

Data sheet

MR-DI4 Modbus RTU

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P/N

1108341319

EAN 4250184135647

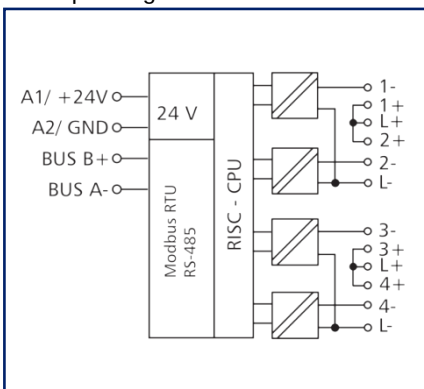
2023/06/23

Version: K

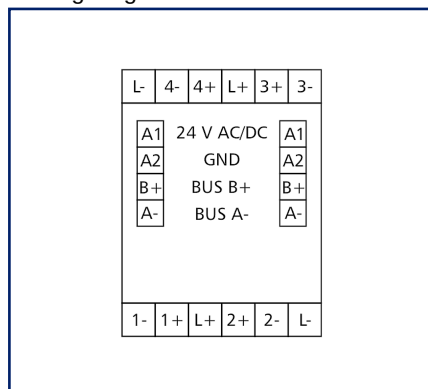
Illustrations



Principle diagram



Wiring diagram



See enlarged drawings at the end of document

Product specification

The Modbus module with 4 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 operated by means of potential-free switches or contacts or used as 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 2 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

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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	None, Even (default setting), Odd
Stopbits	1 (default setting), 2

Supply

Operating voltage	24 V AC/DC +/- 10 % (SELV)
Power consumption	
Power consumption AC (max.)	50 mA
Power consumption DC (max.)	20 mA
Duty cycle relative	100 %

Inputs

Digital inputs	4
Voltage input	30 V AC/DC
High signal detection	> 7 V AC/DC

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.
Weight	95 g
Mounting style	Standard rail TH35
Mounting position	any
Apposition	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., without distance

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Housing	
Connection type	Screw type terminal blocks
Indicator	green, red and yellow LED
Terminal blocks	
Supply and bus	
Terminal block	4-pole
Solid wire (AWG)	max. 1.5 mm ² / max. 16 AWG
Stranded wire (AWG)	max. 1 mm ² / max. 18 AWG
Wire diameter	max. 1.4 mm - min. 0.3 mm
Module connection	
Wire cross section solid	0.34 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
Protection 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
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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Technical Data**Classifications**

ETIM 7.0 EC000688

ETIM 8.0 EC000688

ETIM 9.0 EC000688

Software and additional documents

Software and documentation

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

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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



