

Installation Instructions

SG360P KNX/KLR RA/EA 16m

SG360P KNX/KLR RA/EA 16m EB

SG360P KNX/KLR RA/EA 30m



Presence detectors 360° KNX/KLR RA/EA

for ceiling flush-mounting

The family of **Swiss Garde 360 Presence KNX/KLR RA/EA** presence detectors is characterised by the following outstanding features:

- **2 -channel constant light control**
The in-built 2-channel constant light control can be easily adjusted to meet any customer's needs.
The two light channels can be controlled via a parametrizable offset. (-50%, synchronous, +50%) using different light values.
- **1 light output** for switching, dimming or scenery selection.
- **Standby light**
If the light channel is set to *dimming absolute*, an emergency standby light can be programmed using the standby value [%] and standby duration [min/h]. Two value pairs can be read out from the KNX bus.
- **1 HVAC-channel** controls heating, ventilation and air conditioning. This output can be used for presence detection. Additionally, alarm systems with parametrizable switch-on delay can be implemented.
- **1 brightness output** in lux (2 Byte)
- **3 Pyro detectors**
Three PIR sensors with an 360° detection area can be activated individually or in pairs.
- **2 -channel constant light control (KLR)**
The in-built 2-channel constant light control can be easily adjusted to meet any customer's needs.
The two light channels can be controlled via a parametrizable offset (-50%, synchronous, +50%).
- **1 light output** for switching, dimming or scenery selection.
- **Standby light**
If the light channel is set to *dimming absolute / KLR*, an emergency standby light can be programmed using the standby value [%] and standby duration [min/h]. Two value pairs can be selected with KNX bus.

Important notice

The presence detectors Swiss Garde 360 Presence KNX/KLR RA/EA/EB is suitable for ceiling mounting indoors only. In case of errors such as continuous light, uncontrolled switching, etc., please consult page 7 „troubleshooting“.

Function

The presence detector Swiss Garde 360 Presence KNX/KLR RA/EA/EB reacts to heat radiation of moving bodies. A person approaching the monitored area automatically triggers the connected light. If no motion is detected again, the light will automatically switch off after a delay time configured in ETS. In case of activated standby, the light will stay on at reduced intensity during the set time period (mode *dimming complete/ constant light control*).

Installation

Connect the presence detector as follows:

red wire (+) to be connected to red terminal

black wire (-) to be connected to grey terminal

Application notes

A detailed description of the communication objects and all parametrizable functions can be found in the following separate document:

Swiss Garde 360 Presence KNX/KLR RA/EA/EB

APPLICATION NOTES

SG360P KNX/KLR RA 16m (25032)

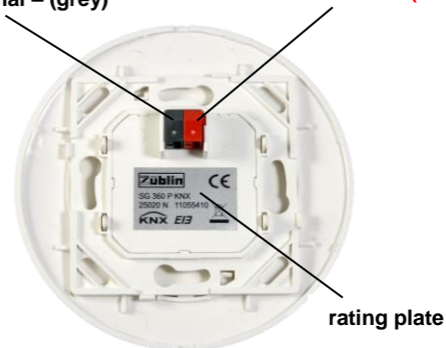
frontal view



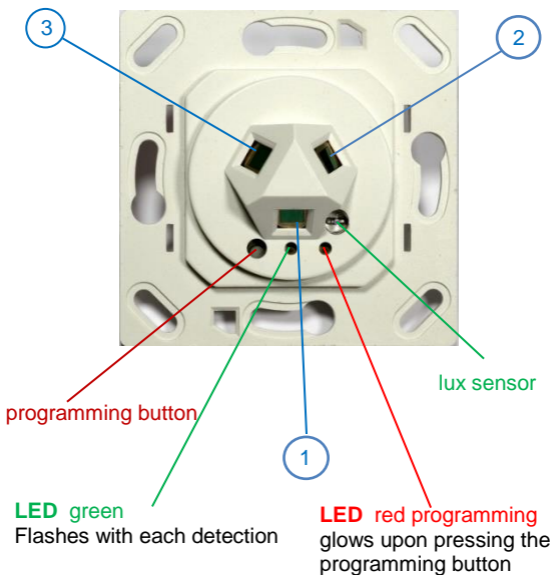
rear view

bus terminal - (grey)

bus terminal + (red)



PIR sensors numbering

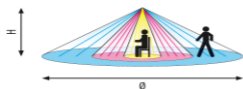


The PIR sensors 1 2 3 can be activated via ETS individually or in groups, using the above numbering scheme.

