# ➡ SRKNX

General description

Hidden movement detector for installation above false or technical ceilings. It is also possible to install it in brick walls or plasterboards. This device is oriented to substitute the ceiling 360º passive detectors, clearly overcoming their performances.

It is based on radio frequency technology, that allows it to pass through any kind of surface, except the metallic ones.

Its hidden installation guarantees safety against non desired intrusions or vandalism. Moreover, it combines aesthetics and automation in a single installation

It allows a wide and easy parameterization, being suitable for lighting functions, as well as people detection and intruder control.
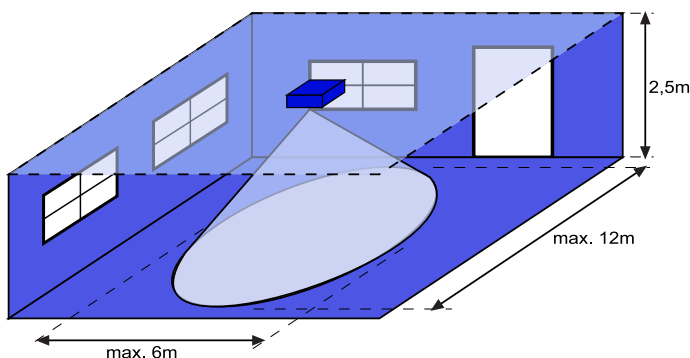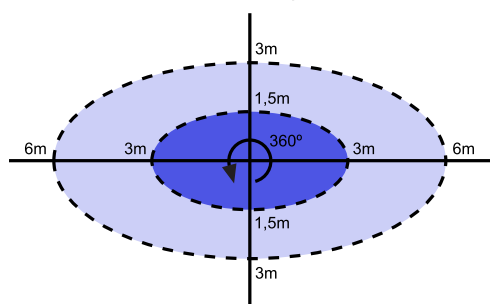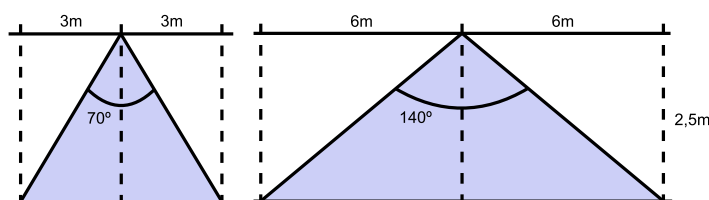

Technical information

Supply - 24Vcc through BUS EIB. Requires feeding from the secondary of a double supply source, or from an aditional one.

Consumption - 35mA @ 24Vcc

Connections - BUS connection EIB with supply (four poles terminal block).

Type of protection - IP20. Extra low security voltage SELV, 24V direct current

Temperature range - Running: -10ºC a 55ºC / Storage: -30ºC a 60ºC / Transport: -30ºC a 60ºC

Size / weight - 25x45x65mm. / 115g.

Mount - over false ceilings or hidden in walls or bricks

Standardization - for KNX.

Norm CE - According to the directives of electromagnetic compatibility and low voltage. EN 50090-2-2 / UNE-EN 61000-6-3:2007 / UNE-EN 61000-6-1:2007 / UNE-EN 61010-1

Communication objects

Communication objects are shown next, describing its type and lenght:

Object	Name	Function	Lenght	DPT
0	On/Off	On/Off	1 bit	1.001
1	Remote shot	Remote shot	1 bit	1.001
2	Reading of intensity	Reading of intensity	1 byte	5.010
3	Reading of remaining time	Reading of remaining time	2 byte	9.0XX
6	Star detection event	Star detection event	1 bit	1.001
7	End detection event	End detection event	1 bit	1.001

Objects description

0 - 1 bit object to switch on (movement detection) or switch off (stand by), the detector in a remote way. By sending "1", detector is activated, and by sending "0", deactivated.

1 - Remote shot detector activation; allows to emulate a detection without having detected movement previously. By sending "1", detector is activated by a remote shot, performing the start detection event, according to the timing (delay end detection) including in the parameters, subsequently carrying out the end detection event.

2 - Allows to read the detection intensity when movement is detected. Detection level range is [0,100], being 0 void detection level (there is no movement) and 100 maximum detection level.

3 - Allows to read the remaining time from the last detection; this is, time until detector performs the end detection event. In case of generating a new detection, time is rebooted, starting again the countdown. Time value will depend on timing (delay end of detection), indicated in the parameters of the detector. Maximum time range is [0, 65535] seconds.

6 - This communication object will be associated to the specific function desired for a movement detection event.

7 - This communication object will be associated to the specific function desired for the end of a movement detection event.

