Motion detector mini basic
Art. no.: BM360MBWW
Motion detector mini basic
Art. no.: BM360MBWW-270

Operating instructions

1 Safety instructions

Electrical devices may only be mounted and connected by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Danger of electric shock. During installation and cable routing, comply with the regulations and standards which apply for SELV circuits.

Do not press on the sensor window. Device can be damaged.

The device is not suitable for use as a burglar alarm or other alarm.

These instructions are an integral part of the product, and must remain with the end customer.

2 Intended use

Intended use

– Brightness-independent detection of motion indoors.
– Connection to the KNX devices mentioned under accessories e.g. Multistation or push button interface for the automatic switching of loads.
– Power supply via the unchoked output of a KNX power supply or power supply unit with safety extra-low voltage (SELV).
– Clamp mounting in suspended ceilings.
– Ceiling mounting on fixed ceilings in appliance box according to DIN 49073 or surface-mounted housing (see accessories)

3 Function

– Brightness-independent detection of motions in the detection field
– Switch on: After detecting motion
– Switch off: No motion in the detection field and run-on-time elapsed
– Potential-free electronic switching contact

4 Information for electrically skilled persons

4.1 Fitting and electrical connection

Selecting installation location

The motion detector is installed on the ceiling and monitors the surface under it.

- Select a vibration-free installation location. Vibrations can lead to unwanted switching.
- Avoid interference sources in the detection area. Interference sources, e.g. heaters, ventilation, air conditioners, and cooling light bulbs can lead to unwanted detections.

i If necessary, the detection field can be limited using the push-on cover in order to minimize the influence of interference sources.

Motion detection

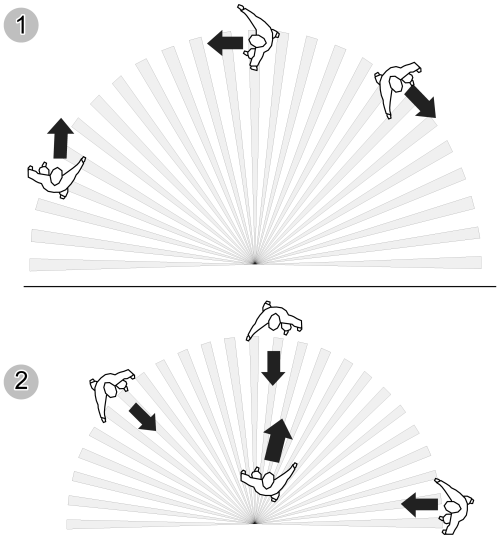

Figure 1: Tangential and radial direction of motion

The device has a detection field of 360°. The diameter of the detection field depends on the installation height and the direction of motion of persons in the detection field (Figure 1). The detection field becomes larger the greater the installation height, while the detection density and sensitivity are reduced at the same time. The following applies to an installation height of 3 m:

1: Range for tangential motion on the ground Ø approx. 6 m

2: Range for radial motion on the ground Ø approx. 5.5 m

DANGER!

Electrical shock on contact with live parts in the installation environment.

Electrical shocks can be fatal.

Before working on the device, disconnect the power supply and cover up live parts in the working environment.

Create a mounting opening in the suspended ceiling

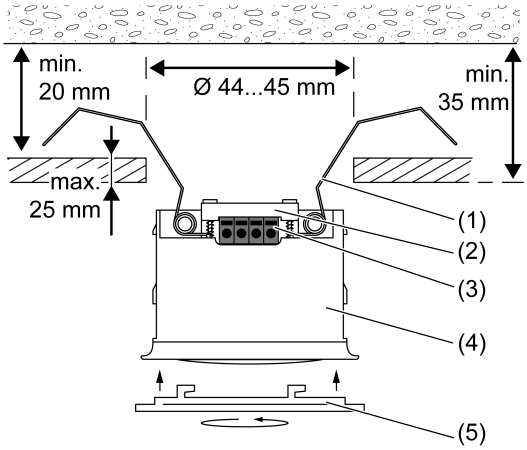

Figure 2: Mounting in the suspended ceiling

(1) Spring clamp

(2) Cable fixation

(3) Terminal
(4) Motion detector
(5) Design ring

The environment in the suspended ceiling must be dry.

Max. thickness of the suspended ceiling approx. 25 mm. Installation depth min. 35 mm. Distance between concrete ceiling and suspended ceiling min. 20 mm (Figure 2).

- Create ceiling cut-out Ø 44...45 mm(Figure 2).

