

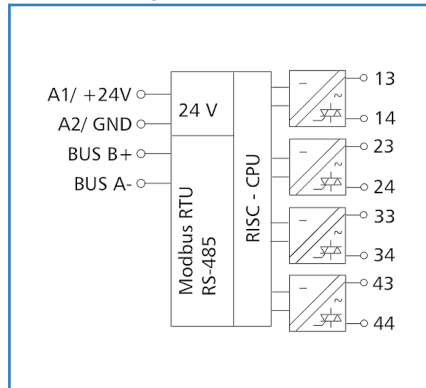
Data sheet

MR-TO4 Modbus RTU

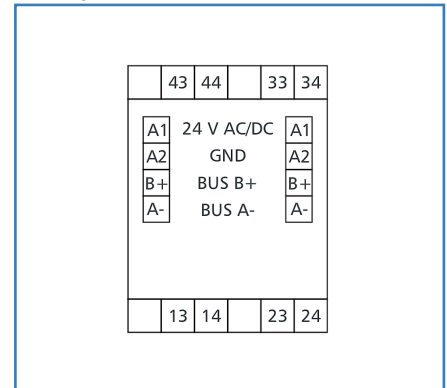
Illustrations



Principle diagram



Wiring



See enlarged drawings at the end of document

Product specification


The Modbus module with 4 digital triac outputs was developed for decentralized switching tasks. It is suitable for switching electrical components, such as relays, contactors, HVAC valves, etc. The outputs can be switched by means of standard registers via a Modbus master. In addition, the outputs can be overridden manually by means of switches on the device. 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.

- Connection with screw type terminal blocks



Data sheet
MR-TO4 Modbus RTU

Technical Data

Approvals	
	Open Energy Management Equipment 34TZ
RS485 interface	
Protocol	Modbus RTU
Address range	00 - 99
Bus interface	RS485 two wire bus with potential equalization in bus or line topology, terminate with 120 Ohm
Transmission parameters	
Transmission rate	min. 1200 Bit/s (Bd) - max. 115200 Bit/s (Bd)
Transmission rate default setting	19200 Bit/s (Bd)
Parity	Odd, None, Even (default setting)
Stopbits	1 (default setting), 2
Supply	
Operating voltage	24 V AC/DC +/- 10 % (SELV)
Power consumption	
Power consumption AC (max.)	100 mA
Power consumption DC (max.)	40 mA
Duty cycle relative	100 %
Outputs	
Digital outputs	4
Triac output	4
Switching voltage	24 V - 250 V AC
Continuous current	0.5 A / Triac
Switch-on current (max.)	10 A < 20 ms, 0.8 A < 30 s
Total current across all outputs	2.4 A
Housing	
Dimensions	
Dimension (W x H x D)	35 mm x 69.3 mm x 60 mm
Dimension (W x H x D)	1.378 in. x 2.728 in. x 2.362 in.
Total depth with switch/plug	69 mm
Weight	95 g
Mounting style	Standard rail TH35
Built-in	any

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Technical Data

Housing	
Apposition	without distance, 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.
Connection type	Screw type terminal blocks
Indicator	green, red and yellow LED
Terminal blocks	
Supply and bus	
Terminal block	4-pole
Solid wire	max. 1.5 mm ² / max. 16 AWG
Stranded wire	max. 1 mm ² / max. 18 AWG
Wire diameter	min. 0.3 mm - max. 1.4 mm
Module connection	
Wire cross section solid	0.2 mm ² - 2.5 mm ² / AWG 22-12
Wire cross section multi	0.25 mm ² - 2.5 mm ² / AWG 22-12
Wire cross section with wire ferrule	0.25 mm ² - 2.5 mm ² / AWG 22-12
Screw torque (max.)	0.5 Nm
Stripping length (min.)	8 mm
Protective circuit	Polarity reversal protection for DC operating voltage, Protection against interchanging power supply and bus
Material	
Material - Housing	Polyamid 6.6 V0
Color	gray
Material - Terminal block	Polyamid 6.6 V0
Material - Covers	Polycarbonat
REACH - substance (SVHC)	Lead / 7439-92-1
Protection category according to IEC 60529	
Protection category - housing (acc. to IEC 60529)	IP40
Protection category - terminal blocks (acc. to IEC 60529)	IP20
Temperature range	
Operating	
Temperature - Operating °C	-5 °C - 55 °C
Temperature - Operating °F	23 °F - 131 °F
Storage	
Temperature - Storage °C	-20 °C - 70 °C
Temperature - Storage °F	-4 °F - 158 °F

