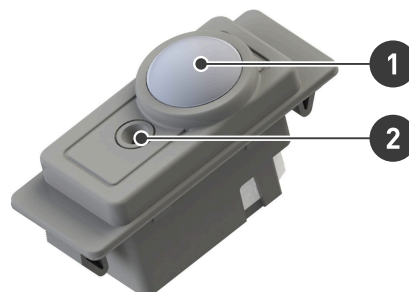


# 5645 Node Multisensor High Bay D4i R60

The ActiveAhead Node Multisensor High Bay D4i R60 is a member of the truly intelligent wireless lighting control solution Helvar ActiveAhead®. It combines radio for connecting to the ActiveAhead mesh network, processor for running ActiveAhead lighting control logic, PIR sensor for movement detections and a light sensor for daylight harvesting. This radio sensor follows the Zhaga Book 20 mechanical dimensions for a rectangular sensor which suits to a 60 x 22 mm slot on a luminaire.

The Node Multisensor High Bay D4i design allows for multiple mounting options within a luminaire and excellent radio communication in all directions. Once installed the ActiveAhead Node Multisensor High Bay D4i can continuously learn from the space usage and adapt the lighting accordingly. Further configuration can be easily completed using the ActiveAhead mobile app.

The Node Multisensor High Bay D4i works with D4i LED drivers as well as other standard DALI-2 and DALI LED drivers. It offers addressed local DALI control line which allows individually set light output levels for the connected DALI LED drivers. The Node Multisensor High Bay D4i is powered by the DALI bus.



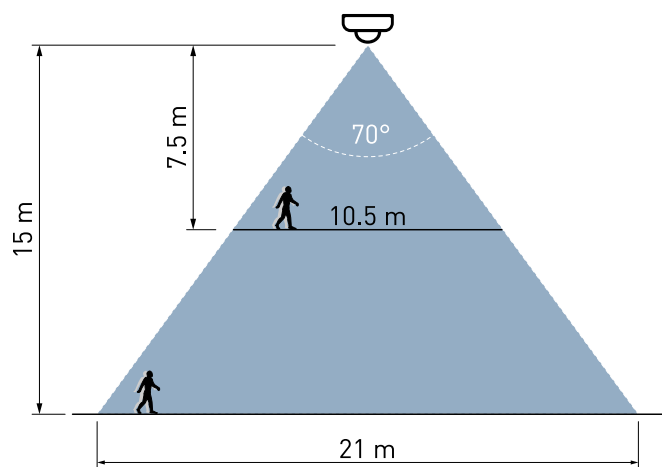
1. PIR sensor
2. Light sensor

## Key Features

- Small D4i high bay multisensor with inbuilt radio for wireless Helvar ActiveAhead luminaires
- Certified D4i control device
- Fits to a standard Zhaga Book 20 based rectangular 60x22 mm luminaire slot
- IP65 rated front side

