

**DLRL - DLRLR**

**DLRL: 2-relay output DALI-2 module**

The 2-relay output module DLRL allows the control, via the DALI bus, of 2 loads (typically lamps).

Features:

- powered by DALI bus (no aux power supply is needed)
- current consumption < 10mA (5 DALI devices)
- 2 floating output contacts
- available in 2-unit modular housing for DIN rail, both in standard version (DLRL) and in reduced height version (DLRLR)
- dual coil latching relays for low current consumption
- choice of the status of each contact at power up (ON, OFF or No-Change)
- choice of the status of each contact at power down (ON, OFF or No-Change)
- automatic polarity on the connection to the DALI bus
- 2 DALI address
- red LED for device identification

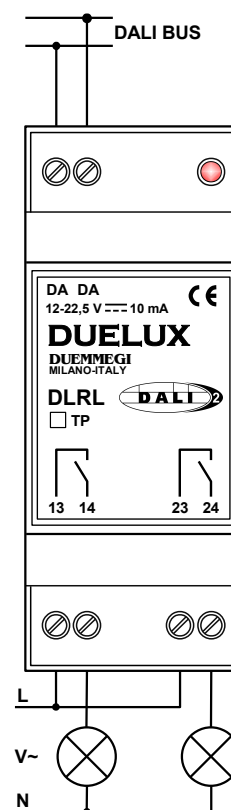


**TP option**

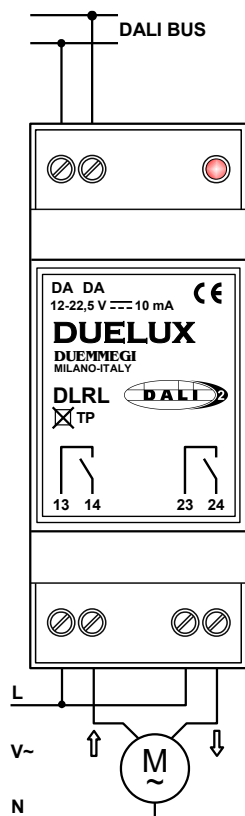
The DLRL and DLRLR modules are also available in TP option (to be specified when ordering) for controlling a 230V~ 2-winding motor (typically roller shutters, motorized windows, etc.). In this case the features are:

- powered by DALI bus (no aux power supply is needed)
- current consumption < 10mA (5 DALI devices)
- 2 floating output contacts
- available in 2-unit modular housing for DIN rail, both in standard version and in reduced height version
- dual coil latching relays for low current consumption
- logic interlocking of the two relays to avoid simultaneous powering of the two windings
- choice of the status of each contact at power up (ON, OFF or No-Change)
- pause time before reversing
- automatic polarity on the connection to the DALI bus
- 1 DALI address
- red LED for device identification

**Connection diagram**



### Connection diagram for TP option



- x Par. 3 (0x05) & Par. 4 (0x06): closing timeout; see previous point for details
- x Par. 5 (0x07): pause time before an inversion of direction of the motor; the value is in hundredths of a second (0..255). For example if Par. 5 = 150, then the pause time will be 1.50s

### Commands for TP option

In the case of the TP option, the actions to be performed (Open, Close, Stop) are defined using codes. These codes are sent to the module in the form of Direct Arc Power Control (DAPC); these commands will therefore be composed of 2 bytes, where the first is the Address Byte (SA, Group, etc.) and the second can be:

- 0x00: Open
- 0xFE: Close
- 0x55: Priority Opening
- 0xAA: Priority Closing
- 0xFF: Stop

An Open or Close command sent while the motor is powered (regardless of the direction) causes the motor to stop (counter-command). The Priority Opening and Priority Closing commands, on the other hand, cause the motor to be commanded in the requested direction regardless of whether the motor was already powered or not.

### Memory Bank 2 for TP option

For TP option, bank 2 provides some parameters as in the following table.

Address	Description	Factory value	RESET value
0x00	Memory Bank last address	0x07	n.c.
0x01	Indicator byte	0x02	n.c.
0x02	Lock byte	0xFF	0xFF
0x03	Timeout [s] (Par. 1)	60	n.c.
0x04	Timeout [cs] (Par. 2)	0	n.c.
0x05	Timeout [s] (Par. 3)	60	n.c.
0x06	Timeout [cs] (Par. 4)	0	n.c.
0x07	Pause [cs] (Par. 5)	150	n.c.
0x08-FF	Not implemented		

Note: "n.c." in the table it means "no change", therefore a RESET command does not modify the previously set value.

