



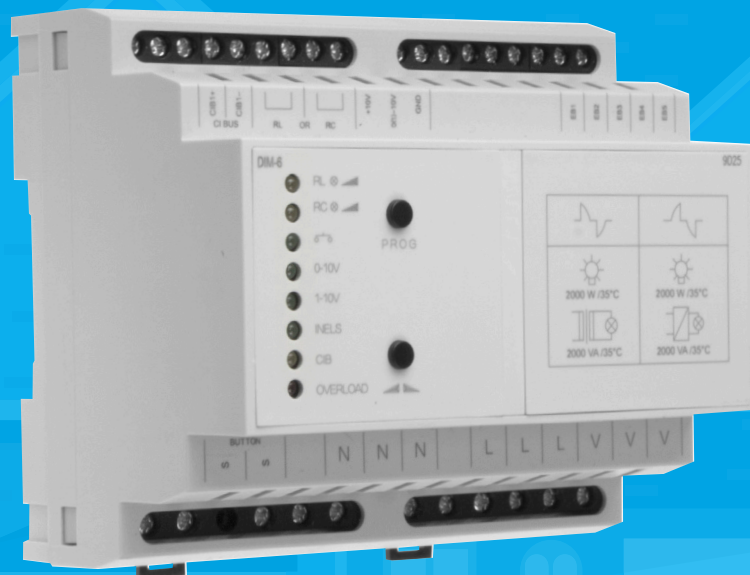
**CLICKsmart**

# Wiring Accessories for a Smarter Home

## **DIM-6**

2000Va Dimming Module

Installation Manual



## Installation Overview

Please read the installation instruction manual prior to commencing with the installation. If the module is incorrectly installed this will invalidate the warranty,

Before commencing with any electrical installation, the associated circuits and cables must be securely isolated at the consumer unit.

Installation must be carried out by a qualified electrician.

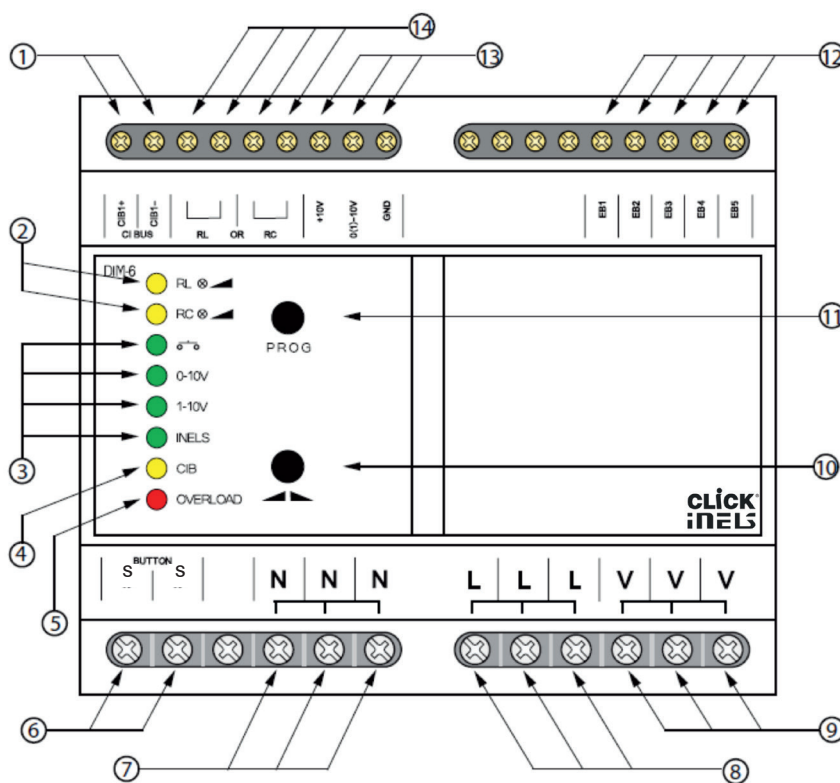
The DIM-6 module is designed for internal use only.

Devices with any signs of damage should NOT be installed and should be returned to the seller.

