



The lighting control professionals



Your KNX project with B.E.G.



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 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Terms such as „motion and presence detectors“ will soon seem outdated.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.





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

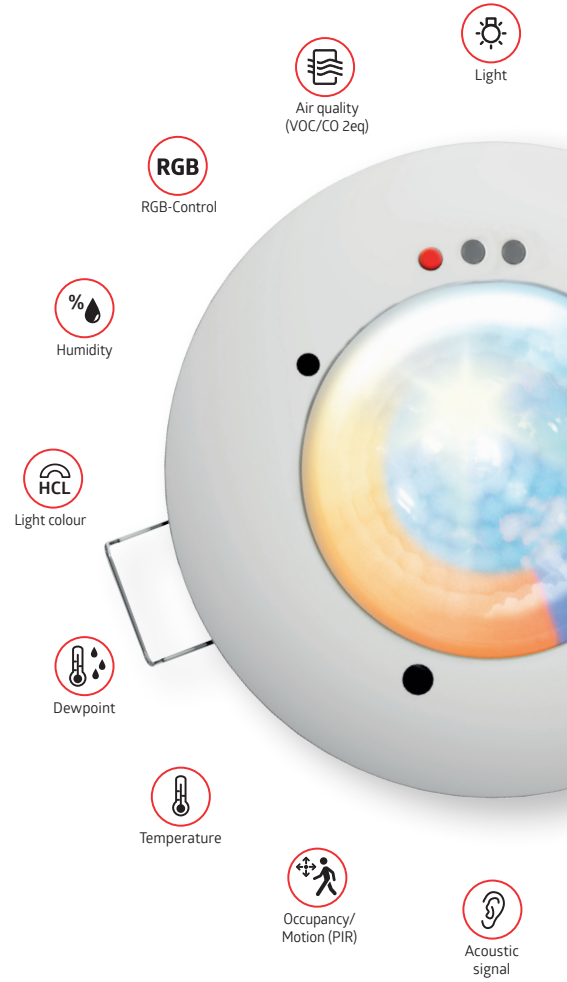
Buildings have always offered protection from wind, weather and external attacks. They convey safety and security. Today new working structures, rapid digitalisation and the challenges of the climate crisis are changing our way of life. People in industrialised countries spend up to 90 % of their time 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



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 things. 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.

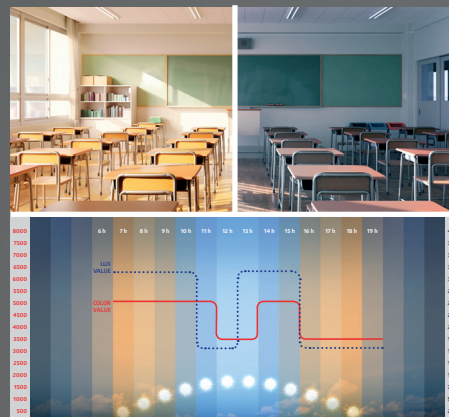


RGB in B.E.G. KNXs-DX

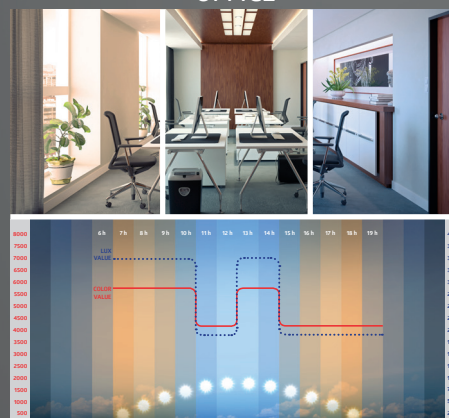
RGB is an additive colour model in which up to 16.7 million different colours can be generated from the three light colours red, green and blue. The B.E.G. KNX Deluxe sensors therefore enable atmospheric lighting at any time. It is also possible to implement lighting in colours that match the corporate 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.



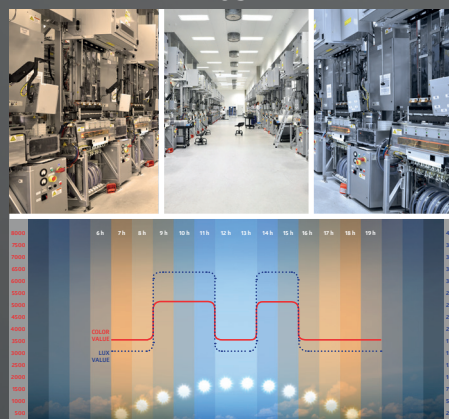
SCHOOL



OFFICE



INDUSTRY





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				MORE
			 MOVEMENT	 LIGHT	 TEMPERATURE	 ACUSTICS	
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

