

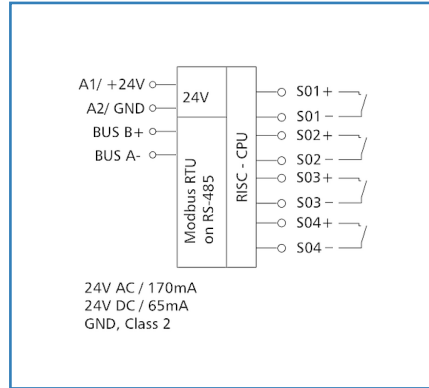
# Data sheet

## MR-SI4 Modbus RTU

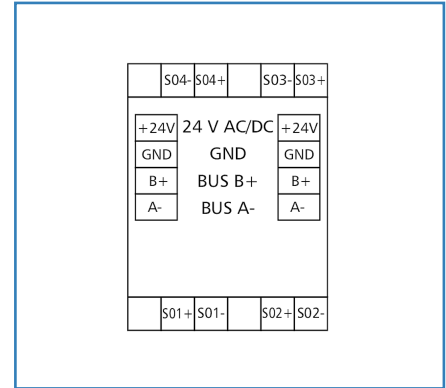
### Illustrations



Principle diagram



Wiring



See enlarged drawings at the end of document

### Product specification

The Modbus module with 4 S0 inputs to DIN EN 62053-31 class A was developed for decentralized switching tasks. It is suitable for counting S0 counter pulses. This allows very good integration of the module into an energy controlling system. In case of a power failure, the last counter readings are saved. 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.

- Connection with screw type terminal blocks

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**P/N**  
**11083913**  
**EAN 4250184161035**  
2020/05/07  
Version: D

**Technical Data**

| <b>RS485 interface</b>                    |   |
|---|---|
| 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  |
| <b>Transmission parameters</b>            |   |
| 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  |
| <b>Supply</b>                             |   |
| Operating voltage                         | 24 V AC/DC +/- 10 % (SELV)  |
| <b>Power consumption</b>                  |   |
| Power consumption AC (max.)               | 170 mA  |
| Power consumption DC (max.)               | 65 mA   |
| Duty cycle relative                       | 100 %   |
| <b>Inputs</b>                             |   |
| S0 inputs acc. to DIN EN 62053-31 Class A | 4   |
| <b>Housing</b>                            |   |
| <b>Dimensions</b>                         |   |
| 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                                    | 83 g  |
| Mounting style                            | Standard rail TH35  |
| Built-in                                  | any   |
| 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   |
| <b>Terminal blocks</b>                    |   |
| <b>Supply and bus</b>                     |   |
| Terminal block                            | 4-pole  |
| Solid wire                                | max. 1.5 mm <sup>2</sup> / max. 16 AWG  |
| Stranded wire                             | max. 1 mm <sup>2</sup> / max. 18 AWG  |
| Wire diameter                             | min. 0.3 mm - max. 1.4 mm   |

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| <b>Terminal blocks</b>                                    |  |
|---|--|
| Module connection   |  |
| Wire cross section solid                                  | 0.2 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 22-12  |
| Wire cross section multi                                  | 0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 22-12   |
| Wire cross section with wire ferrule                      | 0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / 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           |
| <b>Material</b>   |  |
| 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   |
| <b>Protection category according to IEC 60529</b>         |  |
| Protection category - housing (acc. to IEC 60529)         | IP40   |
| Protection category - terminal blocks (acc. to IEC 60529) | IP20   |
| <b>Temperature range</b>                                  |  |
| 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   |
| <b>Classifications</b>                                    |  |
| ETIM 7.0  | EC000688   |
| <b>Software and additional documents</b>                  |  |
| Logiciels et documentation                                | Further documentation is available for free download at <a href="http://www.metz-connect.com">www.metz-connect.com</a> |

**Accessories**

| <b>P/N</b> | <b>Designation</b>       |
|------------|--------------------------|
| 110369     | Terminal block Type 259  |
| 110486     | "HUB DC"                 |
| 110561     | Power supply NG4 24 V DC |
| 11056301   | MYD-4M-IP65              |
| 11056302   | MYD-2M2V-IP65            |
| 11056303   | MYD-1M1V                 |
| 31135104   | Typ 135 RIACON 135_3.5   |



