



Faster & more efficient installation

Pre-wired Niko P40 and M40 detectors  
and distribution boxes







# Faster & more efficient installation

## Pre-wired Niko detectors with connectors and distribution boxes

In the construction industry, where time is of the essence, efficiency is a priority. Recognising this need, Niko introduces a pre-wired version of its P40 ceiling detectors for intelligent lighting control solutions. This simplifies the installation process and, together with the SnapFit mounting system, offers an attractive solution to save valuable time. Niko detectors with pre-wired cables and connectors enable installers to make connections faster, more accurately and with greater convenience and installation quality. This results in significant gains in installation time and cost savings for contractors.

### Flawless installation for peace of mind

Niko's P40 series of DALI-2 and 230 V detectors with SnapFit mounting are now available with pre-wired cables from Wieland Electric and pluggable connectors, making it quicker and easier to connect distribution boxes, luminaires, and other devices to the electrical lighting control installation. As each connector is unique, it is simply impossible to connect equipment incorrectly. The 'auto-configuration' feature of DALI-2 detectors also makes maintenance more time efficient, as there is no need to re-commission when a luminaire or detector is replaced.

In essence, Niko's pre-wired detectors guarantee a fast and error-free installation, resulting in significant time savings and reduced troubleshooting, especially in large-scale projects.



### Add new features quickly with distribution boxes

The pre-wired detectors offer unlimited possibilities for creating intelligent lighting control solutions, including energy-saving options and zoned daylight control. Combined with a distribution box, it is also easy to add additional features to a DALI-2 installation using connectors. Niko offers five different Wieland Electric distribution boxes, enabling quick and easy installations by connecting presence detectors, push buttons and other functions directly to the distribution box.



# Detectors with cables and connectors

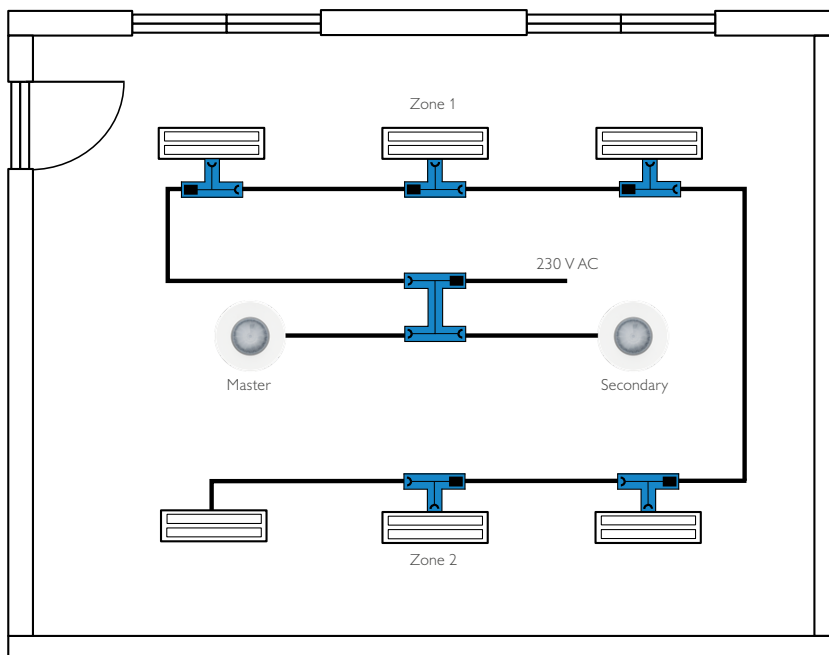
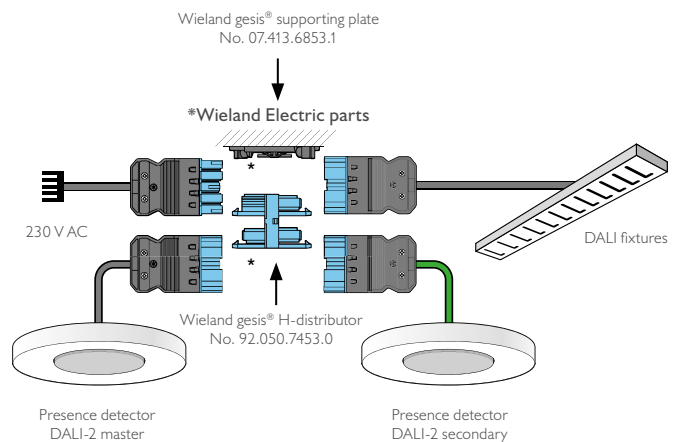
Quick and easy installation of detectors



Once detectors and luminaires have been fitted with installation connectors, you can quickly install energy-saving zoned DALI daylight control.

The individual components of the installation can be quickly connected to each other. The connectors cannot be connected incorrectly, minimising the risk of installation errors. This saves time and ensures quality.

Niko supplies DALI-2 detectors fitted with a 2 m cable and installation connector. The other components you need for the installation are supplied by Wieland Electric.



Schematic of a room with 2 daylight zones installed with connectors. Detectors and fixtures are connected via Wieland gesis®, H-distributor, distribution connectors and connection cables.





