DALI-2 Low Power Relay

ac and dc Voltage Free Relay

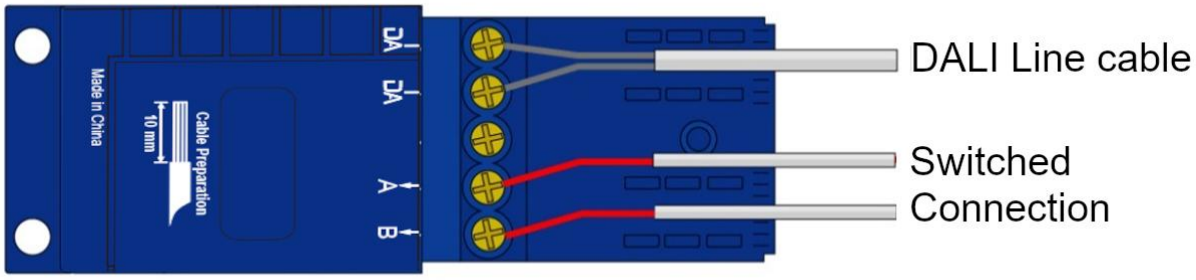
DATA SHEET

Order Codes	DGOZ-LPVFR-11
Overview	This Low Power Voltage Free Relay is a solid-state relay switching device for use on DALI or DALI-2 systems. This relay has full compliance with DALI-2 Device Type 7 (Switching Function) and includes support for the optional up/down switching thresholds. The switching terminals are voltage-free, and support interfacing to external systems that need relay connection, with ac and dc switching up to 1 A. The relay includes a large area for terminating all 1.5 mm^2 or 2.5 mm^2 double insulated cables (for example, load cables and DALI cables).
Features	General purpose load switching (ON and OFF) via received DALI commands. Draws only 2 mA from the DALI line. Suitable for ac and dc loads up to 1 A, including all lighting load types and lower power motors such as exhaust and ceiling fans. For ac loads, performs zero-crossing switching to minimise stresses in the load and reduce inrush currents. Can be used with SELV and dc loads up to 24 V dc. Suitable for low power / low current voltage-free interface functions wherever an isolated relay contact is required. Includes over-temperature, overload and short circuit protection. DIN rail mounting bracket is included. Fits through common downlight holes. Uses a single DALI Short Address; can be including in up to 16 DALI Group Addresses and/or up to 16 DALI Scenes. DALI Short Address, Group Addresses and DALI Scenes are configured using RAPIX Addressing or RAPIX Integrator software. Can also be commissioned using other DALI commissioning software that supports DALI Device Type 7. Complies with DALI-2 standard IEC 62386 and Device Type 7 (Switching Function).
Typical Applications	Commercial & Industrial buildings, Education Facilities, Health care facilities, Hotels, Warehouses, Homes.

Connections

The Low Power Voltage Free Relays is connected to DALI, which supplies its power and commands.

The load connection must maintain suitable physical separation, as required by wiring regulations and the load type.



Compatible Load Types

Symbol	Load Type	Comment
	LED Lamps / Drivers	100 V – 240 V ac, up to 1 A. All lighting load types - **including non-dimmable lighting loads and loads marked not suitable for electronic switches**. Maximum input capacitance 1 µF.
	Electronic Transformers	
	Standard Iron-Core Transformers	
	Toroidal Iron-Core Transformers	
	Incandescent	
	CFLs	
M	Motors	100 V – 240 V ac, up to 1A. Exhaust fans & Ceiling fans
	DC general purpose switching	0 – 24 V dc, general purpose
	DC signal interfacing from DALI	0 – 24 V dc, Voltage-free / Dry-contact equivalent function

Incompatible Loads and Operations

Switching with voltages between 24 and 100 V, ac or dc.

Mounting

Surface mounting by 2 x 6 mm holes.

DIN rail mount using the supplied adaptor bracket.

