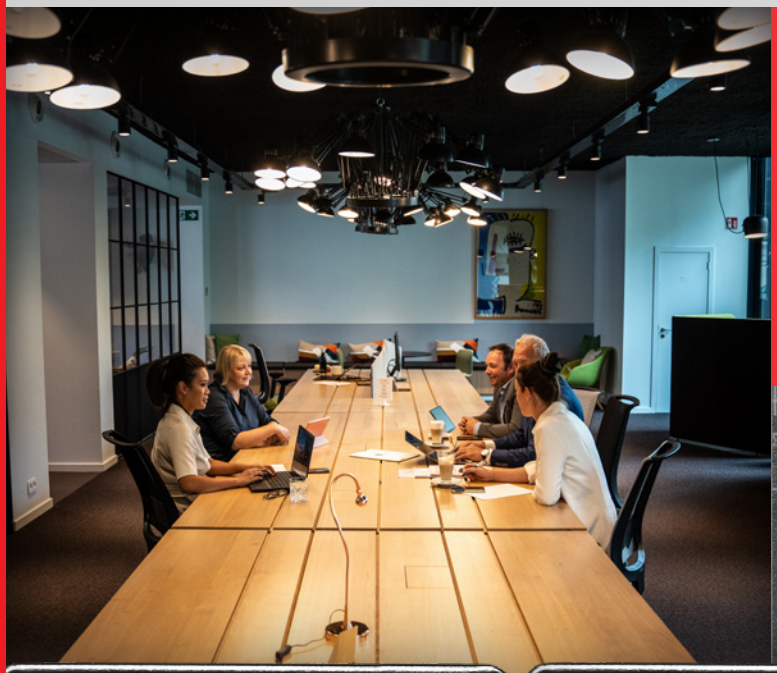
EN

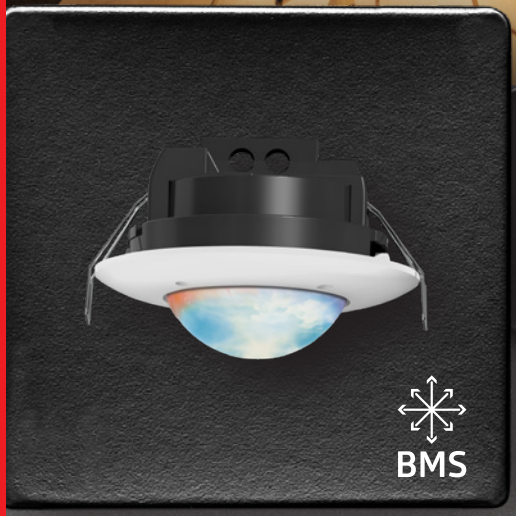
B.E.G. LUXOMAT® net

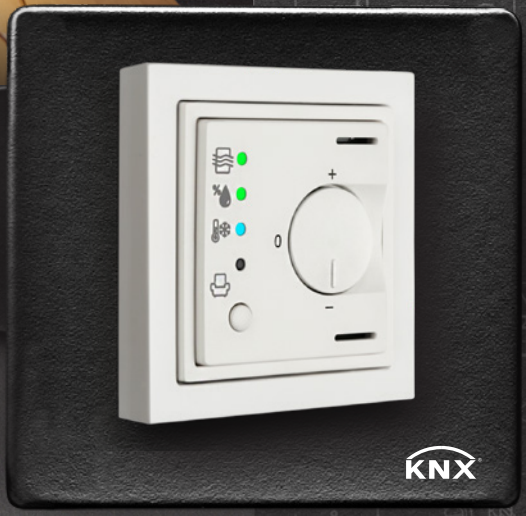
DALI Alliance

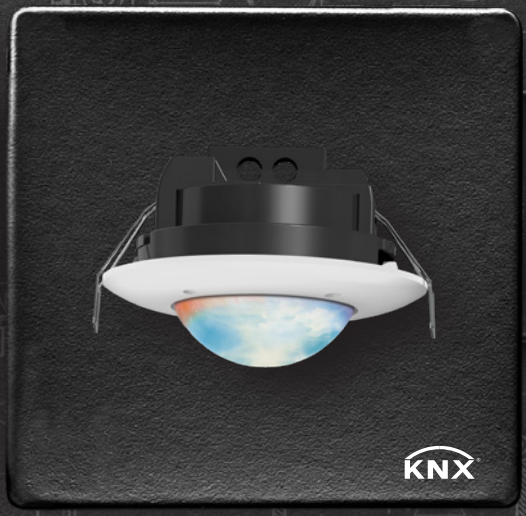
KNX



OUR MULTI-SENSORS FOR PERFECT INDOOR CLIMATE







ENVIRONMENT

Function overview

HCL Light quality with HCL

- Control the light colour of the lighting, in Tunable White or Human Centric Lighting (HCL)
  - → Colour scenes or colour gradient curves according to time of day
  - → via DALI gateway with luminaires Device Type 8 (DALI-Part 209)

Light

- **Measurement of the light level**
  - → **Switching, dimming and controlling lighting**
  - → **Switch and control HVAC systems**

Acoustics

- Acoustic presence detection via sound sensor
  - → Switching, dimming and controlling lighting
  - → Switch and control HVAC systems

% Air humidity

- **Measurement of the relative room humidity**
  - → **Humidity control in connection with HVAC systems**
  - → **Generation of alarms**

Dew point

- Calculation of the dew point from relative humidity humidity and temperature
  - → Dew point control in connection with HVAC systems
  - → Generation of alarms

RGB RGB-colour control

- **Accent and ambient lighting**
  - → **Switch, dim and control in millions of colours**
  - → **DALI gateways or dimming actuators required**

Movement (PIR)

- Motion and presence detection
  - → Switching, dimming and controlling lighting
  - → Switching and controlling HVAC systems

