C | Logline

METZ CONNECT
We realize ideas

Data sheet

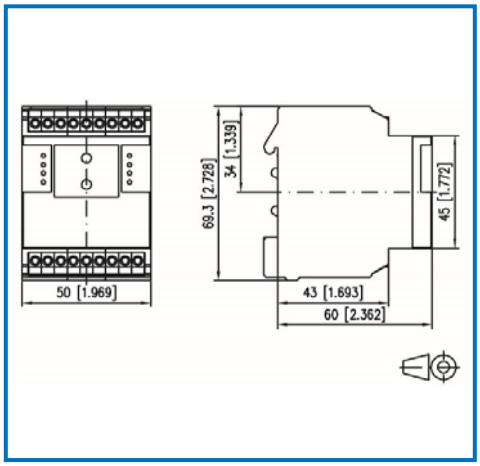
MR-LD6
Modbus RTU

Part No.
11084413

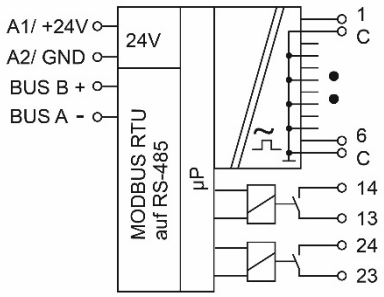
2017-07-18

Illustrations

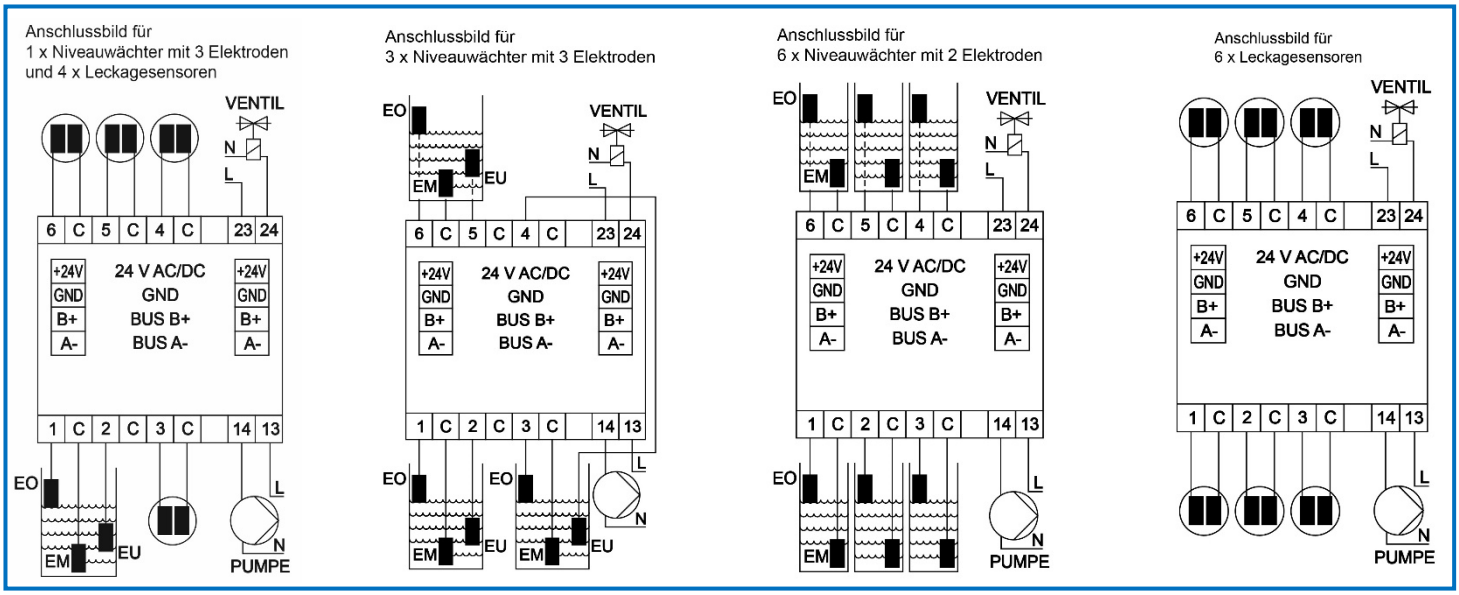
Dimensional Drawing



Principle diagram



Connection examples



Product information

The Modbus module with 6 analog inputs and 2 relay outputs was developed for decentralized switching tasks. Suitable to monitor electrodes of leakage sensors or the fill level of fluid containers and to switch pumps or magnetic valves. In this case it is necessary to protect the relay contacts by appropriate load-dependent measures. The resistance of the conductive fluid is measured when the electrodes are immersed. It is also possible to signal a cable break (requires sensor LKS-ZD). The module can be operated independently or via a Modbus master. Inputs and outputs can be switched and scanned via standard registers. 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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Montageanleitung / Mounting instruction siehe / see www.metz-connect.com

