

## Data sheet

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# MR-DO4 Modbus module with digital outputs

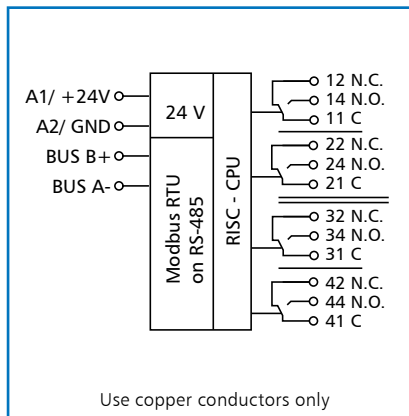
Part number  
1108361321

2015-02-20

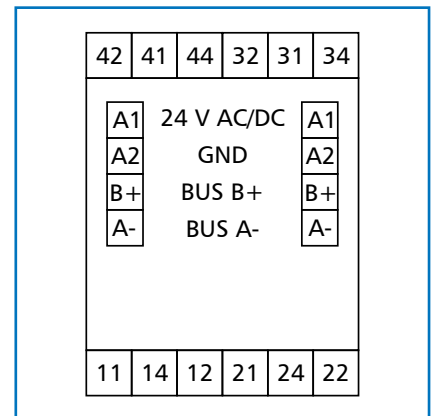
### Illustrations



### Principle diagram



### Wiring



### Product description

The Modbus module with 4 digital outputs was developed for decentralized switching tasks. It is suitable for switching electrical components, such as motors, contactors, lamps, louvers, etc.

With strong inductive loads, we recommend protecting the relay contacts additionally with an RC element. The module is provided with a manual control for manually switching the relays.

The outputs can be switched by means of standard objects via a Modbus master. The module address, the baud rate and the parity are set by means of two address switches on the front.

Suitable for decentralized mounting on DIN TH35 rail according to IEC 60715 in electrical distribution cabinets.

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**Technical data**

<b>Approvals</b>	
C-UL Certification	Open Energy Management Equipment 34TZ
<b>Modbus interface</b>	
Protocol	Modbus RTU
Address range	00 to 99
Transmission rate	1200 to 115200 Bd, factory setting 19200 Bd Even
Bus interface	RS485 two wire bus with potential equalization in bus or line topology terminate with 120 Ohm
<b>Supply</b>	
Operating voltage range	20 to 28 V AC/DC (SELV)
Current consumption	200 mA (AC) / 70 mA (DC)
Relative duty cycle	100 %
<b>Outputs</b>	
Digital outputs	4x changeover contacts
Switching voltage max.	250 V AC
Continuous current max.	5 A per relay
Total current for all contacts	12 A
Switching frequency	360 switching cycles per hour
<b>Housing</b>	
Dimensions WxHxD	1.378 x 2.728 x 2.362 in. (35 x 69.3 x 60 mm)
Depth including switches	2.717 in. (69 mm)
Weight	95 g
Mounting position	any
Mounting	on TH35 rail per IEC 60715
Side-by-side mounting	Without space The maximum quantity of Modbus modules connected side-by-side is limited to 15 or to a maximum power consumption of 2 Amps (AC or DC) per connection to the power supply. For any similar block of additional modules a separate connection to the power supply is necessary
<b>Material</b>	
Housing	polyamide 6.6 V0
Terminal blocks	polyamide 6.6 V0
Cover plate	polycarbonate
<b>Type of protection (IEC 60529)</b>	
Housing	IP40
Terminal blocks	IP20

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<b>Terminal blocks</b>	
Supply and bus	
Terminal block	4-pole
Solid wire	max. AWG 16 (1.5 mm <sup>2</sup> )
Stranded wire	max. AWG 18 (1.0 mm <sup>2</sup> )
Wire diameter	0.3 mm to max. 1.4 mm
Module connection, digital outputs	
Solid wire	max. AWG 12 (4 mm <sup>2</sup> )
Stranded wire	max. AWG 14 (2.5 mm <sup>2</sup> )
Wire diameter	0.3 mm to max. 2.7 mm
Protective circuitry	Polarity reversal protection of operating voltage Polarity reversal protection of supply and bus
<b>Temperature range</b>	
Operation	23 °F to 131 °F (-5 °C to +55 °C)
Storage	-4 °F to +158 °F (-20 °C to +70 °C)
<b>Display</b>	
Operating and bus activity	green LED
Error indication	red LED
Status of the outputs	yellow LEDs
<b>Additional documents</b>	
Software description, mounting note, certificates	All additional documents are available for download at <a href="http://www.metz-connect.com">www.metz-connect.com</a>



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Dimensional drawing

