

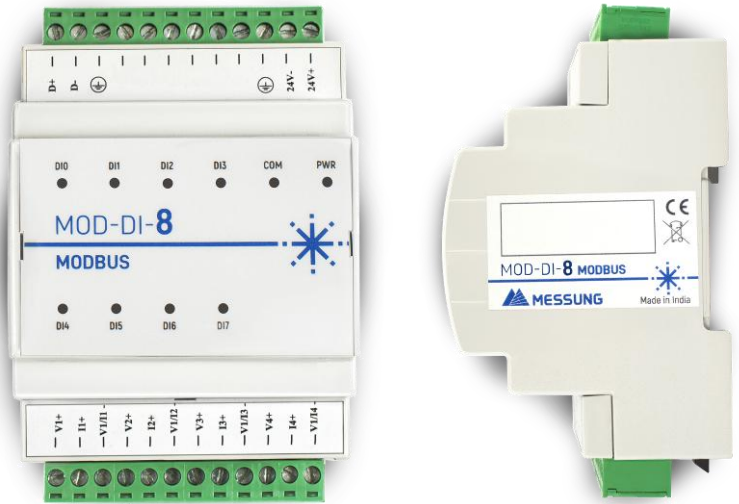
8 CH Digital Input Module-Modbus RTU

Technical Documentation

MOD-DI-8

Features:

- 8 Channel Digital Input
- Two independent groups of 4 inputs (Sink/Source)
- Isolated between logic and inputs
- LED indication for each input status, communication and power
- DIN rail mount assembly
- DIP switch for Modbus RTU slave configuration
- No configuration software needed
- CE Mark



General Product Specifications:

Device Type	Industrial Automation & Control Device	
Main Supply	Voltage (typical)	24VDC
	Voltage Range	18-30 VDC
	Connection Type	Pluggable Terminal Connector
Max. Input Current	6mA	
Input Update Time Normal Mode	2ms	
Communication Interface & Protocol	RS-485 & MODBUS RTU	
No. of Channel	8	
Logic '0' Volt	0-5V	
Logic '1' Volt	12-28V	
Protection	Against surge voltages	
IP Level	IP20	
Isolation	Isolation between I/O and Logic	
Operating Temperature	0 to 70 °C	
Storage Temperature	-25 °C to +75 °C	
Ambient Humidity	5 to 95 % RH (no condensation)	
Mounting	DIN rail	
Dimension	71 (L) X 90.5 (H) X 62 (D) mm [4 DIN Units]	
Module Dimension	71.1 x 90.5 x 62	
Certification	CE	
Operation Indicator	LED (RED) for DC power ON, Blinking Yellow LED to indicate communication, GREEN LEDs (DI0 to DI7) to indicates input status	

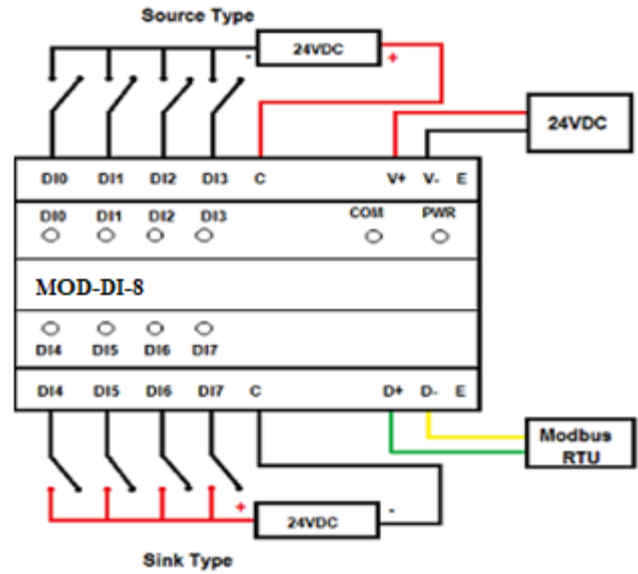
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WIRING DIAGRAM

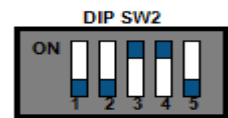
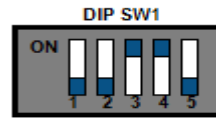
Modbus Communication Specifications	
Protocol	Slave Modbus RTU
Baud Rate	9600,19200,57600,115200
Slave Address	1-31
Data Bit	8
Stop bit	1
Parity	None, Odd, Even
Response time	<100ms
Termination Resistance	120ohm (Switchable)
Control Registers	Holding Register 0 i.e. 40001
Distance	Up to 1200m



Modbus Configuration DIP Switch Access

Steps:

1. Open the upper fascia plate of the module.
2. DIP switch S1 for address and DIP switch S2 for baud rate parity.
3. Adjust the DIP switch according to requirements. Refer below image.



DIP Switch 2		
Baud Rate Configuration		
Baud Rate	Pin 1	Pin 2
9600	OFF	OFF
19200	OFF	ON
57600	ON	OFF
15200	ON	ON
Parity Configuration		
Parity	Pin 3	Pin 4
NONE	OFF	OFF
ODD	OFF	ON
EVEN	ON	OFF
Termination Resistor Configuration (120Ω)		
Termination	Pin 5	
ON	ON	
OFF	OFF	

DIP Switch 1					
Slave ID Configuration					
Slave ID	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
1	OFF	OFF	OFF	OFF	ON
2	OFF	OFF	OFF	ON	OFF
3	OFF	OFF	OFF	ON	ON
4	OFF	OFF	ON	OFF	OFF
5	OFF	OFF	ON	OFF	ON
6	OFF	OFF	ON	ON	OFF
...
...
...
31	ON	ON	ON	ON	ON

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 Modbus connector; it would represent a risk for the entire system. The facility must have enough insulation between the mains (or auxiliary) voltage and the Modbus or the wires of other accessories, in case of being installed.
- 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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