# 324D2 Multisensor DALI-2 R44

The 324D2 Multisensor is a luminaire-based DALI-2 sensor that combines a PIR sensor for movement detections and a light sensor for constant light output. This sensor complies with the DALI-2 parts 303 and 304 and follows the Zhaga Book 20 mechanical dimensions for a rectangular sensor that fits into a 44x17 mm slot on a luminaire.

This sensor can be used with a Helvar DALI-2 multi-master lighting control solution, such as the Helvar 950 Application Controller.
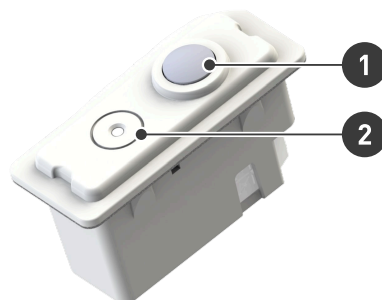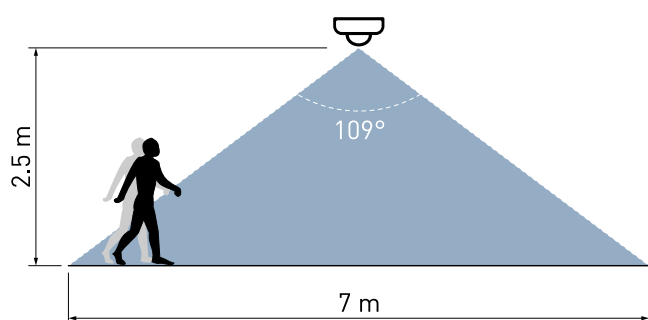


1. PIR sensor
2. Light sensor

## Key Features

- Small luminaire based DALI-2 multisensor
- Fits into a standard Zhaga Book 20 based rectangular 44x17 mm luminaire slot
- 10 mA DALI current consumption
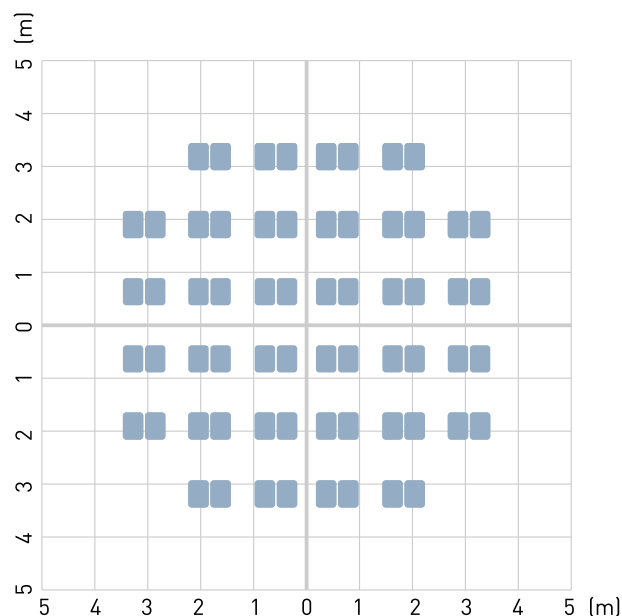- DALI-2 certified input device

## Detection

### Detection Coverage



Max. recommended mounting height: 4 m

### Detection Pattern



Detection Pattern at floor level for 2.5 m mounting height

Detection range and sensitivity depends on the speed and size of the moving object as well as its temperature difference to the surroundings. Moving directionally towards the sensor will give worse detection than crossing the detection area at an angle.
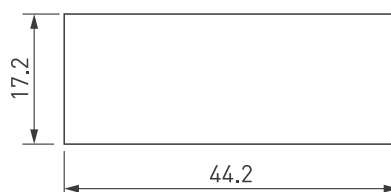
# Mounting

The Multisensor DALI-2 R44 can be mounted to a luminaire in three ways:

1) When mounting from outside in, carefully push the unit into the cutout until it 'clicks' into place and sits flush with the luminaire casing.
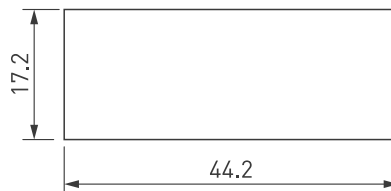


