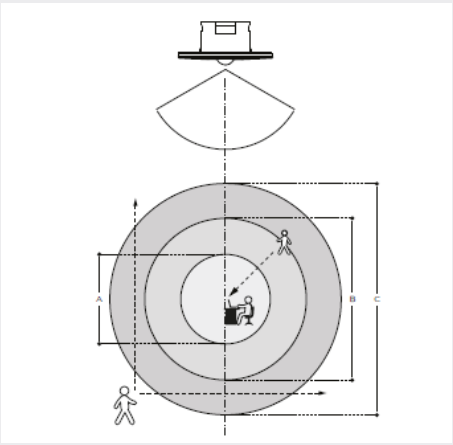
MOTION KIT KNX SPACE MASTER SENSOR 1AK.0201.XX21



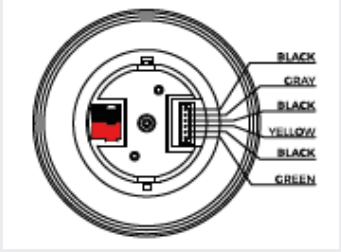
A – person working at the desk

B – person moving towards the sensor

C – person moving sideways with respect to the sensor

h	A	B	C
2.5 m	3.8 m	4.5 m	6.4 m
3.0 m	4.0 m	5.0 m	7.0 m
3.5 m	5.0 m	6.0 m	8.6 m
4.0 m	6.0 m	7.2 m	9.2 m

Wiring diagram for rear inputs



input 1	digital	green
input 2	digital	yellow
input 3	analog/digital	grey
COM	com for all inputs	black

PRODUCT INFORMATION

KNX Space Presence Sensor – light control, temperature, humidity, sound sensor, occupancy and utilization reporting.

The SPACE SENSOR is suitable for ceiling mounting up to 4 m height. The device includes a brightness sensor for environmental lighting control, humidity and temperature sensors with the relative control algorithms and a sound sensor that can be used in rooms with parts not totally visible to the infrared sensor. Presence detection, based on a passive infrared sensor, has 5 independently configurable channels with different functions that can be activated: presence with or without brightness control and with automatic or semi-automatic detection; constant brightness independent or presence dependent with automatic or semi-automatic activation. The device has a rear connector with 3 digital inputs that can be connected to buttons or switches free of potential and used for on / off commands, dimming, shutters or blinds / scenarios, sequences, step commands, etc. One of the 3 inputs can be configured as analogue for the connection of NTC temperature probes (see probes code TS00A01ACC / TS00B01ACC) with which to send the temperature measurement on the bus or manage a complete thermostat module. The thermostat manages 2 stages with an integrated PI controller for controlling heating and cooling equipment, valves, 2 and 4-pipe fan coils, etc. The humidity sensor manages the measurement of the ambient relative humidity and allows the control with thresholds and ysteresis of humidification and dehumidification equipments. 12 logic blocks are available to implement simple expressions with logical or threshold operator or complex expressions with algebraic and conditional operators. The device also integrates the "Virtual Holder Logic"; the field of application is the hotel room: through a magnetic sensor installed on the door and connected to a digital input (also to the sensor itself), accurate presence information is managed. The presence detection solution can deduce the presence of people in the room using one or more dedicated sensors. It also detects an unexpected presence and is able to differentiate more behaviors. The device manages the ambient lighting based on the measured illuminance; it is also possible to enable the logic called "Circadian Rhythm" with which brightness and color temperature are imposed on the basis of predefined curves or on the basis of the real position of the sun during the day with respect to a terrestrial coordinate. To further integrate presence detection, the Utilization function can enable functionalities for mapping space status and related usage/availability i.e. space occupancy and % of utilization rates and can be used to create dashboards, analytics, etc. Moreover, the integrated Occupancy function detects useful data for the processing of information related to the intensity of the activity of occupants within the monitored areas allowing the generation of a "heat map" of the building areas.

TECHNICAL DATA

POWER SUPPLY

via bus EIB/KNX cable 2 1 ÷ 32V DC

Current consumption ≤ 10mA

CONNECTIONS

Cabled connector 6 poles with AWG 24 wires length 100 mm

EIB/KNX connector

INPUT – DIGITAL MODE

For free potential contacts (dry contacts)

Max. length of Cables ≤ 30 m (twisted)

Voltage Scanning 3,3V DC

INPUT – ANALOG MODE FOR TEMPERATURE PROBE

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For NTC temperature probe electron code

TS01A01ACC	(range from -20°C to + 100°C)
TS01B01ACC	(range from -50°C to + 60°C)
Max. length of Cable	≤ 30 m (twisted cable)

LIGHTING SENSOR (STANDARD – MULTI – SPACE VERSION)

Range	50 ÷ 20000 LUX

TEMERATURE SENSOR (MULTI – SPACE VERSION)

Range	-5°C + 45°C
Resolution	0.1°C
Tolerance typ. (max)	± 2°C

HUMIDITY SENSOR (MULTI – SPACE VERSION)

Range	0 ÷ 100 %RH
Resolution	0.1 %RH
Tolerance typ. (max)	± 2 %RH (± 3 %RH)

MECHANICAL DATA

Case	(PC-ABS)
Dimensions	81 × 37 mm (diameter x hight)
Weight	approx. 120g

ELECTRICAL SAFETY

Degree of safety	IP20 (EN 60529)
Bus safety	21 ÷ 32V DC (extra low voltage)
Reference standards	EN 50491–3

ELECTROMAGNETIC COMPATIBILITY

Reference standards	EN 50491–5–1 / EN 50491–5–2

Compliant with electromagnetic compatibility directive 2014/30/EU

ENVIRONMENTAL SPECIFICATION

Reference standards	EN 50491–2
Operation temperature	-5°C + 45°C
Storage temperature	-20°C + 55°C
Relative humidity (not condensing)	max. 90%
Installation environment	indoor

WARNING

Device must be installaed keeping a minimum distance of 4 mm between electrial power line (i.e. mains) and input cables or red / black bus cable

XX – COLOUR CODES

01 – White

02 – Black