

Multilux High Bay Bus DALI

High bay multisensor for motion detection and light sensing,
with DALI-2 interface for control systems

Ordering number: ML.082001-003

Multilux High Bay Bus DALI is a multisensor including a motion sensor and a light sensor for lighting control in installations with DALI bus. The device includes a high bay motion detector lens that provides a large motion detection surface, being especially useful for large open spaces in warehouses where it is necessary to cover the maximum possible surface to perform an accurate motion detection.

The device also includes a light sensor to measure the light level in the zone, to do the lighting control of the luminaries using a DALI-2 controller that acts as a network controller between the multisensors and the luminaries.

The product is finished with an IP65 sealed box for installation in humid areas and supports operating temperatures down to -20 °C.

General features

- High sensitivity motion sensor for detection up to 14 m height.
- Maximum detection coverage of 22 m diameter.
- Detection sensitivity adjustment with potentiometer.
- Motion detection led indicator state.
- Light sensor range up to 500 lux.
- DALI-2 standard communication port.
- Slave type device to operate with a Master controller.
- Supply power through DALI cable.
- Firmware upgradeable through the DALI bus.
- IP65 enclosure protection degree.
- Operating temperature from -20 °C to +50 °C to operate in cooling chambers.

Functional description

Introduction

The control system to install with this product must be based at least with three elements: This multisensory, a DALI-2 gateway compliant with the DALI-2 standard and a set of DALI luminaries over which the lighting control through the DALI bus will be done.

Device operating

The device is constantly measuring any motion detection in the area of operation, providing instantly any change as a detection event to the DALI-2 network. The light level is also measured and remains as a value in the device for a polling query from the DALI-2 gateway.

Product installation

Important

- Follow the DALI-2 standard recommendations for the wiring installation.
- For an optimal operation of the light sensor avoid reflections of sun light that can affect directly to the device. Avoid shelves and bright floors over which the sun can be reflected and falsify the light measurement in the zone.
- The device is designed to be mounted in a flat surface.

Installation process

1. Disconnect the DALI bus power supply of the device.
2. Unscrew the four screws of the multisensor cover to access the bus terminal.
3. Feed the cable through the fitting conduit and connect the wires into the terminals. The DALI bus does not have polarity.
4. Fix the device and screw the fitting conduit nut. Be sure that the jacket has been correctly fastened, otherwise the waterproof can't be guaranteed.
5. Make two holes on the ceiling and fix the device firmly.
6. Close the device with the cover in correct position and fix it with

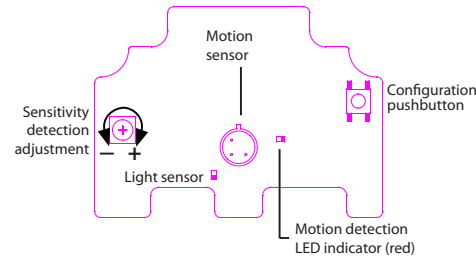
Instruction sheet



EN

Mechanical description

Front view



Motion sensor

Motion sensor detection area (*)

Height (m)	Diameter (m)
5	10
6	11
8	13
10	16
12	19
14	22

(*) In optimal sensitivity conditions

Technical features

Supply power

Operating voltage 16 Vdc ± 30%
Maximum rated current 4,6 mA
NOTE: Use only DALI-2 power supply.

Communications

Technology DALI-2
Standard... IEC 62386-101 ed2, 103 ed1 (input device), 303 ed1 (PIR), 304 ed1 (lux sensor)

Interface DALI
Communication speed 1200 bps

Motion sensor

Technology PIR (Infrared)
Number of detection zones 43
Detection surface 360°
Detection range See table
Maximum detection distance 14 m
Sensitivity adjustment Potentiometer
Maximum time for stabilization after reset 60 s

Light sensor

Detection range on the sensor 0 to 500 lux
Resolution 12 bits
Spectral bandwidth range 400 to 800 nm
Maximum sensitivity wavelength 570nm

Led indicator

Motion detection Red ON
Wink DALI command (*) Blink red 30 s

Commissioning in DALI network (*)

Unique identifier at learning time
Front led blinks every second in Wink state
GTIN unique identification code 8435483900066

Temperature values

Operating -20°C to +50°C (-4°F to 104°F)
Storage -20°C to +85°C (-4°F to +185°F)

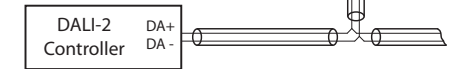
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Multilux High Bay Bus DALI, High bay motion detector and light sensor for DALI networks. ML.082001-003

The package of this product is considered as industrial packaging intended for professional use only.
The manufacturer is not responsible of the incorrect installation or use of the product.
Specifications are subject to change without notice.

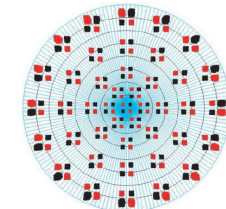
Installation drawing

DALI cable
2x1,5 mm²
Max. Dist. 300 m



Detection diagram

Plan view



Humidity values (no condensation)

Operating 10% to 90% RH at 50°C
Storage 95% RH at 50°C

Mechanical installation

Type Surface mounting
Fixing Screws

Mechanical features

Dimensions 80x82x55mm
Weight 215 gr
Enclosure colour RAL 7035
Enclosure material Polycarbonate
Cable cross section 0,5 mm² - 2,5 mm² (14 AWG)
Jacket diameter Min 4,5 mm - Máx 10 mm
Electrical security Class III
Protection degree IP65 (EN 60529:1991)

CE Conformity

Low voltage directive 2014/30/UE
Electromagnetic Compatibility Directive 2014/35/UE
Marking CE

Applicable harmonized standards

Product standard EN 60730-1:2013
Electrical security EN 60730-1:2013
Electromagnetic compatibility EN61000-6-3
EN 61000-6-1

NOTES:

- 1) The device is not intended for use as part of a security system detector.
- 2) For an optimal detection of the motion sensor, the installer should adjust the sensitivity potentiometer to the environment where device will be installed.

(*) Refer to the DALI-2 controller installation manual for the commissioning process.