Only one load type must be controlled by each DIM-6 unit. Differing load types may cause the module to fail and invalidate the warranty.

The supply input must be protected with an MCB/RCBO of a rating appropriate to the amount of load connected to the output terminals.

## Product Overview



1. N/A (CIB Terminations)
2. Load type indication LED's
3. Dimmer control input type indication
4. N/A (CIB Indicator)
5. Device overload indication
6. External pushbutton control terminals
7. Supply - Neutral connection terminals
8. Supply - Live connection terminals
9. Load - Controlled LIVE output terminals
10. Manual control button ( $\sigma^{\circ}$  must be selected)
11. Input control type (3) selection button
12. Expansion module connection terminals
13. (0)1-10V control input terminals (e.g. RFDAC-71B)
14. Load type selection terminals (wire link must be fitted)

## Product Overview

This device is designed for the switching and dimming of lighting loads. It is suitable for loads consisting of LED's\*, incandescent lamps, halogen lamps, both mains and low voltage types driven by electromagnetic and electronic transformers up to a maximum load of 2000VA.

**\*LED's** - Scolmore cannot guarantee the compatibility / performance with all types of LED. If in doubt please contact our Technical Helpline.

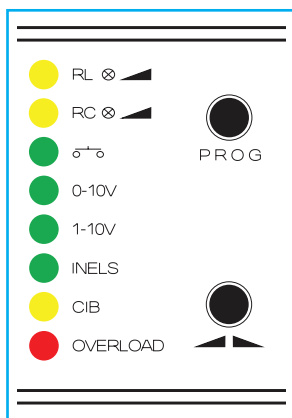
Using the R/L/C load types available we recommend de-rating the load to 10% when using LED light sources. E.g. 2000W of halogen = 200W of LED.

If required, the load capacity can be further increased in 1000Va increments up to a maximum of 10,000Va by utilising the additional module DIM6-3M-P (purchase separately).

The output intensity can be adjusted between 0-100%.

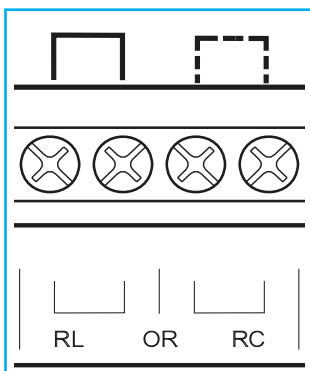
- Designated for dimming lights (R,L or C loads), also suitable for appliance switching.
- Can be controlled by: momentary button, external potentiometer, analogue signal 0-10V (1-10V), e.g. RFDAC-71B.
- 230V AC output controlled by 1 semi-conductor. Maximum output 2000Va.
- Electronic over-current, over-voltage and short-circuit protection.
- Thermal overload protected which isolates output. LED will flash RED if thermal overload occurs.
- DIN rail mounting.

## Front Indication Panel



- RL - Yellow - Indicates configuration of load RL - When link is in place
- RC - Yellow - Indicates configuration of load RC - When link is in place
- Green - Button control mode selected
- 0-10V - Green - 0-10 V signal control mode selected
- 1-10V - Green - 1-10 V signal control mode selected
- INELS - Green - CIB conductor bar-INELS control mode selected
- CIB - Yellow - Indicates CIB conductor bar data transfer communication
- OVERLOAD - Red - Indicates overload (flashing LED indicates thermal overload inside the device and solid LED indicates current overload)

## Load Selection Link



The load selection link must be fitted in to either:

- RL - Resistive / Inductive load
- Or
- RC - Resistive / Capacitive load

The corresponding yellow LED will illuminate on the front display panel when the module is powered up.