**P40 detector series**  
230 V with SnapFit mounting and  
medium detection range 12-13 m



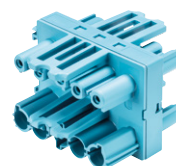
**P40 detector series**  
DALI-2 with SnapFit mounting and  
long detection range 32-37 m



Wieland gesis® supporting plate GST18  
07.413.6853.1  
(supplied by Wieland Electric)



Wieland gesis® T-distributor GST18  
92.050.3453.0  
(supplied by Wieland Electric)

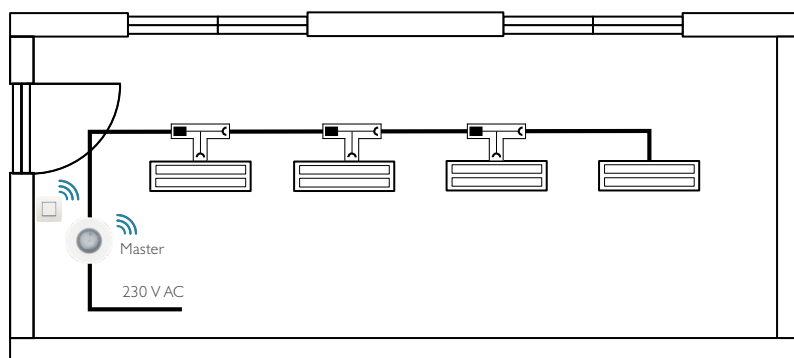


Wieland gesis® H-distributor GST18  
92.050.7453.0  
(supplied by Wieland Electric)



# On/off lighting control

Installation with Wieland gesis® connectors for on/off lighting control



Schematic of an installation with Wieland gesis® connectors for on/off lighting control in a storage room.

## Functional description

The installation consists of one light zone for on/off lighting control. The installation is made with 3-pole connectors. All luminaires are fitted with non-dimmable drivers.

The light is automatically switched on when someone enters the room. When everybody has left the room, all the lights are switched off after a pre-defined period of time.

The solution allows for wireless communication between the detector and the wireless and battery-free push button for manually override, eliminating the need for wiring to the switch.



flush mounted



2 - 3.4 m



12 - 13 m



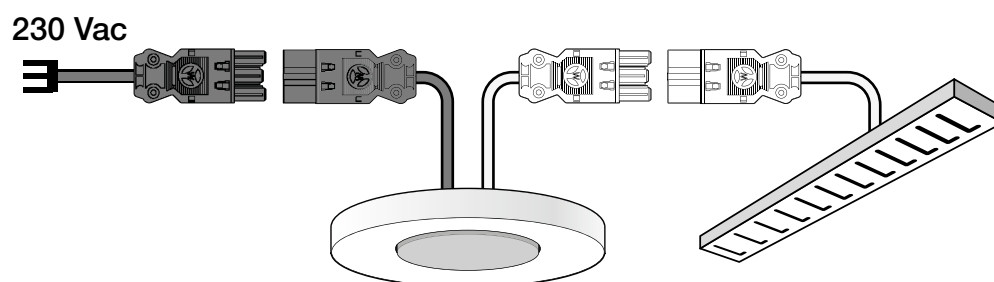
1 zone



wireless  
communication



#### Installation schematic



#### Products

Type no.	Description
353-601121-4	Presence detector P42MR, 230 V, master, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 X 2 m cable with 3-pol. connectors

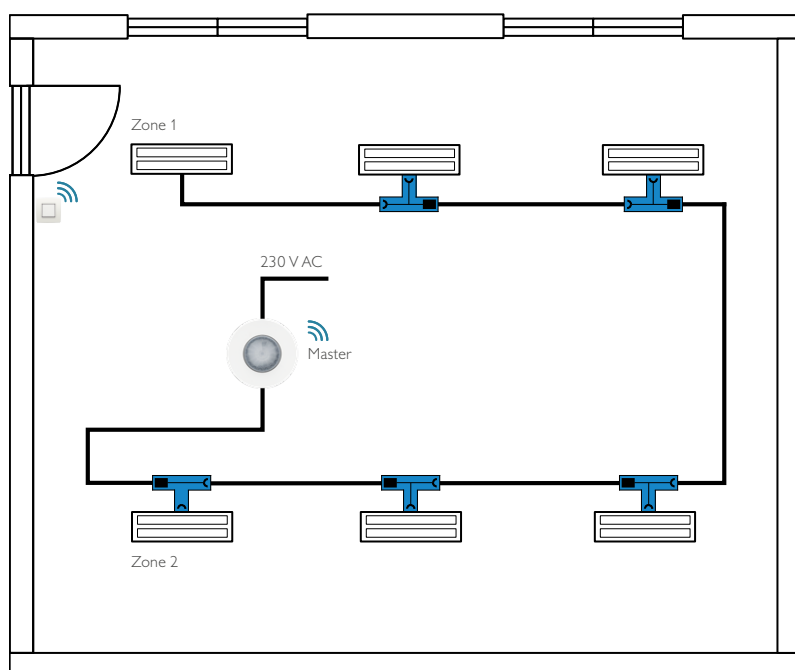
#### Alternative solutions

- Larger detection range, 32-37 m: Presence detector P42LR, 230 V, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 X 2 m cable with 3-pol. connectors: 353-701121-4
- Wireless override options: Niko dimmer switch, Bluetooth®: 360-21001



# Easy daylight control

Installation with Wieland gesis® connectors for 2-zone daylight control



Schematic of an office showing an installation with Wieland gesis® connectors for 2-zone daylight control

## Functional description

The installation consists of two zones of daylight control. The installation is made with 5-pole connectors. All luminaires are fitted with DALI-2 driver for dimming.

Lighting is automatically switched on when someone enters the room. When everybody has left the room, all the lights are switched off after a pre-defined period of time.

