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.
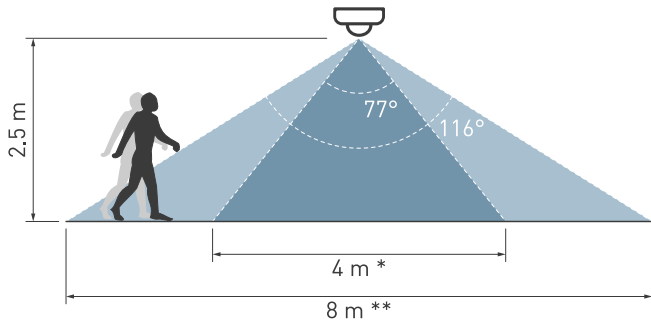
Key Features

- 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
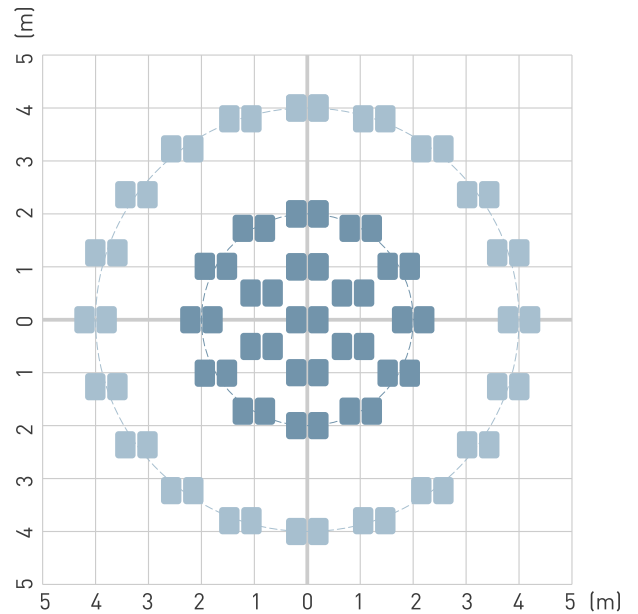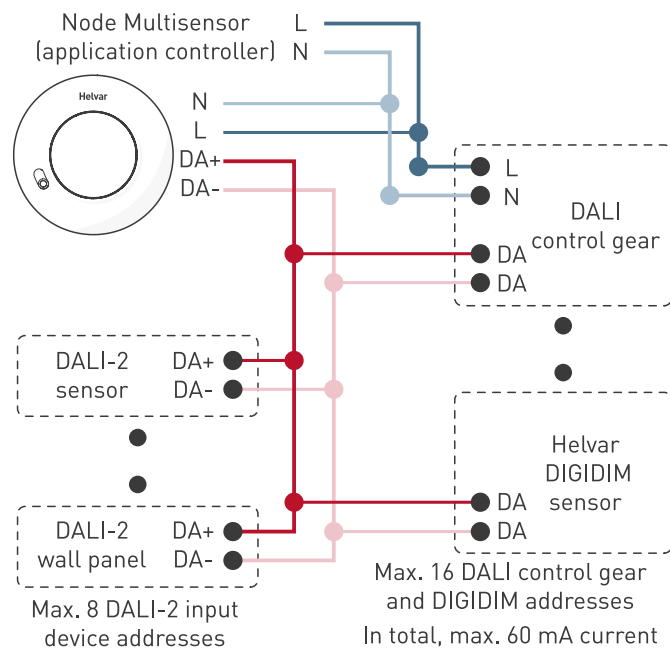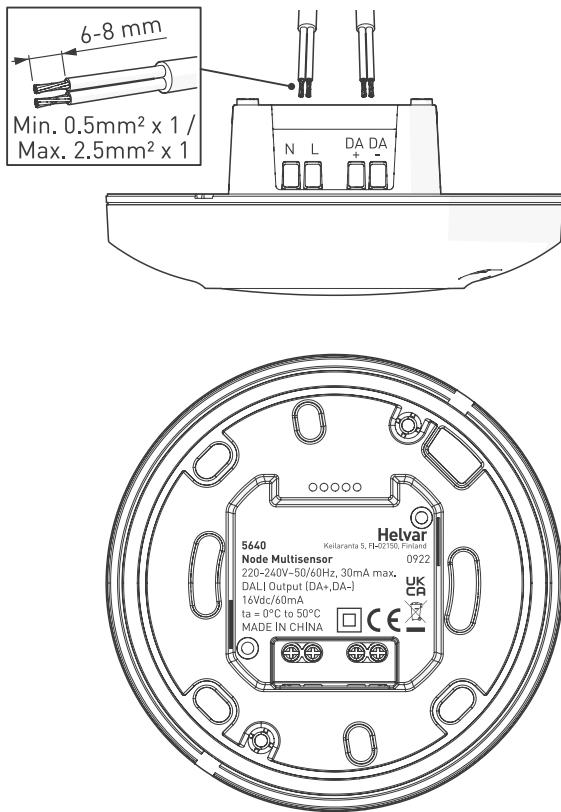
Detection