5 parameters allow TP operation::

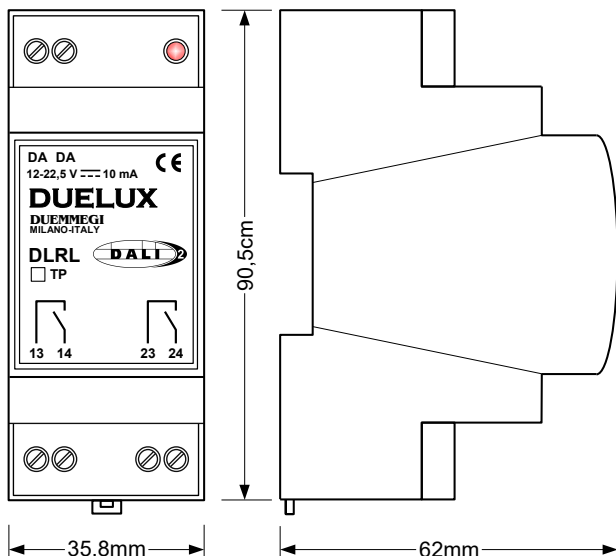
- x Par. 1 (0x03) & Par. 2 (0x04): opening timeout, that is the time after which the relay will be switched off; the first set the seconds (0..255) and the second set the hundredths of a second (0.99). For instance, if Par. 1 = 58 & Par. 2 = 50, then timeout will be 58.5s

### Technical characteristics

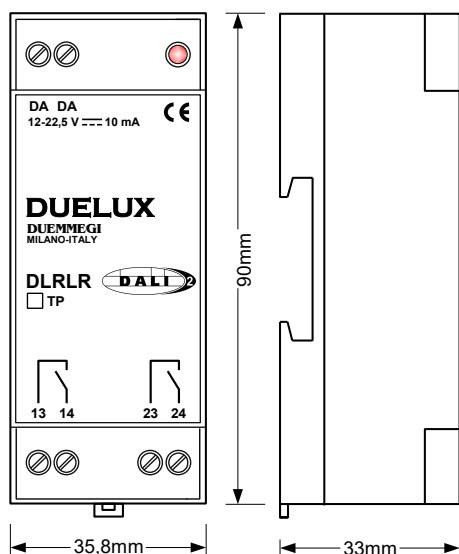
Power supply	By DALI bus, 12 ÷ 22.5V
Current consumption	10mA (5 DALI devices)
Number of outputs	2, dual coil latching relays
MAX contact rating (each output)	<ul style="list-style-type: none"> <li>• Resistive load (cosφ = 1): 12A at 250V~ (3000VA)</li> <li>• Inductive load (cosφ = 0.5): 3.6A at 250V~ (900VA)</li> <li>• Incandescent lamps: 8A at 250V~ (2000VA)</li> <li>• Fluorescent lamps: 350W with 42uF MAX power factor correction capacitor</li> </ul>
Rating for single phase motor	550VA (0.75HP)
MAX switching voltage	250V~
Number of DALI addresses	2 for standard DLRL 1 for TP option
Start-up time	800ms MAX
DALI-2 compliant according to	IEC 62386-101 IEC 62386-102 IEC 62386-208
Housing	DLRL DLRLR
	DIN standard 2-unit DIN standard 2-unit, reduced height
Operating temperature	-5 ÷ +50 °C
Storage temperature	-20 ÷ +70 °C
IP rating	IP20

**DLRL - DLRLR**

**Dimensions DLRL**



**Dimensions DLRLR**



**Correct disposal of this product**



(Waste Electrical & Electronic Equipment) (Applicable in the European Union and other European countries with separate collection systems). This marking on the product, accessories or literature indicates that the product should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

**Installation and use restrictions**

**Standards and regulations**

The design and the setting up of electrical systems must be performed according to the relevant standards, guidelines, specifications and regulations of the relevant country. The installation, configuration and programming of the devices must be carried out by trained personnel.

The installation and the wiring of the bus line and the related devices must be performed according to the recommendations of the manufacturers (reported on the specific data sheet of the product) and according to the applicable standards.

All the relevant safety regulations, e.g. accident prevention regulations, law on technical work equipment, must also be observed.

**Safety instructions**

Protect the unit against moisture, dirt and any kind of damage during transport, storage and operation. Do not operate the unit outside the specified technical data.

Never open the housing. If not otherwise specified, install in closed housing (e.g. distribution cabinet). Earth the unit at the terminals provided, if existing, for this purpose. Do not obstruct cooling of the units. Keep out of the reach of children.

**Setting up**

The physical address assignment and the setting of parameters (if any) must be performed by the specific softwares provided together the device or by the specific programmer. For the first installation of the device proceed according to the following guidelines:

- Check that any voltage supplying the plant has been removed
- Assign the address to module (if any)
- Install and wire the device according to the schematic diagrams on the specific data sheet of the product
- Only then switch on the 230Vac supplying the bus power supply and the other related circuits

**Applied standards**

This device complies with the essential requirements of the following directives:

- 2014/30/UE (EMC)
- 2014/35/UE (Low Voltage)
- 2011/65/UE (RoHS)

**Note**

Technical characteristics and this data sheet are subject to change without notice.