The solution allows for wireless communication between the detector and the wireless and battery-free push button for manually override, eliminating the need for wiring to the switch.



flush mounted



2 - 3.4 m



12 - 13 m

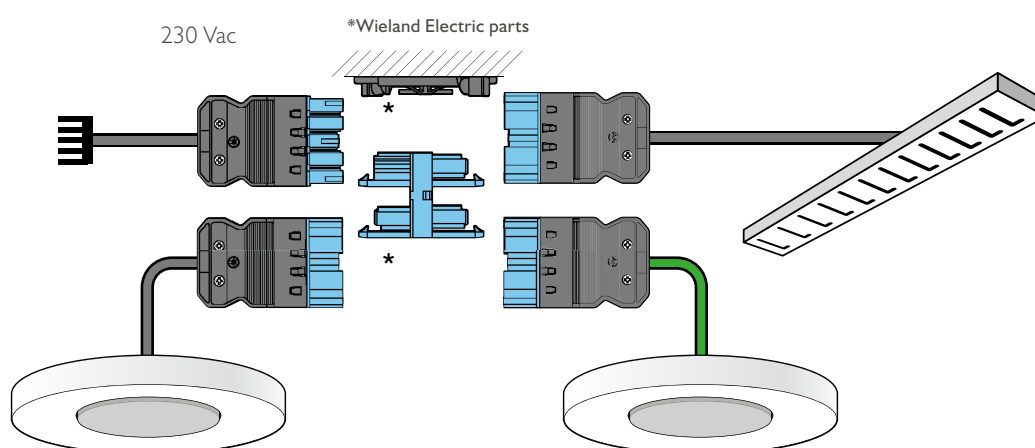


2 zones



wireless  
communication

## Installation schematic



## Products

Type no.	Description
353-651321-3	Presence detector P47MR, DALI-2, master, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector

## Alternative solutions

- Larger detection range, 32-37 m: Presence detector P47LR, DALI-2, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector: 353-751421-3
- Advanced options: Presence detector P48LR, DALI-2, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector: 353-651421-3
- Advanced options, larger detection area, 32-37 m: Presence detector P48MR, DALI-2, master, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector: 353-651321-3
- Wireless override options: Niko dimmer switch, Bluetooth®: 360-21001



# Flawless installation of features

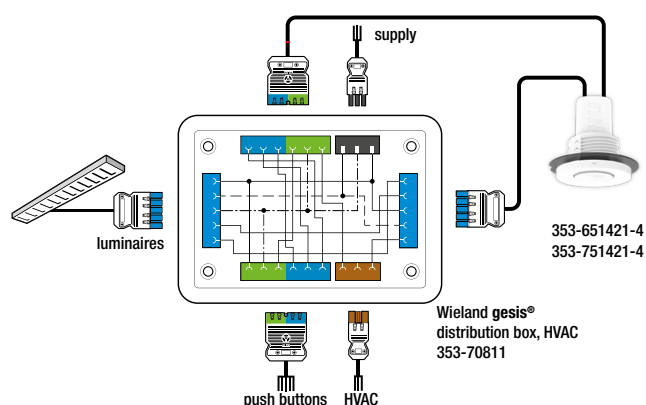
## Distribution boxes for installations with connectors

Adding features to a connector-based installation is easy. This is done via a distribution box, which also allows the user to manually override the automatic lighting control.

You choose the distribution box according to the function you require. Presence detectors, luminaires, push buttons and other units connect directly to the distribution box. This makes installation quick and easy.

The connectors on each component are unique and cannot be connected incorrectly. This ensures a quick and error-free installation, and it can save a lot of time on installation and subsequent troubleshooting in large projects.

Niko supplies distribution boxes and DALI detectors fitted with 2 metres of cable and connectors. Necessary connectors for the distribution box are included. The additional components required for the installation are supplied by Wieland Electric.



Installation schematic with distribution box no. 353-70811 as an example.



The distribution box allows the user to override the automatic daylight control via the 230 V push button. Detectors are mounted with 2 cables and connectors.

# Distribution boxes and features



## HVAC control | Type 353-70811

Used to control HVAC via presence detectors, the HVAC is only activated when someone is present and then deactivated when the room is empty.



## ON/OFF relay | Type 353-70812

Used to control non-dimmable luminaires.



## Standby minimisation | Type 353-70813

Completely cuts off the power supply to the luminaires (0 watts) when the lights are not switched on.



## Split into 2-circuits | Type 353-70814

Split the power distribution over 2 circuit breakers and provides greater safety of the power supply to the luminaires.

Must be used in combination with distribution 353-70811, 353-70812 and 353-70813



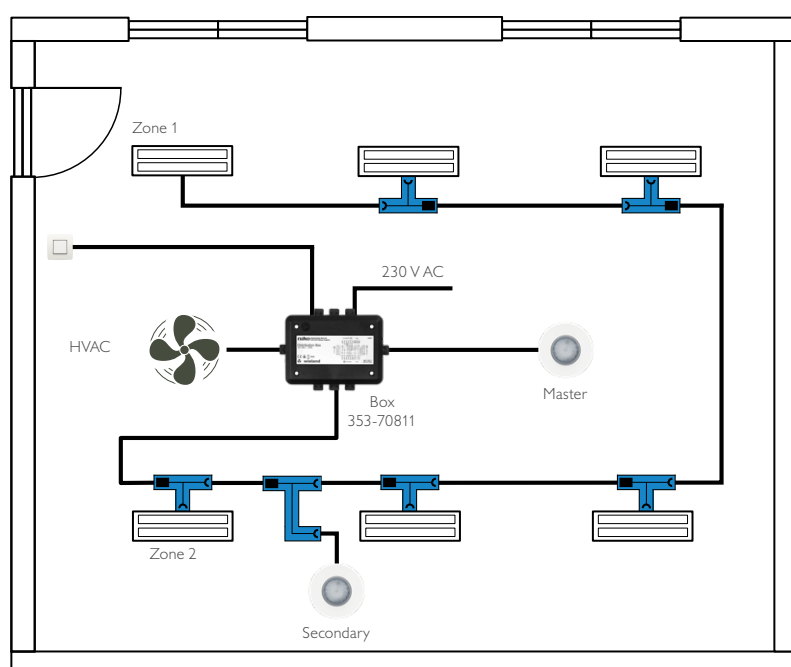
## DALI relay | Type 353-70816

Used to control non-dimmable luminaires on a DALI-bus. Can be used in a combination with distribution boxes 353-70811, 353-70812, 353-708113 or with DALI-2 BMS systems.