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:

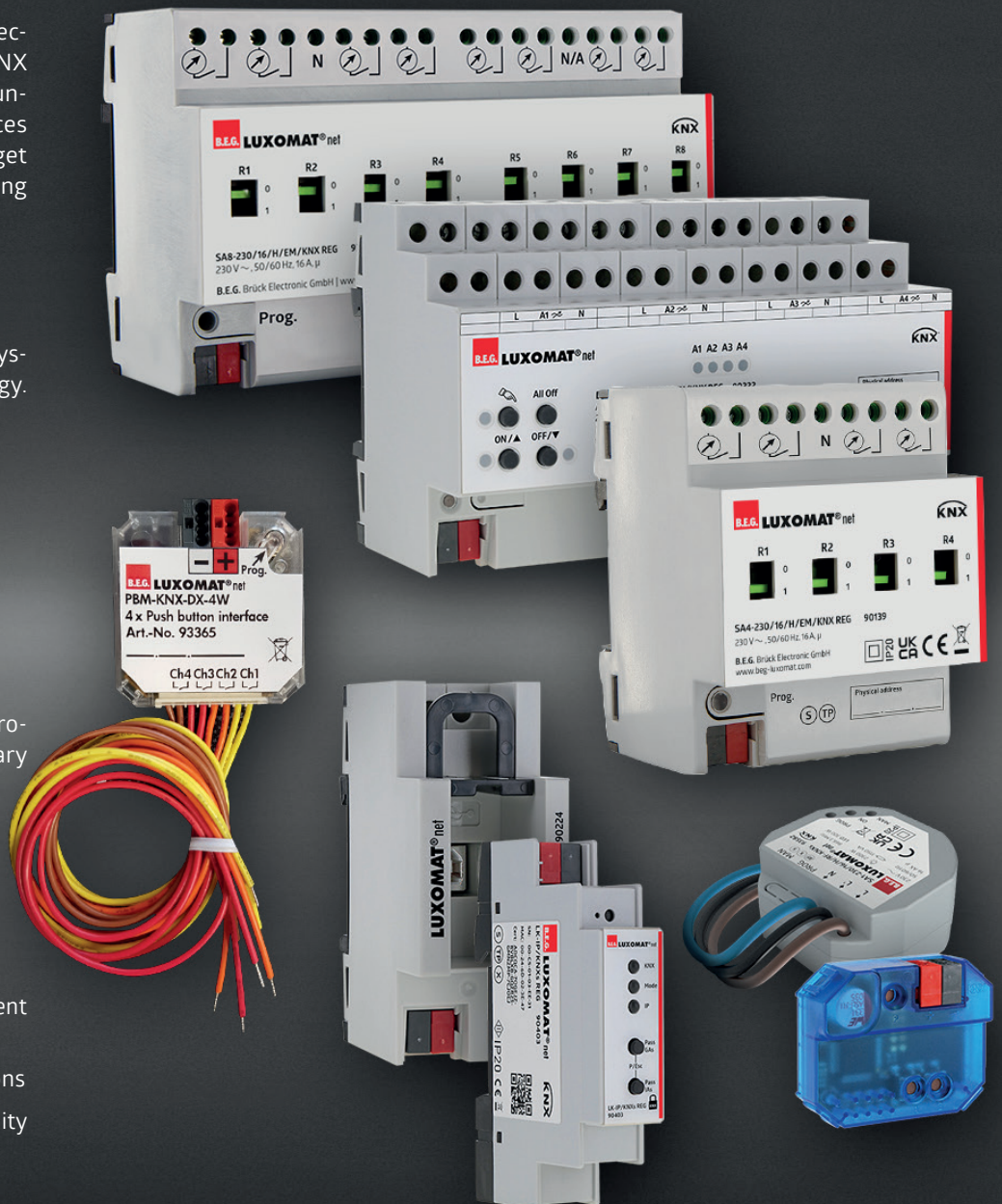
- Power supply
- Line coupler
- USB- or IP interface
- IP router

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

- Binary input modules, 4-fold
- 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