## Cutout dimensions (mm)



17.2

44.2
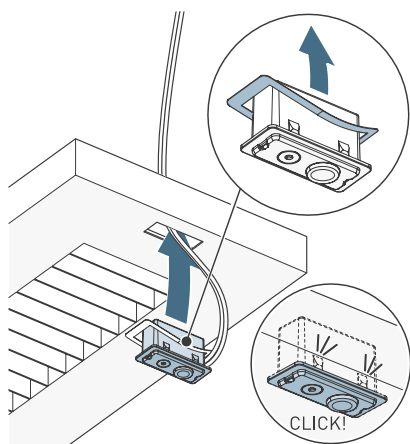
2) When mounting from inside out, ensure the face of the unit sits level with the luminaire casing and secure the unit in place. The supported luminaire frame thickness in the range $0.4 \leq d \leq 1.5$ mm.
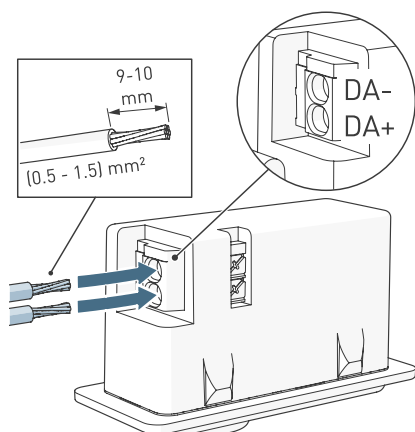


## Cutout dimensions (mm)



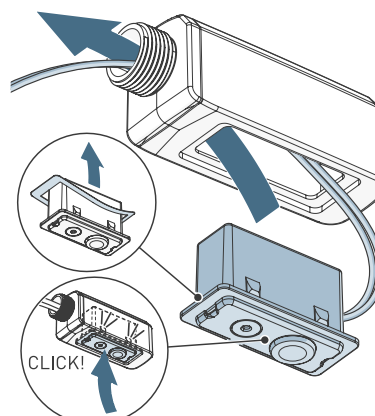17.2

44.2
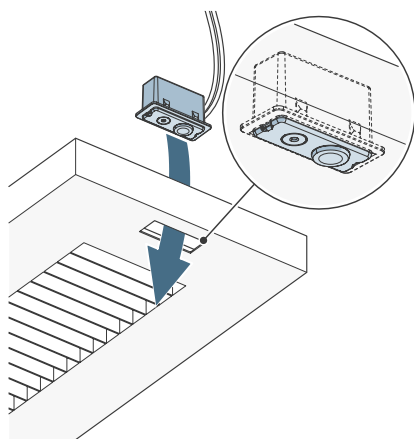
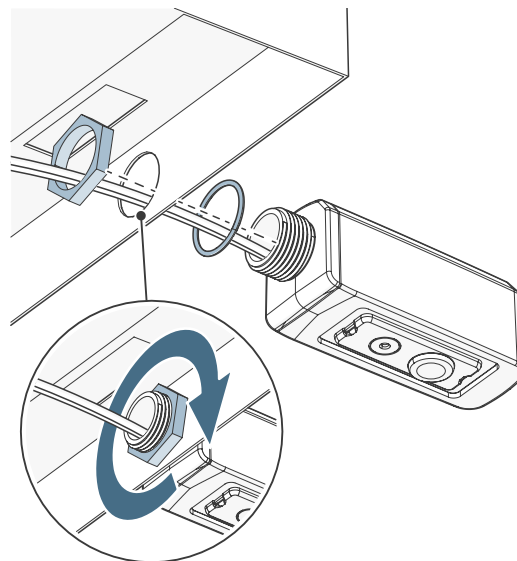3) Using a 5695G - Holder Batten R44 accessory (sold separately).

1. Connect the DALI cables.



9-10 mm

(0.5 - 1.5) mm²

DA−
DA+

2. Remove the tape liner and feed the cable through the holder. Push the unit into the holder.



CLICK!

3. Feed the cable through the hole in the luminaire. Connect the cable to the Node. Fasten the holder to the luminaire using the O-ring and a M20 nut.