# HVAC control via detector

Installation with Wieland gesis® connector and distribution box for HVAC control via DALI-2 detectors



Schematic of a room showing an installation with Wieland gesis® connectors and distribution box for HVAC control via DALI-2 P48 detector. HVAC is only activated when the detectors detect presence in the room.

## Functional description

The installation consists of two daylight control zones controlled by a master and a secondary detector. The installation consists of connectors and a distribution box. All luminaires are fitted with DALI-2 driver for dimming.

The detector's internal relay is used to control the HVAC, either as a stand-alone in the room or via BMS systems. The HVAC system starts automatically if the detector has detected activity for the pre-defined time and continues for the specified time after the last person has left the room.

Lighting can either be switched on automatically when someone is present or manually by a 230 V push button. When everybody has left the room, all lights are switched off after a pre-defined period of time. Daylight control can be overridden via a 230 V or alternatively by a Bluetooth® push button.

The solution allows for wireless communication between the detector and wireless and battery-free push buttons, eliminating the need for wiring to, for example, glass and removable walls.



flush mounted



2 - 3.4 m



12 - 13 m



2 zones



HVAC

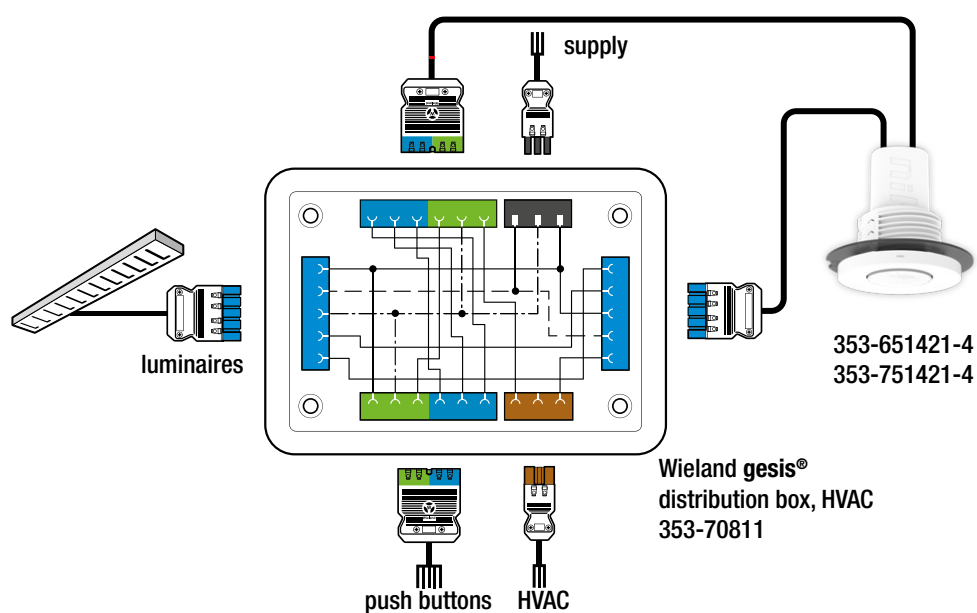


override



wireless communication

## Installation schematic



## Products

Type no.	Description
353-651421-4	Presence detector P48MR, DALI-2, master, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 x 2 m cable with 5-pol. connectors
353-651021-3	Presence detector P46MR, DALI-2, secondary and BMS, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector
353-70811	Wieland gesis® distribution box, HVAC, P48 DALI-2

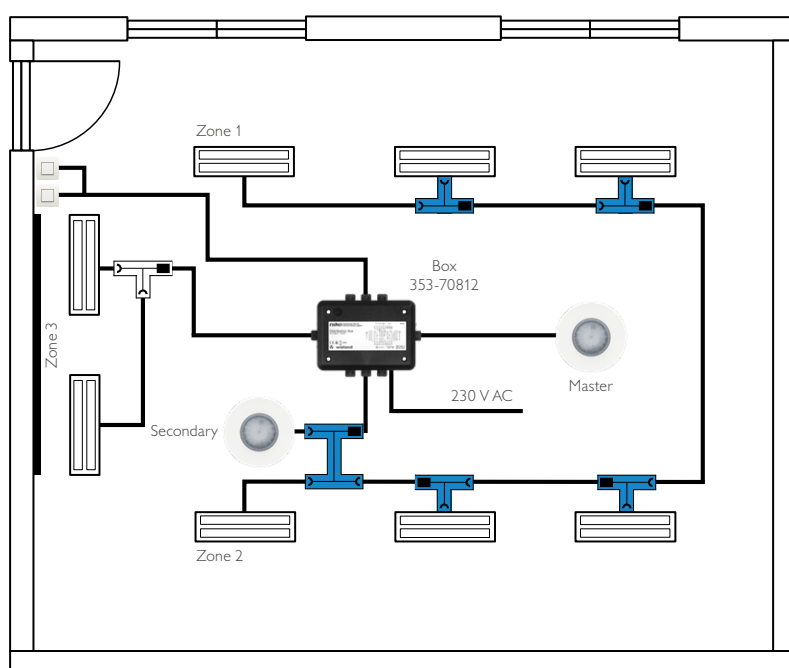
## Alternative solutions

- Larger detection range, 32-37 m: Presence detector P48LR, DALI-2, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 X 2 m cable with 5-pol. connectors: 353-751421-4
- Wireless override options: Niko dimmer switch, Bluetooth®: 360-21001



# On/off lighting control

Installation with Wieland gesis® connector and distribution box for on/off lighting control



Schematic of a classroom showing an installation with Wieland gesis® and distribution box to control on/off board lighting. Light fittings without DALI-2 dimmable driver can be controlled with a DALI-2 presence detector.

