

Data Sheet

Smart Sensor NeuronGrid



■ Made
■ in
■ Germany



Description

As a member of the MICROSENS Smart Building Solutions family, the Smart Sensor delivers data on environmental information to a MICROSENS Central Smart Lighting Controller.

The MICROSENS Smart Sensor is designed to measure ambient light level, room temperature and humidity, as well as to detect the motion of persons. Connected to a Central Smart Lighting Controller a sensor network of up to 24 sensor can be created. The collected sensor data are processed directly by the Smart Director App to control the room, for example to dim the lights. In addition, the data can be visualized in the MICROSENS Smart Building Manager and made available to other systems.

The Smart Sensor is designed for recessed ceiling mounting and can be connected to bus lines with a length of up to 200 m to achieve a long range and a large area coverage.

Features

- Motion detection
- Measurement of ambient light level
- Measurement of temperature
- Measurement of humidity
- RGB LED to be used as indicator of sensor status
- Data interface to MICROSENS Central Smart Lighting Controller
- Powering through MICROSENS Central Smart Lighting Controller

Specifications

Smart Lighting Sensor

- Capture of environmental data on
 - Motion
 - Ambient light level
 - Temperature
 - Humidity
- Direct transfer of captured data to MICROSENS Central Smart Lighting Controller

Connectors

- 2x RJ-45 jack, Bus through, to daisy-chain sensors and connection to sensor port of Central Smart Lighting Controller

Power supply

- Supplied by Central Smart Lighting Controller

Mounting

- Recessed ceiling mounting
- Screwless snap-in-mounting

Technical Specifications

Measurement

Temperature	Metering range: 0..+60 C Accuracy +/- 0,3 %
Humidity	Metering range: 10..80%, non-condensing Accuracy +/- 2 %RH
Brightness	0 – 100 %, designed for Smart Director App
Motion	Detection Range: Ø 5 m @ 2,5 m mounting height

Connection

Compatible Controller	MICROSENS Central Smart Lighting Controller MS660301M-V4
Connector type	2x RJ-45 jack, shielded, CAN-Bus through
Cable length	max. 200 m
Cable Type	Cat. 5 shielded, AWG 26
Daisy Chain	Up to 24 sensors in line, depending on source device
BUS termination	100 Ohm, RJ-45 termination plug

Power Supply

Source	MICROSENS Central Smart Lighting Controller
Power Consumption	minimum: 60 mW, maximum: 250 mW

Environmental Conditions

Temperature	Typical: 25 C Operation range: 0..+60 C Storage: -20..+85 C
Humidity	10..80%, non-condensing

RGB LED

Mode	Off/ Blue/ Green/ Red/ Orange/ Cyan/ Magenta/ White, configurable
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Mechanical

Dimensions	60 x 50.3 mm (Diameter x height, without clamps)
Mounting hole	42 mm
Thickness of mounting surface	6 mm (min) – 25 mm (max)
Weight	Approx. 60 g
Protection Class	IP30