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P/N
11083013

EAN 4250184135593

2020/11/26

Version: E

Technical Data

Classifications

ETIM 7.0 EC001097

Software and additional documents

Logiciels et documentation Further documentation is available for free download at www.metz-connect.com

Accessories

P/N	Designation
110369	Terminal block Type 259
110486	""HUB DC""
110561	Power supply NG4 24 V DC
31135104	Typ 135 RIACON 135_3.5

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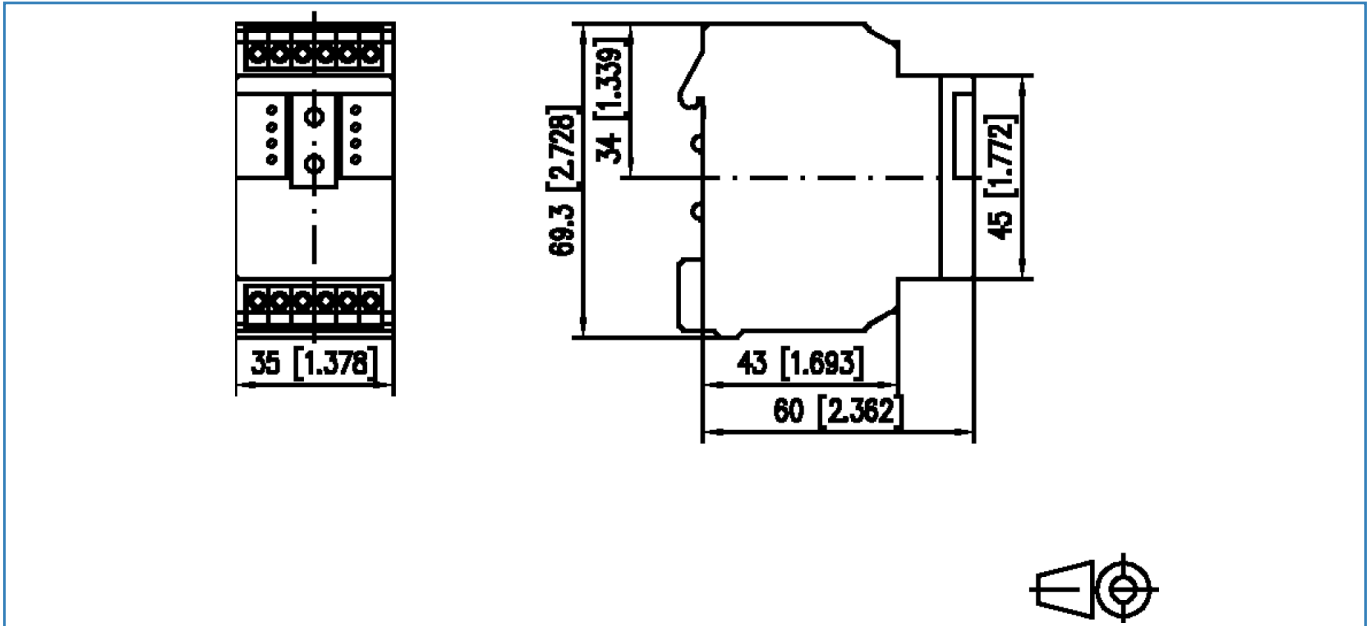
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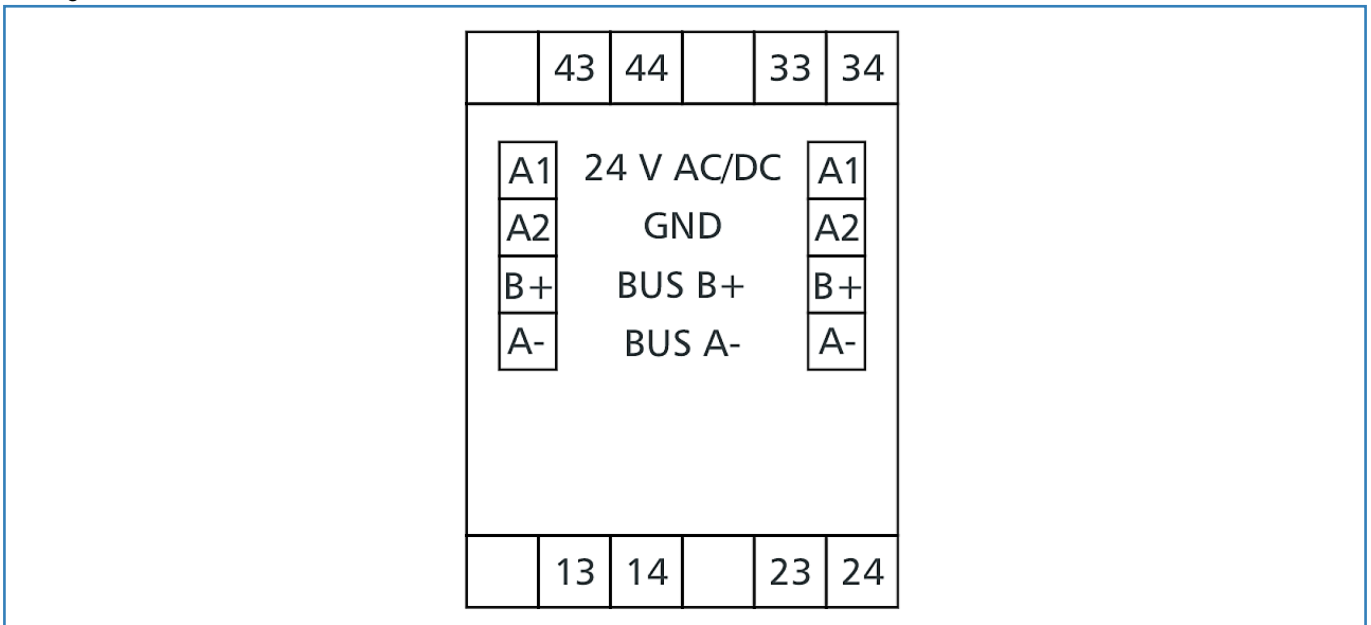
P/N	Designation
11083001	MR-GW Modbus RTU / Modbus TCP Gateway