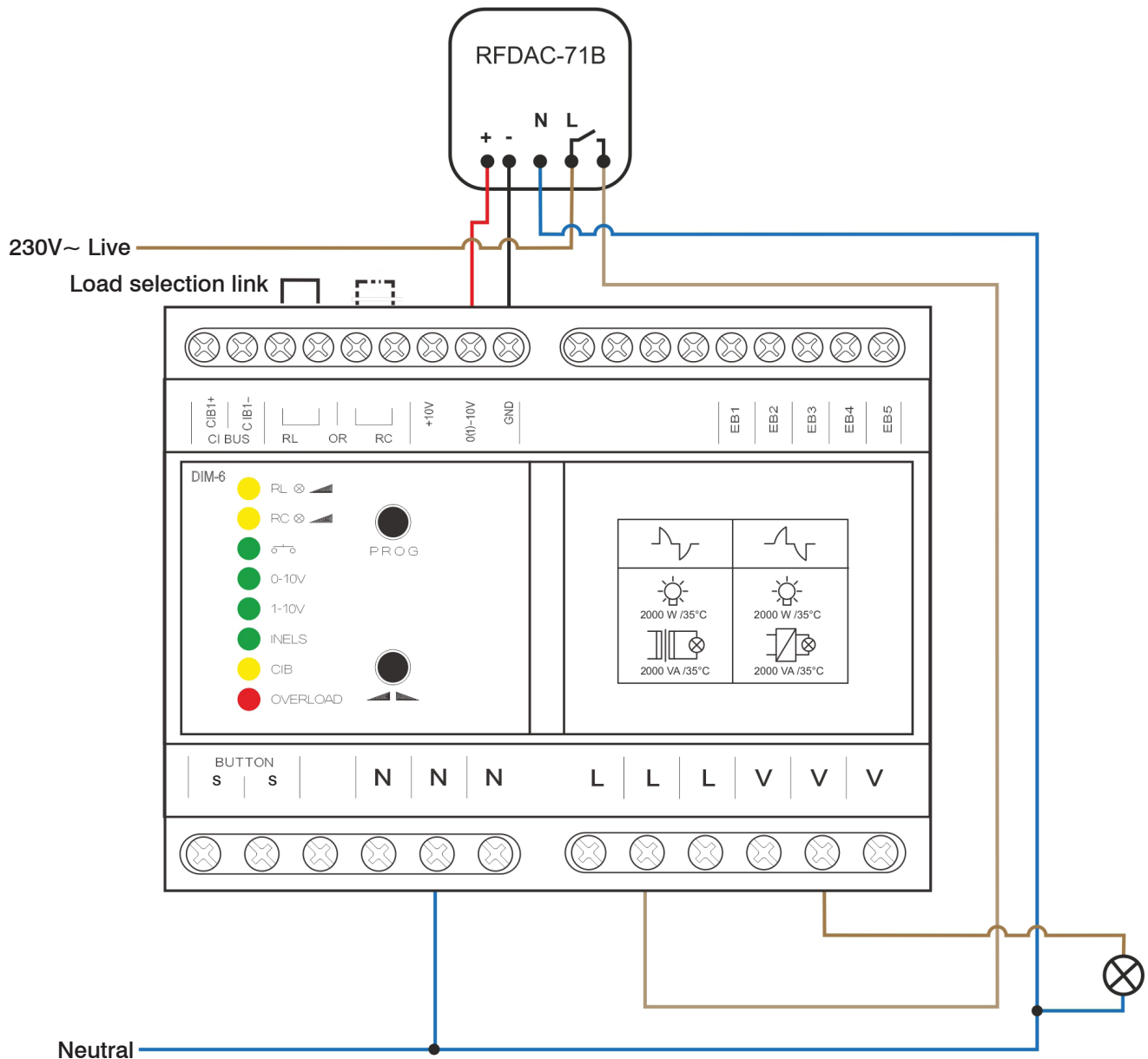
If neither link is fitted there will be no voltage output.

Do not install both links as it may cause damage to the device.

## Wiring - RFDAC-71B (RF Analogue Input)

The wiring of devices must be in accordance with the latest wiring regulations.

Both the RFDAC-71B and DIM-6 devices are internally protected against over-load and short circuit, however the supply input must be protected with an MCB/RCBO of a rating appropriate to the amount of load connected to the output terminals of the DIM-6.



The load selection link cable must be fitted in the correct load type.

Either 0-10V or 1-10V needs to be selected on the both devices. See RFDAC-71B instruction leaflet for control type selection.

For DIM-6, once powered press the 'PROG' button until the required control input 0-10V or 1-10V is illuminated.

