M/IS05.1

KNX Mini PIR & Lux Sensor

Hardware Version: D

Datasheet

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Figure 1. Mini PIR & Lux Sensor

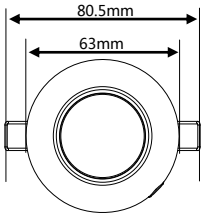


Figure 2. Dimensions - Front View

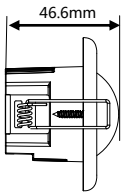


Figure 3. Dimensions - Side View

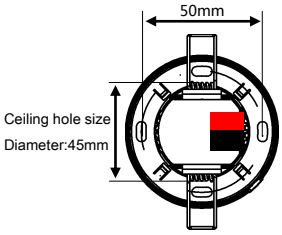


Figure 4. Dimensions - Back View

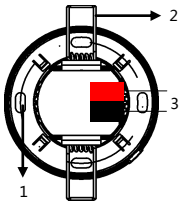


Figure 5. Components - Back View

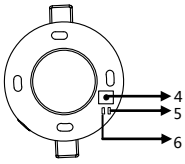


Figure 6. Components - Interior View

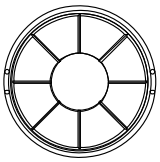
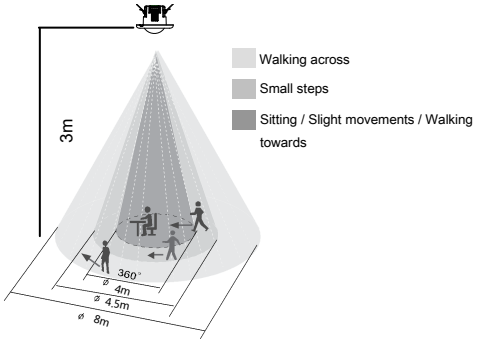


Figure 7. Accessory - Front View



Detection Range (25℃)

Mounting height	Sitting / Slight movements / Walking towards	Small steps	Walking across
3m	4m	4.5m	8m

Figure 8. Detection Range

Overview

KNX Mini PIR & Lux Sensor (See Figure 1) is a multi-function sensor which contains PIR sensor, temperature sensor, Lux sensor and external telegram. 5 logical blocks are available and each block contains 10 object outputs. Logical relations AND, OR can be set and single mode and master / slave mode are supported.

Functions

- With 2CH lighting control, 4 levels of brightness and delay time can be set in dimming output. With gradually dimming effect, the sensor supports automatic or semi-automatic mode. Telegram locking/unlocking and delay time can be set. Sending on/off telegram can be set when locking and unlocking.
- With 2CH constant brightness control, 4 pre-set dimming values are supported and forced dimming can be set.
- The sensor has 5 logic blocks and each block contains 10 object outputs. Dry contact, telegram locking/unlocking and delay time can be set. Sending on/off telegram can be set when locking and unlocking.
- Control types: Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String(14 bytes) control, Threshold control, Logic combination control.
- Logic inputs: PIR sensor status, brightness value, temperature and external telegrams.
- 2 logical relations: AND, OR
- 2 working modes: Single mode and master / slave mode.
- The logic validity can be set by external telegram.

Important Notes

- Installation - Installed indoor, away from large mental object, air conditioners or heat sources.
- Programming - The device is compliant with KNX standard and the parameters are set by the Engineering Tool Software (ETS).
- The KNX bus voltage is 21-30V DC.

Product Information

Dimensions - See Figure 2 - 4

Components - See Figure 5 - 6

1. Screw hole
2. Spring clips
3. KNX terminal
4. Programming button
5. Programming LED indicator
6. Status LED indicator

Accessory - See Figure 7

Angle cover is an accessory for blocking PIR sensing range. If users want to block a certain angle of PIR sensing range, they can remove the parts of this accessory they don't need and install it into the Fresnel lens. Users can adjust angle according to their own needs.

Detection Range - See Figure 8

Installation

Ceiling-mounted - See Figure 9 - 11

Step 1. When installing the sensor in the thin ceiling, produce an opening of diameter 45mm in the ceiling.

Step 2. Fix the sensor into position with the assistance of the spring clips after wiring.

Flush-mounted - See Figure 12 - 15

Step 1. When installing the sensor in the thick wall , produce an opening of diameter 45mmn and depth of 35mm in the wall.

Step 2. Remove the spring clips and pry apart the cover and the senor.

Step 3. Fix the sensor in the wall with screws.

Step 4. Attach the cover to the sensor.

Safety Precautions

- The installation and commissioning of the device must be carried out by HDL or the organization designated by HDL. For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- HDL takes no responsibility for all consequences caused by installation and wire connection which are not in accordance with this document.
- Please do not privately disassemble the device or change components, otherwise it may cause mechanical failure, electric shock, fire or body injury.
- Please resort to our customer service department or designated agencies for maintenance service. The warranty is not applicable for the product fault caused by private disassembly.

Package Contents

M/IS05.1*1 / Angle cover*1 / Datasheet*1

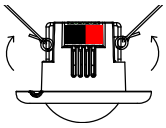


Figure 9

⇩1

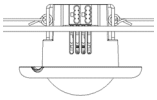


Figure 10

⇩2



Figure 11

Figure 9 - 11. Installation – Ceiling-mounted

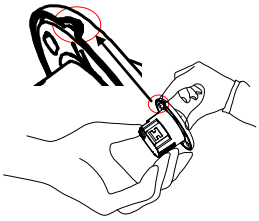


Figure 12

⇩1



Figure 13

⇩2

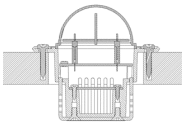


Figure 14

⇩3



Figure 15

Figure 12 - 15. Installation – Flush-mounted

Technical Data

Basic Parameters

Working voltage	21~30V DC
Working current	5mA/30V DC
Communication	KNX
Cable diameter of KNX terminal	0.6 - 0.8mm
PIR detection range	Φ8m (Installation height:3m)

External Environment

Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%

Specifications

Dimensions	Φ63×46.6 (mm)
Net weight	43g
Housing material	ABS, PC, iron
Installation	Ceiling-mounted/Flush-mounted (See Figure 9 -11/Figure 12 -15)
Protection rating (Compliant with EN 60529)	IP20

Name and Content of Hazardous Substances in Products

Components	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Chromium VI (Cr (VI))	Poly-brominated biphenyls (PBB)	Poly-brominated diphenyl ethers (PBDE)
Plastic	o	o	o	o	o	o
Hardware	o	o	o	o	-	-
Screw	o	o	o	×	-	-
Solder	×	o	o	o	-	-
PCB	×	o	o	o	o	o
IC	o	o	o	o	×	×

The symbol “-” indicates that the hazardous substance is not contained.

The symbol "o" indicates that the content of the hazardous substances in all the homogeneous materials of the component is below the limit requirement specified in the Standard IEC62321-2015.

The symbol “×” indicates that the content of the hazardous substance in at least one of the homogeneous materials of the part exceeds the limit requirement specified in the Standard IEC62321-2015.

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KNX Cable Guide

KNX	KNX Cable
-	Black
+	Red