## Functional description

The installation consists of two zones for daylight control and one on/off zone for board lighting. The installation is made up of connectors and a distribution box. The luminaires in the daylight zones are fitted with DALI-2 drivers for dimming. Fixtures for board lighting are with non dimmable drivers and are controlled by the detector's internal relay.

The lighting can either be switched on automatically when someone is present or manually by a 230 V push button. When everybody has left the room, all lights are switched off after a pre-defined period of time. Daylight control can be overridden via a 230 V or alternatively by a Bluetooth® push button.

The solution allows for wireless communication between the detector and wireless and battery-free push buttons, eliminating the need for wiring to, for example, glass and removable walls.



flush mounted



2 - 3.4 m



12 - 13 m



3 zones

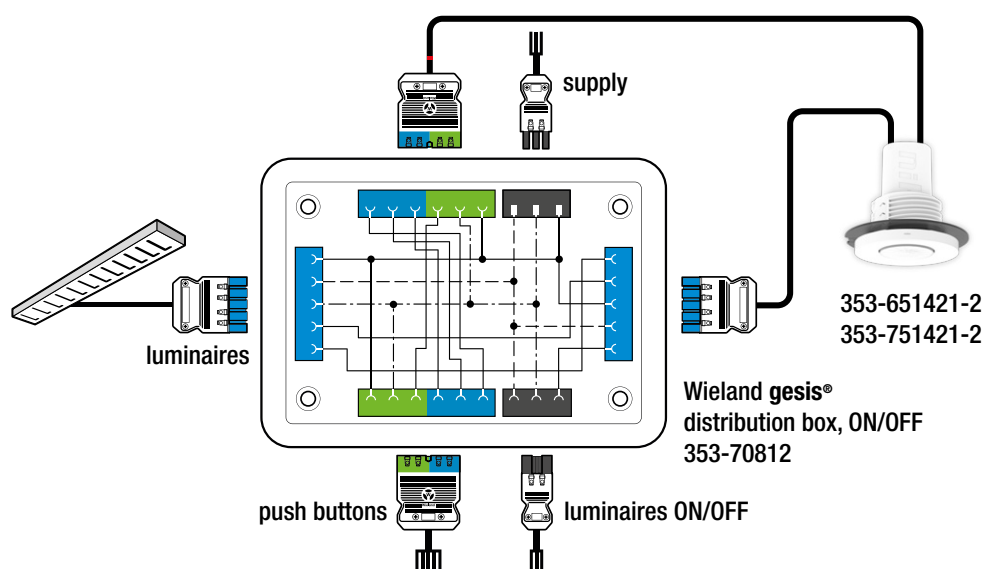


override



wireless  
communication

## Installation schematic



## Products

Type no.	Description
353-651421-4	Presence detector P48MR, DALI-2, master, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 x 2 m cable with 5-pol. connectors
353-651021-3	Presence detector P46MR, DALI-2, secondary and BMS, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector
353-70812	Wieland gesis® distribution box, ON/OFF, P48 DALI-2

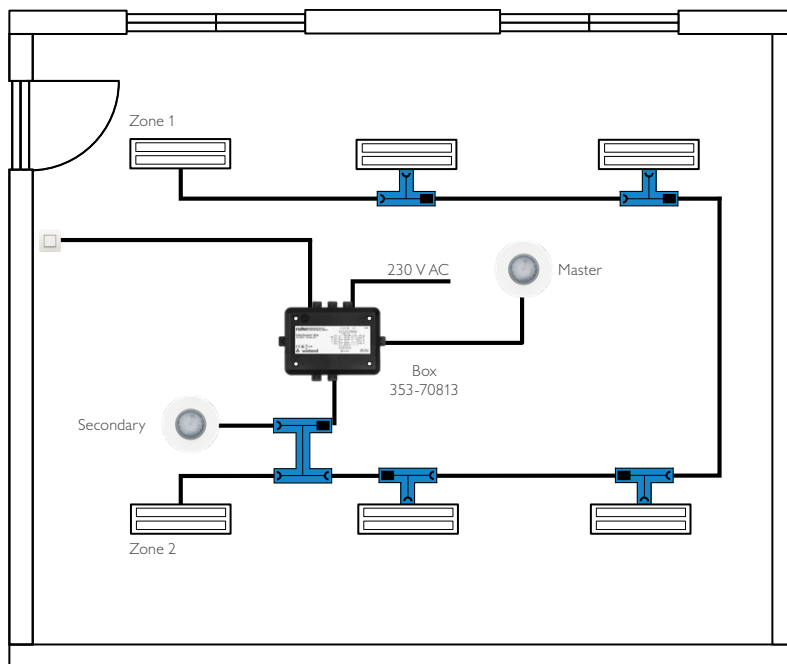
## Alternative solutions

- Larger detection range, 32 - 37 m: Presence detector P48LR, DALI-2, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 X 2 m cable with 5-pol. connectors: 353-751421-4
- Wireless override options: Niko dimmer switch, Bluetooth®: 360-21001



# Standby minimisation

Installation with Wieland gesis® connector and distribution box for standby minimisation of fixtures



Schematic of a room showing an installation with Wieland gesis® connector and distribution box for standby minimisation. Power to all fixtures is completely eliminated (0 watts) when nobody is present.

## Functional description

The installation consists of two zones of daylight control. It is an installation with controllers and a distribution box. All luminaires are fitted with DALI-2 drivers for dimming.

The detector's internal relay is used to switch off power to the DALI luminaires, eliminating standby consumption for all luminaires (0 watts) when there is nobody present.

Lighting can either be switched on automatically when someone is present or manually turned on by a 230 V push button. When everybody has left the room, all lights are switched off after a pre-defined period of time. Daylight control can be overridden via a 230 V or alternatively a Bluetooth® push button.