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

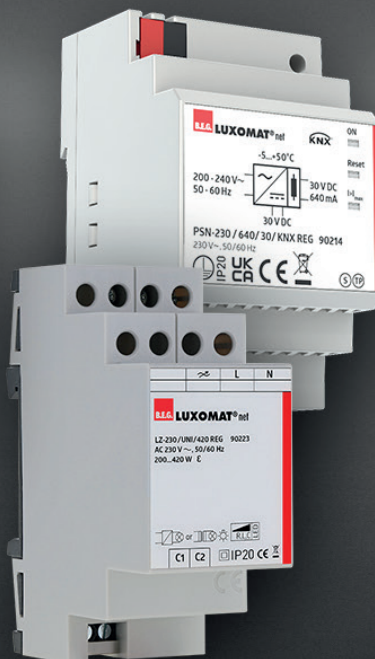
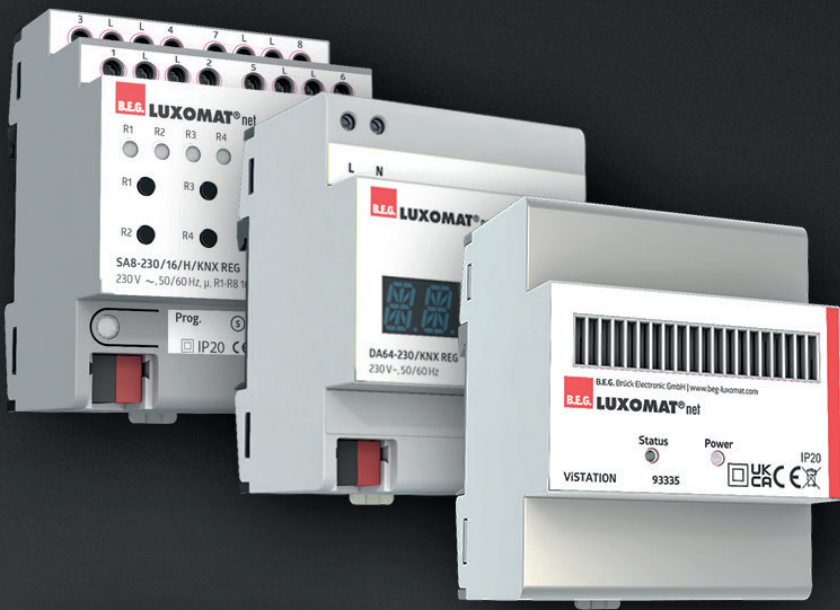
- Switch actuators, 4-gang or 8-gang
- Switch actuators with current and active power measurement, 4-gang or 8-gang
- Blind actuators, 4-way
- Dimming actuators, 4-gang
- DALI gateway with a DALI line and integration of DALI-LINK sensors

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



STANDARD

DELUXE

PD2N-KNXs-ST
Occupancy detector
Flush mounting
93511



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



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



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

PD2N-KNXs-ST
Occupancy detector
Ceiling mounting
93510



PD2N-KNXs-DX
Occupancy detector
Flush mounting
93513

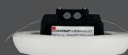


PD2N-KNXs-DX
Occupancy detector
Ceiling mounting
93512

PD4N-KNXs-ST
Occupancy detector
Flush mounting
93515



PD4N-KNXs-DX
Occupancy detector
Flush mounting
93517



PD4N-KNXs-DX
Occupancy detector
Ceiling mounting
93516

PD4N-KNXs-ST
Occupancy detector
Wall mounting
93514



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



Indoor 180-KNXs-DX
Occupancy detector
Wall mounting
93525

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



PD9-KNXs-DX
Occupancy detector
Wall mounting
93520



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

Indoor 180-KNXs-ST
Occupancy detector
Wall mounting
93524



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



PICO-KNXs-DX
Occupancy detector
Luminaire mounting
93529

PICO-KNXs-ST
Occupancy detector
Luminaire mounting
93539



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



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

Indoor 140-L-KNX-DX
Occupancy detector
Wall mounting
GEN6
93393



further information:



WALL-MOUNTED DEVICES

DIN RAIL MOUNTED DEVICES

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



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

ViSTATION
Visualisation-
and remote-server
Visualisation
93335



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

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



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

**SA4-230/16/H/
KNX REG**
4 switching outputs
Switching actuator
90136



USB-IF/KNX REG
USB programming
interfaces
System device
90224



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

**SA8-230/16/H/
KNX REG**
8 switching outputs
Switching actuator
93336



LK-TP/KNX REG
TP line coupler
System device
90401



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

**SA4-230/16/H/
EM/KNX REG**
4 switching outputs
Switching actuator
with active power
measurement
90139



LK-IP/KNXs REG
IP Router
System device
90403



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

**SA8-230/16/
H/EM/KNX REG**
8 switching outputs
with active power
measurement
93339



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



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

**DIM4-230/
UNI/250/H/KNX
REG**
4 Channel universal
Dimming actuator
90222



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

**LZ-230/UNI/420
REG**
1 Channel universal
Supplementary
benefit
Dimming actuator
90223



BIA-4 KNX REG
4 input active
Binary inputs
90405

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



BIP-4-KNX REG
4 input passive
Binary inputs
90406

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