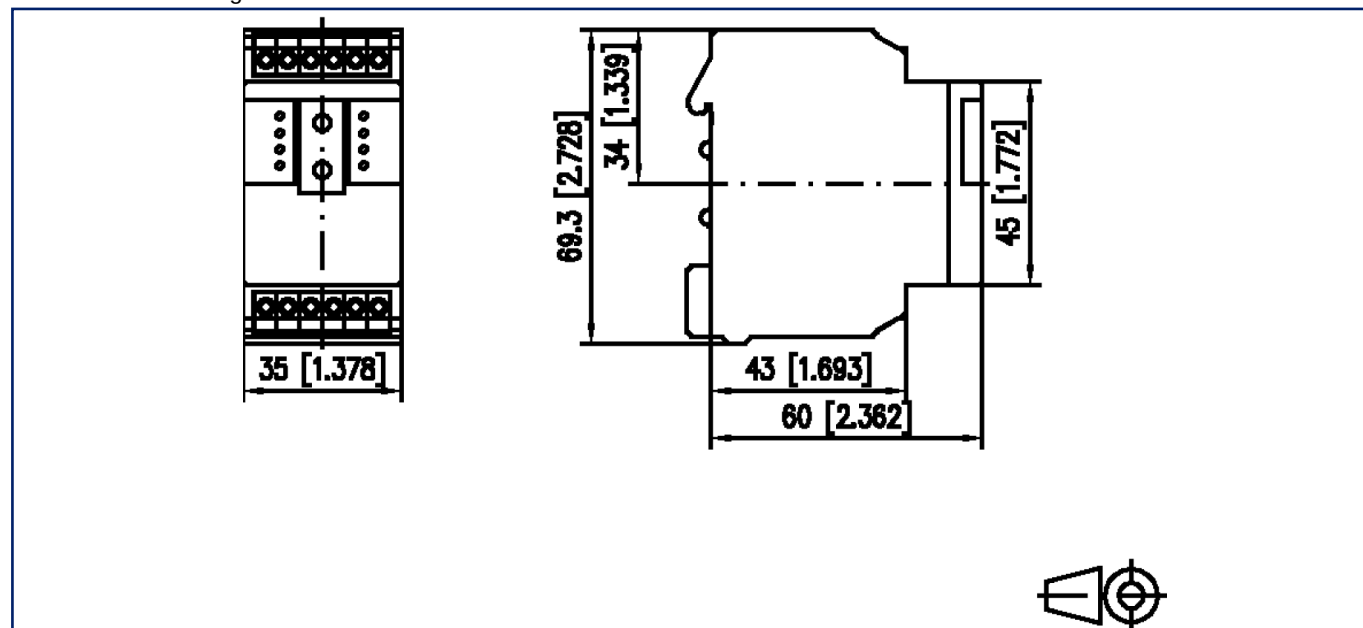
Accessories from

P/N	Designation
11083001	MR-GW Modbus RTU / Modbus TCP Gateway
1108300170	MR-F-GW Modbus RTU / Modbus TCP Gateway

