

Order Code	DKOZ-DINUSI-6
Overview	<p>DALI-2 input unit, powered from the DALI line. Six isolated inputs, each of which can be used with a push-button switch (momentary type), a toggle switch, or the voltage-free contacts of an external motion sensor.</p> <p>Also includes DALI-2 Application Controller to allow advanced control functions. Suitable for DALI and DALI-2 systems.</p>
Features	<ul style="list-style-type: none"> • DIN rail mounted, 4M width. • 6 independent inputs. • Inputs are electrically isolated from each other and from DALI. • Each input can support extended wiring runs up to 250 metres. • Each input allows connection to an external switch or voltage-free (dry) contact, with support for push buttons (momentary switch), toggle switch, or (external) motion sensor. • Connects directly to a DALI line and powered from the line. • DALI-2 certified, multi-master. • Programmable over DALI. • The internal Application Controller is optional, and if used: <ul style="list-style-type: none"> ○ Supports small systems, RAPIX Zero-Commissioning, and additional resilience when used in a RAPIX Lighting Control System; ○ Actions for each input are configurable. Examples include toggle (on/off), toggle dimmer, push dimming, memory dimmer, double tap action, occupancy, vacancy, and many more. Fade on, fade off and dwell times are configurable; ○ Powerful enable/disable rules; ○ Support for multiple Zones - being collections of DALI Groups and/or DALI Short Addresses; • Supports DALI and RAPIX Scenes.
Typical Applications	<p>Harsh industrial environments, specialty switch and sensor interfaces to DALI, Commercial buildings, Hotels, Health care facilities, Education facilities</p>

DALI System Commissioning

This product is set up using any DALI-2 commissioning software that supports DALI-2 Control Device instance types 1, 2 and 3. For the higher resilience of RAPIX and to use the built-in Application Controller, the free *RAPIX Addressing* or *RAPIX Integrator* software should be used.

DALI-2 Instances

This product has 6 instances. By default all instances are set to Type 1 – Push Button. Each instance type can be changed to Type 2 (Absolute, suitable for toggle switches) or Type 3 (Occupancy Sensor, suitable for the relay contacts of an external sensor).

RAPIX Zero-Commissioning: Out-of-box functions

This product supports RAPIX Zero-Commissioning. If there is no setup by DALI-2 or RAPIX Software, then:

RAPIX Zero-Commissioning behaviour for this product transmits DALI Broadcast commands with behaviour appropriate to the type of input being used.

Selection of the type of out-of-box behaviour is made by closing inputs 5 and 6. The following selections are possible:

- No out of box behaviour.
- Momentary Push Button Switch: Push/release to toggle ON/OFF, and push/hold to fade up and down.
- Toggle Switch: Close the switch for ON, open the switch for OFF.
- Sensor with relay contacts: Movement causes ON, there is a 15 minute timeout with no movement to OFF. If OFF is seen from another unit then a 15 second exit delay is used.

Multiple RAPIX sensors, switches and Universal Switch inputs can be used on a DALI line with out-of-box operation between them.

Switch Input and Isolation

The switch inputs are isolated from each other and from DALI.

This product provides Basic Insulation between DALI and each switch input, and Double Insulation between a switch input and any other switch input.

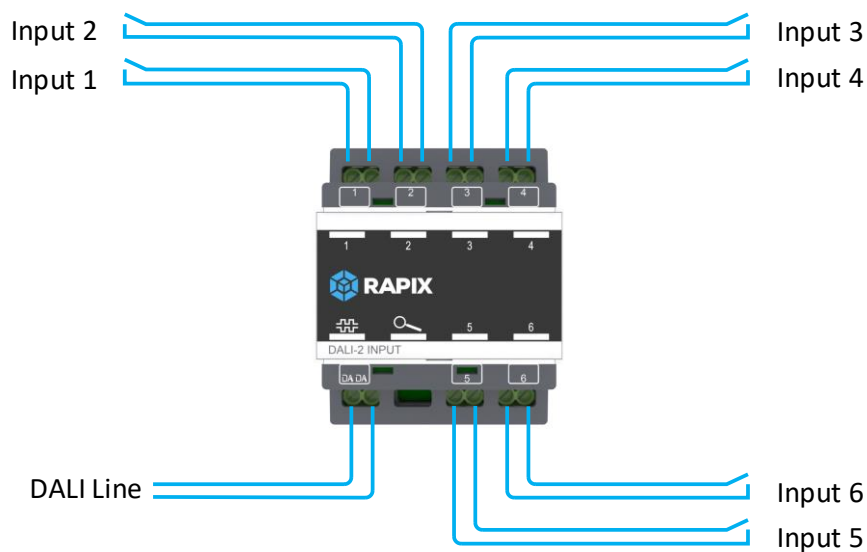
Switch inputs are floating, and must not be connected to mains line or neutral voltages. On very long cable runs, especially runs outside buildings:

- One of the two switch inputs may be connected to mains earth for improved tolerance of voltages surges;
- Use of surge protection is recommended.

When open circuit, 5V dc should be measurable across each of the switch terminals.







Switch Input Indicators

To allow easy connectivity checking, each of the switch inputs has a green LED indicator adjacent to its connection terminal. This indicator is ON when the switch input is CLOSED.