After KNX/EIB bus connection: the detector takes approx. 1 min. to reach a stable working condition!

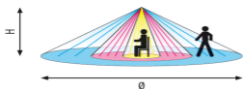
Detection range

The 360° omnidirectional detection range as well as the dense detection area allow for an optimal function. The range depends on the mounting height as well as the angle of approach (high sensitivity when crossing a switching segment). Since the device registers the temperature differences between the source of heat and the ambient temperature, the detection range may vary depending on site conditions (floor heating, etc.).



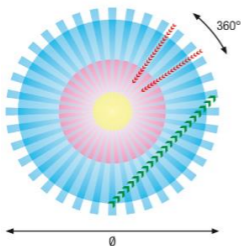
**SG360P KNX/KLR RA/EA 16m
(16m lenses)**

H	θ* 	θ* 
2,0 m	4 m	10 m
2,5 m	5 m	12 m
3,0 m	6 m	14 m
3,5 m	7 m	16 m
4,0 m	(8 m)	16 m
5,0 m	(8 m)	16 m
6,0 m	(8 m)	16 m



**SG360P KNX/KLR RA/EA 30m
(30m lenses)**

H	θ* 	θ* 
2 m	5 m	20 m
3 m	7 m	26 m
4 m	9 m	28 m
5 m	(10 m)	30 m
6 m	(10 m)	30 m
7 m	(10 m)	30 m
8 m	(10 m)	30 m



Optimum range

If several zones are crossed

Reduced range (approx. -50%)

With movements within a single zone

Presence zone (working area)

Reacts to smallest movements (seated activity)

Movement zone (walking area)

Reacts to larger walking movements

Troubleshooting

Error

load doesn't switch ON

Detector triggers ON and OFF without reason or light never turns OFF:

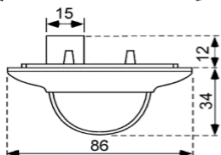
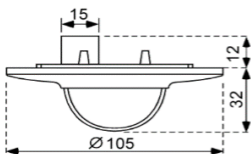
Turns the ON during day-time:

Cause/remedies

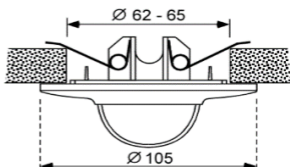
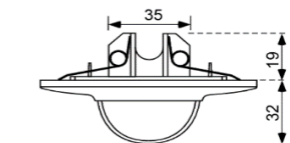
- twilight value set to high
- check light/luminaire/fuses
- check detection area for potential causes of false triggering: animals, heating, etc. may all doing faulty switching
- check distances to lamps (heat-reflection or direct light influence)
- detector is too sensitive, reduce the detection range sensitivity (1...10) via ETS.
- twilight adjustment set to high: set to a lower value via ETS (menu light)

Device dimensions

Edition RA 16m (round)



Edition EA 16m (square)



Edition RA 16m EB

Technical data

nominal voltage:	24V DC (21 - 30V DC)
power consumption:	0,4 W
PIR- sensors:	3 Pyro detectors
sensitivity:	adjustable via ETS in 10 steps
light measuring:	brightness sensor with linear output
lux value:	value readable (5 - 2000lux, 2 Byte)
switching criteria:	motion and brightness
detection range:	360°, ceiling mounted
range height= 3m/ RA 16m:	Ø6m presence, Ø14m motion
range height= 3m/ RA 30m:	Ø7m presence, Ø26m motion
mounting height RA 16m:	2m – 6m (25032 /33/34/35)
mounting height RA 30m:	2m – 8m (25036 /37)
mounting:	ceiling or false- ceiling mounting
available accessory:	AP/UP- housing, IP55 -housing
protection rating:	IP 20, indoor mounting, class II
temperature range:	- 20°C bis +40 °C
dimensions :	RA 16 m: Ø105 x 44 mm EA 16 m: 86 x 86 x 46 mm RA 30 m: Ø105 x 51 mm EA 30 m: 86 x 86 x 51 mm RA 16 m EB: Ø105 x 51 mm EA 16 m EB: 86 x 86 x 53 mm

Swiss Garde 360 Presence KNX/KLR R/A/E/A/EB

item No.	model	EAN
25032	SG360KNX/KLR RA 16 m	3505100250326
25033	SG360KNX/KLR EA 16 m	3505100250333
25034	SG360KNX/KLR RA 16 m EB	3505100250340
25035	SG360KNX/KLR EA 16 m EB	3505100250357
25036	SG360KNX/KLR RA 30 m	3505100250364
25037	SG360KNX/KLR EA 30 m	3505100250371