Pushbutton **■■■** 0-10V **■■■** 1-10V **■■■** iNELS

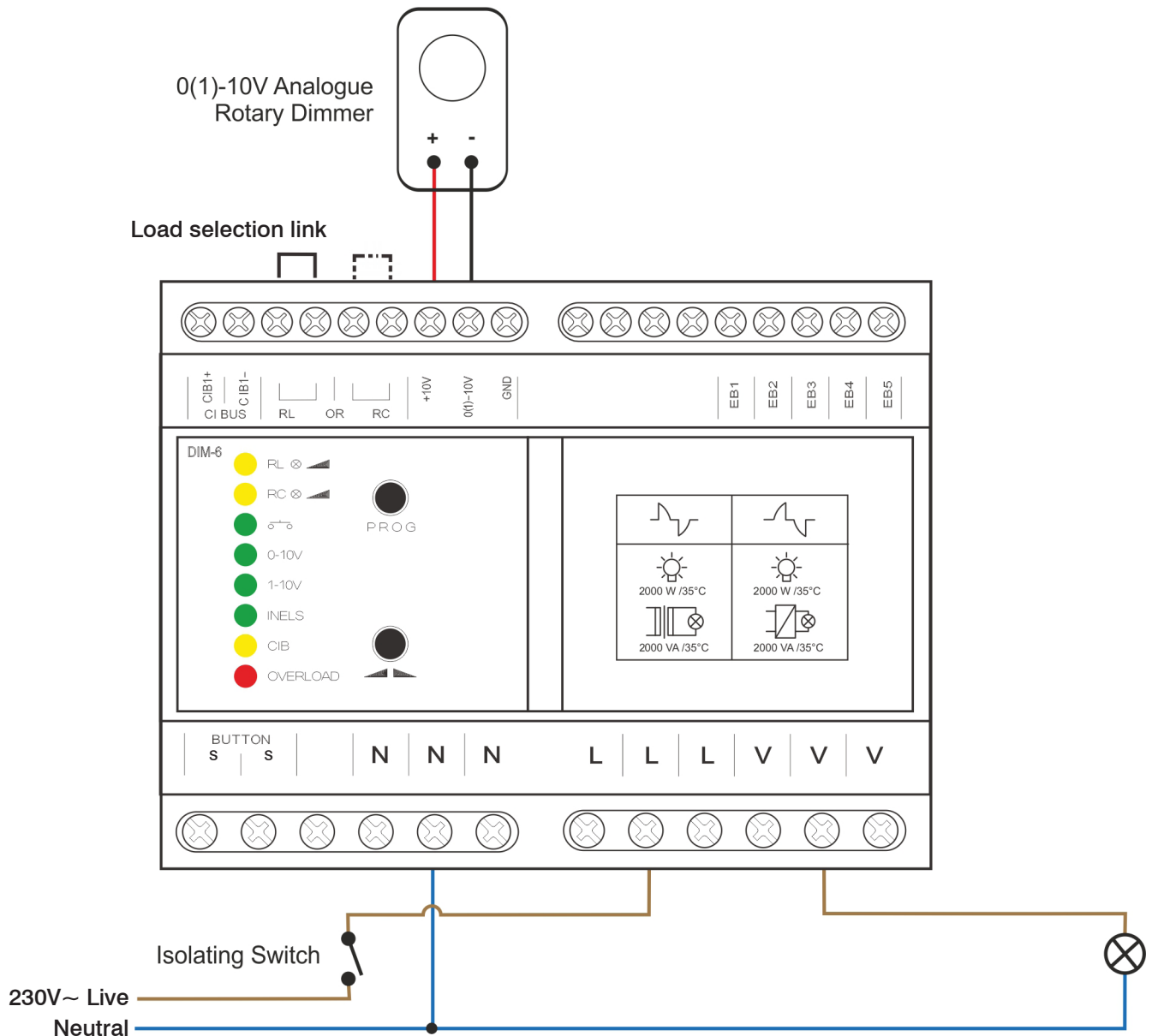
The RFDAC-71B can be paired with the required Click Smart switches and controllers as stated in their respective instruction leaflet.