Specifications

Parameter	Specification
Compatibility	DALI and DALI-2
Power source	DALI line
DALI operating voltage	16 V dc (nominal), with suitable operation from 9.5 V – 22.5 V
DALI line current draw	2 mA (maximum)
Mains tolerance	DALI input is mains voltage tolerant
Connections	Screw terminal: up to 2 x 2.5 mm^2 per terminal or up to 3 x 1.5 mm^2 per terminal
DALI – Output Isolation	> 1500 V
Relay Terminals Polarity	Non-polarised
Output terminal switching technology	Solid-state
ac switching voltage range	100 – 240 V ac, 50-60 Hz with zero-voltage switching 0 – 24 V ac, 50-60 Hz without zero-voltage switching
dc switching voltage range	0 – 24 V dc
dc de-rating	Not required
Maximum load	1 A (ac or dc)
Maximum Inrush current	5 A for ac and dc applications
AC off-state leakage current	≤ 0.1 mA rms at 240 V ac
dc off-state leakage current	≤ 5 µA at 24 V dc
dc off-state resistance	≥ 5 MΩ
dc on-state resistance	≤ 1Ω
Zero voltage switching	YES – 100 – 240V ac only
Thermal overload protection	YES – auto restart
Overload cut-out protection	YES – with manual restart: Switch off and then on with DALI commands
Short Circuit cut-out protection	YES – with manual restart: Switch off and then on with DALI commands
Ambient operating temperature	0 to 60° C
Ambient storage temperature	-10 to 70° C
Humidity	0% to 95% RH non-condensing
Ingress protection	IP20
Materials	Enclosure – Flame retardant Polycarbonate, UL 94V-0
Weight	80 g
Approvals	DALI 2, RoHS COMPLIANT

Standards & Compliance

EMC and Electrical Safety Frameworks and Standards

EN 61347-1, AS/NZS 61347.1
EN 61347-2-11, AS/NZS 61347.2.11
IEC/EN 60669-2-1, AS/NZS 60669.2.1
IEC/EN 61000-3-2, -3, AS/NZS 61000.3.2, .3
IEC/EN 61000-4-2, -3, -4, -5, -6, -8, -11
EN 61547
IEC/EN 55015, AS/NZS CISPR 15, AS CISPR 15

DALI Standards and Compliance

IEC 62386-101 Ed2 (DALI-2)
IEC 62386-102 Ed2 (DALI-2)
IEC 62386-207 Ed1

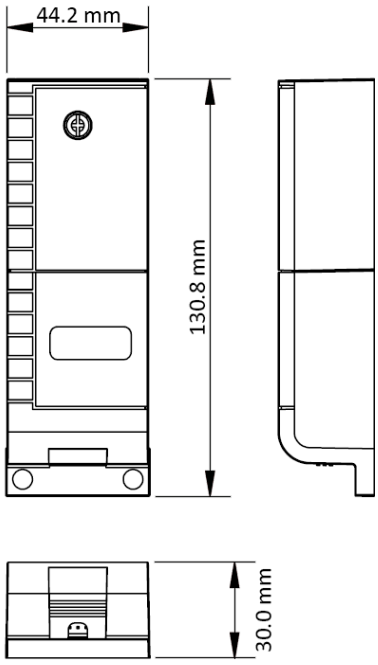
EC Council Directives

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

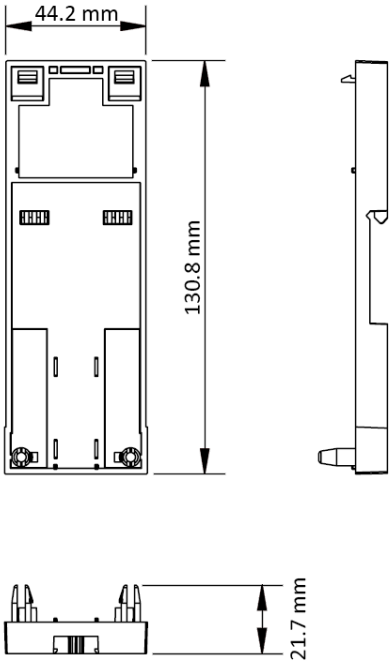
Important Notes

This product does not contain any wireless capabilities, ie no WiFi, Bluetooth, NFC, Zigbee, Thread, etc.

Dimensions



Low Power Voltage Free Relay



DIN Mounting Bracket

Contact Information

More Solutions Ltd
Registered in England, UK
(0456 0902)

www.more-lighting.co.uk
+44 344 251 1450
sales@more-solutions.co.uk

Manufacturer Information

Ozuno Trading Pty Ltd
ABN: 96 621 194 483

www.ozuno.com
+61 8 8362 7584
sales@ozuno.com

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.

13-19-512-001-05 June 2026