## Connections

9-10 mm

(0.5 - 1.5) mm²

DA–
DA+

## Dimensions (mm)

43.8

16.8

51

43.7

31

25

1.5

22

16.8

Ø13.7

8.5

0

8.5

51

16.7

22

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3
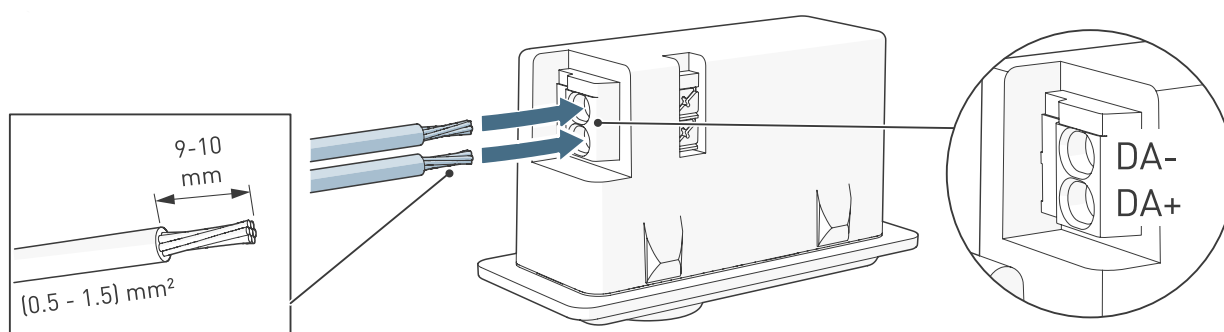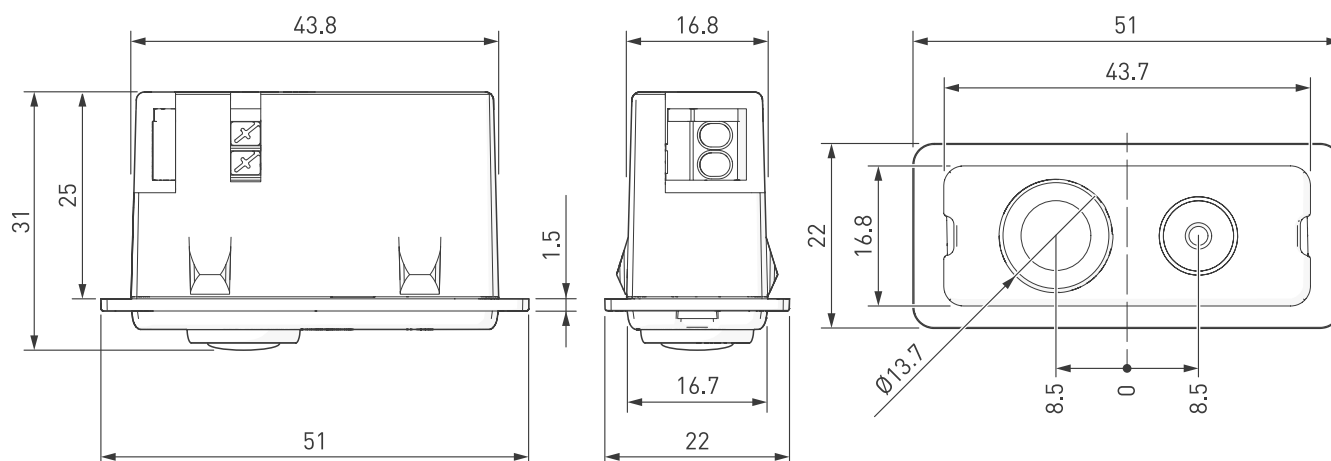
# Technical Data

## Connections

| | |
|---|---|
| DALI: | Push-fit terminals for the DALI wires. |
| | Wire section: 0.5–1.5 mm², solid or stranded |
| Cable rating: | All cables must be mains rated. |

## Electrical Data

| | |
|---|---|
| DALI supply input: | 12–22.5 V |
| DALI consumption: | 10 mA Max |

## Movement detection sensor

| | |
|---|---|
| Technology: | Passive infrared (PIR) detects moving temperature differences |
| Detection coverage area: | 38 m² @ 2.5 m mounting height achieved with: |
| | 8 C° temperature difference to target |
| | 1.0 m/s movement speed |
| | 700 x 250 mm object size |
| Max. recommended mounting height: | 4 m |

## Light sensor

| | |
|---|---|
| Technology: | Closed loop reflected light |
| Illuminance: | 5 lx to 5000 lx |
| Max. recommended mounting height: | 3 m |

## Order codes

| | |
|---|---|
| 324D2 | Multisensor DALI-2 R44 White |
| 324BD2 | Multisensor DALI-2 R44 Black |
| 324PGD2 | Multisensor DALI-2 R44 IP Grey |

Accessories (sold separately)

| | |
|---|---|
| 5695G | Holder Batten R44 Grey |

## Operating and storage conditions

| | |
|---|---|
| Ambient temperature: | 324D2, 324BD2: 0 °C to +50 °C |
| | 324PGD2: -20 °C to +50 °C |
| | Note: The temperature difference between the detection target and the background must be at least 4 °C. |
| | Note: Frost on the lens may block the detection. |
| Relative humidity: | Max. 85 %, noncondensing |
| Storage temperature: | -20 °C to +70 °C |

## Mechanical data

| | |
|---|---|
| Dimensions: | 51 x 22 x 31 mm |
| Material (casing): | Fire-retardant PC/ABS blend |
| Colour: | 324D2: White (RAL 9003) |
| | 324BD2: Black (RAL 9005) |
| | 324PGD2: Grey (RAL 7035) |
| Weight: | 14 g |
| IP rating: | 324D2, 324BD2: IP30 |
| | 324PGD2: IP65 front, IP20 back |

## Conformity and standards

| | |
|---|---|
| Conformity: | CE  UK CA |
| EMC emission: | EN 55015 |
| EMC immunity: | EN 61547 |
| DALI: | IEC 62386, Parts 101, 103, 303 and 304 |
| Safety: | EN 61347-2-11 |
| Environment: | Complies with WEEE, RoHS and REACH directives. |