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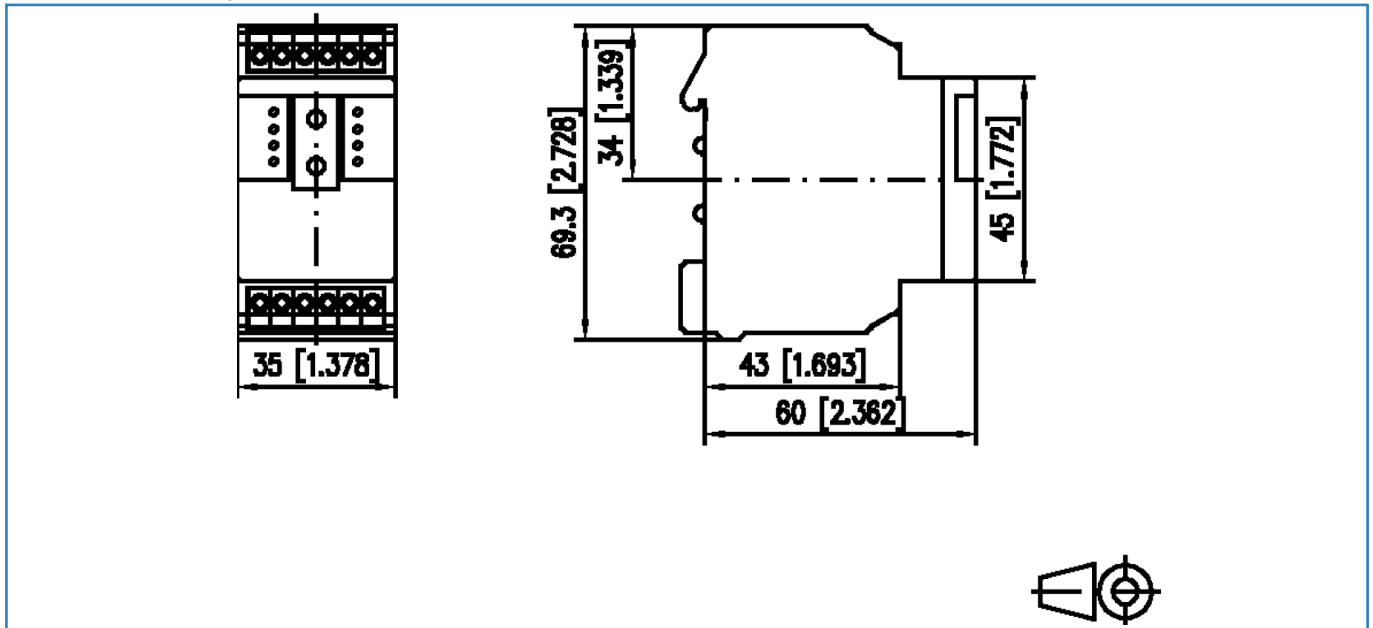
### Zubehör von

| P/N      | Designation                              |
|----------|--|
| 11083001 | MR-GW<br>Modbus RTU / Modbus TCP Gateway |

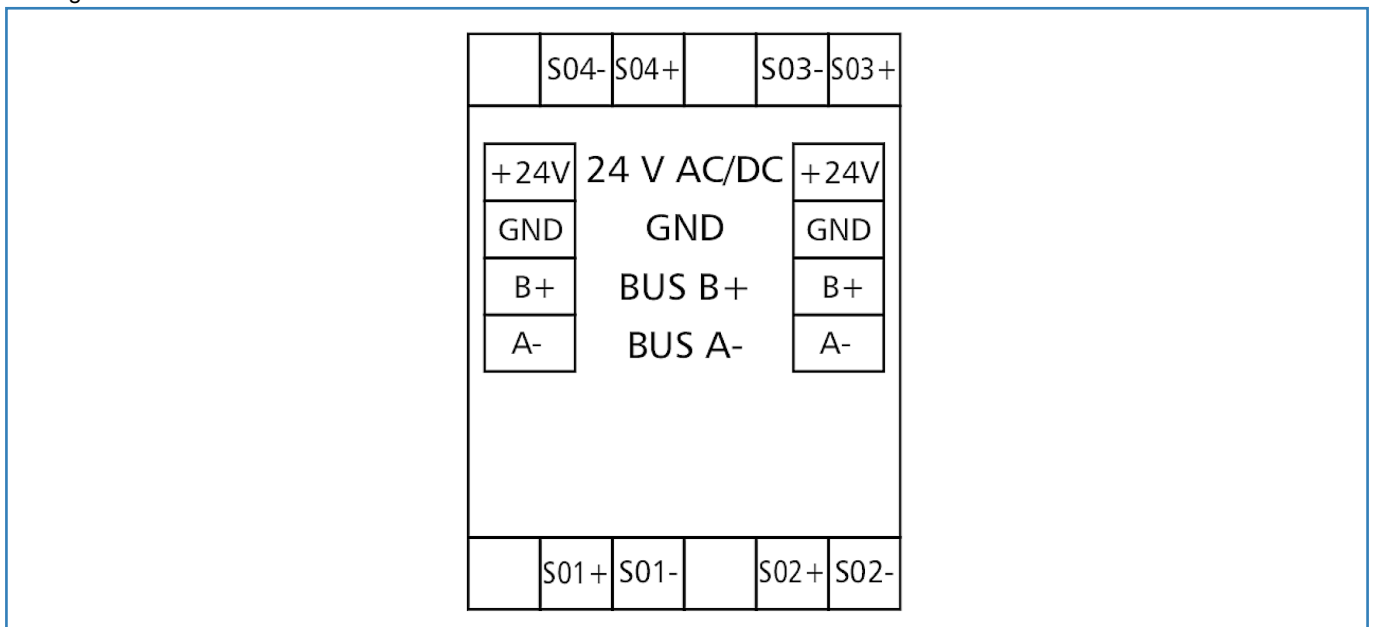


## Illustrations

Dimensional drawing



Wiring



## Illustrations

### Principle diagram