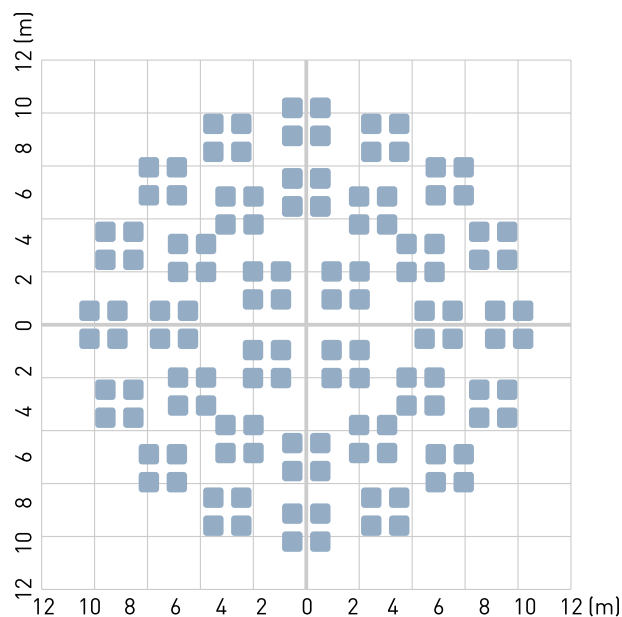
# Detection

## Detection Coverage



Max recommended mounting height: 17 m

## Detection Pattern



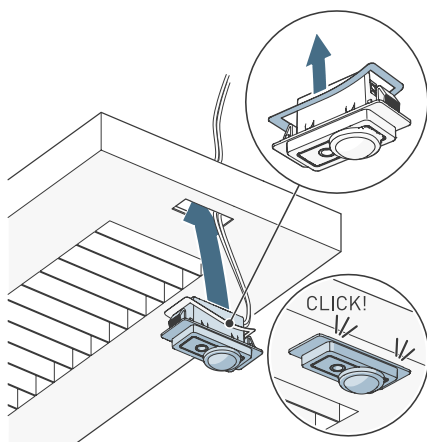
Detection Pattern at floor level for 15 m mounting height

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 on an angle.

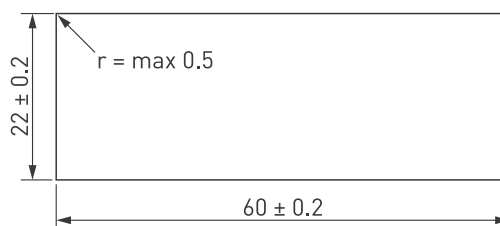
# Mounting

The Node Multisensor High Bay D4i R60 can be mounted to a luminaire in three ways:

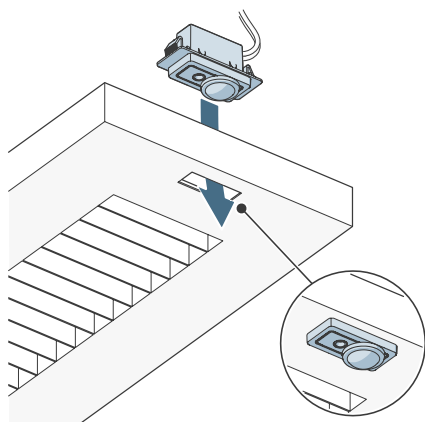
- 1) When mounting from outside in, carefully push the unit into the cutout until it 'clicks' into place and sits flush with the luminaire casing.



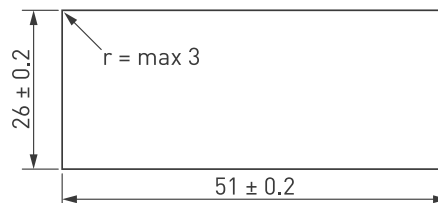
## Cutout dimensions (mm)



- 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.

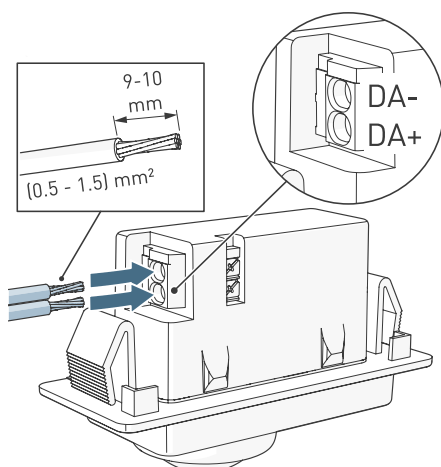


### Cutout dimensions (mm)

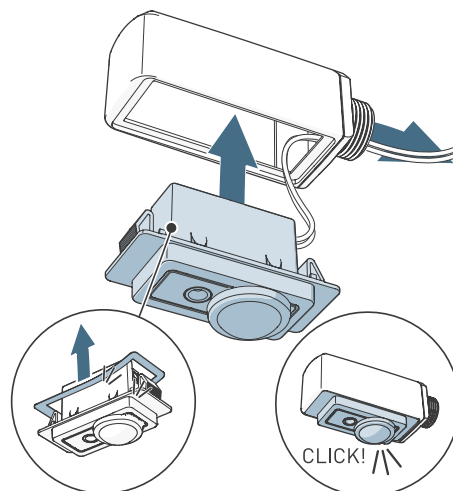


- 3) Using a 5696G - Holder Batten R60 accessory (sold separately).

