

Data sheet

MR-DI4-IP65 Modbus RTU

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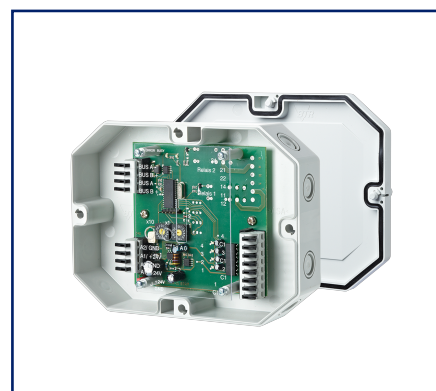
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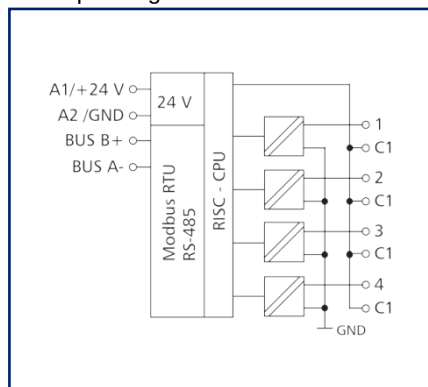
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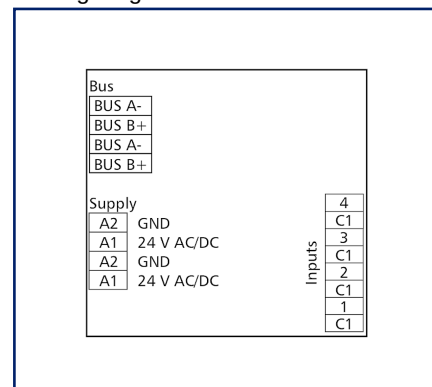
Illustrations



Principle diagram



Wiring diagram



See enlarged drawings at the end of document

Product specification

The Modbus module in an IP65 housing with 4 digital inputs was developed for decentralized switching tasks. It is suitable for detecting potential-free switch states from electrical limit switches and their external status display such as fire dampers or vent valves. 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 two rotary switches or by software.

Technical Data

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)	160 mm x 40.7 mm x 120 mm
Dimension (W x H x D)	6.299 in. x 1.602 in. x 4.724 in.
Weight	300 g
Mounting style	directly on a flat surface, 8 knock-out openings for M12 and M16 cable glands
Mounting position	any
Connection type	Spring clamp terminal blocks
Indicator	green, red and yellow LED

Technical Data

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	0.2 mm ² - 1.5 mm ² / AWG 28-18
Wire cross section multi	0.08 mm ² - 0.75 mm ² / AWG 28-18
Wire cross section with wire ferrule	0.08 mm ² - 0.75 mm ² / AWG 28-20
Stripping length (min.)	4 mm

Protection circuit	Polarity reversal protection for DC operating voltage, Protection against interchanging power supply and bus
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Material

Material - Housing	ASA + Polycarbonat
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)	IP65
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

