FEBRUARY 2017

Webinar Busch-Presence detector KNX

BU EPBP GPG Building Automation

Carolina Bachenheimer-Schaefer, Thorsten Reibel, Jürgen Schilder & Ilija Zivadinovic
Global Application and Solution Team

Busch-Presence detector KNX

Agenda

Overview

– Assortment

– Detection

– Function

Variants for different applications,
Busch-Presence detector Corridor NEW!!!

Technical details

ETS Parameter

ETS App: Bus Update

Overview

Busch-Presence detector KNX
Objectives

Motivation

- Constantly growing market
- Customer demand for smaller presence detectors
- Response to current competitive situation

Target

- To be best in class - no compromise in detection quality

- New flat line design

- New applications for cost efficiency

- Native ETS4 application with update via bus

- Variations and options in functions, price and installation heights

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Busch-Presence detector KNX
Tailored solution

Reliable and efficient

The ideal manager. For large-scale offices, dark corridors and more.

Leading technology.

Modern building has various demands of automatic assistance. Busch-Presence detectors units perfectly control not only lighting systems but also heating, ventilation and air-conditioning systems. With the utmost efficiency. They become active at the slightest movement. Result: Connected loads are available precisely when they are required. Without having to pre-define individual habits of use or work processes.

Busch-Presence detector KNX
## Variants for different applications

Comfort, efficiency and safety.

The versions **Presence*** KNX, **Mini*** KNX, **Sky** KNX and **Corridor** KNX allows to meet the need of modern buildings and covers the requirements of individual technical assistance.

Variation in technical functions, size and detection range of the three presence detectors offers a wide field of applications.

* Available as basic version and premium version with extended functionality.

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Busch-Presence detector KNX
Variants for different applications

80 mm

16 mm*
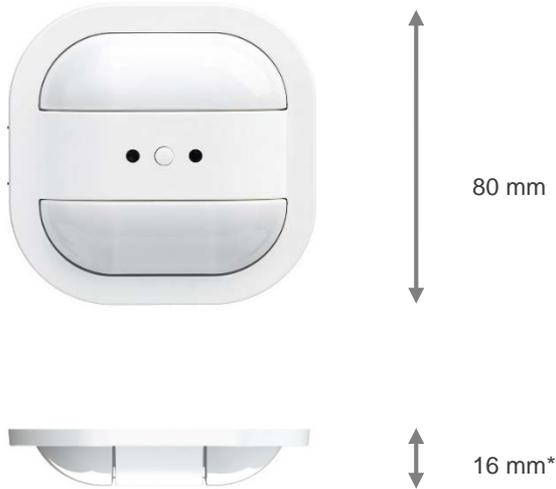
simple ceiling mounting by spring clips

*) visible height

Busch-Presence detector mini KNX

- ➲ 8m presence detection at 3m installation height

  (up to 10,5m depending on installation height)

- ➲ 2 power off stages (EN15232)

- ➲ integrated monitoring function

- ➲ with integrated KNX bus coupler

Basic

- ➲ 2x channels

- ➲ 2x constant light switches

Premium

- ➲ 4x channels

- ➲ HVAC function

- ➲ 2x 2-channel constant light controller

- ➲ 4x constant light switches

- ➲ integrated RTC

- ➲ 12/24 IR channels

- ➲ 5 logic channels

- ➲ 2x brightness sensor inputs

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Busch-Presence detector KNX
Variants for different applications

91 mm

23 mm*

simple ceiling mounting by spring clips

*) visible height

Busch-Presence detector KNX

- 12m presence detection at 3m installation height

  (up to 16m depending on installation height)

- 2 power off stages (EN15232)

- integrated monitoring function

- with integrated KNX bus coupler

Basic

- 2x channels
- 2x constant light switches

Premium

- 4x channels
- HVAC function
- 2x 2-channel constant light controller
- 4x constant light switches
- integrated RTC
- 12/24 IR channels
- 5 logic channels
- 2x brightness sensor inputs

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Busch-Presence detector KNX
Variants for different applications