The incoming 'Live' feed in to the RFDAC-71B switches the 'Live' supply to the DIM-6. Neutral connections are all common.

## Wiring - Analogue Dimmer With Isolating Switch

The wiring of devices must be in accordance with the latest wiring regulations.

The DIM-6 is internally protected against over-load and short circuit, however the supply input must be protected with an MCB/RCBO of a rating appropriate to the amount of load connected to the output terminals.



The load selection link cable must be fitted in the correct load type.

For DIM-6, once powered press the 'PROG' button until the required control input 0-10V or 1-10V is illuminated.

Pushbutton 0-10V 1-10V iNELS

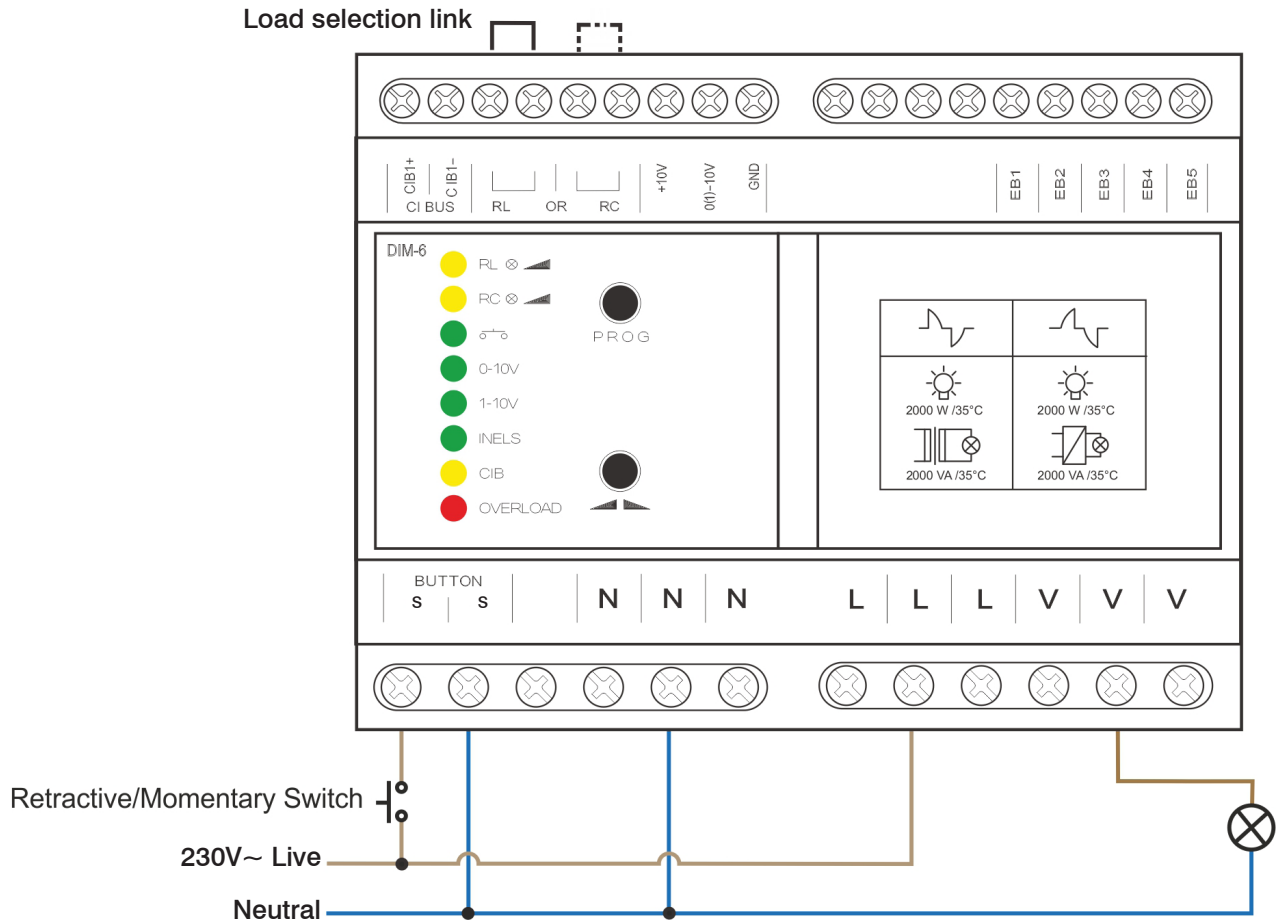
Most 0(1)-10V analogue dimmer controls only dim the load and do not turn off / isolate the load.

