

# 5640 ActiveAhead Node Multisensor

ActiveAhead Node Multisensor is a member of the truly intelligent wireless lighting control solution Helvar

ActiveAhead®. It connects standard DALI devices to the ActiveAhead system offering a flexible room or space solution. Node Multisensor offers addressed local DALI control line which allows individually set light output levels for the connected DALI luminaires to suit the space and scene needs. In addition to the DALI luminaires, also relays, dimmers, additional DALI-2 sensors and DALI-2 wall panels can be connected to the DALI control line. It can also be used as a wireless sensor to control nearby other ActiveAhead nodes in the Bluetooth® mesh network.



The ActiveAhead Node Multisensor is mains powered and includes an inbuilt DALI power supply unit to power the local DALI control line. This makes the design and installation easy as wiring is simple. The unit can be flush mounted to a ceiling using the included spring clips. Surface mounting accessories are available (sold separately) when unit is to be mounted onto a solid surface.

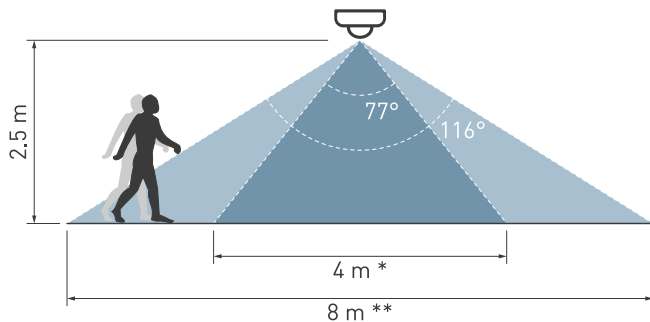
The connected ActiveAhead nodes share information, such as movement detections, through the mesh network, and a mobile app allows you to configure the system where needed. Thanks to its smart software algorithm, Helvar ActiveAhead is able to learn how the space is used to predict the connected luminaires operation accordingly. Learning is based on the data that the node receives from locally connected sensors and from other ActiveAhead nodes in the network. Since it never stops learning, the ActiveAhead Node Multisensor will adapt to any future changes in its environment, such as a wall installation or removal.

## Key Features

- Scalable and easy to setup room solution
- Offers local addressed DALI control line
- Customisation via mobile app
- Quick and simple installation with mains power and inbuilt DALI power supply unit