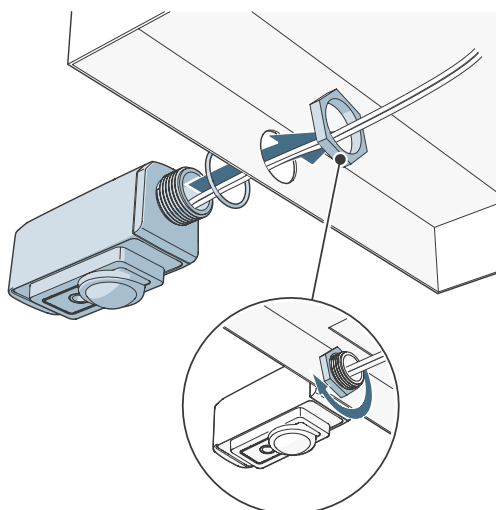
1. Connect the DALI cables.



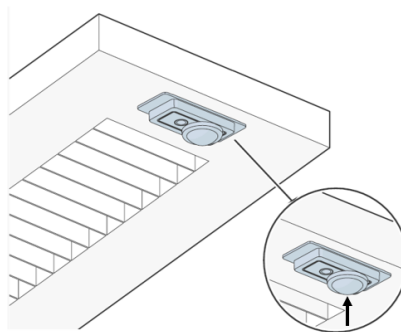
2. Remove the tape liner and feed the cable through the holder. Push the unit into the holder.



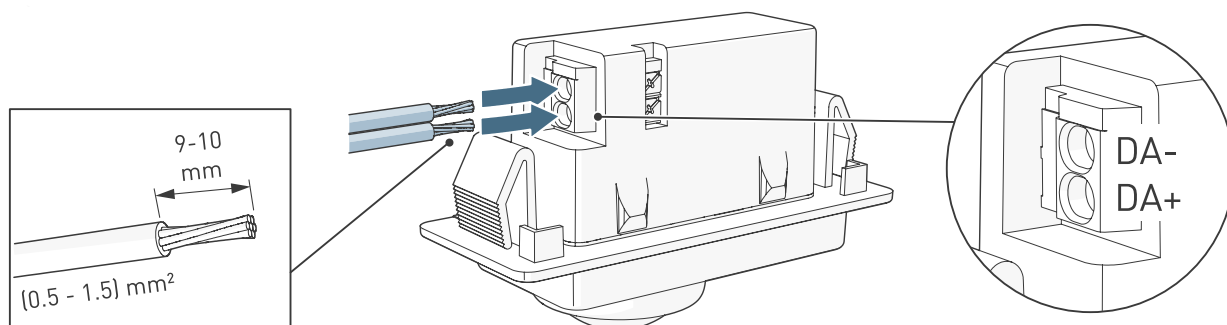
3. Feed the cable through the hole in the luminaire. Connect the cable to the Node. Fasten the holder to the luminaire using the O-ring and a M20 nut.



**Note:** To avoid PIR lens deformation, the PIR lens must be protected from mechanical pressure. Special care must be taken during sensor mounting as well as luminaire transport and installation.

