

MR/RR/ER Series

■ Features

- Digital Input and Output Module
- Analog input and Output Module
- Wide input power range: +10 to +30 V_{DC}
- Supports dry and wet digital input types
- Short circuit protection
- Supports Modbus RTU protocol

■ Introduction

The MR-Series offers 8 isolated digital input/output channels and 4 analog input/output channels. The digital modules include LED indicators for monitoring status via wire connections. The MR-Series features an industrial-grade safety design, providing 4 kV ESD protection and 3750 V_{DC} intra-module isolation. Additionally, it supports the Modbus RTU protocol.

MR / RR / ER Series	
MR-1800a	8-Channels Single-Ended Digital Input Module
MR-2800a	8-Channels Single-Ended Digital Output Module
MR-1222a	2-Channels Isolated Digital Input and 2-Channels Isolated Digital Output Module
MR-3400a	4-Channels Differential Voltage Analog Input Module
MR-3262a	2-Channels Differential Voltage and 2-Channels Isolated Current Analog Input Module
MR-6400a	4-Channels Isolated Current Analog Input Module
MR-4400a	4-Channels Single-Ended Voltage Analog Output Module
MR-7400a	4-Channels Single-Ended Current Analog Output Module

RR-5110a	Isolated RS-485 to RS-232 Converter
ER-5100f	Isolated RS-485 (Modbus RTU) to Ethernet (Modbus TCP) Converter

■ Specifications

Serial Interface

Serial Standards	RS-485/ RS-232
Data Transfer Rate	Up to 115.2 kbps
Data Format	(N, 8, 1), (N, 8, 2)
LED Indicator	Yes, Tx (Yellow), Rx (Green)
Protocols	Modbus RTU

Power

Power Input	10 to 30 V _{DC}
Power Consumption	< 1W
LED Indicator	Yes, Pwr (Red)

Protection

Power Isolation	Yes
Intra-Module Isolation	3750 V _{DC} (Field-to-Logic)
ESD Protection (IEC 61000-4-2)	±4 kV Contact for each Terminal
	±8 kV Air for Random Point
EFT Protection (IEC 61000-4-4)	±4 kV for Power Line
Surge Protection (IEC 61000-4-5)	±3 kV for Power Line
Reverse Polarity Protection	Yes

Mechanical

Dimensions (L x W x H)	114mm x 66 mm x 30 mm
Installation	DIN-Rail or Wall Mounting

Environment	
Operating Temperature	-25°C to 75 °C
Storage Temperature	-30°C to 85 °C
Humidity	10% to 95% RH, Non-condensing

■ Appendix



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