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Technical Data

Modbus-Interface

Protocol	Modbus RTU
Address range	00 to 99
Transmission rate	1200 to 115200 Bit/s
Cabling	RS485 (two-wire bus)

Supply

Operating voltage	24 V AC/DC ± 10 % (SELV)
Current consumption	80 mA (AC) / 43 mA (DC)
Relative duty cycle	100 %

Input

Input / contacts 1 to 6	connection of the electrodes
Input / contacts C	common reference potential
Internal resistance	20 kOhm
Sinus voltage	3 Veff, 70 Hz bei Widerstandsmessung
Measuring accuracies	±10 % with sensor resistance 4 to 40 kOhm ±20 % with sensor resistance 2 to 100 kOhm
Pulse voltage	±16 V at wire break monitoring
Zener diodes	6.2 to 10 V can be used as line termination
Lines capacity	40 nF max. equates 400 m at 100 nF/km
Measuring interval	1.5 s

Housing

Dimensions WxHxD	1.969 x 2.728 x 2.362 in. (50 x 69,3 x 60 mm)
Weight	126 g
Mounting position	any
Mounting on DIN Railway	TH35 (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.

Material

Housing	Polyamid 6.6 V0
Terminal blocks	Polyamid 6.6 V0
Housing lower part	Polycarbonat
Type of protection (IEC 60529)	
Housing	IP40
Terminal blocks	IP20

EMC

radiated emission	according to EN 61326-1 class A

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Technical Data

Outputs	
Output / contacts	2 NO contacts (SPST-NO)
Output / switching voltage	250 V AC
Output / continuous current	6 A / output
Display	Green, red and yellow LED
Temperature range	
Operating temperature	-5° - 55° C
Storage temperature	-20° - 70° C

Additional documents	
Software description, mounting note, certificates	All additional documents are available for download at www.metz-connect.com

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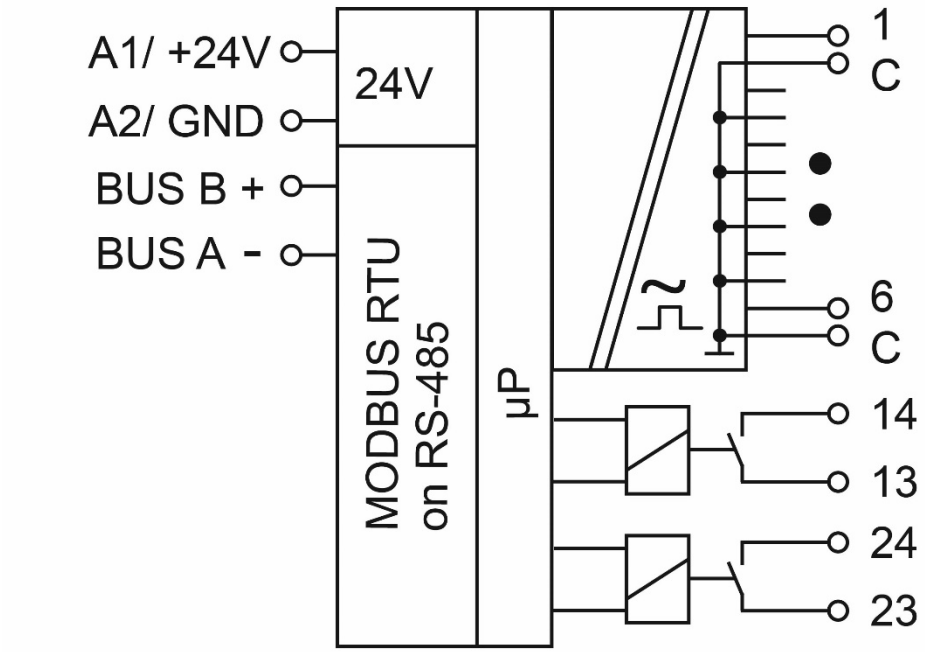
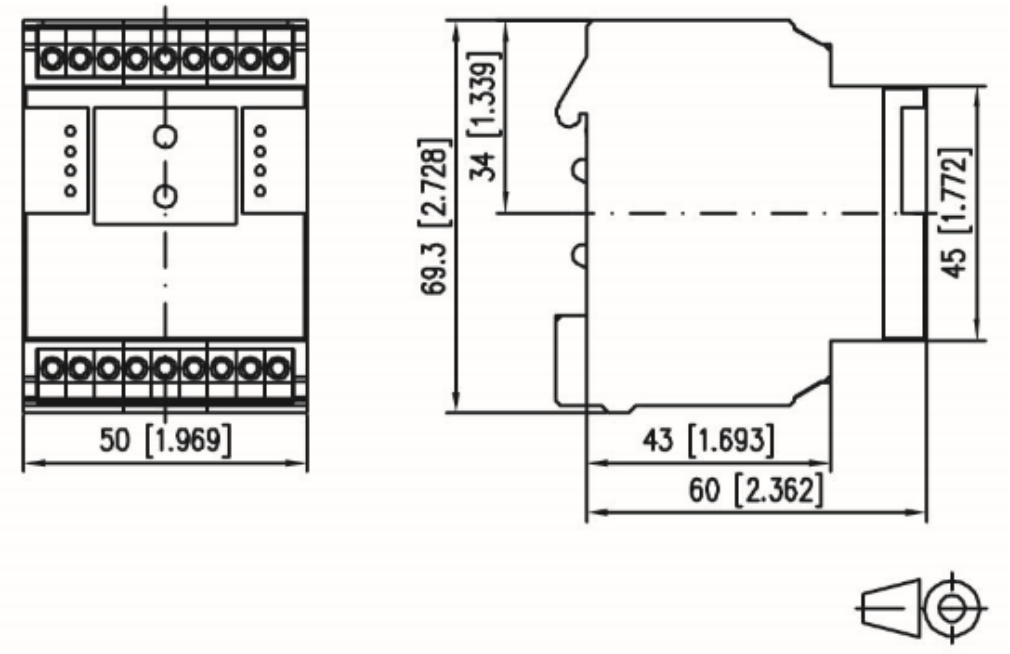
Principle diagram