## Detection

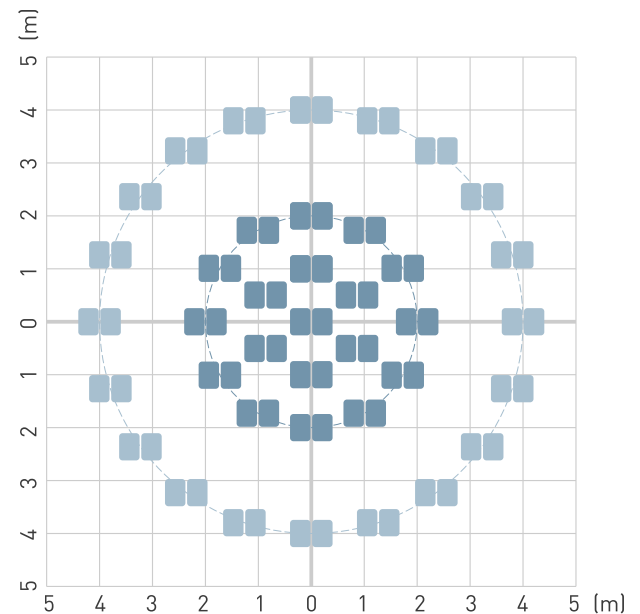
### Detection Coverage



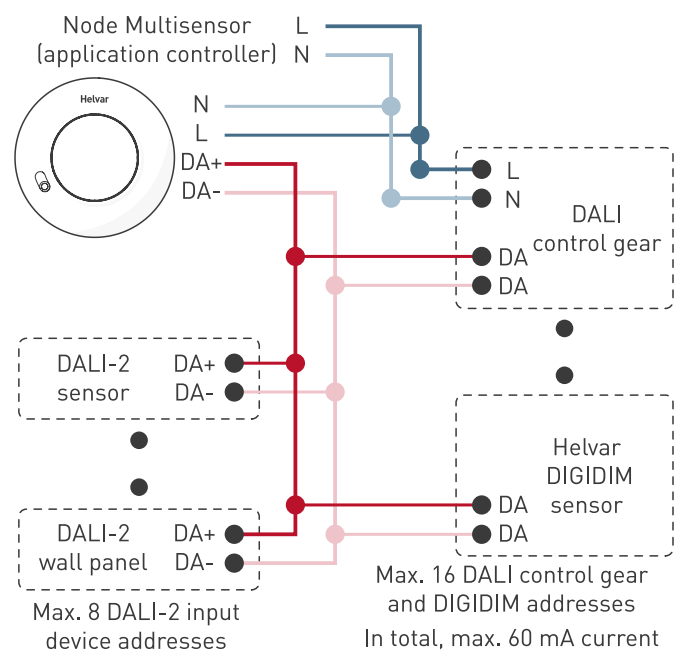
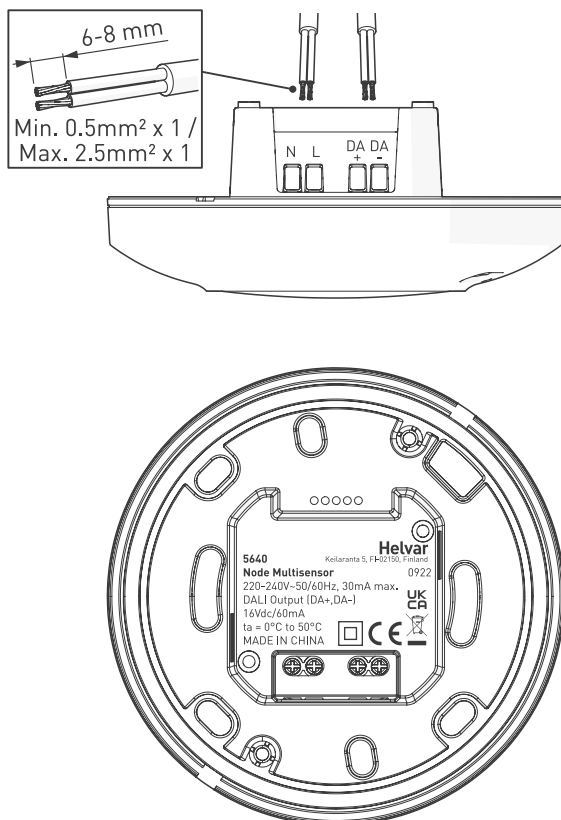
\* = small movement

\*\* = big movement

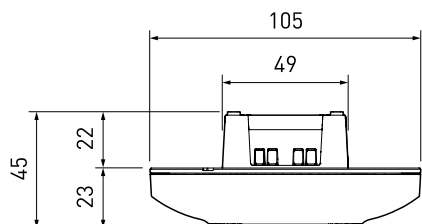
### Detection Pattern



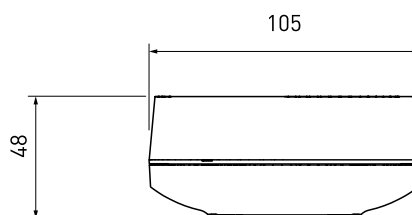
## Connections



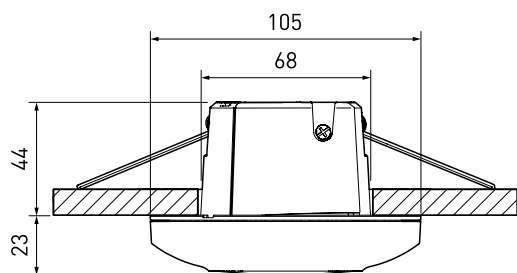
## Dimensions (mm)



Standard



w/ Surface-Mounted Box (accessory)



w/ Recess Spring Mount (included)