Connections

Specifications

Parameter	Specification
Power source	DALI line
Compatibility	DALI and DALI-2
DALI Line operating voltage	16 V dc (nominal), operation from 9.5 V – 22.5 V
DALI Line current draw	6 mA (peak)
Start up time	< 2 seconds
Mains tolerance	DALI inputs and switch inputs are mains voltage tolerant
Isolation	> 1500 V (Each input to DALI line, Basic Insulation) > 3000 V (Each input to any other input, Double Insulation)
Terminals	Screw – 3 x 1.5 mm ² solid/stranded per tunnel
Maximum connection wire length	Up to 250 m per switch input
Allowable input types	DALI-2 Type 1 (Push button switch), Type 2 (Absolute / toggle switch) or Type 3 (voltage free contacts of an occupancy sensor).
Indicators	7 x green – DALI operation and on each input 1 x red – Identification
Switch input – open circuit voltage	5 V dc nominal (for cable leakage resistance ≥ 500 kΩ)
Switch input – closed current	< 0.1 mA dc nominal
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. DIN Clip: ABS.
Weight	180 g
DALI addresses used	One DALI-2 Control Device Short Address, no Control Gear Short Addresses
DALI Addressing types supported	Short Addresses, Group Addresses, Scenes, Broadcast
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

Specifications (contd)

Parameter	Specification
Approvals	     

Standards & Compliance
EMC and Electrical Safety Frameworks and Standards

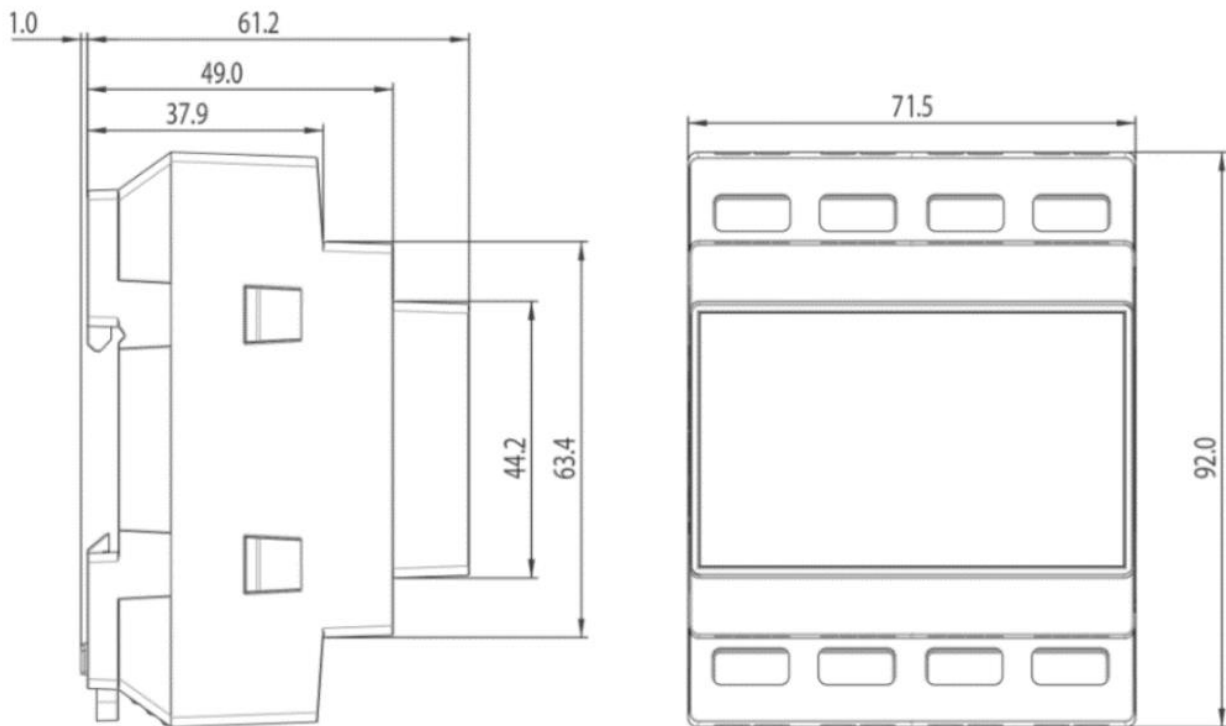
IEC/EN 55015, AS/NZS CISPR 15, AS CISPR 15
 EN 55032, AS/NZS CISPR32
 EN 61347-1, AS/NZS 61347.1
 EN 61347-2-11, AS/NZS 61347.2.11

DALI Standards and Compliance

IEC 62386-101 Ed 2 (DALI-2)
 IEC 62386-103 (DALI-2 Control Devices)
 IEC 62386-301 (DALI-2 Instance Type Push Button)
 IEC 62386-302, -303 (DALI-2 Instance Absolute, Occupancy Sensor: tested, not certified)

EC Council Directives

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

Dimensions**Contact Information**

Web www.ozuno.com
All Enquiries +61 8 8362 7584 sales@ozuno.com

Ozuno Trading Pty Ltd

ABN: 96 621 194 483
4/115 Payneham Rd
St Peters SA 5069
Australia

This product includes a **TWO-YEAR WARRANTY** against manufacturing defects.

RAPIX is a trademark of Ozuno Holdings Pty Ltd.

DALI and **DALI-2** are trademarks of the Digital Illumination Interface Alliance.

COPYRIGHT © 2023 This document is copyright by Ozuno Holdings Pty Ltd. Except as permitted under relevant law, no part of this data sheet may be reproduced by any process without written permission of and acknowledgement to Ozuno.

DISCLAIMER. Ozuno Holdings Pty Ltd reserves the right to alter the specifications, designs or other features of any items and to discontinue any items at any time without notice and without liability. While every effort is made to ensure that all information in this Data Sheet is correct, no warranty of accuracy is given and Ozuno shall not be liable for any error.

TRADEMARKS. The identified trademarks and copyrights are the property of Ozuno Holdings Pty Ltd unless otherwise noted.

13-23-005-001-01 November 2023