DGOZ-SEN30-PRLLSW - RAPIX DALI-2 Occupancy/Movement/Light Level Sensor

Suitable for direct connection to a DALI line for sensing, switching, dimming, timing, group and scene control and similar functions.

Product summary and capabilities

This Occupancy Sensor acts as an occupancy (movement) sensor, light level sensor, and push button switch input device, powered direct from the DALI line.

The sensor works with DALI-2 Application Controllers and exposes 3 instances. The sensor can also act as a RAPIX DALI Application Controller and can perform sensing, switching, dimming, timing, group control, scene control and similar functions. The sensor may have a single RAPIX DGOZ-DSW30S-xx series Slave push button switch connected, allowing additional push button control.

The sensor is commissioned using any DALI-2 commissioning software that supports device types 301, 303 and 304. For the higher resilience of RAPIX and to set up the built-in Application Controller, use RAPIX Addressing or RAPIX Integrator software. These software packages are available at no charge from ozuno.com.

Important notes and safety information

WARNING – Electric shock may result in serious injury or death. Follow all warnings in this guide and on the product. Work in accordance with the latest electrical safety practices.

- This Sensor is powered only from DALI.
- DALI system wiring is only single insulated from mains. Treat DALI wiring the same as mains wiring.
- There are **no user serviceable parts** inside the Sensor. Do not attempt to disassemble or operate the device with any covers removed.
- This Sensor is intended for **indoor use only**.
- This sensor clips into commonly available modular plates from Clipsal, Trader, Voltex and others.

Indicators

An indicator is located under the PIR lens. This will flash green when DALI-2 or RAPIX commissioning software activates the identification function. This allows physical location of the sensor after it has been installed.

This indicator will also light solid green (no flashing) to show that the sensor has not been commissioned using DALI-2 or RAPIX commissioning software or the RAPIX Zero-Commissioning processes.
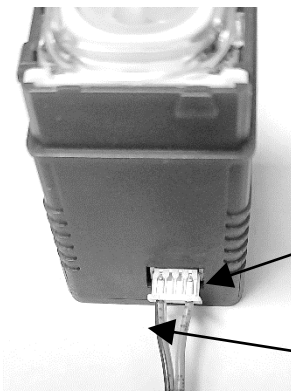
Connecting to a DALI Line

A DALI Line cable has two conductors that are not polarity sensitive. DALI Line cabling must be double-insulated and mains rated.

This product has only single insulted wiring. The wiring must only be used inside an insulated enclosure (example: a wall box), or it can be used in a metal enclosure that is earthed (example: luminaires or extrusions).

Each DALI Line requires an external DALI or DALI-2 compliant power supply to be connected before it will operate. A suitable product is the RAPIX DALI Power Supply, order code **DGLMPS01** (purchased separately).

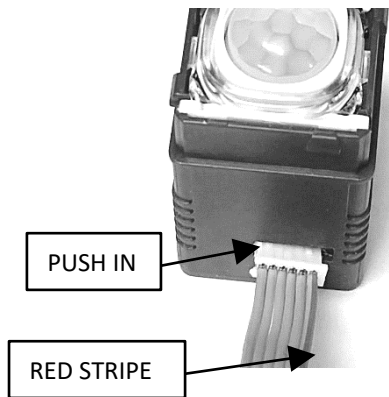The DALI line is connected using the small connector with 2 wires.

The shiny metal pins should be visible for connection using the orientation shown.

METAL PINS VISIBLE

RED STRIPE FACING INSIDE OF PRODUCT

Connecting a Push Button Slave to the Sensor (not included with Sensor)

Slave switches have an integral flying lead with a female connector.

PUSH IN

RED STRIPE

To connect a Slave to the Sensor:

1. Check carefully the connector orientation. The RED STRIPE on the cable from the Slave should be oriented toward the outside edge of the Sensor.
2. Push the cable from the slave switch carefully into the socket. It is a tight fit but does not require excessive force. Make sure the plug is fully pushed into the socket.

To disconnect a Slave from a Sensor:

1. Very carefully and gently use the cables to pull the connector out, using a little force with a slight side to side rocking motion.
2. **Do not pull hard, this will damage the wiring into the connector.**

Specifications

Sensor	
Detection Range (diameter)	Major motion: 8 m (nominal, for mounting at 2.4 – 2.7 m ceiling height)
	Minor motion: 4 m (nominal, for mounting at 2.4 – 2.7 m ceiling height)
Light Level Measurement Range	0 – 65000 lux
Power Source	DALI line
Compatibility	DALI and DALI-2
DALI Line Capacity	Connects to 1 DALI line
DALI operating voltage	16 V dc (nominal), operation from 9.5 V – 22.5 V
DALI Line Current Draw	4 mA (maximum with and without slave switch)
Mains Tolerance	DALI input is mains voltage tolerant
Connection type	Sensor: connector with flying leads terminated in ferrule
Wire length supplied	120 mm
LED Indicators	Identification: 1 x green, through sensor lens
Switch types supported	RAPIX DGOZ-DSW30S-PC and DGOZ-DSW30S-PD
Ambient Operating Temperature	0 to 50° C
Ambient Storage Temperature	-10 to 70° C
Humidity	0% to 95% RH non-condensing
Ingress Protection	IP20
Materials	Enclosure – Flame retardant Polycarbonate
Weight	20 g
DALI addresses used	One DALI-2 Control Device Short Address, no Control Gear Short Addresses
RAPIX Application Controller DALI addressing types supported	Control Gear Short Addresses, Group Addresses, Scenes, Broadcast
Additional Addressing Types*	RAPIX Zones, RAPIX Flags, RAPIX Operating Properties
Approvals	

* RAPIX features and additional addressing types work with other RAPIX products.

