MW-IOD0808

8DI/8DO Modbus RTU Remote I/O Module



- 8 PNP wet-contact digital inputs
- 8 dry-contact relay outputs
- Modbus RTU slave operation
- 1 serial port: RS232 or RS485
- 9–36 VDC power input
- −40°C to +85°C operation

Product Description

The Maisvch MW-IOD0808 is a Modbus RTU remote I/O module for monitoring eight digital input states and controlling eight relay outputs from a Modbus RTU master. It provides one RS232 or RS485 serial interface, with baud rates from 600 bps to 460800 bps.

The module provides input filtering and edge counting, configurable relay power-up states and output hold timing, momentary close or open commands, and cyclic switching at a configured frequency. Device information, online restart, factory reset and firmware upgrade functions are available, and remote I/O configuration software supports commissioning and configuration. A 9–36 VDC input, −40°C to +85°C operating range, and 35 mm DIN-rail or wall mounting suit industrial automation, building automation, environmental monitoring, energy management, safety monitoring and industrial IoT installations.

Features and Benefits

- Eight PNP wet-contact digital inputs accept 5–24 VDC signals, with 12 VDC rated input voltage and 500 VAC optocoupler isolation.
- Eight dry-contact relay outputs are rated at 10 A at 250 VAC or 30 VDC per contact; DO1–DO4 use 3-terminal contacts and DO5–DO8 use 2-terminal contacts.
- One isolated serial interface is available as RS232 or RS485, supports 600–460800 bps, and provides 500 VDC isolation; RS485 termination can be enabled with an internal jumper.
- Modbus RTU slave operation supports function code 02 for DI and function codes 01, 05, 15 and 16 for DO.
- Configurable DI filtering and rising-edge, falling-edge or both-edge counting support stable state acquisition and event counting.
- DO functions include configurable power-up states, output hold timing, momentary close or open control, and single-channel cyclic switching at a configured frequency.
- Device information, online restart, factory reset and firmware upgrade functions support maintenance; remote I/O configuration software assists commissioning and configuration.
- A reverse-polarity-protected 9–36 VDC input, −40°C to +85°C operating range, and 35 mm DIN-rail or wall mounting support industrial installations.

Technical Specifications

Serial Interface	
Interface	1 × RS232 or RS485, selectable
Connection	6-pin terminal block, 5 mm pitch
Baud rate	600 bps to 460800 bps
Data bits	8
Stop bits	1 or 2
Parity	None, odd or even
Bias resistors	1 kΩ pull-up/pull-down resistors
RS485 termination	Built-in 120 Ω termination resistor, enabled through an internal jumper
Isolation	500 VDC

Technical Specifications

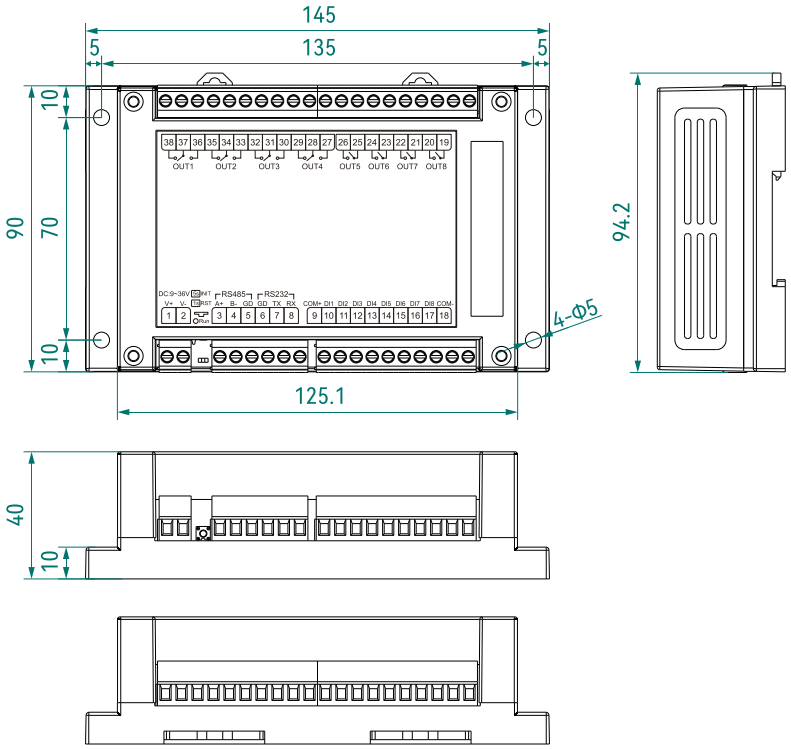
Digital Inputs	
Channels	8 × digital inputs
Connection	10-pin terminal block, 5 mm pitch
Modbus function code	02
Rated input voltage	12 VDC
Input voltage range	5–24 VDC
Input type	PNP wet contact
Logic levels	0: no external power input; 1: 5–24 VDC external power input
Input functions	Configurable input filtering; rising-edge, falling-edge or both-edge counting
Isolation	500 VAC optocoupler isolation
Digital Outputs	
Channels	8 × relay outputs
Contact arrangement	DO1–DO4: 3-terminal relay contacts; DO5–DO8: 2-terminal relay contacts
Connection	20-pin terminal block, 5 mm pitch
Modbus function codes	01, 05, 15 and 16
Output type	Dry-contact relay output
Contact rated load	10 A at 250 VAC or 10 A at 30 VDC
Initial insulation resistance	≥1000 MΩ at 500 VDC
Contact resistance	≤100 mΩ
Electrical endurance	100,000 operations at rated load
Output functions	Configurable power-up state and output hold timing; momentary close or open control; single-channel cyclic switching at a configured frequency
Isolation	500 VAC

Technical Specifications

Controls and Indicators	
Button	Restart or restore factory settings
LED indicators	Run and DO interface indicators
Maintenance functions	Read device information; online restart; restore factory settings; firmware upgrade
Configuration software	Remote I/O configuration software for commissioning, management and configuration
Power Requirements	
Input voltage	9–36 VDC
Full-load power consumption	<3.5 W at 24 VDC
Connection	2-pin terminal block, 5 mm pitch
Protection	Reverse-polarity protection
Physical Characteristics	
Dimensions	145 × 90 × 40 mm, excluding the DIN-rail clip and connectors
Mounting	Standard 35 mm DIN rail or wall mounting
Enclosure	Plastic
Weight	Approx. 0.25 kg
Environmental Limits	
Operating temperature	−40°C to +85°C
Storage temperature	−40°C to +85°C
Relative humidity	5% to 95%, non-condensing
Electromagnetic Immunity	
Surge immunity	IEC 61000-4-5, Level 3
Warranty	
Warranty period	5 years

Dimensions

Unit: mm



Enclosure dimensions: 145 × 90 × 40 mm, excluding the DIN-rail clip and connectors.

Ordering Information

Model	Serial Interface	Digital Inputs	Digital Outputs	Power Input
MW-IOD0808	1 × RS232 or RS485	8 × DI	8 × relay DO	9–36 VDC

Contact Us

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