The solution allows for wireless communication between the detector and wireless and battery-free push buttons, eliminating the need for wiring to, for example, glass and removable walls.



flush mounted



2 - 3.4 m



12 - 13 m



2 zones



standby  
minimisation

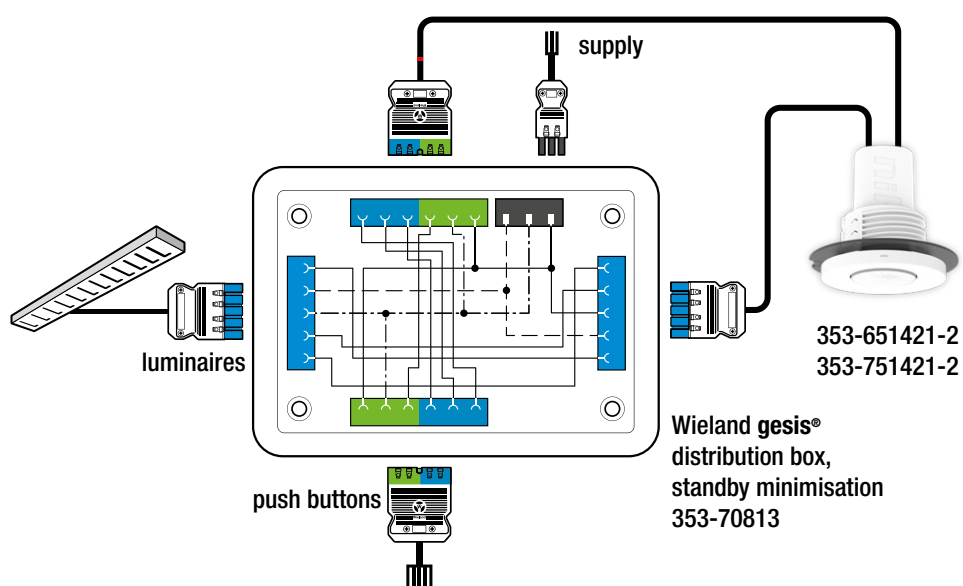


override



wireless  
communication

## Installation schematic



## Products

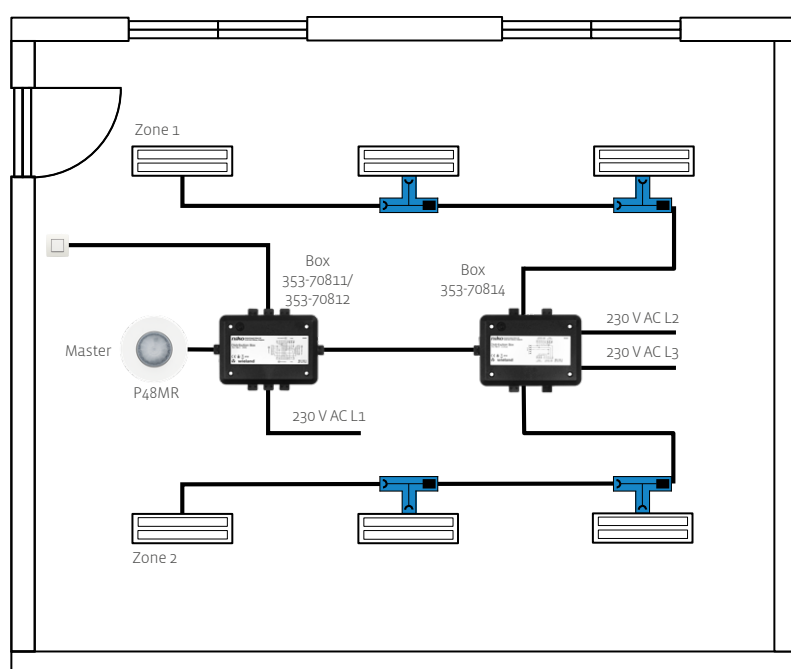
Type no.	Description
353-651421-4	Presence detector P48LR, DALI-2, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 X 2 m cable with 5-pol. connectors
353-651021-3	Presence detector P46MR, DALI-2, secondary and BMS, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector
353-70813	Wieland gesis® distribution box, standby minimisation, P48 DALI-2

## Alternative solutions

- Larger detection range, 32 - 37 m: Presence detector P48LR, DALI-2, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 X 2 m cable with 5-pol. connectors: 353-751421-4
- Wireless override options: Niko dimmer switch, Bluetooth®: 360-21001

# Installation in 2 circuits

Installation with Wieland gesis® connector and distribution box to divide the installation into 2 circuits



Schematic for a room showing an installation with Wieland gesis® connectors and distribution boxes that divide the installation into 2 circuits. Installation is divided in 2 circuit breakers to achieve higher security of power to the luminaires.

## Functional description

The installation consists of two zones for daylight control. It is an installation made with connectors and two distribution boxes. All luminaires are fitted with DALI-2 drivers for dimming.

The fixtures are divided into two circuits and the solution achieves higher level of power safety to the luminaires by dividing into two circuit breakers.

Lighting can either be switched on automatically when someone is present or manually turned on by a 230 V push button. When everybody has left the room, all luminaires are switched off after a pre-defined period of time. Daylight control can be overridden via a 230 V or alternatively by a Bluetooth® push button.