Standards

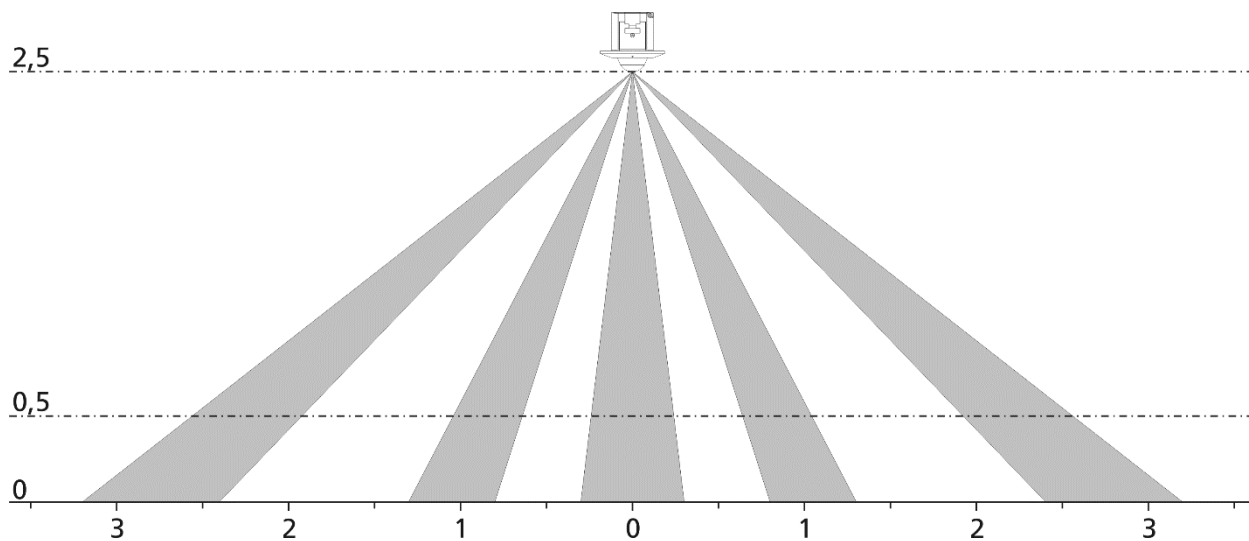
CE	2014/30/EU (EMC Directive) 2011/65/EU (RoHS Directive)
REACH	1907/2006/EC
Safety	EN 60950-1
EMC Emission	EN 55015
EMC Immunity	EN 61547