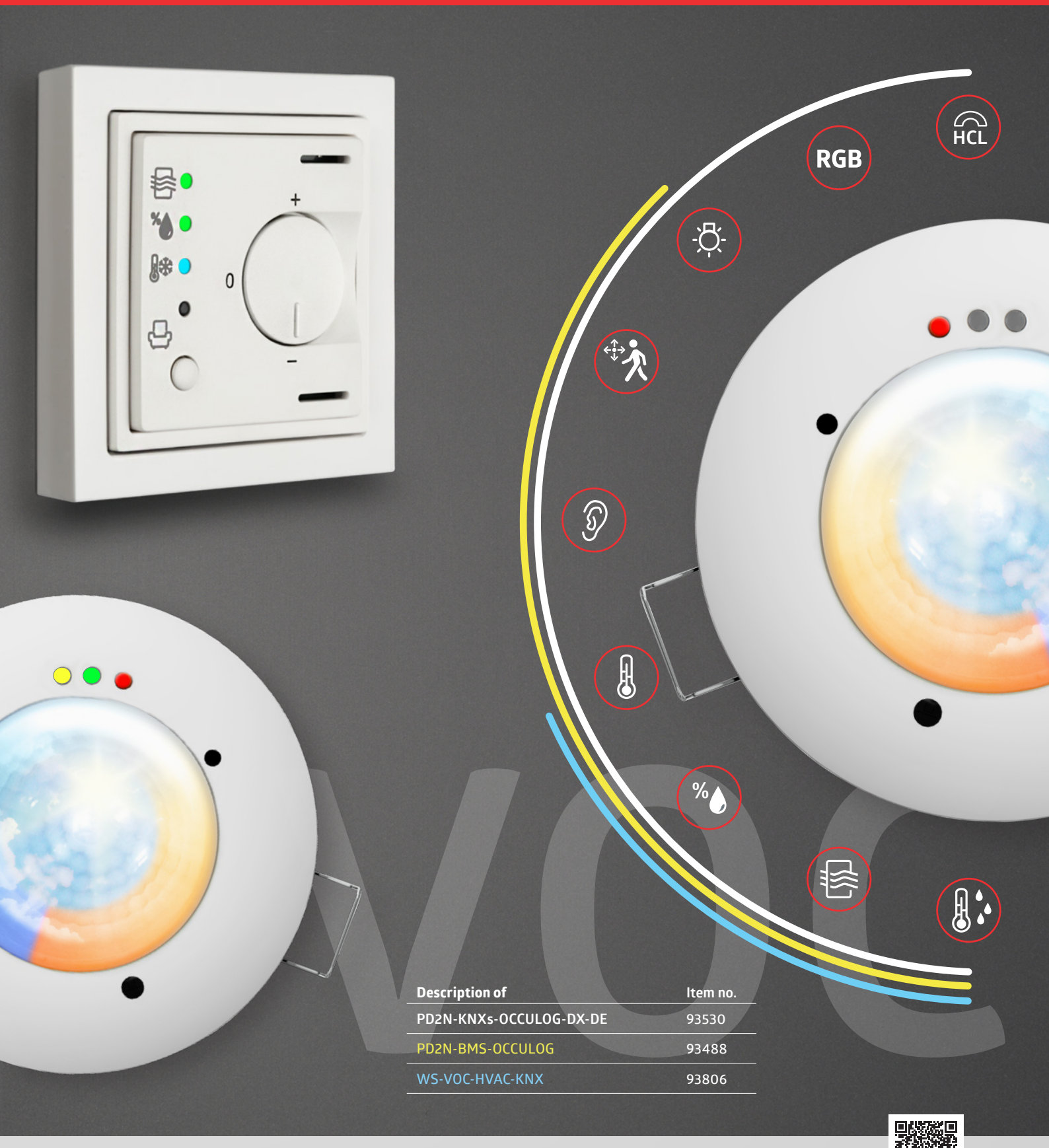
Temperature

- Measuring the room temperature
  - → Temperature control in connection with HVAC systems
  - → Generation of alarms

Air quality

- **Measurement of VOC, derivation of CO_2 equivalents**
  - → **Switching and controlling ventilation**
  - → **Traffic light signal**
  - → **Generation of alarms**

Multi-sensors



Description of	Item no.
PD2N-KNXs-OCCULOG-DX-DE	93530
PD2N-BMS-OCCULOG	93488
WS-VOC-HVAC-KNX	93806

B.E.G. The lighting control professional

Air quality measurements

VOC (Volatile Organic Compounds)

These volatile organic compounds are gaseous and vapour-like substances in the air, such as hydrocarbons, alcohols, aldehydes and organic acids. These are normal components of indoor air in buildings and make up the majority of unpleasant odours that are responsible for „stale“ air.

CO_2e (CO_2-Equivalent)

The CO_2 equivalent (also known as „eCO_2“ or „CO_2e“) indicates how much a gas contributes to global warming over a certain period of time compared to the same amount of CO_2. These include methane, nitrous oxide, hydrofluorocarbons and sulphur hexafluoride. Some VOC sensors calculate these CO_2 equivalents from the VOC signal. If used breathing air is the main component, the values largely agree with CO_2 measurements. For other gases, the CO_2 equivalent is is significantly higher - it should also be ventilated.

CO_2 (Carbon dioxide)

Carbon dioxide is a natural component of the air; it accumulates indoors primarily through the air breathed by living organisms. However, too much carbon dioxide in indoor air can be harmful. According to studies, a significantly increased CO_2 concentration and / or a lack of ventilation indoors leads to a severe and avoidable impairment of brain performance - especially in decision-making and complex, strategic thinking - in rooms such as e.g. classrooms.

It does not matter which measurement method is used for used breathing air. They are all equally good. They should ensure that rooms are ventilated by introducing further measures.

Intuitive and clear

Thanks to the coloured LED display, the current air quality can be quickly identified from a distance using the LED colours.

- **Ventilation required**
- **Ventilation recommended**
- **Good air quality**

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