91 mm

23 mm*
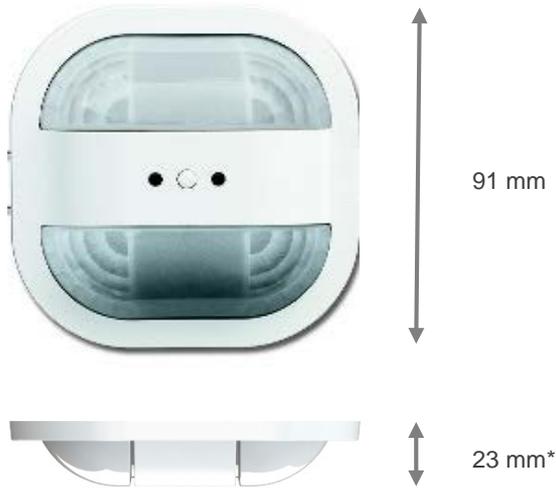
simple ceiling mounting by spring clips

Busch-Watchdog Sky KNX

- 24m detection at 12m installation height
- 2x channels
- 2 power off stages (EN15232)
- integrated monitoring function
- constant light switch with max. 2 outputs
- with integrated KNX bus coupler
- activating the programming mode also via IR remote controller

Made for high ceiling installations.

The right functions for the right purpose.

*) visible height

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Busch-Presence detector KNX
Variants for different applications

91 mm

27 mm*

simple ceiling mounting by spring clips

*) visible height

New   **Busch-Presence detector Corridor KNX**

- 30m presence detection at 3m installation height
- 2 power off stages (EN15232)
- integrated monitoring function
- with integrated KNX bus coupler

Basic

- 2x channels
- 2x constant light switches

Premium

- 4x channels
- HVAC function
- 2x 2-channel constant light controller
- 4x constant light switches
- integrated RTC
- 12/24 IR channels
- 5 logic channels
- 2x brightness sensor inputs

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Busch-Presence detector KNX
Variants for different applications

Surface-mounting box

Busch-Presence detector mini KNX (premium)

- 80mm x 80mm x 35mm
- with bayonet lock

Surface-mounting box

Busch-Presence detector KNX

Busch-Watchdog Sky KNX

Busch-Presence detector Corridor KNX

- 91mm x 91mm x 33mm
- with bayonet lock

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Busch-Presence detector KNX
Slimline design

aesthetics and functionality

Flat aesthetics and functionality without compromises perfectly combined.

Being present without being seen.

The flat design allows to blend in into the interior by full presence detection.

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Busch-Presence detector KNX
Colour design

white
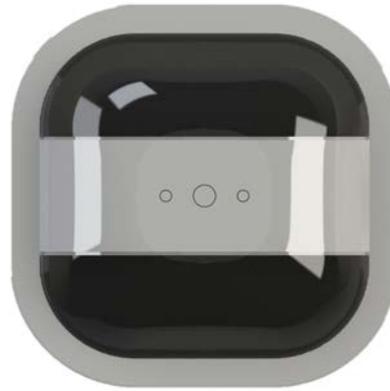
silver with black lens*

Colours and shapes

Perfect integration into the interior for the most applications.

Assistance without disturbance.

Focused variety.
Reduced to the max.

* Colour not available for Busch-Watchdog Sky KNX.

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Busch-Presence detector KNX
Assortment overview

Busch-Presence detector mini KNX
6131/20-24-500 alpine white
6131/20-183-500 aluminium silver

Busch-Presence detector mini premium KNX
6131/21-24-500 alpine white
6131/21-183-500 aluminium silver

Busch-Presence detector KNX
6131/30-24-500 alpine white
6131/30-183-500 aluminium silver

Busch-Presence detector premium KNX
6131/31-24-500 alpine white
6131/31-183-500 aluminium silver

Busch-Watchdog Sky KNX
6131/40-24-500 alpine white

Busch-Presence detector Corridor KNX
6131/50-24-500 alpine white
6131/50-183-500 aluminium silver

Busch-Presence detector Corridor premium KNX
6131/51-24-500 alpine white
6131/51-183-500 aluminium silver

Surface-mounting box for Presence
6131/39-24-500 alpine white
6131/39-183-500 aluminium silver

Surface-mounting box for Presence mini
6131/29-24-500 alpine white
6131/29-183-500 aluminium silver

Fits not into BS and VDE wall boxes.
Recommendation: HaloX-O wall box from Kaiser (art.no. 1290-40) with corresponding
cover plate (1290-47 or 1290-85 for fair faced concrete)

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Busch-Presence detector KNX
Detection overview