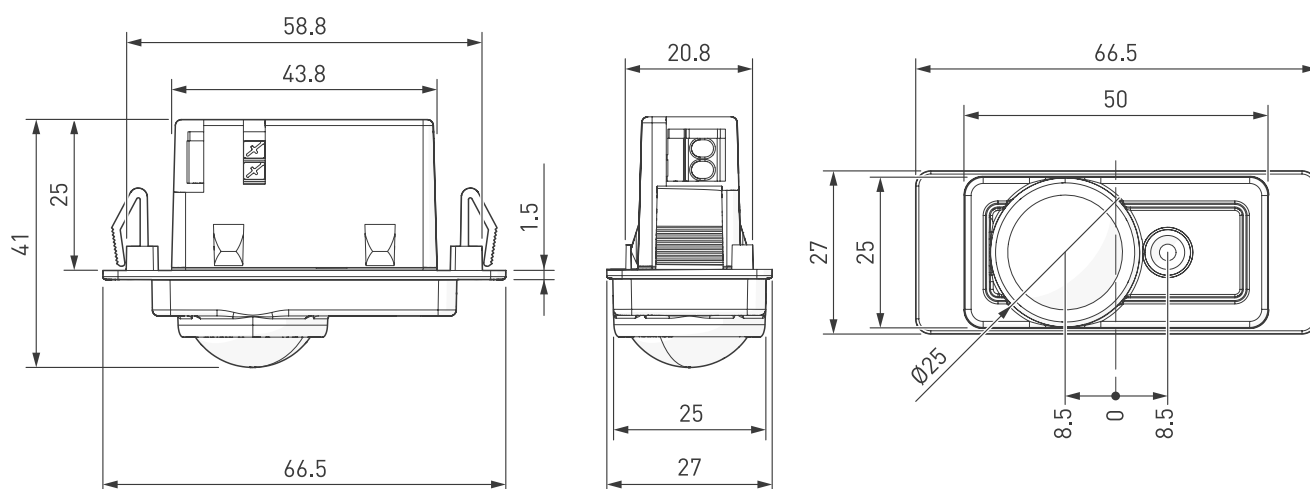


## Connections



**Note:** To remove DALI wiring, press down the release buttons.

## Dimensions (mm)



# Technical Data

## Supported DALI device types

DT1: Self-contained emergency control gear  
 DT6: LED lamp control gear  
 DT7: Switching (relay) control gear  
 DT8: Colour control gear (colour temperature Tc only)  
 Part 301 Push buttons  
 Part 303 Occupancy sensors  
 Part 304 Light sensors

Detection coverage area: 346 m<sup>2</sup> @ 15 m mounting height  
 87 m<sup>2</sup> @ 7 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: 17 m

## Connections

DALI: Push-fit terminals for the DALI wires  
 Wire section: 0.5–1.5 mm<sup>2</sup> solid or stranded  
 Cable rating: All cables must be mains rated

## Light sensor

Technology: Closed loop reflected light  
 Illuminance: 5 lx to 5000 lx

## Electrical data

DALI supply input: 12.0–22.5 V  
 DALI consumption: Max. 25 mA

## Operating and storage conditions

Number of connected DALI devices: Max 8 addresses or the DALI power supply limit  
**Note:** There must be only one ActiveAhead Node on one DALI line.

## Wireless Connectivity

Operating frequency range: 2402–2480 MHz  
 Transmission power: Max. 0 dBm  
 Technology: Bluetooth® Mesh  
 Antenna Pattern: Omnidirectional  
 Max distance between Nodes: 15 m in free space  
**Note:** To ensure proper operation the mesh network must consist of a minimum 10 ActiveAhead Nodes.

Operating temperature: -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 lens may block the detection.

Relative humidity: Max. 85 %, noncondensing  
 Storage temperature: -20 °C to +70 °C

## Movement detection sensor

Technology: Passive infrared (PIR) detects moving temperature differences

## Mechanical data



Dimensions: 66.5 x 27 x 41 mm  
 Material (casing): Fire-retardant PC/ABS blend  
 Colour: Grey (RAL 7035)  
 Weight: 19 g  
 IP rating: IP65 front, IP30 back



Order Codes

5645013	Node Multisensor High Bay D4i R60, Grey
Accessories (sold separately)	
5696G	Holder Batten R60, Grey

Conformity and standards

Conformity:	 
EMC emission / immunity:	EN 55015 / EN 61547
RED:	EN 300 328, EN 301 489-1, EN 301 489-17
Safety:	EN 61347-2-11
DALI:	IEC 62386, Part 351
Environment:	Complies with WEEE, RoHS and REACH directives.