Delivery / Contents

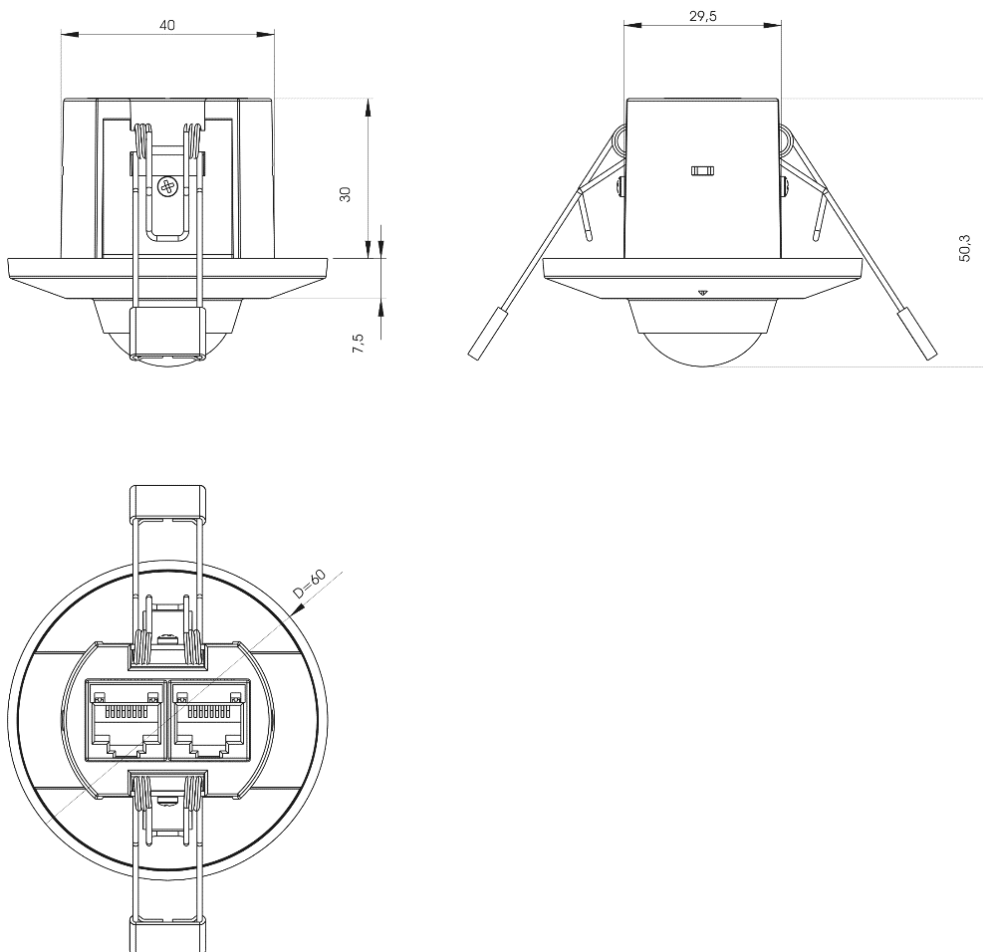
Standard Packaging

Package unit	1 pc.
Contents	6x Smart Sensors

Detection range motion sensor



Dimensions



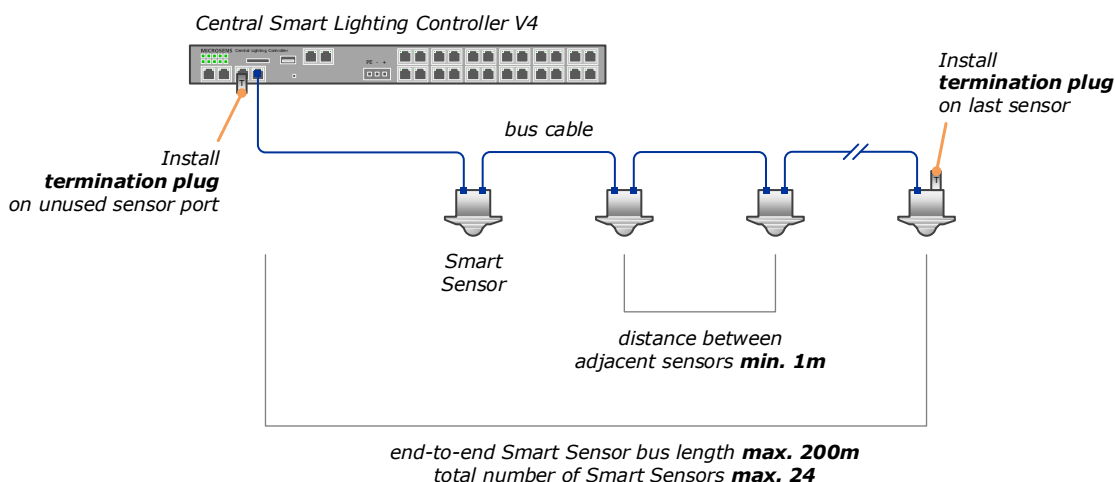
Planning guideline



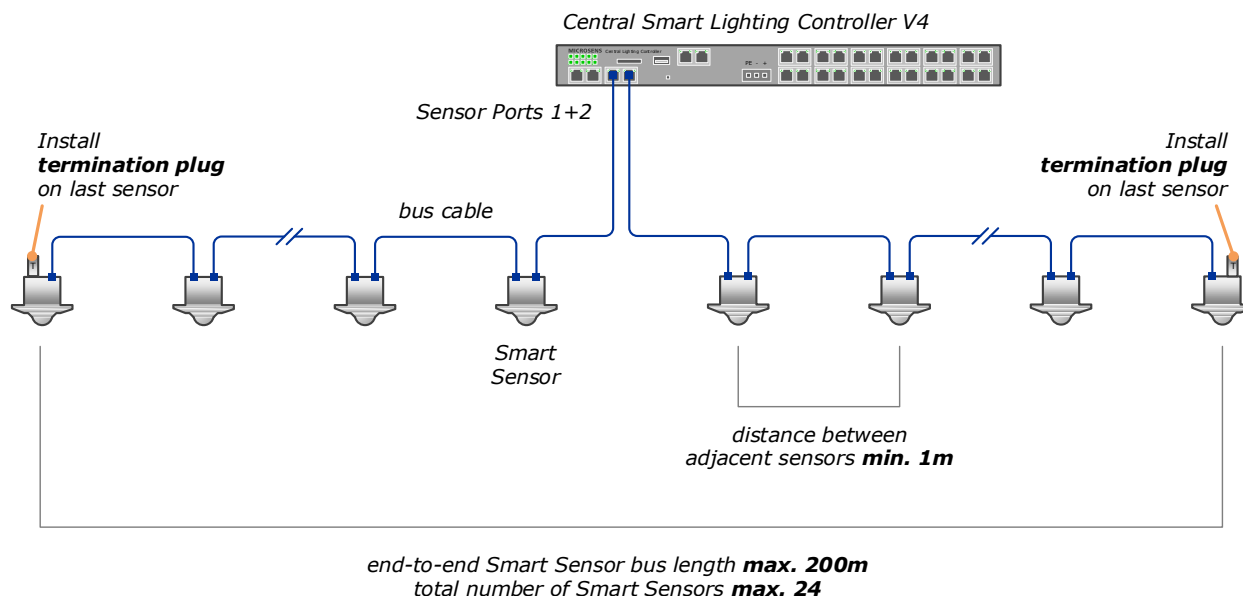
WARNING

Only compatible Smart Sensors must be connected to the Smart Sensor bus. Do not connect any other equipment to the bus. Connecting incompatible equipment to the bus may cause irreparable damage to the equipment, the CSLC or other Smart Sensors on the bus.

Sensor installation with single bus segment




Sensor installation with two bus segments


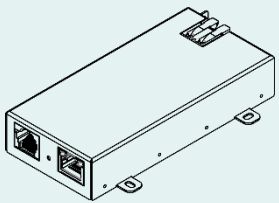


1. Maximum 24 Smart Sensors can be connected to one CSLC V4 device.
2. The minimum cable length between two adjacent sensors on the bus is 1 meter.
3. The maximum end-to-end cable length of the Smart Sensor bus is 200 meters.
4. The Smart Sensor bus must be terminated at both ends.
5. There is one Smart Sensor bus per CSLC device. When two bus segments are connected, they form together one bus.
6. For bus cabling, twisted pair cable according to ISO/IEC 11801, shielded Cat 5, AWG 26 must be used.