Busch-Presence detector KNX

installation height	2,5 m	3 m	4 m
sitting*	8 m	10 m	14 m
walking	10 m	12 m	16 m

Busch-Presence detector mini KNX

installation height	2,5 m	3 m	4 m
sitting*	5 m	6,5 m	9 m
walking	6,5 m	8 m	10,5 m
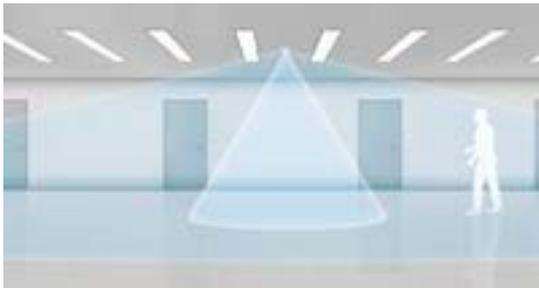
Busch-Watchdog Sky KNX

installation height	4 m	6 m	12 m
walking	16 m	18 m	24 m

* 0,8 m table height

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Busch-Presence detector KNX
Detection overview / Comparison

Busch-Presence detector Corridor KNX

installation height	Length [L2] x Width [B1] crosswise to the detector	Length [L1] x Width [B1] frontal to the detector
2,5 m	max. 24 m x 2.5 m	max. 18 m x 2.5 m
3 m	max. 30 m x 3 m	max. 20 m x 3 m
4 m	max. 30 m x 3 m	max. 20 m x 3 m

Mini
ø max. 8m

Normal
ø max. 12m

Corridor
max. 30m x 3m

3m mounting height
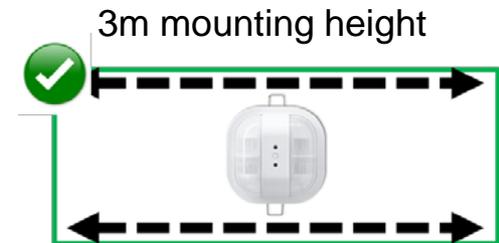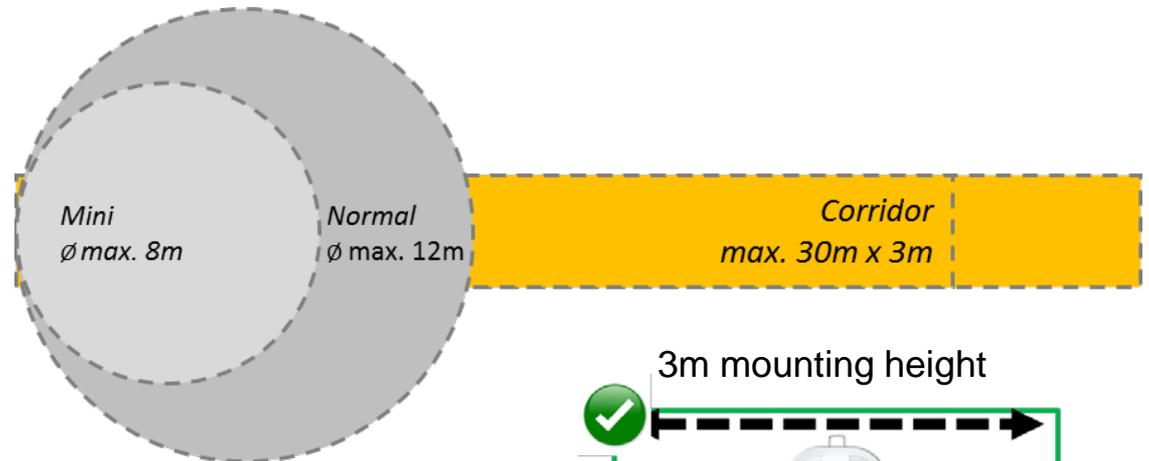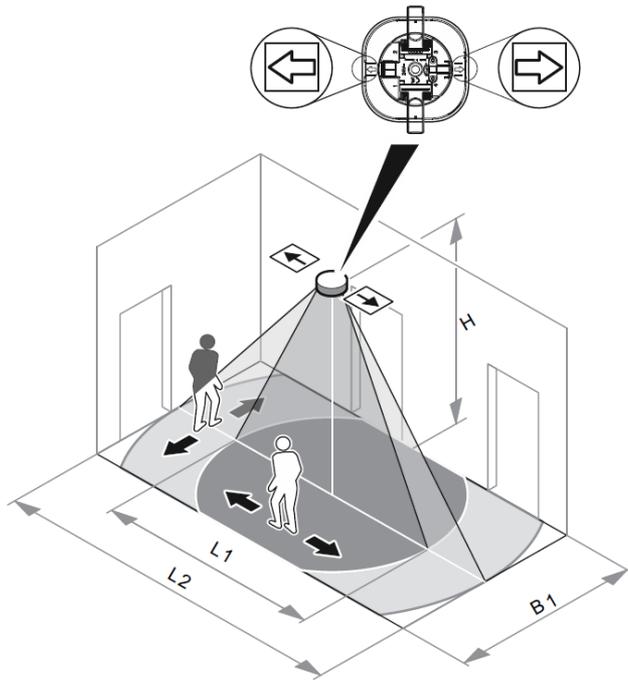
especially for corridors as well as long and narrow passageways