Connecting the device

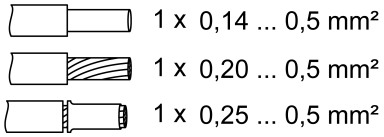

Figure 3: Clampable conductor cross-section

Recommended line J-Y(St)Y 2×2×0.8 (2 wire pairs, conductor diameter 0.8 mm this corresponds to a conductor cross-section of 0.5 mm²).

For the cable length, also observe the information in the instructions for the device to be connected.

- Use the unchoked output of a KNX power supply or power supply unit with safety extra-low voltage as power supply.
- Connect the connection cable to device connection terminal (3) (Figure 2).

Connection in general

Terminal assignment of motion detector

Terminal	Connection
DC24V +	Power supply +
DC24V –	Power supply GND
A A'	Switching output

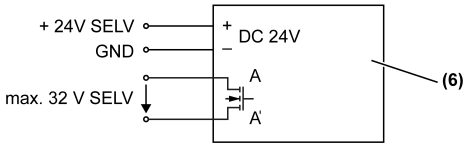

Figure 4: Connection in general

For connection diagrams for various KNX devices, see accessories

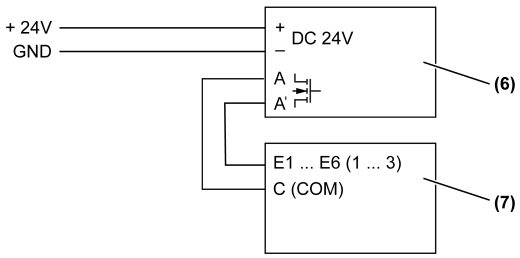

Figure 5: Connection to Multi station, Rotary sensor

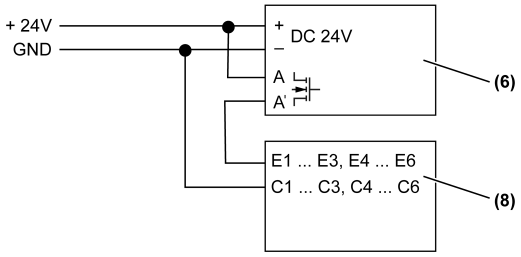

Figure 6: Connection to Binary input 6-gang

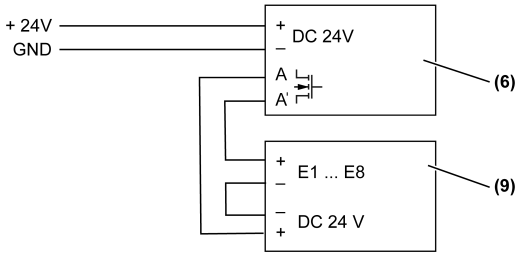

Figure 7: Connection to Binary input 8-gang, 24 V

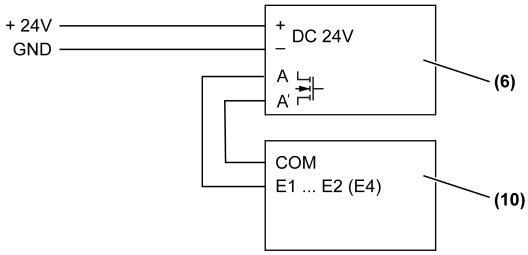

Figure 8: Connection to Push-button interface, 2-gang, Push-button interface, 4-gang

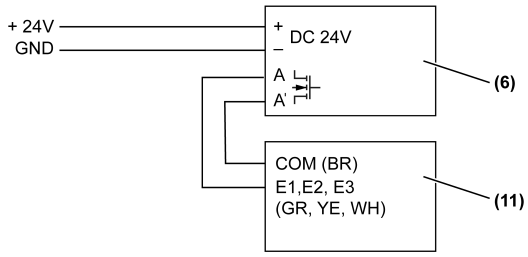

Figure 9: Connection to flush-mounted actuators: Switch actuator, 2-gang / blinds actuator, 1-gang, Switch actuator, 1-gang, Universal dimming actuator, 1-gang

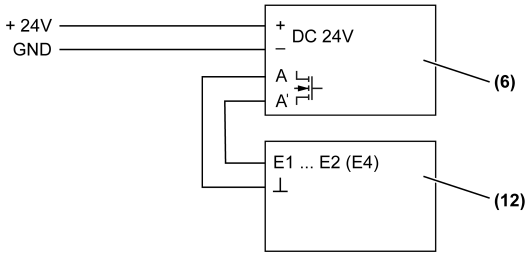

Figure 10: Connection to Room temperature controller with push-button interface 4-gang, Room autostat with push-button interface 4-gang, CO2 multi-sensor