Technical Data

Classifications

ETIM 7.0	EC000688
ETIM 8.0	EC000688
ETIM 9.0	EC000688

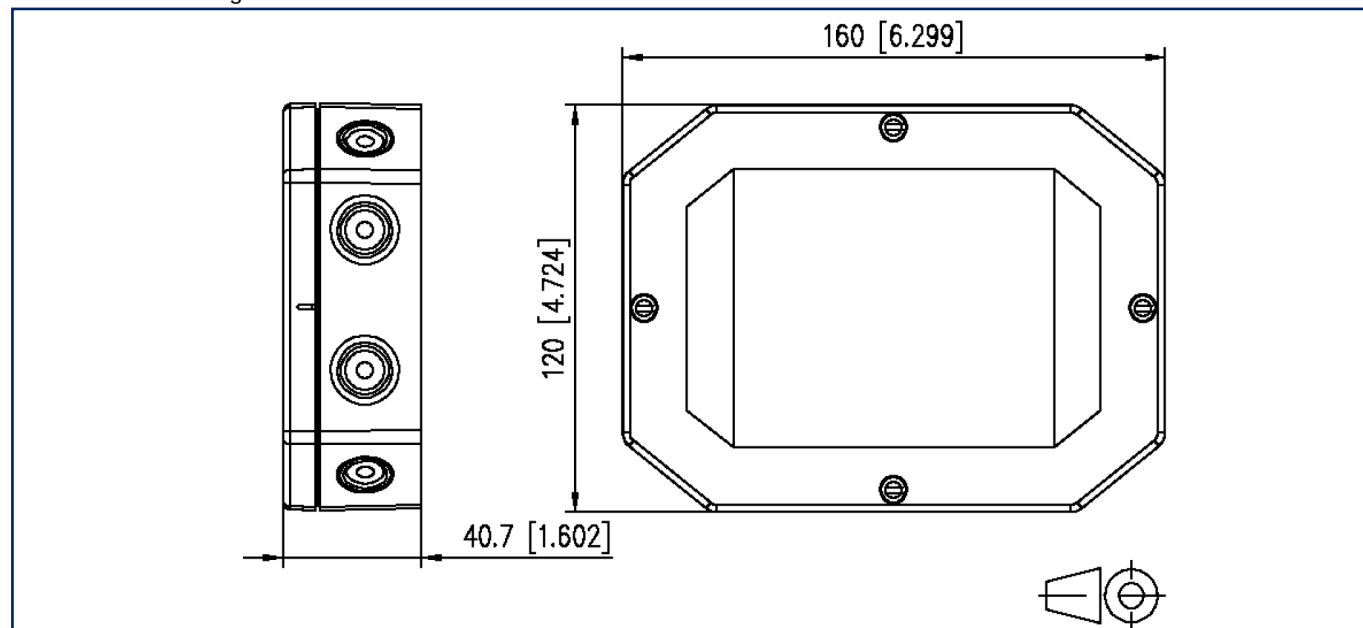
Software and additional documents

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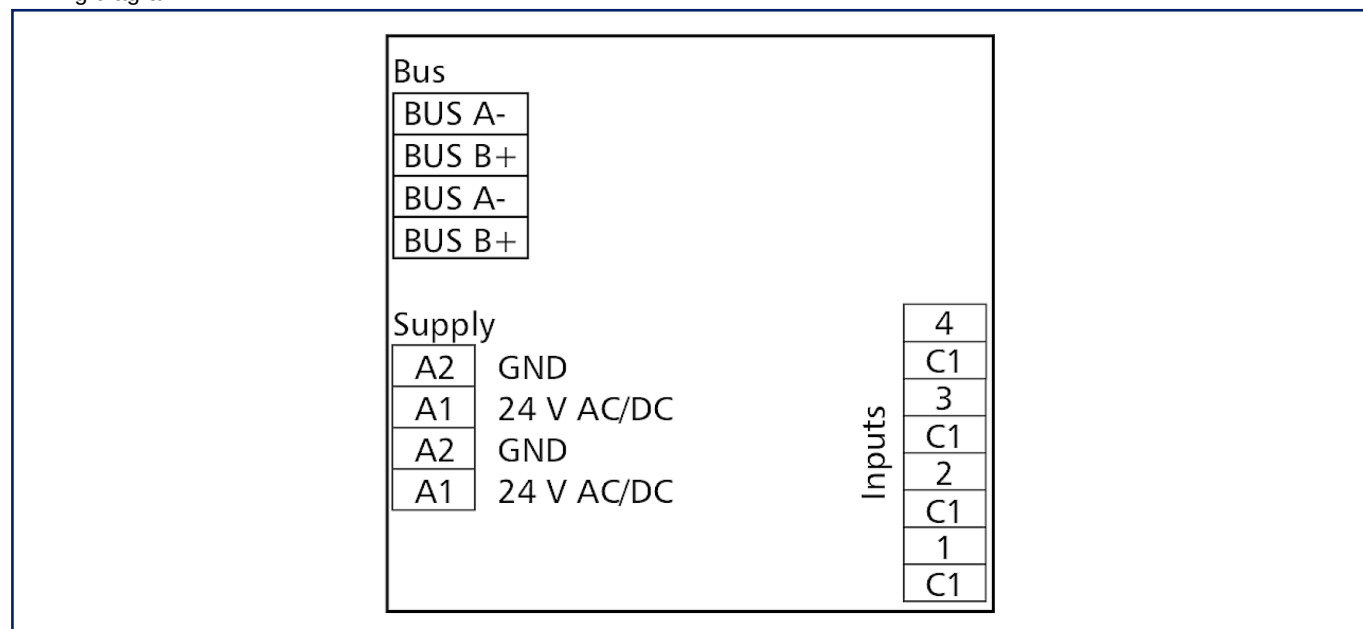


Illustrations

Dimensional drawing



Wiring diagram



Illustrations

Principle diagram

