and innovative buildings

B.E.G. offers a wide range of services, customised to your needs. Our team of experts offers you a comprehensive service. In addition to our competent sales field service, we also offer you our project service.



1. Recording the customer requirement
The project will be discussed with you in detail, no matter how much time we need together.



2. Creation of a system design
Based on the consultation, we create a system design for you in which we create a technically economical and ecological system design. Whether server solution, KNX or DALI-2. We offer you the right solution. This also includes validation in accordance with DWG sensor planning.



3. Sensor planning
Simply outsource the sensor planning in a project free of charge? Gladly, with us always. With our planning service, we offer you a solution created by our experts with years of experience.



4. Project support
We work with you to successfully complete the project. Our project service will be on hand with help and advice.



5. After-Sales-Service
Once the project has been successfully completed, we will continue to support you with our after-sales service.

Are you interested? Then simply contact us: projects@beg.de

Headquarters
B.E.G. Brück Electronic GmbH
Gerberstraße 33, 51789 Lindlar

T +49 (0) 2266 90121-0

vertrieb@beg.de
beg-luxomat.com