Attach 8pin RJ-45 connectors on both ends, pinout straight 1:1, pairs on pins 1/ 2, 3/6, 4/5, 7/8.

Ordering Information

	Description	Article-No.
	Smart Sensor for CSLC and SLC-V2 (compatible with MICROSENS Central Smart Lighting Controller MS660301M-V4 and Smart Lighting Controller Generation 2 MS660102MMS)	
	Smart Sensor NeuronGrid Integrated Sensor for Light Level, Motion, Temperature and Humidity; supply via bus, 2x RJ-45 jack for bus compatible with MS660301M-V4 and MS660102MMS	MS660222

Accessories

	Description	Article-No.
	Central Smart Lighting Controller Central Smart Lighting Controller 24x LED driver output (RJ-45) 2x Sensor input (RJ-45), 1x Power Input 54VDC 3x Fast Ethernet Uplink (RJ-45, shielded)	
	Description	Article-No.
	Smart Lighting Controller Generation 2 Smart Lighting Controller for NeuronGrid Sensors (up to 2 Sensors) Network powered controller for LED lighting Slim-Format, 1x RJ-45 jack for 10/100Base-TX, PoE+ PD input, max.30W, 1x RJ-45 jack for MICROSENS Smart Sensor MS660202, 1x Current Output for LED Light	
	Description	Article-No.
	Smart Sensor Bus termination plug Termination resistor for Smart Sensor Bus, 100 Ohm, RJ-45 plug	
		MS660309

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