

# Motion detector M48HC, DALI-2, master, 18-53 m, IP54, for high ceilings, for surface mounting, white

**353-852411**

**4** year warranty

This high ceiling detector is a DALI-2 master for DALI lighting control in up to 4 zones. The detector is fitted with multiple functions and can be controlled wirelessly using push buttons. It is designed for surface mounting and has an IP54 protection degree. The lighting zones are defined during commissioning, using the Niko detector tool app and 2-way Bluetooth® communication between a smartphone and the detector.

Finishing colour: white

Compatible secondary detectors: 353-650021, 353-651021, 353-652021, 353-750021, 353-751021, 353-752021, 353-852011

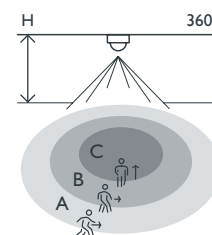
Compatible controls: 170-00005, 170-00015, 170-70015, 170-70005, 360-21001

This article is protected by at least one patent (application). For more info on patents, see [www.niko.eu/innovation](http://www.niko.eu/innovation).

- High ceiling detector for surface mounting
- Lighting control in up to 4 zones (daylight controlled)
- Quick cabling using screwless and easily accessible plug-in terminals
- Commissioning using app (iOS/Android) and 2-way Bluetooth® communication
- Supports DALI broadcast (default) and DALI addressable (up to 64 devices)
- Pre-configured functions:
  - auto configuration / orientation light / night mode
  - light scenarios – define and control up to 16 light scenarios
  - wireless communication master-to-master enabling: folding door, lighting control in adjacent areas, unlimited number of DALI devices ( > 64 DALI devices)
  - multi zone for board lighting and smart board lighting
  - tunable white using integrated presets or third-party integration
  - human centric lighting (24 presets)
  - output relay - control HVAC / standby minimization / light (On/Off)
  - external relay for HVAC / standby minimization / light (On/Off)
  - adjustable turn-on level when daylight control is disabled
  - adjustable PIR sensitivity (5 levels incl. disable) in 3 x 120°
  - event log keeps track of recent changes
- DALI lighting control can be overridden with a 230 V push button - different options available - different options available
- External DALI-2 input devices via DALI bus - up to 64 devices
- External trigger can be connected e.g. security alarm
- Web based portal solution for backing up and exchanging configuration files
- Settings and configuration can be locked with a PIN code
- IP54 protection degree
- Suitable for BMS integration



## Detection range



H	A Walking	B Across	C Towards
4.0 m	ø 18 m	ø 18 m	ø 11 m
8.0 m	ø 35 m	ø 33 m	ø 23 m
12.0 m	ø 53 m	*	ø 13 m

\* not specified

Measured according to EN/IEC63180



DALI-2



master



360°



ø 53 m from  
a height of  
12 m



4 – 12 m



surface  
mounting

**niko**

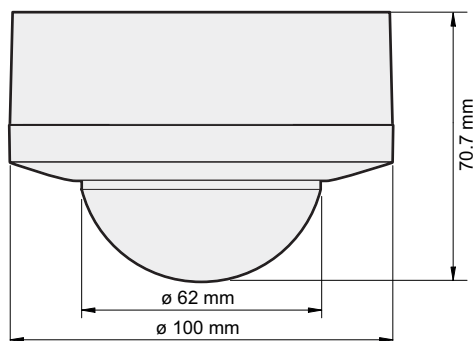
## Technical data

Article number	353-852411
Compatible secondary detectors	353-650021, 353-651021, 353-652021, 353-750021, 353-751021, 353-752021, 353-852011
Compatible controls	170-00005, 170-00015, 170-70015, 170-70005, 360-21001
Configuration	master
Input voltage	230 Vac $\pm$ 10 %, 50 Hz
Detector output	DALI Broadcast/DALI Addressable
Maximum power consumption	0.6 W
Maximum power consumption wireless link active	0.65 W
Maximum MCB rating	16 A (limited by national installation rules)
Short circuit behaviour shutdown trigger	voltage below 12 V, exceeding 1.3 s
Short circuit behaviour restart period	every 14 s until success
Maximum voltage on the DALI bus	15 Vdc
Maximum guaranteed current on the DALI bus	200 mA
Maximum supply current	250 mA
Maximum startup time DALI	< 1200 ms
Maximum PIR detection startup time	1 min 10 s
Relay contact	N.O. (max. 10 A), potential-free
Maximum load incandescent and halogen lamps ( $\cos\phi = 1$ )	2300 W
Maximum load fluorescent lamps ( $\cos\phi \geq 0.5$ )	1200 VA
Maximum load fluorescent lamps ( $\cos\phi \geq 0.9$ )	1200 VA
Maximum load economy lamps (CFLi)	350 W
Maximum load LED lamps 230 V	350 W
Maximum load LED driver	500 VA
Maximum load electronic transformer	500 VA
Maximum capacitive load	140 $\mu$ F
Maximum switching current	165 A/20 ms – 800 A/200 $\mu$ s
Light intensity range	20 lux – 2000 lux, $\infty$
Maximum number of secondary detectors	5
Maximum number of 230 V push buttons and switches	4
Maximum number of Bluetooth® push buttons	4
Maximum number of 24 V push buttons	16 (using 4 DALI-2 push-button interfaces - max. 4 buttons per interface)
Possibility to override DALI lighting control using a control	yes
Maximum number of control gear on the DALI bus	64
Maximum number of dimmable zones	4
Switch-off delay	pulse, 30 s – 2 h, $\infty$
Detection angle	360°
Detection range (PIR)	$\varnothing$ 53 m from a height of 12 m
Ambient temperature	-25 – +40 °C
Mounting method	surface mounting
Mounting height	4 – 12 m
Colour	white (approximately RAL 9010)
Dimensions visible (HxWxD)	100 x 100 x 70.7 mm
Dimensions (HxWxD)	100 x 100 x 70.7 mm
Maximum range Bluetooth® (free field, depending on the device)	50 m
Operating frequency	2.4 GHz
Maximum radio frequency power	-2 dBm
Protection degree	IP54
Impact resistance	IK03
Modification of settings	Niko detector tool app (iOS-Android) and 2-way Bluetooth® communication
Halogen-free	yes
Marking	CE

## Accessories

353-999879 Lens cover for P4XLR, M4XLR and M4XHC detectors transparent (5 pieces)

## Dimensions



## Wiring diagram