Detection Coverage

2.5 m

77°   116°

4 m *

8 m **

* = small movement

** = big movement

Detection Pattern

Connections

6-8 mm

Min. 0.5mm² x 1 /
Max. 2.5mm² x 1

N   L   DA+   DA-

5640
Node Multisensor
220-240V~50/60Hz, 30mA max.
DALI Output (DA+,DA-)
16Vdc/60mA
ta = 0°C to 50°C
MADE IN CHINA

Helvar
Keilaranta 5, FI-02150, Finland
0922

UK CA

Node Multisensor
(application controller)   L
                          N

Helvar

N
L
DA+
DA-

L
N

DALI
control gear

DA
DA

DALI-2
sensor   DA+
         DA-

Helvar
DIGIDIM
sensor

DA
DA

DALI-2
wall panel   DA+
             DA-

Max. 8 DALI-2 input
device addresses

Max. 16 DALI control gear
and DIGIDIM addresses

In total, max. 60 mA current
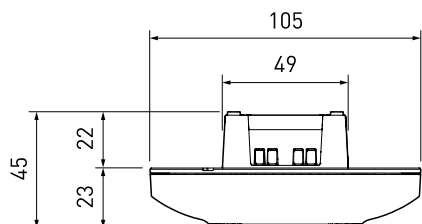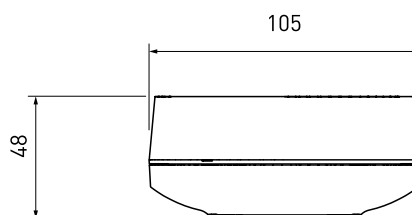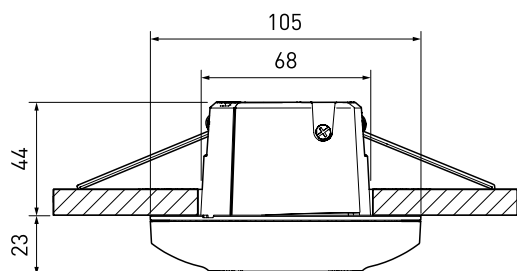
Dimensions (mm)

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 Tc only)

Paer 301 Push buttons

Part 303 Occupancy sensors

Part 304 Light sensors

Helvar DALI 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

Number of connected DALI devices:	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.

Max. DALI cable length:	300 m
Operating temperature:	0 °C to +50 °C

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

Relative humidity:	Max. 90 %, noncondensing
Storage temperature:	-40 °C to +70 °C

Connections

Mains:	Wire section: 0.5–2.5 mm² solid or stranded
DALI cable:	Wire section: 0.5–2.5 mm² 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)
	Other DALI power supply units must not be present on the DALI line.

Sensors

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

Wireless Connectivity

Frequency:	2.4 GHz
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.

Order Codes

5640000 :	Colour: White (RAL 9003)
5640001:	Colour: Black (RAL 9005)

Delivered with Recess Spring Mount and PIR detection mask.

Accessories (sold separately):

5002 Surface-Mounted Box, White

5002B Surface-Mounted Box, Black

Mechanical data

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

Conformity and standards

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