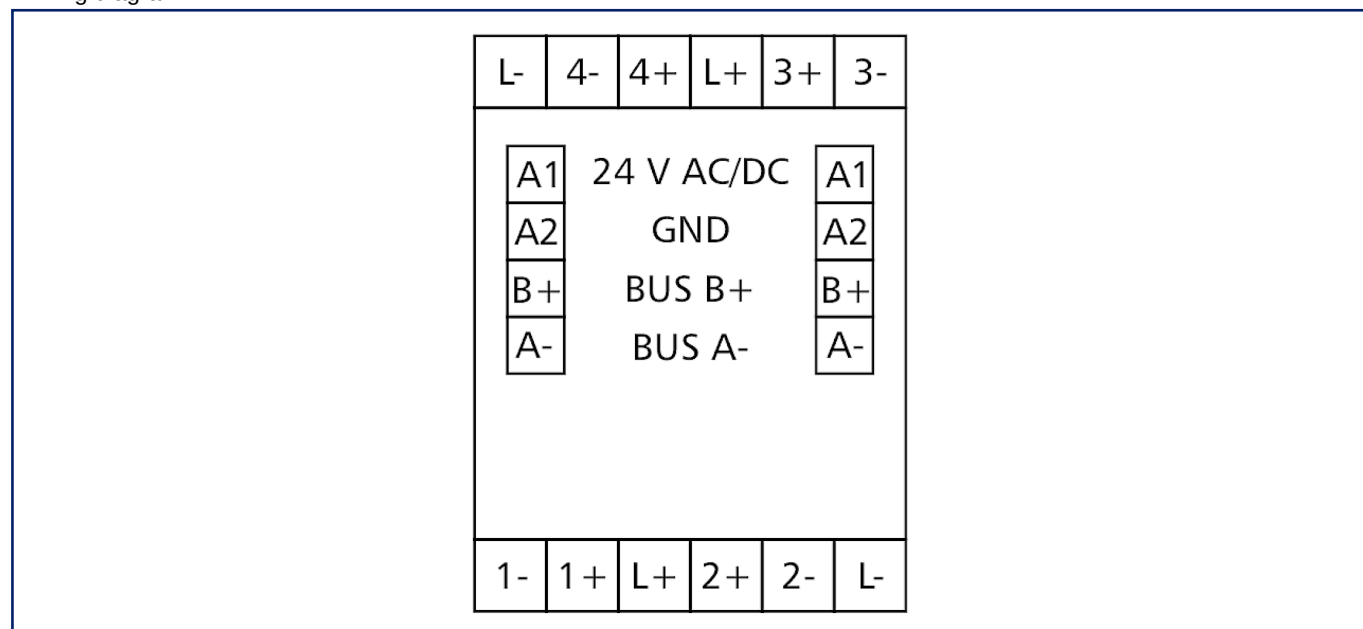


Illustrations

Dimensional drawing

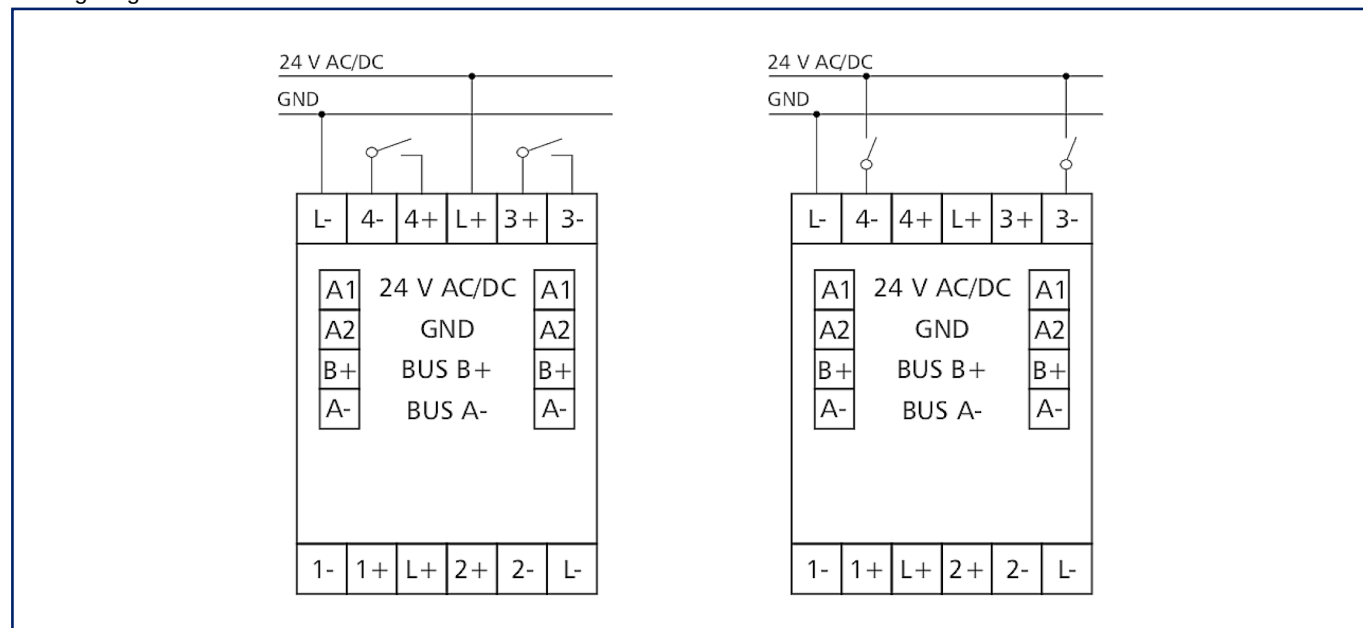


Wiring diagram

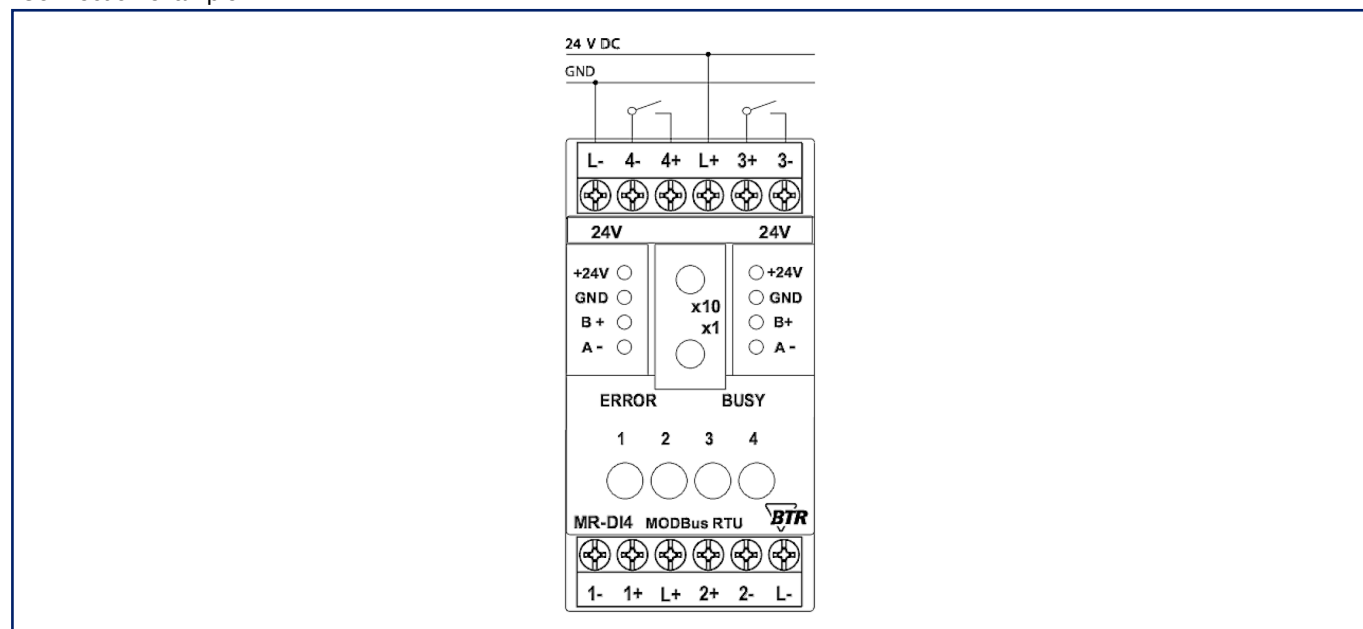


Illustrations

Wiring diagram

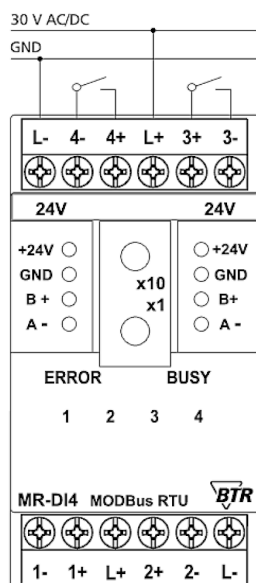


Connection example