The solution allows for wireless communication between the detector and wireless and battery-free push buttons, eliminating the need for wiring to, for example, glass and removable walls.



flush mounted



2 - 3.4 m



12 - 13 m



2 zones



standby  
minimisation



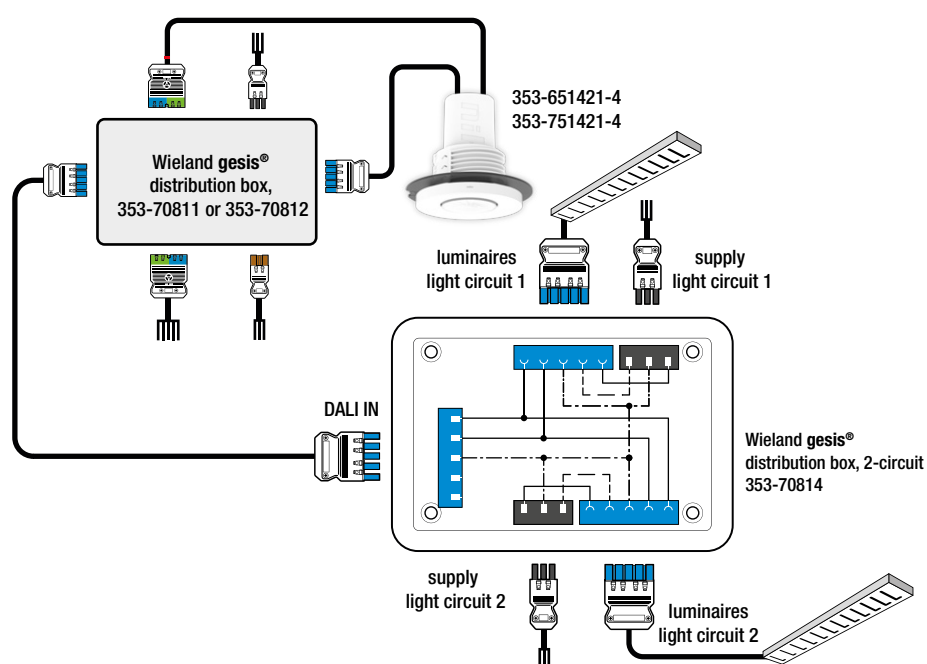
override



wireless  
communication



## Installation schematic



## Products

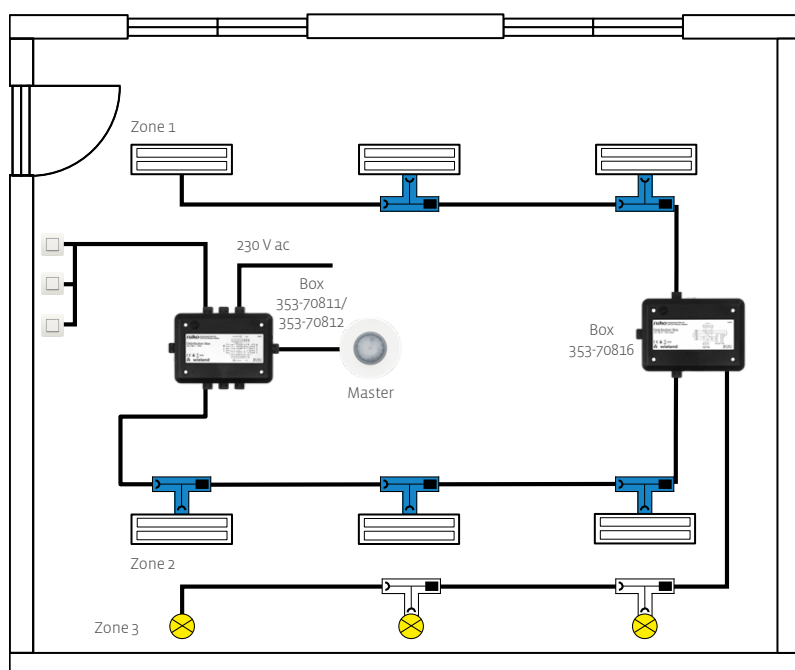
Type no.	Description
353-651421-4	Presence detector P48MR, DALI-2, master, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 x 2 m cable with 5-pol. connectors
353-70814	Wieland gesis® distribution box, 2-circuit, P47/P48 DALI-2
+ 1 optional distribution box: 353-70811/353-70812	

## Alternative solutions

- Larger detection range, 32 - 37 m: Presence detector P48LR, DALI-2, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 X 2 m cable with 5-pol. connectors: 353-751421-4
- Extend detection range, 12- 13 m: Presence detector P46MR, DALI-2, secondary and BMS, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector: 353-651021-3
- Wireless override options: Niko dimmer switch, Bluetooth®: 360-21001

# On/Off lighting control

Installation with Wieland gesis® connector and distribution box for light control of non-dimmable luminaires



Schematic of a room showing an installation with Wieland gesis® connectors and distribution boxes for light control of non-dimmable luminaire external connected to the DALI bus.

## Functional description

The installation in the room consists of two zones of daylight control and one zone of non-dimmable luminaires for wall illumination. It is an installation made with connectors and distribution boxes. All luminaires for daylight control are fitted with DALI-2 dimming drivers.

The non-dimmable fixtures for wall illumination are controlled by the built-in DALI relay in the 353-70816 distribution box.

The luminaires can either be switched on automatically when someone is in the room or manually turned on by a 230 V push button. When everybody has left the room, all lights are switched off after a set period of time. Daylight control can be overridden by a 230 V or alternatively by a Bluetooth® push button.