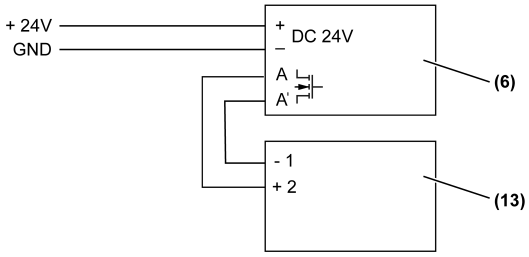

Figure 11: Connection to Valve drive (motor-operated) with controller

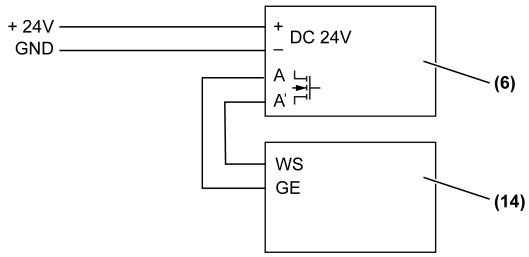

Figure 12: Connection to KNX Push-button universal

(Figure 4)	(6) Motion detector mini basic
(Figure 5)	(7) Multi station, Art. no.: 23066REGHE, Rotary sensor, Art. NoD-S4092TS.:
(Figure 6)	(8) Binary input 6-gang, Art. no.: 2116REG
(Figure 7)	(9) Binary input 8-gang, 24 V, Art. no.: 2128REG
(Figure 8)	(10) Push-button interface, 2-gang, Art. no.: 2076-2T, Push-button interface, 4-gang, Art. No2076-4T.:
(Figure 9)	(11) Switch actuator, 2-gang / blinds actuator, 1-gang, Art. no.: 230021SU, Switch actuator, 1-gang, Art. no.: 230011SU, Universal dimming actuator, 1-gang, Art.no.: 390011SU
(Figure 10)	(12) Room temperature controller with push-button interface 4-gang, Art. no.: ..2178TS, Room autostat with push-button interface 4-gang, Art. no.: ..2178 ORTS.., CO2 multi-sensor, Art.no.: CO2..2178..
(Figure 11)	(13) Valve drive (motor-operated) with controller, Art. no.: 2177SVR
(Figure 12)	(14) KNX Push-button universal, Art. no.: ..109.1ST

Mounting the device in the suspended ceiling

- Secure the connection cable with the enclosed cable fixation (2) (Figure 2).
- Bend back the spring clamps (1) and push the motion detector (4) into the suspended ceiling (Figure 2).
- Attach the large design ring (5) and rotate it in clockwise direction (Figure 2).

5 Technical data

Rated voltage	DC 24 ... 32 V SELV
Standby power	max. 0.1 W
Current consumption	max. 4 mA
Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-25 ... +70 °C
Relative humidity	10 ... 100 % (no moisture condensation)
Protection class	III

Degree of protection	IP44
Detection angle	360°
Installation height	3 m
Detection field	Ø approx. 6 m
Run-on time	
BM360MBWW	approx. 10 s
BM360MBWW-270	approx. 270 s
Switching output	
Electric strength	40 V
Current carrying capacity	max. 50 mA
Connected load	max. 150 mW
Dimensions	
Dimensions Ø×H	53.5 × 38 mm (with design ring)
Ceiling cut-out Ø×D	44 × 35 mm
Cable length	max. 30 m

6 Accessories

Power supply 160 mA	Art.-no.: 20160REG
Power supply 320 mA	Art.-no.: 20320REG
Power supply 640 mA	Art.-no.: 20640REG
Power supply 1280 mA	Art.-no.: 21280REG
Multi station	Art.-no.: 23066REGHE
Binary input 6-gang	Art.-no.: 2116REG
Binary input 8-gang, 24 V	Art.-no.: 2128REG
Push-button interface, 2/4-gang	Art.-no.: 2076-..T
Switch actuator, 1-gang	Art.-no.: 230011SU
Universal dimming actuator, 1-gang	Art.-no.: 390011SU
Switch actuator, 2-gang / blinds actuator, 1-gang	Art.-no.: 230021SU
Room temperature controller with push-button interface 4-gang	Art.-no.: ..2178TS
Room autostat with push-button interface 4-gang	Art.-no.: ..2178 ORTS..
CO2 multi-sensor	Art.-no.: CO2..2178..
Rotary sensor	Art.-no.: DS4092TS
KNX Push-button universal	Art.-no.: ..109.1ST
Valve drive (motor-operated) with controller	Art.-no.: 2177SVR
Flush mounting set	Art.-no.: PMM-UP-SET-WW
Surface mounting set	Art.-no.: PMM-AP-SET-WW

7 Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

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