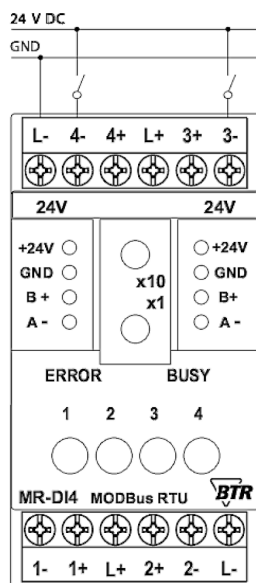


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Connection example

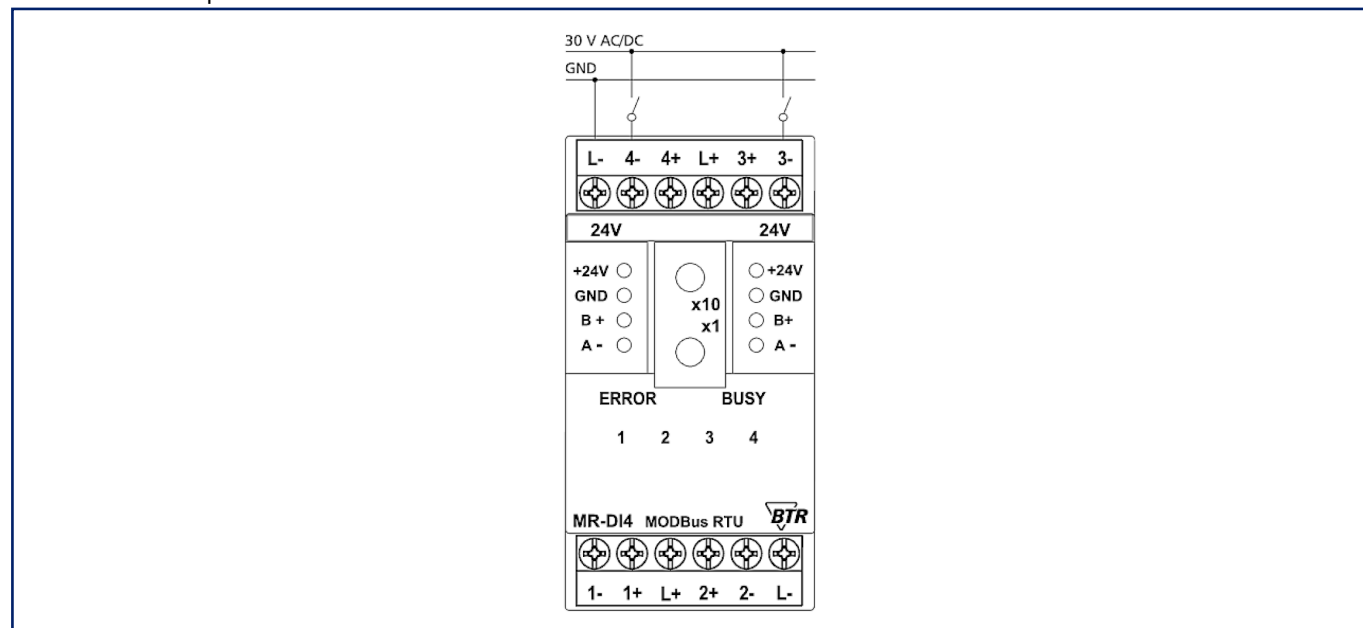


Connection example



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Connection example



Principle diagram

