

# Data sheet

## MR-DI10

### Modbus module with digital inputs

Part number

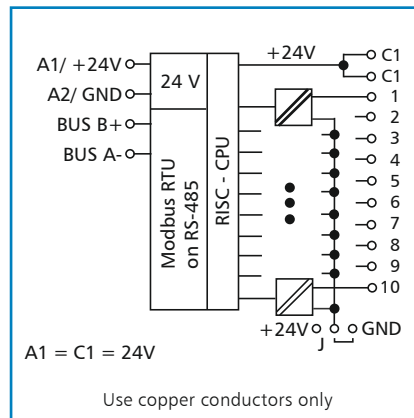
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2016-11-15

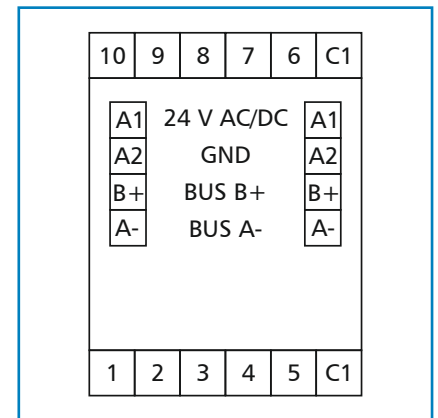
#### Illustrations



#### Principle diagram



#### Wiring



#### Product description

The Modbus module with 10 digital inputs was developed for decentralized switching tasks.

It is suitable for detecting potential-free switch states, for example electrical limit switches on vent valves or auxiliary contacts of power contactors. The inputs can be used as contact or voltage inputs.

The inputs can be scanned by means of standard registers via a Modbus master. Module address, bit rate and parity are set with two rotary switches on the front or by software.

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 bit/s, factory setting 19200 bit/s Even
Bus interface	RS485 two wire bus with potential equalization in bus or line topology terminate with 120 Ohm
<b>Supply</b>	
Operating voltage	24 V AC/DC $\pm$ 10 % (SELV)
Current consumption	85 mA (AC) / 75 mA (DC)
Relative duty cycle	100 %
<b>Inputs</b>	
Digital inputs	10
Voltage input	30 V AC/DC
High signal recognition	<7 V AC/DC
<b>Housing</b>	
Dimensions WxHxD	1.378 x 2.728 x 2.362 in. (35 x 69.3 x 60 mm)
Weight	83 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 inputs	
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 inputs	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>

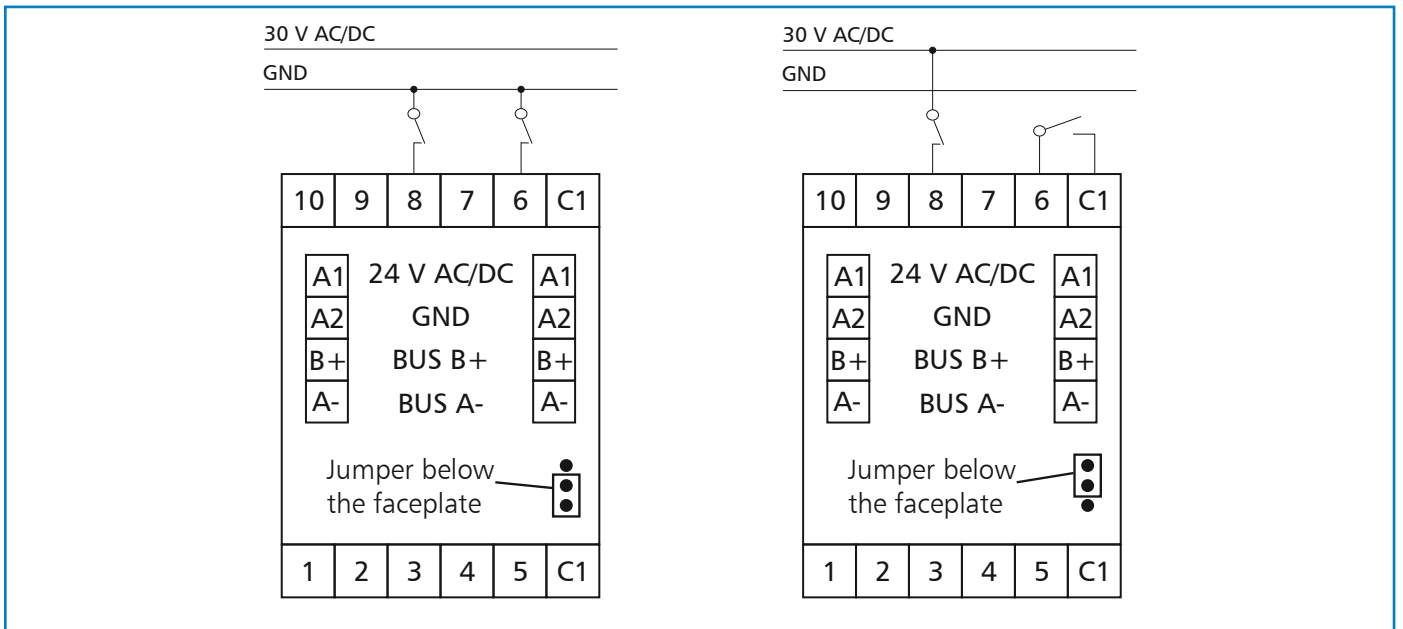


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Connection examples



Dimensional drawing

