CALON
Innovation in Control

SmartSensor™

Advanced DALI2 Lighting Sensors with control

SmartSensor™ has been developed to provide a cost-effective DALI sensor with a wide range of functions, coupled with a high level of performance.

Housed in a compact moulded enclosure, SmartSensor can operate as part of a managed DALI lighting network, or function as a versatile stand-alone sensor with extensive control capability.

As a stand-alone sensor, the unit is configured via a user-friendly infrared remote control, with coloured LEDs on the sensor providing feedback for all commands. When used as part of a networked system, the sensor settings are managed by a DALI area controller.

The heart of the sensor is a powerful 32-bit ARM processor, capable of controlling one or two zones of lighting, coupled with a high-performance PIR sensor and a smart power management system that maximises performance while minimising power consumption.

Sophisticated digital signal processing techniques provide excellent sensitivity while discriminating between real movement and unwanted false triggers.

The sensor can optionally provide two wall switch inputs, eliminating the need for a separate switch bus coupler.

For standalone use, a compatible remote control and powered DALI Active Wiring Centre are available as accessories.

SmartSensor is compatible with a variety of lighting control systems including the Calon SmartBridge™ and InfraLIGHT™ ranges and the Loytec L-DALI range of controllers.

Key Features

- Occupancy and Light level sensing
- Option for wall switch inputs without additional switch bus coupler
- Operates stand-alone or as part of a managed lighting system
- Easy setup in stand-alone mode with automatic lamp short address assignment
- Supports a wide range of control strategies including occupancy, constant light, scenes
- Low power consumption
- Infra-red remote control available
- Status feedback via coloured LEDs
- Conforms to DALI2 standards (EN62386-301/302/304)
- Firmware can be easily upgraded over DALI bus in-situ for simplified maintenance
- Highly sensitive with advanced digital filters to give excellent resistance to false triggering
- Designed and manufactured in Britain.

Connections

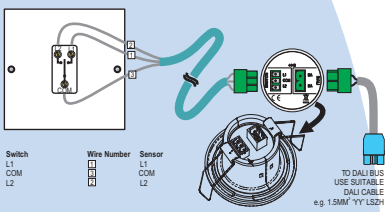
DALI:	2-pole 5.08mm pluggable connector, screwless
Wall Switch: (Models 4442xxx)	3-pole 3.81mm pluggable connector, screwless Support for 1 x dual-retractive wall switch or 2 x retractive or standard wall switches

Technical Specifications

Supply Voltage:	13-21V DC via DALI bus, as per BS EN 62386-101:2014
Current Consumption:	<2.5mA (max, normal operation), <1.5mA (typical), 5mA (max, commissioning mode)
Safety:	All relevant clause of BS EN 61347-2-11: 2002 used in conjunction with BS EN 61347-1: 2015
DALI2 Compliance:	Conforms to EN 62386-301:2017, EN 62386-302:2017, EN 62386-304:2017
Presence detection:	Dual curved-element detector, 3 stage digital filter
Light Level detection:	Digital light sensor, 0 - 60,000 lux, 2 lux steps
Enclosure Material:	Moulded thermoplastic, non-flammable to UL94 V0
Dimensions:	Body: 38mm dia. Mounting hole: 45mm dia.
Weight:	75g

SmartSensor 4441CMU mounted in ceiling tile

Rear view of 4442CMU showing connections and retaining spring



Connection details - SmartSensor to DALI and SmartSensor to dual-retractive wall switch

Availability

SmartSensor is available in the following versions:

Sensors:

4441CMU-W	Standard lens, DALI only, White
4442CMU-W	Standard lens, DALI plus 2 switch inputs, White

Accessories:

4440RIN	Infrared remote control
4440AWC	Active Wiring Centre, connection box for 12 lamps + 2 SmartSensors, with inbuilt DALI power supply for commissioning or stand-alone operation

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