## Technical Data

### Supported DALI device types

- DT0: Fluorescent lamp control gear
- DT1: Self-contained emergency control gear
- DT4: Incandescent lamp dimmer
- DT5: Analog-to-digital converter, Conversion to DC (0/1-10 V)
- DT6: LED lamp control gear
- DT7: Switching (relay) control gear
- DT8: Colour control gear (colour temperature T<sub>c</sub> only)
- Part 301 Push buttons
- Part 303 Occupancy sensors
- Part 304 Light sensors
- Helvar DIGIDIM system sensors: 320, 321, 322, 341 and 342

**Note:** Supported device types depend on the software version of the Node Multisensor

### Operating and storage conditions

- |  |   |
|--|---|
| <b>Number of connected DALI devices:</b> | Max. 16 DALI control gear and DIGIDIM addresses |
|  | Max. 8 DALI-2 input device addresses            |
|  | In total, max. 60 mA current consumption        |

**Note:** The total number of connected devices is limited by the addresses and the DALI current consumption limitation.

**Note:** There must be only one ActiveAhead Node on one DALI line.

- |                                |                |
|--------------------------------|----------------|
| <b>Max. DALI cable length:</b> | 300 m          |
| <b>Operating temperature:</b>  | 0 °C to +50 °C |

**Note:** The temperature difference between the detection target and the background must be at least 4 °C.

- |                             |                          |
|-----------------------------|--------------------------|
| <b>Relative humidity:</b>   | Max. 90 %, noncondensing |
| <b>Storage temperature:</b> | -40 °C to +70 °C         |

## Connections

|             |  |
|-------------|--|
| Mains:      | Wire section: 0.5–2.5 mm <sup>2</sup><br>solid or stranded |
| DALI cable: | Wire section: 0.5–2.5 mm <sup>2</sup><br>solid or stranded |

## Electrical data

|                          |  |
|--------------------------|--|
| Input voltage:           | 220–240 VAC, 50/60 Hz  |
| Input current:           | Max. 30 mA   |
| Input power:             | Max. 3.5 W   |
| Output current for DALI: | Typical 60 mA (Max. 250 mA)<br>Other DALI power supply units<br>must not be present on the<br>DALI line. |

## Sensors

|                                      |  |
|--------------------------------------|--|
| Light sensor:                        | Closed loop reflected light<br><br>SW version 1.20 and older: For<br>bright-out function |
| Presence detector:                   | Passive infrared (PIR) detects<br>moving temperature differences                         |
| Max. recommended<br>mounting height: | 4 m  |

## Wireless Connectivity

|   |                    |
|---|--------------------|
| Frequency:  | 2.4 GHz            |
| Technology:   | Bluetooth Mesh     |
| Antenna Pattern:  | Omnidirectional    |
| Max distance between<br>Nodes:  | 15 m in free space |
| <b>Note:</b> To ensure proper operation the mesh network must<br>consist of a minimum 10 ActiveAhead Nodes. |                    |



## Order Codes

|   |                            |
|---|----------------------------|
| 5640000:  | Colour: White (RAL 9003)   |
| 5640001:  | Colour: Black (RAL 9005)   |
| Delivered with Recess Spring Mount and PIR detection<br>mask. |                            |
| <b>Accessories (sold separately):</b>                         |                            |
| 5002:   | Surface-Mounted Box, White |
| 5002B:  | Surface-Mounted Box, Black |

## Mechanical data

|                    |  |
|--------------------|--|
| Dimensions:        | 105 x 45 mm<br>105 x 48 mm with surface box<br>105 x 67 mm with flush mount                                    |
| Material (casing): | Polycarbonate  |
| Weight:            | 130 g / 177 g (with packaging)   |
| Safety class:      | Class II<br><br>IP20 with EU standard junction<br>box or spring clip box<br><br>IP54 with surface mounting box |

## Conformity and standards

|                             |   |
|-----------------------------|---|
| Conformity:                 |   |
| EMC emission /<br>immunity: | EN 55015 / EN 61547   |
| Safety:                     | EN 61347-1, EN 61347-2-11   |
| RED:                        | EN 300 328, EN 301 489-1,<br>EN 301 489-17  |
| Isolation mains to<br>DALI: | Basic isolation   |
| Environment:                | Complies with REACH and<br>RoHS directives.   |