Dimensional Drawing



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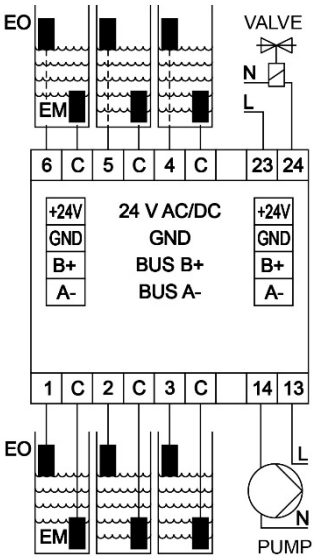
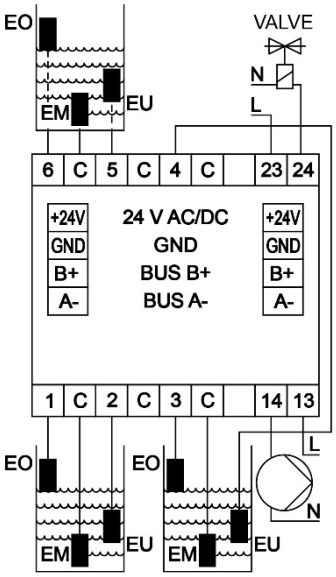
Connection examples

Connection diagram for
6 x level monitors with 2 electrodes

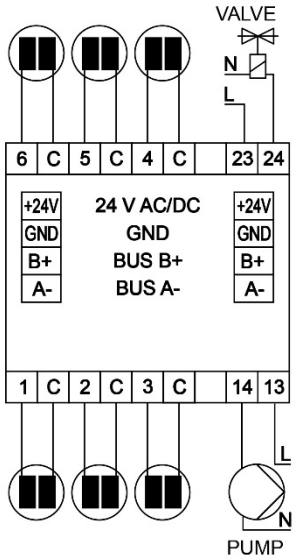


Connection diagram for
3 x level monitors with 3 electrodes

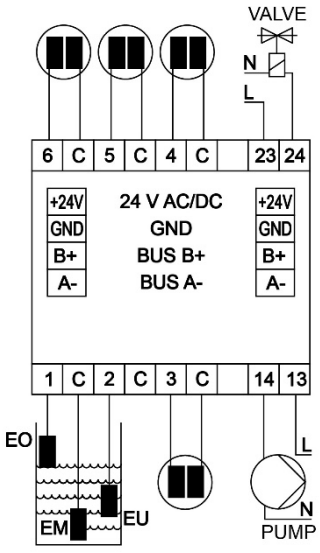


Connection examples

Connection diagram for
6 x leckage sensors



Connection diagram for
1 x level monitor with 3 electrodes and
4 x leakage sensors



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