Mounting

The equipment should be mounted at a height less than 4 metres above floor level.

Clip into a suitable grid plate or mounting bracket from Clipsal, Trader, Voltex and others.

Commissioning Software

Use the free RAPIX Addressing or RAPIX Integrator software, available at ozuno.com.

A RAPIX USB Interface or Zone Controller is required to connect the commissioning software / PC to the DALI line.

RAPIX Zero-Commissioning: Out-of-box Functions

This sensor supports RAPIX Zero-Commissioning out of-box functions. All RAPIX Zero-Commissioning behaviour becomes automatically disabled when the sensor is given a DALI-2 Control Device Short Address, or when commissioned by RAPIX software.

RAPIX Zero-Commissioning behaviour for this product:

Switch input: By default this is **enabled**. When a RAPIX push button slave is used on this input, this will:

- Transmit DALI BROADCAST FADE UP/DOWN when pushed and held.
- Transmit DALI BROADCAST ON/OFF for each push/release. When switching OFF, the motion sensor is disabled for 15 seconds to allow for an exit delay.

Motion Sensor: By default, this is **disabled**. When enabled, movement will cause transmission of BROADCAST ON and start a 15-minute timer. Additional movement restarts the 15-minute timer. If the 15-minute timer expires a BROADCAST OFF will be transmitted. Multiple sensors can be used on the same DALI line.

To enable the Motion Sensor broadcast/timer function: WITHIN 15 MINUTES OF POWERING UP THE DALI LINE: Shine a very bright torch into, and then away from, the sensor lens 4 times until the green LED indicator goes out. The light must be shone in the lens for 2 seconds, then away from the lens for 2 seconds. The complete cycle of flashing light into the lens must be completed in under 30 seconds.

To disable the Motion Sensor broadcast/timer function: Cycle the DALI power OFF and ON 4 times. Each power cycle must have the DALI power on for no more than 10 seconds. When successfully disabled the green indicator behind the PIR Lens will be glowing. To check, wait for the power up blinking to stop.

To disable or enable the switch input: Press and hold the switch for 30 seconds continuously.

DALI-2 Instances

This sensor has 3 instances. Instance 0 is Type 304 Light Level. Instance 1 is Type 303 Occupancy Sensor, Instance 2 is Type 301 Push Button. Instance 2 is always present. If a push button slave switch is not connected, then instance 2 will not generate events and will read as not pressed.

Standards and compliance

The product is designed to meet/exceed the following Australian and International standards:

EMC and Electrical Safety Frameworks and Standards

IEC/EN 55015, AS/NZS CISPR 15, AS CISPR 15
EN 55032, AS/NZS CISPR32
EN 55035
EN 61547
EN 61347-2-11, AS/NZS 61347.2.11
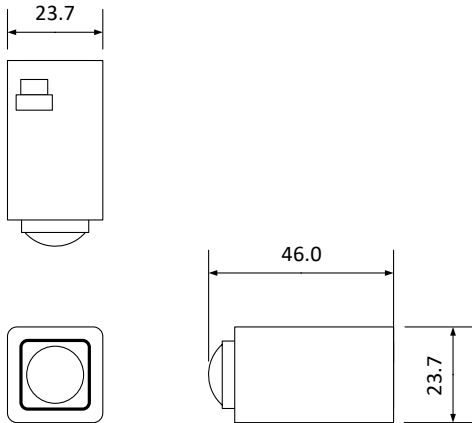EN 61347-1, AS/NZS 61347.1
EN 62368-1

DALI Standards and Compliance

IEC 62386-101 Ed 2 & IEC 62386-103 (DALI-2 Control Devices)
IEC 62386-301, -303, -304 (DALI-2 Instances Push Button, Occupancy Sensor, Light Level Sensor)

EU Directives

2014/35/EU   Low Voltage
2014/30/EU   Electromagnetic Compatibility (EMC)
2015/863   Restriction of Hazardous Substances (RoHS) in Electrical and Electronic Equipment

Product dimensions

Warranty

This product has a TWO YEAR warranty against manufacturing defects. The warranty applies from the date of purchase.

Refer to ozuno.com for the full conditions for warranty and returns process. A summary of the process:

1. Contact the seller of the goods, or in their absence contact Ozuno to request a return goods authorisation.
2. When a return is authorised, the goods must be returned to Ozuno at the owners expense for technical evaluation.
3. The warranty claim will be evaluated by Ozuno and accepted if the goods are found to be faulty, or rejected if the fault was caused by conditions beyond the responsibility of Ozuno. Considerations of installation, removal, return, freight and testing are not the responsibility of Ozuno.

The Australian Consumer Law requires the inclusion of the following statement with this Warranty:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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