An isolating switch will be required to turn OFF the 'Live' supply to the DIM-6. Neutral connections are common.

## Wiring - Retractive / Momentary Switch Input

The wiring of devices must be in accordance with the latest wiring regulations.

The DIM-6 is internally protected against over-load and short circuit, however the supply input must be protected with an MCB/RCBO of a rating appropriate to the amount of load connected to the output terminals.



The load selection link cable must be fitted in the correct load type.

For DIM-6, once powered press the 'PROG' button until the required control input  $\sigma\tau\sigma$  is illuminated.

Pushbutton  $\blacksquare\blacksquare\blacksquare\blacksquare$  0-10V  $\blacksquare\blacksquare\blacksquare\blacksquare$  1-10V  $\blacksquare\blacksquare\blacksquare\blacksquare$  iNELS

The pushbutton (retractive/momentary switch) will turn the DIM-6 ON and OFF with short presses <0.5 seconds.

Whilst in the ON position, press and hold the button/switch to dim up and down, release at the required level.

**Note:** The 'S' and 'S' terminals will accept 12-240V AC/DC controlled input using a retractive/momentary switch. There is no specific polarity with this type of installation.

## Technical Parameters

Technical Details	
Supply Terminals	L & N
Supply Voltage	230V AC / 50Hz
Input:	10Va
Tolerance of Voltage range:	-15 %; +10%
Max. Output Power	Max. 2000Va
Dissipated power:	2.5 % from load
Module extendable:	to 10000 VA
Galvanic separation of bus and power output:	Yes
Isul. volt. between outputs and inner circuits:	3.75kV, SELV according to EN 60950
<b>Control - button type</b>	
Control voltage:	AC 12-240V
Control terminals:	S - S, galvanically separated
Power of control input:	AC 0.53VA (AC 230V), AC 0.025-0.2VA (AC 12-240V)
Length of control impulse	min. 25ms / max. unlimited
Recovery time:	max. 150ms
Connection of glow lamps:	YES (AC 230V), 20ks (1ks-1mA); NO (AC 12-240V)
Control 0(1)-10V:	0(1)-10V, GND
Control terminals:	0-10V or 1-10V
<b>Output</b>	
Contactless:	4 x MOSFET
Current rating:	10 A
Resistive load:	2000 VA*
Inductive load:	2000 VA*
Capacitive load:	2000 VA*
Indication of output state:	Yellow LED, according to load type
<b>Other data</b>	
Operating temperature:	-20 °C to +35 °C (-4 °F to 95 °F)
Storing temperature:	-30 °C to +70 °C (-22 °F to 158 °F)
Operating position:	Vertical
Mounting:	DIN rail EN 60715
Protection degree:	IP 40 from front panel
Purpose of control device:	Operative control device
Construction of control device:	Individual control device
Char. of automatic operation:	1.B.E
Heat and fire resistance cat.:	FR-0
Anti-stroke category (immunity):	class 2
Rated impulse voltage:	2.5 kV
Overtoltage category:	III
Pollution level:	2
<b>Profile of connecting wires :</b>	
- Output part:	Max.1 x 2.5 <sup>2</sup> , max 2 x 1.5 <sup>2</sup> / with sleeve max. 1 x 1.5 <sup>2</sup>
- Control part:	Max.1 x 2.5 <sup>2</sup> , max 2 x 1.5 <sup>2</sup> / with sleeve max. 1 x 2.5 <sup>2</sup>
Dimensions:	90 x 105 x 65 mm
Weight:	410 g
Applicable standards	EN 60669-2-1, EN 61010, EN 55014

\*Only one load type must be controlled by one DIM-6. Differing load types may cause the module to fail and invalidate the warranty.

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(Rev1.0)

