

# Presence detector P48LR, DALI-2, master, 32-37 m, for flush mounting (SnapFit), WAGO WINSTA® MIDI 2 m cable with 5-pol. connector, white

353-751421-1

4 year warranty

This presence detector is a DALI-2 master for DALI lighting control in up to four dimmable zones. Lighting control can be overridden via wireless and battery-free Bluetooth® push buttons. The detector settings can be modified using the Niko detector tool app and 2-way Bluetooth® communication. The SnapFit mounting system guarantees fast and stable installation. The detector is prewired with a cable and a 5-pole female connector that is unique, which helps to avoid installation errors and save time.

Use this P48 DALI-2 master detector to enable the following lighting control solutions in hallways, corridors, offices, classrooms and meeting rooms:

- Human Centric Lighting (HCL)
- tunable white
- four dimmable zones
- scenarios
- control of non-dimmable luminaires externally on the DALI bus with distribution box 353-70806
- multi-zone for a board light/smart board
- master/master link for adjacent areas control

The detection range can be extended with P46 DALI-2 secondary detectors with a 2 meter cable and connector. Mind the maximum guaranteed current on the DALI bus.

Use distribution box 353-70804 to divide the power distribution to the DALI luminaires over two circuit breakers and achieve a higher security of supply.

Finishing colour: white

Compatible secondary detectors: 353-651021-1, 353-751021-1

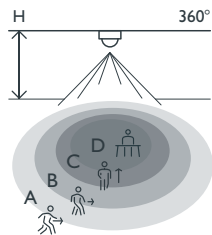
Compatible controls: 360-21001

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).



- Lighting control in up to 4 zones (daylight controlled)
- SnapFit mounting bracket for easy and stable mounting
- Lighting zones can be controlled wirelessly by push buttons
- 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 (smart) board lighting
  - tunable white using integrated presets or third-party integration
  - human centric lighting (24 presets)

## Detection range



| H     | A Walking | B Across | C Towards | D Presence |
|-------|-----------|----------|-----------|------------|
|       |           |          |           |            |
| 2.5 m | ø 32 m    | ø 28 m   | ø 10 m    | ø 8 m      |
| 3.0 m | ø 37 m    | ø 30 m   | ø 8 m     | ø 4 m      |

Measured according to EN/IEC63180



Bluetooth®



DALI-2



master



360°



ø 37 m from  
a height of  
3 m



2 – 3.5 m



flush-  
mounting  
(SnapFit)

**niko**

- 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
- 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
- Suitable for BMS integration

## Technical data

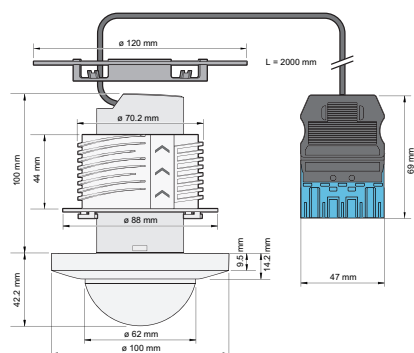
|  |   |
|--|---|
| Article number   | 353-751421 -1                                 |
| Compatible secondary detectors                                 | 353-651021 -1, 353-751021 -1                  |
| Compatible controls  | 360-21001                                     |
| Input voltage  | 230 Vac $\pm$ 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, $\infty$                   |
| Number of channels   | 1 channel                                     |
| Maximum number of secondary detectors                          | 5   |
| Maximum number of control gear on the DALI bus                 | 64  |
| Maximum number of dimmable zones                               | 4   |
| Switch-off delay   | pulse, 20 s – 2 h, $\infty$                   |
| Detection angle  | 360°  |
| Detection range (PIR)  | $\varnothing$ 37 m from a height of 3 m       |
| Ambient temperature  | -25 – +40 °C                                  |
| Mounting method  | flush-mounting (SnapFit)                      |
| Mounting height  | 2 – 3.5 m                                     |
| Drill diameter   | 76 mm   |
| Minimum flush-mounting depth                                   | 100 mm  |
| Colour   | white (approximately RAL 9010)                |
| Dimensions visible (HxWxD)                                     | 100 x 100 x 42.2 mm                           |
| Dimensions (HxWxD)   | 100 x 100 x 142.2 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             | IP20  |
| Impact resistance             | IK04  |
| Modification of settings      | Niko detector tool app (iOS-Android) and 2-way Bluetooth® communication   |
| Halogen-free                  | yes   |
| Marking                       | CE  |
| Cable specifications          | – cable colour: black<br>– length: 2 m<br>– wire cross-section: 1,5 mm <sup>2</sup><br>– voltage: 400 V<br>– rated current: 16 A<br>– halogen-free: yes<br>– ambient temperature: -5 – +40C°<br>– type of connector: male, 5-pole, blue |

## Accessories

|            |  |
|------------|--|
| 353-999879 | Lens cover for P4XLR, M4XLR and M4XHC detectors transparent (5 pieces)           |
| 353-991992 | Deco ring for flush-mounted P4XLR and M4XLR detectors, black                     |
| 353-991901 | Spring clips for flush-mounted P4XMR, P4XLR, M4XMR and M4XLR detectors (SnapFit) |

## Dimensions



## Wiring diagram

