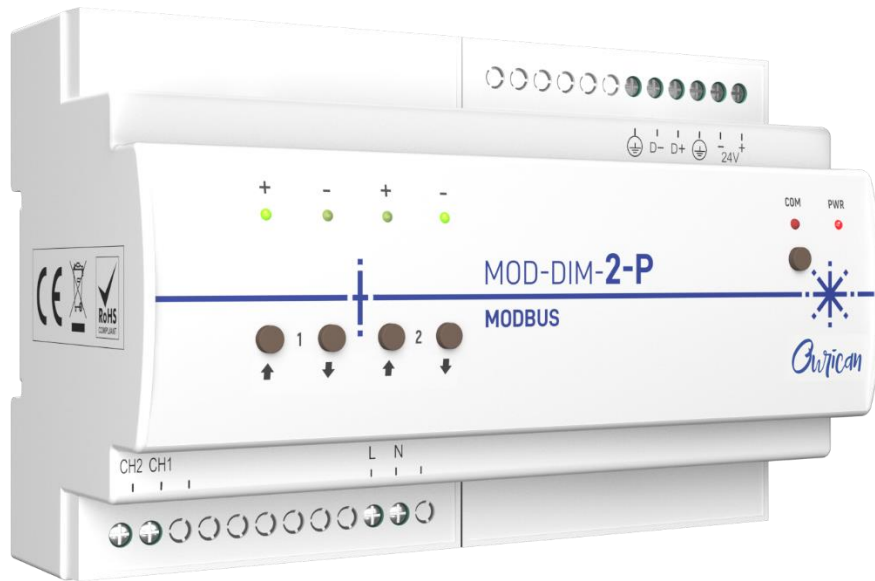


MOD-DIM-2-P



Features:

- 2 channel Phase cut Dimmer for Incandescent and LED Lamps
- Manual output operation with push button and LED status indicator
- LED indication for communication and power status
- DIP switch for Modbus Configuration
- Din rail mount assembly
- Dimension : 142.3 (L) X 90.5 (H) X 62 (D) mm [8 Din Units]
- No need of any Software
- High Speed Modbus RTU (Slave) Communication
- CE Marking*

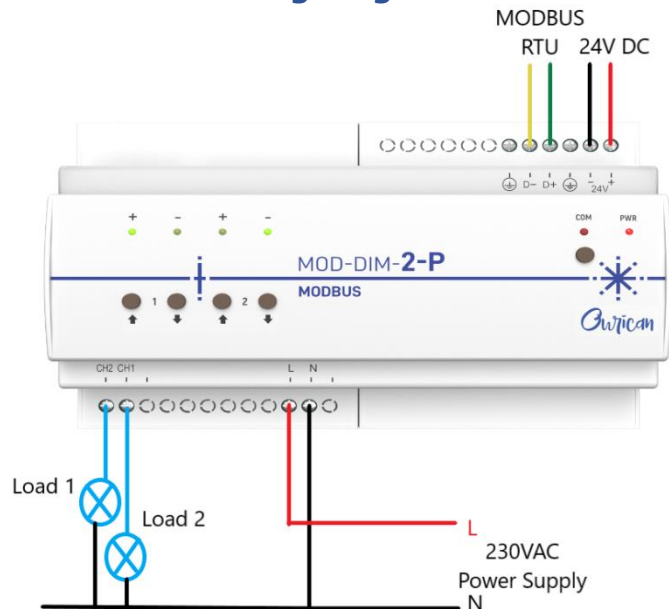
General Product Specifications		
Type of Device	Electric operation control device	
Main Supply	Voltage (typical)	24V DC
	Voltage Range	18-30V DC
	Connection Type	Screw Terminal Connector
Mains Supply	230V AC (50 Hz), +10%, -20%	
Communication Interface and Protocol	RS485 & MODBUS RTU	
Dimming Control	On/Off and Dimming 0 – 100%	
Edge Selection for Dimming	Leading and Trailing Edge	
Operating Temperature	0 to 70	
Storage Temperature	-25 to +75 °C	
Ambient & Storage Humidity	5 to 95% RH (No Condensation)	
Manual Test facility	4 Push button switches – On/Off or Dim Up/Down	
Usage	Indoor, to be mounted inside distribution boxes or electrical panels with DIN rail	
IP Class	IP 20	
Power Failure Response	Data saving	
Response when starting	Data recovery and other settings	