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Busch-Presence detector KNX
Function overview

	Presence mini	Presence mini premium	Presence + Corridor	Presence premium + Corridor premium	Sky
Programming mode via IR remote control	--	x	--	x	x
Channels in sum	2	4	2	4	2
movement detector constant light switch constant light controller monitoring function	2 2x2-channel -- 2	4 4x2-channel 2x2-channel 4	2 2 -- 2	4 4x2-channel 2x2-channel 4	2 2 -- 2
2-stage power-off (EN15232)	yes (only movement detector)	yes (movement detector + constant light controller)	yes (only movement detector)	yes (movement detector + constant light controller)	yes (only movement detector)
RTC + sensor	--	yes	--	yes	--
Logic channel	--	5	--	5	--
brightness sensor inputs	2	2	2	2	2
integrated bus coupler	yes	yes	yes	yes	yes
IR channel	--	12/24 and programming mode	--	12/24 and programming mode	Only programming mode
HVAC	--	yes	--	yes	--
PIR/ individually activatable	4	4	4 2 pairs (1+2 / 3+4)*	4 2 pairs (1+2 / 3+4)*	4

* Only for Corridor

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02

Technical details

Busch-Presence detector KNX
Technical details

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Busch-Presence detector KNX
Technical details

internal arrangement

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Busch-Presence detector KNX
Technical details
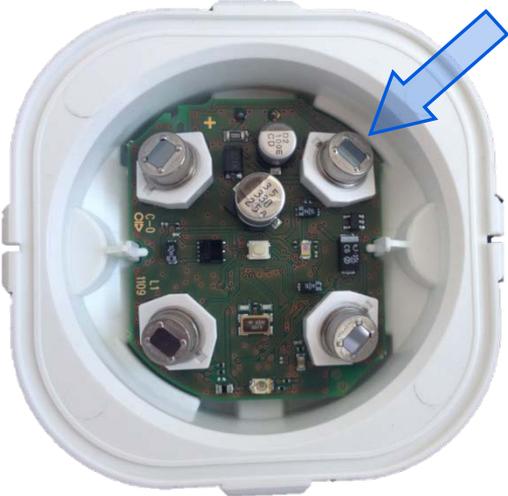
internal arrangement

- 4x PIR sensors

Busch-Presence detector KNX
Technical details

internal arrangement

➲ 4x PIR sensors

➲ brightness sensor

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Busch-Presence detector KNX
Technical details

internal arrangement

- 4x PIR sensors
- brightness sensor
- IR receiver

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Busch-Presence detector KNX
Technical details

internal arrangement

- 4x PIR sensors

- brightness sensor

- IR receiver

- programming button

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Busch-Presence detector KNX
Technical details

internal arrangement

- 4x PIR sensors
- brightness sensor
- IR receiver
- programming button
- programming LED

Busch-Presence detector KNX
Technical details

internal arrangement

- 4x PIR sensors
- brightness sensor
- IR receiver
- programming button
- programming LED
- Temperature sensor