Illustrations

Dimensional drawing

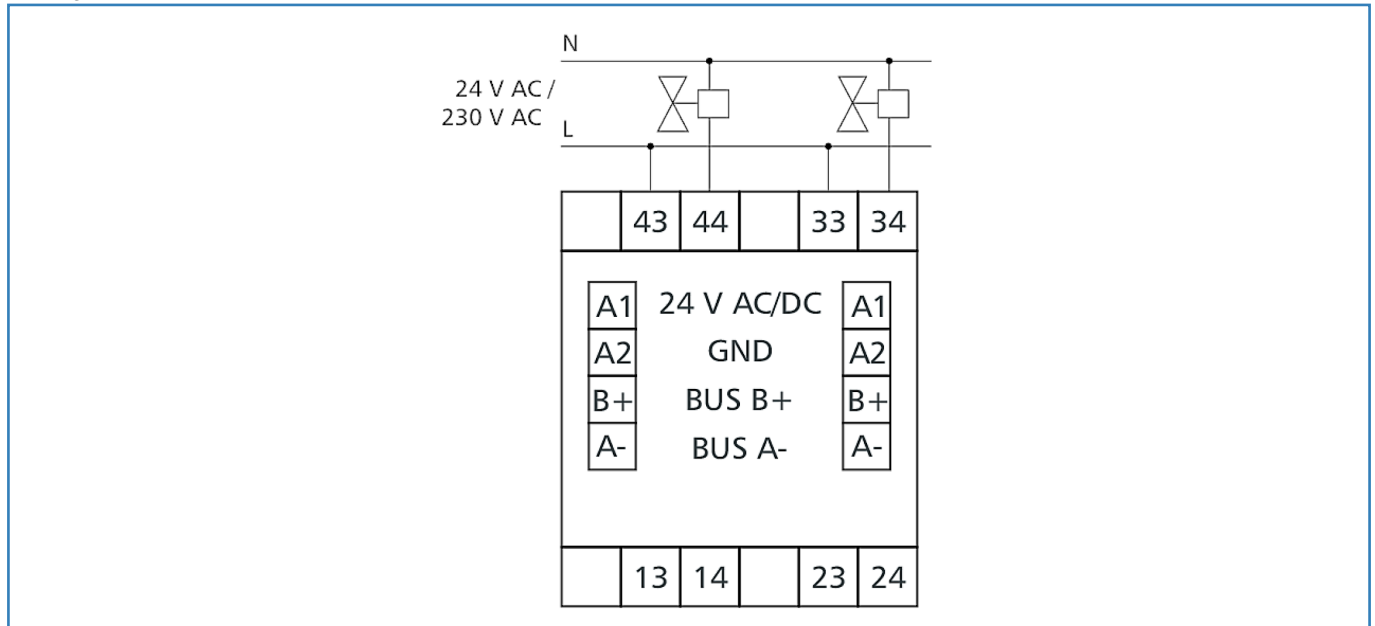


Wiring

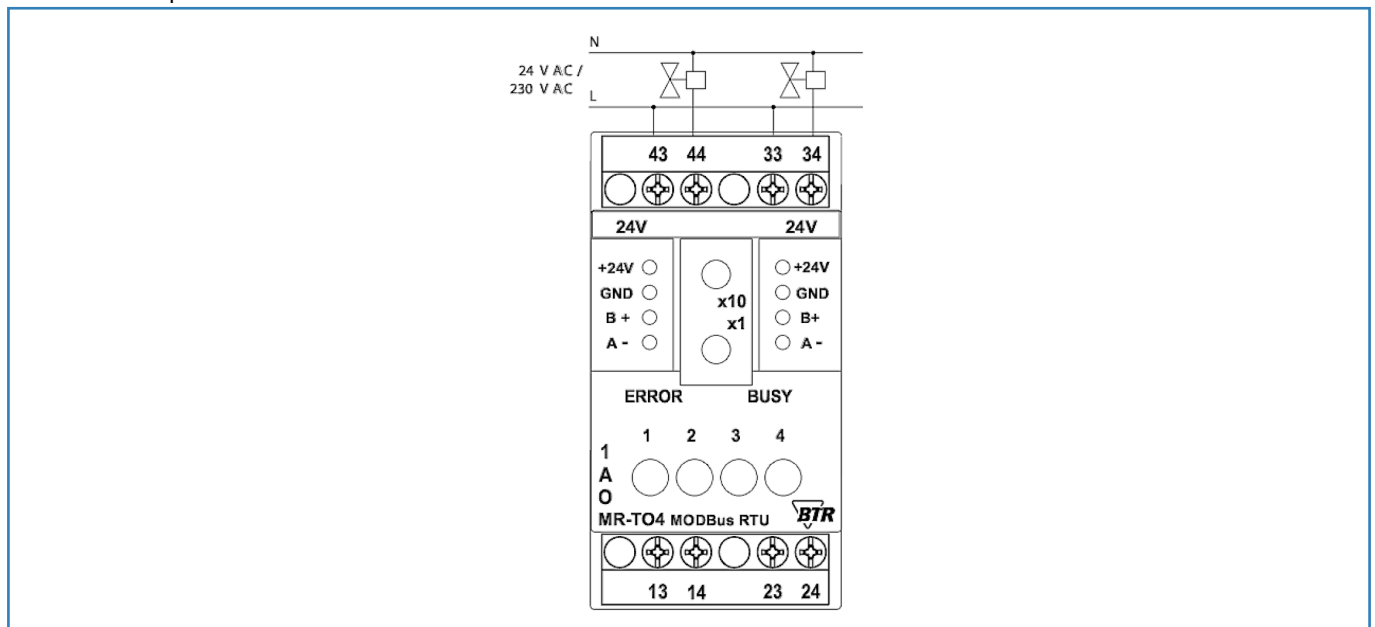


Illustrations

Wiring