flush mounted



2 - 3.4 m



12 - 13 m



3 zones

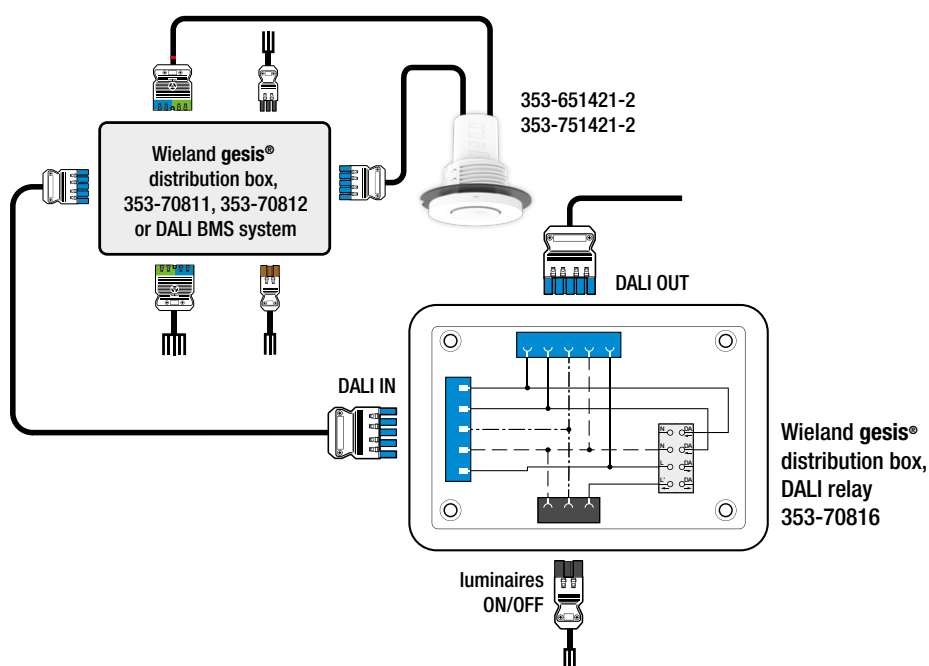


override



wireless communication

## Installation schematic



## Products

Type no.	Description
353-651421-4	Presence detector P48MR, DALI-2, master, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 x 2 m cable with 5-pol. connectors
353-70816	Presence detector P48MR, DALI-2, master, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 x 2 m cable with 5-pol. connectors
+ 2 optional distribution boxes: 353-70811/353-70812	

## Alternative solutions

- Larger detection range, 32 - 37 m: Presence detector P48LR, DALI-2, master, 32-37 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 X 2 m cable with 5-pol. connectors: 353-751421-4
- Extended detection range, 32- 37 m: Presence detector P46MR, DALI-2, secondary and BMS, 12-13 m, 360°, SnapFit, for flush mounting, Wieland gesis® 2 m cable with 5-pol. connector: 353-751021-3
- Wireless override options: Niko dimmer switch, Bluetooth®: 360-21001

# Detector with connectable cables

## DALI-2 presence detector with 1 cable

For use in installations primarily with automatic on/off for manual override use Bluetooth® push button



DALI-2 Medium range



DALI-2 Long range

Detector with 1 cable and Wieland gesis® connector	Medium range (MR)	Long range (LR)
DALI-2 Master detector	P47MR 353-651321-3	P47LR 353-751321-3
	P48MR 353-651421-3	P48LR 353-751421-3
DALI-2 Secondary/BMS detector	P46MR 353-651021-3	P46LR 353-751021-3

## DALI-2 presence detector with 2 cables

Used with distribution boxes, if the user needs to be able to override the automatic daylight control via 230 V push buttons and the internal relay to control HVAC, standby minimisation or non dimmable luminaries.



DALI-2 Medium range



DALI-2 Long range

Detector with 2 cables and Wieland gesis® connectors	Medium range (MR)	Long range (LR)
DALI-2 Master detector	P48MR 353-651421-4	P48LR 353-751421-2

## 230 V presence detector with 2 cables

For use in installations primarily with automatic on/off for manual override use Bluetooth® push button



230 V Medium range



230 V Long range

Detector with 2 cables and Wieland gesis® connectors	Medium range (MR)	Long range (LR)
230 V master detector	P42MR 353-601121-4	P42LR 353-701121-4

## Bluetooth® push buttons

Battery-free



360-21001  
XXX-76X00  
4-fold



# A sense for functionality

Explore endless possibilities via one simple solution

Type	DETECTORS			
	1 channel P42 230 V presence detectors	DALI-2 P47 presence detectors	DALI-2 P48 presence detectors	DALI-2 P46 Secondary/ BMS presence detectors
INPUT	Inputs or push-buttons	1	4	
	Free assignment of push-buttons		•	
	Wireless push-button for override of lighting control	•	•	•
	External trigger (activation via external systems)		•	
	Wired secondary detector	•	•	
	External input devices via DALI bus		•	
FUNCTIONS	Automatic on/off	•	•	•
	Semi-automatic on/off (manual on/off + auto off)	•	•	•
	Daylight control (dimming - based on daylight)		3 zones	4 zones
	DALI Broadcast + DALI Addressable	•	•	
	Wireless master-to-master link via Bluetooth®		•	
	Wireless secondary-to-master link via Bluetooth®	•		
	Multizone - smart board lighting		•	
	Night mode - perfect for corridors		•	
	Switch-on level		•	
	Orientation light	•	•	
	Light scenarios - define and control scenarios		•	
	Folding door function- Wireless sync of lighting control		•	
	Lighting control in adjacent areas / corridors		•	
	Tunable white dynamic and presets		•	
	Human Centric Lighting (HCL)		•	
	Output relay - control HVAC / standby minimisation / light (on/off)		•	
	External DALI relay for HVAC / standby minimisation		•	
	Event log - keeps track of recent changes	•	•	•
	Portal solution for documentation, backup and distribution of configuration files	•	•	•
	Settings and configuration can be locked with a PIN code	•	•	•
APP	Detector software upgrade via app	•	•	•
	2-way Bluetooth® communication	•	•	•

Niko designs electr(on)ic solutions to enhance buildings to better suit the needs of the people who live and work in them. By using less energy, by improving light comfort and safety and by making sure all applications work together seamlessly. Buildings with Niko are more efficient, are controllable from a distance and interact within bigger ecosystems. Niko is a Belgian family business from Sint-Niklaas with 700 employees and 10 European branches.

At Niko, there is one question that keeps us busy every day: “How can we enhance buildings to better suit your needs?”

**Wygwam, a division of Niko NV**

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