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Busch-Presence detector KNX
Technical details
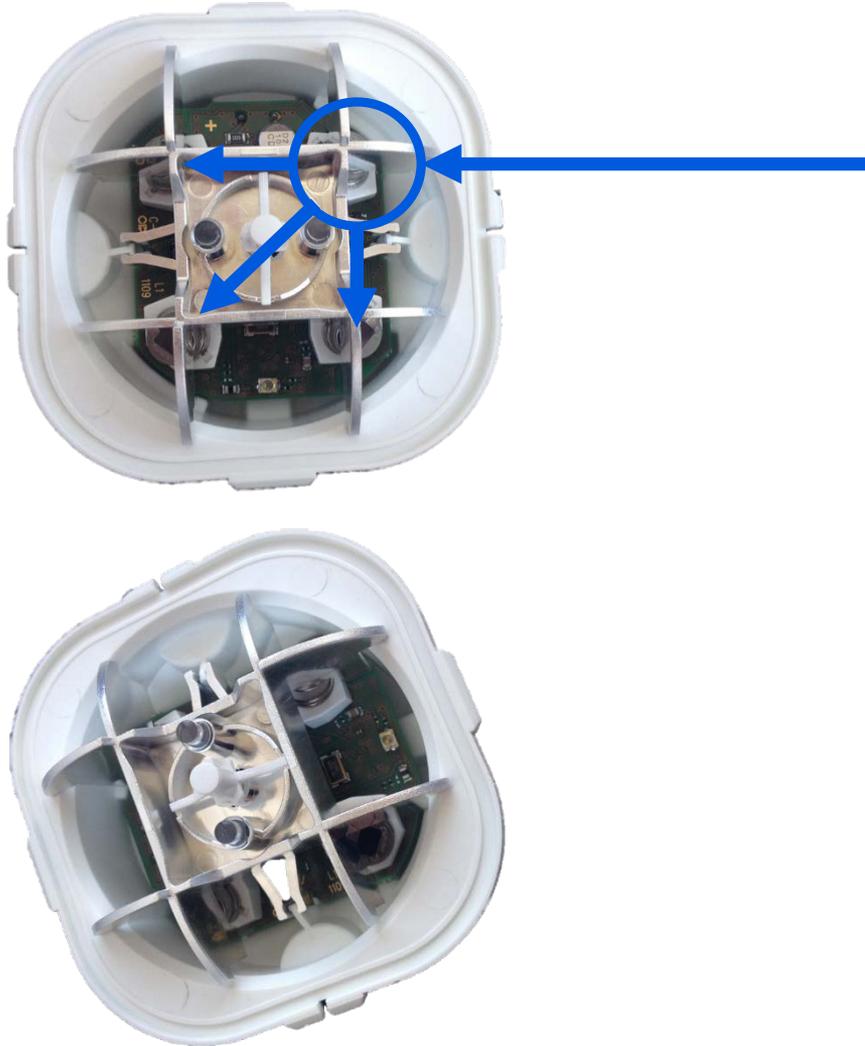
4 PIR system

- Digital PIRs

- Interferences are smaller with digital PIRs as with analogue PIRs

- Digital PIRs converts the received signal directly (in case of analogue you have to convert the signal externally)

- Digital PIRs can be amplified with less effect to amplify the interferences and white noise too (in comparison with analogue PIRs)

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Busch-Presence detector KNX
Technical details

Reflector system

- 4 PIRs acts like 4x4=16 PIRs
- high detection density
- optimum of dispersion

1 sensor
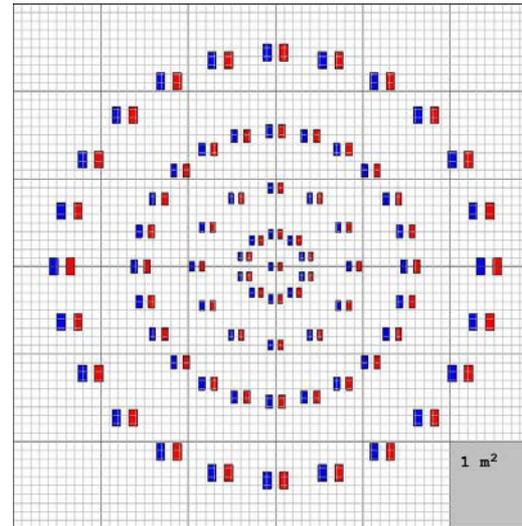
4 sensors with reflector system