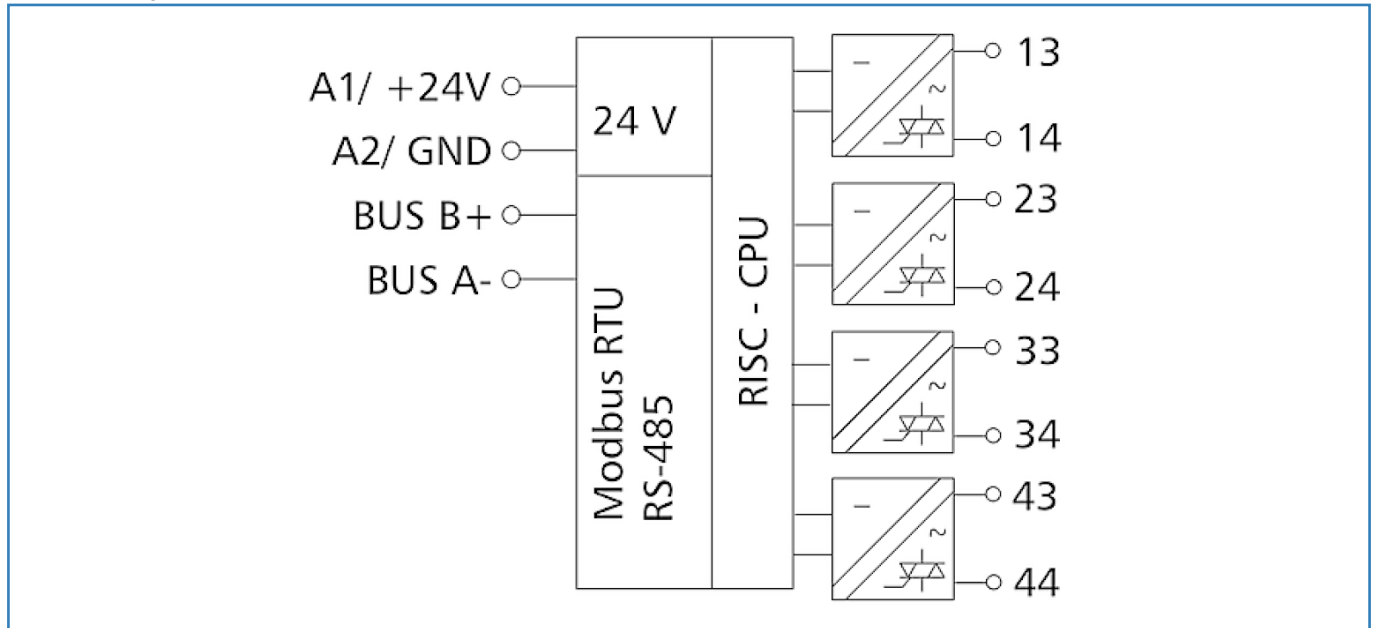


Anschlussbeispiel



Illustrations

Principle diagram



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