Applied parameters

Parameters allows to perform a configuration of the detector according to the needings in each case. Next, you can see a detailed description of them:
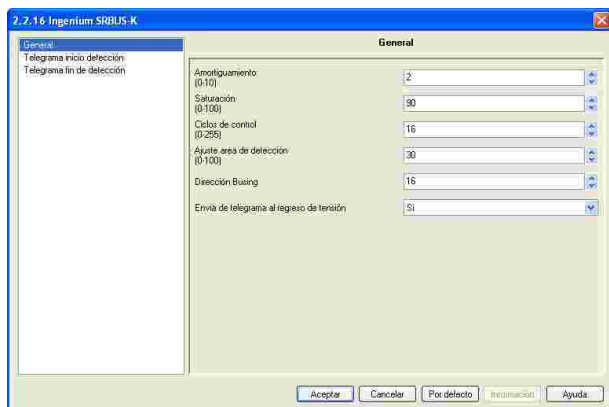
General

In this field appears the detection configuration parameters of the detector:

Smoothing - It is a detection filter. Sets the number of signals that must go beyond the programmed threshold (adjustment), or the saturation level programmed before the device considers a detection has happened. It is the quantity of movement (pulses for shoting) that detector should pick up between the interval of selected time (control cycles). Smoothing range is [0,10]. The greater the inserted value, the greater movement quantity required in order detector sets the detection. Value to be inserted, by default, is 2.

Saturation - If a signal reaches the saturation level, sensor will actívate without taking into account neither the control cycles nor buffering. It is useful to differentiate big movements from the small ones. The value could vary among 0 and 100%. If its use is non desired, set value should be 100%.

Control cycles - It is the number of cycles taken as basis for establishing the shot when a movement occurs.
It can be described as the time (in cycles) in which there has to generate as many signals (buffering) as programmed for performing a detection.The range of the control cycles is [0,255], being 0 a sample cycle of minimum amplitude, and 255 a sample cycle of maximum amplitude.

Detection area adjustment - Allows to set the detection level. Range is [0,100], being 0 minimum detection level and 100, maximum detection level. With high values, detector will be more sensitive to movement Adjustment modification will be affected from the ends of the cone detection to its vertical; this is, with small value adjustments, detector will lose more sensitivity at the ends of the detection area. Value to be introduced, by default, is 30.

BUSing address - Not used in SRKNX.

Sending of telegrams when voltage back - Not used in SRKNX.
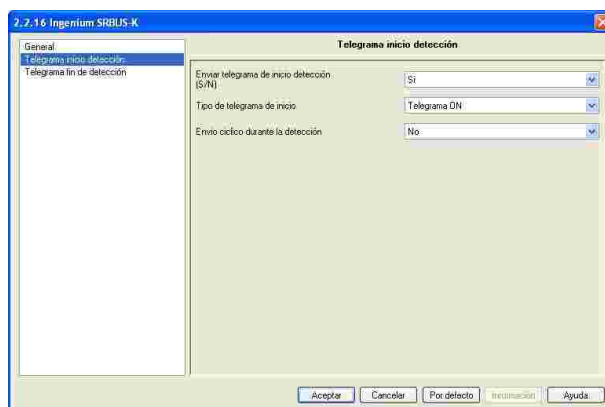
Star detection telegram

Send telegram of start detection (S/N) - Must be indicated whether sending to the KNX bus the event of start detection.

Type of telegram for starting - Will be indicated whether telegram of start detection is sent with "1"(telegram ON) or "0" (telegram OFF). By default, it is sent "1".

Cyclical sending during detection - In each detection, detector reinitiates the timing (delay end detection), thus delaying the performing of the end detection event in case of movement. If it is necessary to send the telegram of start detection always that sensor detects movement, choose option "Yes". If the desired operation is to send it just once when movement is detected, and do not repeat again the operation until programmed timing passes (delay end of detection) and the event end of detection occurs, option "No" will be chosen.
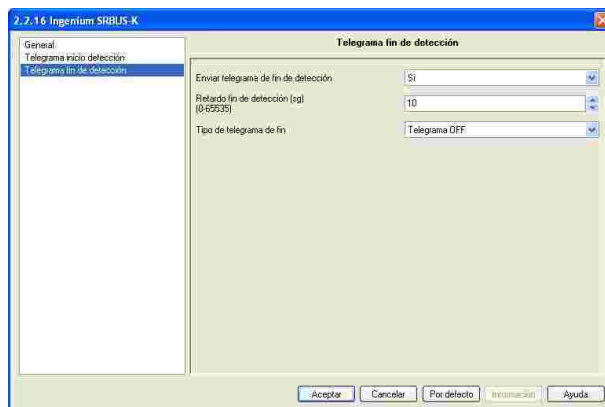
End detaction telegram

End detection telegram - In this field must be indicated if sending to the KNX bus the end of detection event.

Delay end of detection - Passed time sine sensor detects movement until stops to detect it. In case of sensor detects movement continuosly, in each detection timing would be re initiated automatically, beginning again the countdown from the programmed value. Range is [0,65535] seconds. Value to be introduced by default is 10 seconds.

Type of end telegram - It will be indicated if end detection telegram is sent as "1" (Telegram ON) or "0" (Telegram OFF). By default, "0" is sent.