1 m²

movement

U_s

t

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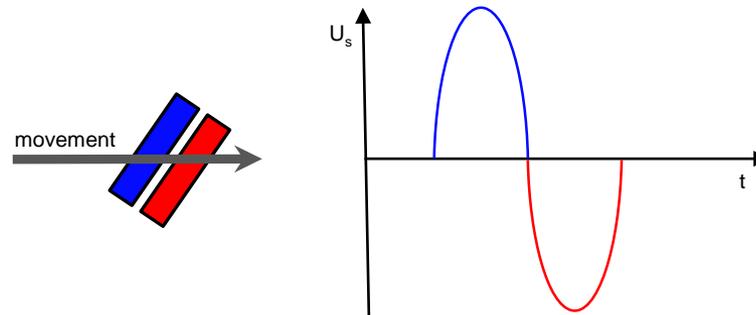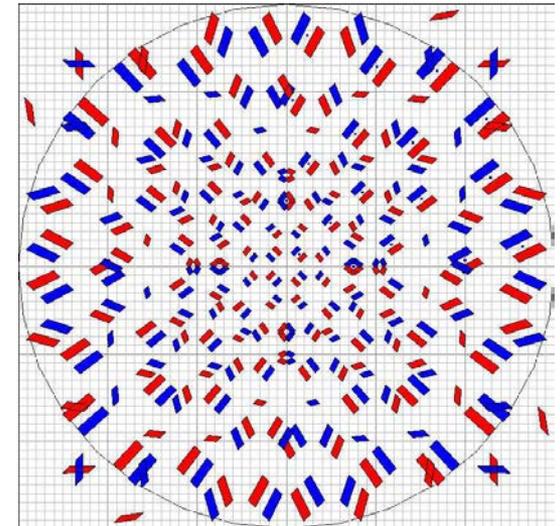
Busch-Presence detector KNX
Technical details - Differences of Presence detector Corridor
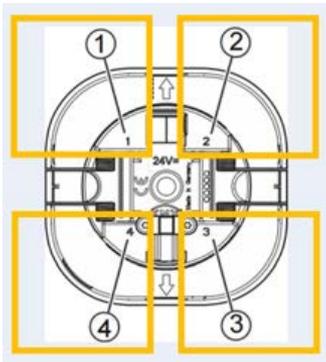
Busch-Presence detector KNX

- Round detection range of max. Ø 12m in diameter at 3m mounting hight

- 4 individual sensor groups can be switched
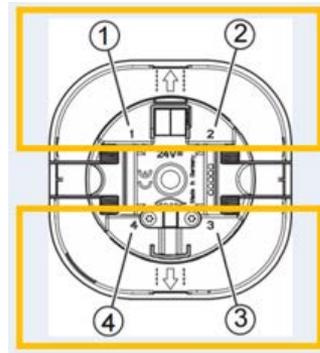
Busch-Presence detector Corridor KNX

- Rectangular detection range of max. 30m x 3m (crosswise) or max. 20m x 3m (frontal) at 3m mounting hight

- Sensor group 1+2 and 3+4 can be switched

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Busch-Presence detector KNX
Technical details
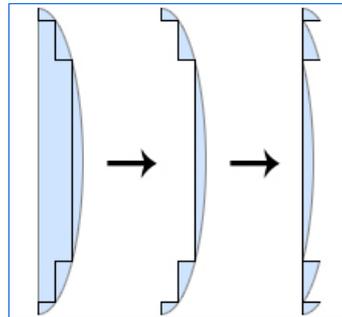
Fresnel lens

- ➲ Reduced thickness of the material
  (compared to planconvex)
- ➲ thinner = less sensitive against heat absorption
- ➲ alignment of the rings, combined with the different material thickness amplifies the IR signals

Planconvex to Fresnel

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Busch-Presence detector KNX
Technical details

Basic and mini with black lens

Basic and mini with white lens


Sky/Corridor with transparent lens

Colour of the lenses

➲ Black lenses let pass IR signals better than white lenses. Black lenses are used to aesthetic reasons in combination with silver frame. Perfect for dark ceilings.

➲ White lenses are used to avoid the believe of customers that there are a camera inside. White lenses absorbs the IR a little bit but the effectiveness of the white lens is for the purpose of where it is used not limited.

➲ Transparent lens has the best IR signal transmission. In that high where the Sky is installed the "think of camera" is not given.

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03

Bus Update

Busch-Presence detector KNX
Bus Update

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Bus Update

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KNX Certified Training

Certified KNX Courses in Heidelberg

- Basic Course 03rd to 07th April

- Advanced Course 17th to 21st July

- Tutor Course 09th to 13th October

And many more training courses in the calendar "International Training Dates 2017"

Busch-Presence detector KNX
Next Webinar

i-bus® Tool – Benefit in practice

Wednesday 29th March 2017

– Morning 09:00 am Europe Time (Berlin, UTC + 1h)

– Afternoon 03:00 pm Europe Time (Berlin, UTC + 1h)

A professional Service Tool for KNX System Integrators

– Actual status

– Practical demonstration with various devices

– Options for testing and diagnostic

* Topic is subjected to change
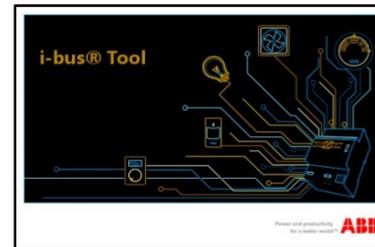
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