

# USER GUIDE

## DALI-2-RELE

Electronic relay with DALI signal control

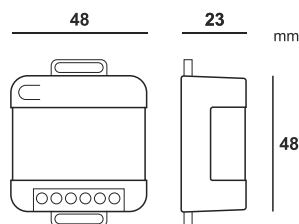
**LEF**  
Lighting



www.lef-lighting.it

### General characteristics

Plastic case of reduced size  
Device not for independent mounting  
Electric class protection II  
Protection degree IP20



### ATTENTION:

The installation of the product must be followed by qualified personnel.  
If the product is used for purposes other than the original ones or if it is connected incorrectly, LEF Lighting S.R.L. will not accept any responsibility for damages caused.

### Reference Standards

EN 62386-101  
EN 62386-102  
EN 62386-208



DIN Rail adapter available  
(code STAFFADIN03)

To view the complete instructions on the website [www.lef-lighting.it](http://www.lef-lighting.it) scan the following QR codes:



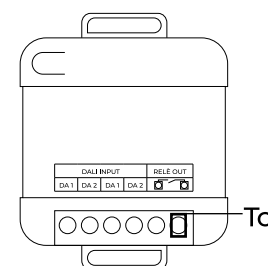
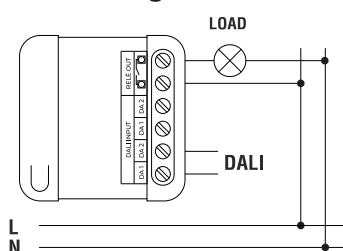
DALI-2-RELE

CODICE CODE	Funzione Function	Comando Control	RESISTIVO RESISTIVE	INDUTTIVO INDUCTIVE	INDUTTIVO INDUCTIVE	Alimentatore elettronico con lampade ad incandescenza o alogene Electronic driver with incandescent or halogen lamps	Lampade fluorescenti compatte Compact fluorescent lamps	Lampade LED LED lamps	Moduli LED LED modules	Strip LED LED Strips	Peso Weight (g)
DALI-2-RELE	RELE	DALI	Lampade ad incandescenza o alogene Incandescent or halogen lamps 230Vac	Trasformatore lamellare Laminated transformer 230/12Vac	Trasformatore toroidale Toroidal transformer 230/12Vac	230/12Vac	230Vac	E14 E27 GU10 230Vac	Seoul ACRICH 230Vac	Strip LED 230Vac	35

In case of using the product with 110Vac voltage the power in the table should be reduced by 50%



### DALI signal control



### Technical features

Input voltage range 110-240Vac  
Input frequency 50+60Hz  
**Relay (max 2000W@230Vac)**  
**Control through:**  
**- DALI signal**  
DALI consumption 6mA  
Device powered by the DALI BUS,  
requires no additional power supply  
Manageable power (see table)  
**«ZERO CROSSING» function**  
Short circuit Protection (SCP)  
Operating ambient temperature Ta -20°C ÷ +50°C  
Max case temperature on Tc 65°C

The DALI-2-RELE dimmer is a compact actuator specifically designed for integrating non-dimmable loads within DALI-2 systems.

This device is powered directly from the DALI bus, eliminating the need for an external power supply.

Featuring a bistable relay with a load capacity of up to 8A and an operating voltage range of 85 to 250 Vac, the device performs relay switching at **zero-cross**, reducing stress on the contacts and extending their service life. Compliance with the DALI-2 DT7 standard ensures compatibility with the most modern lighting control systems.



PRODUCT TO BE DISPOSED  
DIFFERENTLY FROM URBAN WASTE  
AEE identification  
nr.IT18040000010321



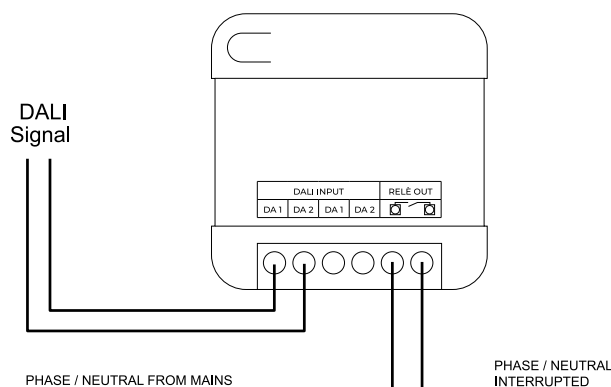
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## DALI-2-RELE

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The DALI-2-RELE operates as a DALI-controlled relay. This allows ON/OFF devices to be integrated into a DALI system and to be switched on and off via DALI DT7 commands. The DALI-2-RELE is powered directly from the DALI line. The typical current consumption is 2.5 mA. To supply power to the devices on a DALI line, the installation of a DALI power supply (DALI POWER SUPPLY) is required. Switching occurs at the zero-crossing of the AC voltage.



Standard DT7 devices have a binary output with only two states (on and off).

In order to allow fine control of switch-on and switch-off delays, the standard nevertheless implements the management of the so-called “**Virtual Arc Power Level**”.

This value simulates an internal dimming behavior, even though the actual device output is purely binary (on/off).

The **VAPL** follows the standard DALI rules

(and is therefore subject to the MAX, MIN, Fade Rate, and Fade Time settings)

and is controlled using standard DALI-2 commands

(e.g. GO TO SCENE, DAPC, etc.).

The “**VAPL**” is continuously compared with four programmable thresholds:

UP SWITCH-ON THRESHOLD

UP SWITCH-OFF THRESHOLD

DOWN SWITCH-ON THRESHOLD

DOWN SWITCH-OFF THRESHOLD

Depending on the direction of change of the “**VAPL**” (increasing or decreasing), the device compares the current value with the relevant thresholds and switches the output according to the table below.

VAPS direction	Comparison	Action
UP	$VAPL \geq \text{UP SWITCH-ON THRESHOLD}$	Turning on
UP	$VAPL \geq \text{UP SWITCH-OFF THRESHOLD}$	Turning off
DOWN	$VAPL \leq \text{DOWN SWITCH-ON THRESHOLD}$	Turning on
DOWN	$VAPL \leq \text{DOWN SWITCH-OFF THRESHOLD}$	Turning off

The thresholds can be configured independently, including with crossed values (e.g. DOWN ON > DOWN OFF), in order to define custom hysteresis behaviors.

If the two thresholds of the same “pair” (e.g. UP ON and UP OFF) have the same value, switching prioritizes turning on. If a threshold is set to MASK (255), it is excluded from the VAPL comparison (e.g. if UP SWITCH-OFF THRESHOLD = MASK, the device cannot turn off while the VAPL is increasing). Unlike some systems with rigid hysteresis, the standard does not require UP ON < UP OFF, or similar constraints. This allows even complex implementations, as long as they are logical.

### Factory default

The device is shipped from the factory with the following default values.

The default configuration can be restored using the RESET command:

- UP SWITCH-ON = 1
- UP SWITCH-OFF = MASK (255)
- DOWN SWITCH-ON = MASK (255)
- DOWN SWITCH-OFF = 0



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MADE IN ITALY