Operation Indication	1 Power LED indicates whether product is On/Off (Green) 1 Communication LED indicates Modbus Communication (Yellow) 4 Output status LED indicators reflect On/Off state & Errors(Green)
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Output Specifications	
No. of Channels	2
230V AC Input protection	Yes
Short circuit protection	Yes
Connection Type	Screw Terminal Block
Recommended cable selection	0.5 mm ² to 4 mm ² (26-10 AWG)
Cable Type	Stranded or Solid wire
Load Type	Incandescent and LED
Maximum allowed Load Power	250W per Channel

Wiring Diagram

Modbus Communication Specifications	
Protocol	Slave Modbus RTU
Baud Rate	9600, 19200
Slave Address	1-31
Data bit	8
Stop bit	1
Parity	None, Odd, Even
Response Time	<100 ms
Termination Resistance	120 Ω (switchable)
Distance	Up to 1200m



Modbus Configuration DIP Switch Access:

Steps:

1. Open the Upper facia plate of the module
2. DIP Switch S2 for address and DIP Switch S1 for Baud Rate, Parity and termination resistance.
3. Adjust the DIP switch according to requirements using below table.

DIP Switch 2					
Slave ID Configuration					
Slave ID	1	2	3	4	5
1	ON	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF
5	ON	OFF	ON	OFF	OFF
6	OFF	ON	ON	OFF	OFF
7	ON	ON	ON	OFF	OFF
8	OFF	OFF	OFF	ON	OFF

DIP Switch 1		
Baud Rate Configuration		
Parity	Pin 1	Pin 2
9600	OFF	OFF
19200	ON	OFF
Parity		
Parity	Pin 3	Pin 4
None	OFF	OFF
Odd	ON	OFF
Even	OFF	ON
Termination Resistor Configuration (120 Ω)		

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9	ON	OFF	OFF	ON	OFF
10	OFF	ON	OFF	ON	OFF
11	ON	ON	OFF	ON	OFF
12	OFF	OFF	ON	ON	OFF
13	ON	OFF	ON	ON	OFF
14	OFF	ON	ON	ON	OFF
15	ON	ON	ON	ON	OFF
16	OFF	OFF	OFF	OFF	ON
17	ON	OFF	OFF	OFF	ON
18	OFF	ON	OFF	OFF	ON
19	ON	ON	OFF	OFF	ON
20	OFF	OFF	ON	OFF	ON
21	ON	OFF	ON	OFF	ON
22	OFF	ON	ON	OFF	ON
23	ON	ON	ON	OFF	ON
24	OFF	OFF	OFF	ON	ON
25	ON	OFF	OFF	ON	ON
26	OFF	ON	OFF	ON	ON
27	ON	ON	OFF	ON	ON
28	OFF	OFF	ON	ON	ON
29	ON	OFF	ON	ON	ON
30	OFF	ON	ON	ON	ON
31	ON	ON	ON	ON	ON

Termination	Pin 5
ON	ON
OFF	OFF

Modbus Address Mapping:

Modbus Register	Function	Value
40001	Channel 1 Dimming value %	0 – 100%
40002	Channel 2 Dimming value %	
40005	Channel 1 Dimming status %	
40006	Channel 2 Dimming status %	
40009	Channel 1 Minimum Dimming value %	0 - 50%
40010	Channel 2 Minimum Dimming value %	
40013	Channel 1 Maximum Dimming value %	51 – 100%
40014	Channel 2 Maximum Dimming value %	
40017	Channel 1 Smooth Dim Time	0 – 300 sec (Max time = 5 mins)
40018	Channel 1 Smooth Dim Time	
40021	Channel 1 Select Edge	0 – Trailing Edge* 1 – Leading Edge*
40022	Channel 2 Select Edge	
40029	Error Notification	0 – None 1 – AC Power Supply Failure 2 – Overheating 3 – Channel 1 short circuit 4 – Channel 2 short circuit

*Only 1 edge can be selected for both the channels at a time. 2 channels cannot have different Edges for Dimming simultaneously.

Error Indication using LEDs:


1. AC Power Supply Failure: One LED of each channel will blink for 1 second.
2. Overheating: Both the LEDs of each channel will blink for 1 second.
3. Short Circuit Error: Both the LEDs of the channel with error will blink alternately for 0.25 seconds each.

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SAFETY INSTRUCTIONS

- Installation should only be performed by qualified professionals according to the laws and regulations.
- Do not connect the mains voltage nor any other external voltage to any point of the Mesbus connector; it would represent a risk for the entire system. The facility must have enough insulation between the mains (or auxiliary) voltage and the Mesbus or the wires of other accessories, in case of being installed.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- Keep the device away from water and do not cover it with clothes, paper or any other material while in use. 

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