

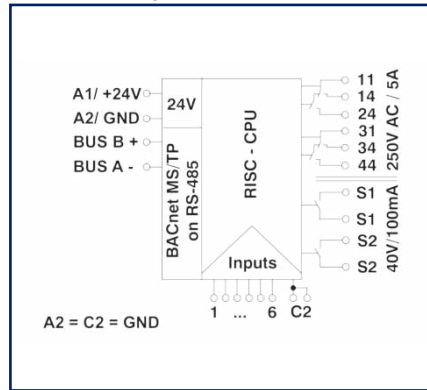
Data sheet

BMT-TP BACnet MS/TP

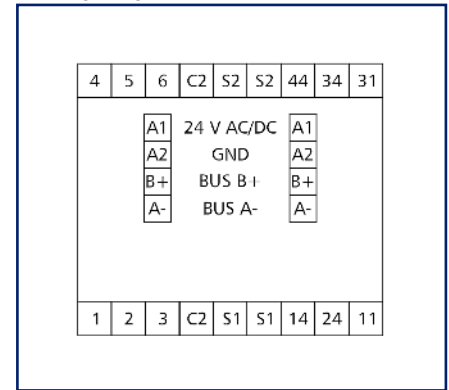
Illustrations



Principle diagram



Wiring diagram



See enlarged drawings at the end of document

Product specification

The BACnet MS/TP three-point module with 6 digital inputs, 2 two-level relay outputs and 2 digital outputs was developed for decentralized switching tasks. It is suitable for switching, for example, multi-level pumps and fans or louvers. In this case it is necessary to protect the relay contacts by appropriate load-dependent measures. The inputs and outputs can be switched and scanned by means of standard objects via a BACnet client. The input terminals 1 to 6 are wired with the C2 terminals on two poles to potential-free switches or contacts. The module has a manual control for the outputs. The module address and the baud rate are set by means of two address switches on the front. Suitable for decentralized mounting in serial sub-distributor.

- Connection with screw type terminal blocks

Technical Data

Approvals



BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BI.

RS485 interface

| | |
|-----------------------------------|--|
| Protocol | BACnet MS/TP |
| Address range | 00 - F9 |
| Bus interface | RS485 two wire bus with potential equalization in bus or line topology, terminate with 120 Ohm |
| Transmission parameters | |
| Transmission rate | min. 9600 Bit/s (Bd) - max. 115200 Bit/s (Bd) |
| Transmission rate default setting | 9600 Bit/s (Bd) |
| Parity | None |
| Stopbits | 1 |

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 % |

Inputs

| | |
|-----------------------|-------------------|
| Digital inputs | 6, potential-free |
| Voltage input | 30 V AC/DC |
| High signal detection | > 4.5 V DC |

Outputs

| | |
|---|-------------|
| Digital outputs | 4 |
| Relay output | |
| Switching voltage relay output (max.) | 250 V AC |
| Continuous current relay output | 6 A / relay |
| Semiconductor output | |
| Switching voltage semiconductor output (max.) | 40 V AC/DC |
| Continuous current semiconductor output | 100 mA |
| Switch-on current semiconductor output (max.) | 500 mA |

Technical Data

| Outputs | |
|--|---|
| Switching frequency | 360 switching cycles/h |
| Mechanical life | 30x10 ⁶ switching cycles |
| Electrical life | 9x10 ⁴ switching cycles |
| Insulation coil - contact set | |
| Nominal voltage of the power supply system | 230 / 400 V AC |
| Overvoltage category | III II |
| Degree of pollution | 2 2 |
| Rated test voltage | 4 kV 2.5 kV |
| Type of insulation | basic insulation reinforced insulation |
| Housing | |
| Dimensions | |
| Dimension (W x H x D) | 50 mm x 69.3 mm x 60 mm |
| Dimension (W x H x D) | 1.969 in. x 2.728 in. x 2.362 in. |
| Total depth with switch/plug | 69 mm |
| Weight | 126 g |
| Mounting style | Standard rail TH35 |
| Mounting position | any |
| Apposition | The maximum quantity of BACnet 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 |
| 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 |

Technical Data

Terminal blocks

| | |
|-------------------------|--|
| Module connection | |
| 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 |

Classifications

| | |
|----------|----------|
| ETIM 7.0 | EC001584 |
| ETIM 8.0 | EC001584 |
| ETIM 9.0 | EC001584 |

Software and additional documents

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

Accessories

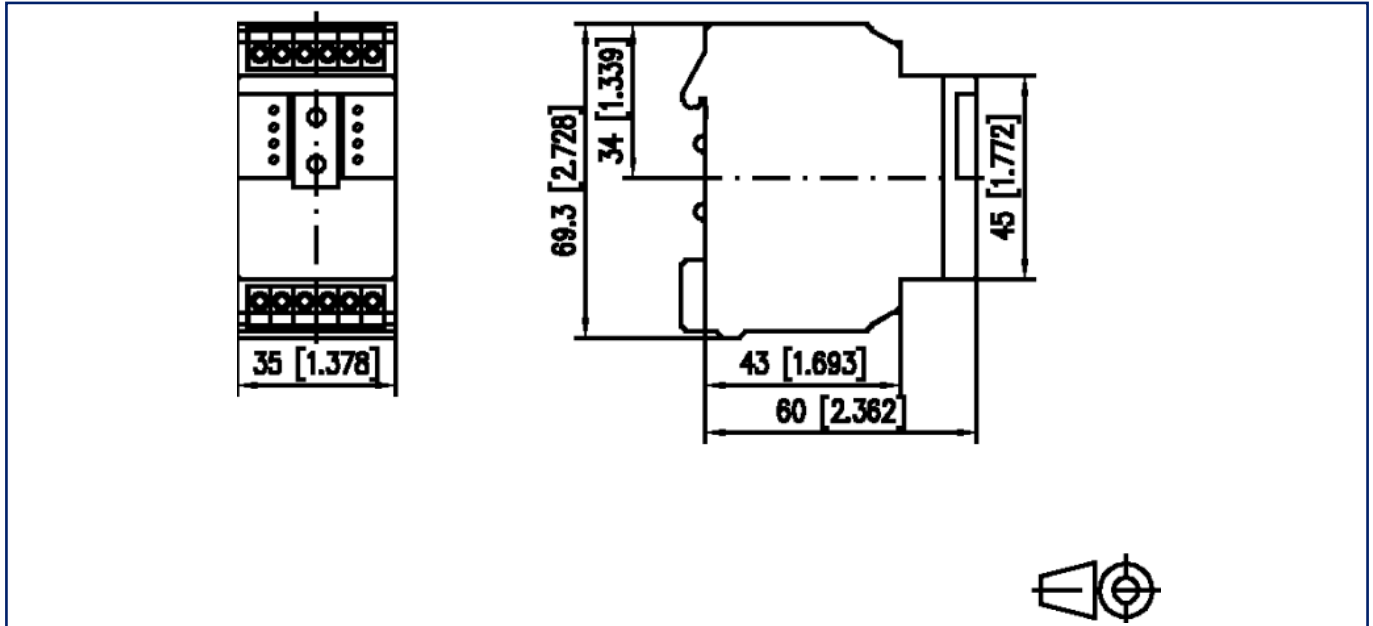
| P/N | Designation |
|----------|--------------------------|
| 110369 | Terminal block Type 259 |
| 110486 | HUB DC |
| 110561 | Power supply NG4 24 V DC |
| 31135104 | Typ 135 RIACON 135_3.5 |

Accessories from

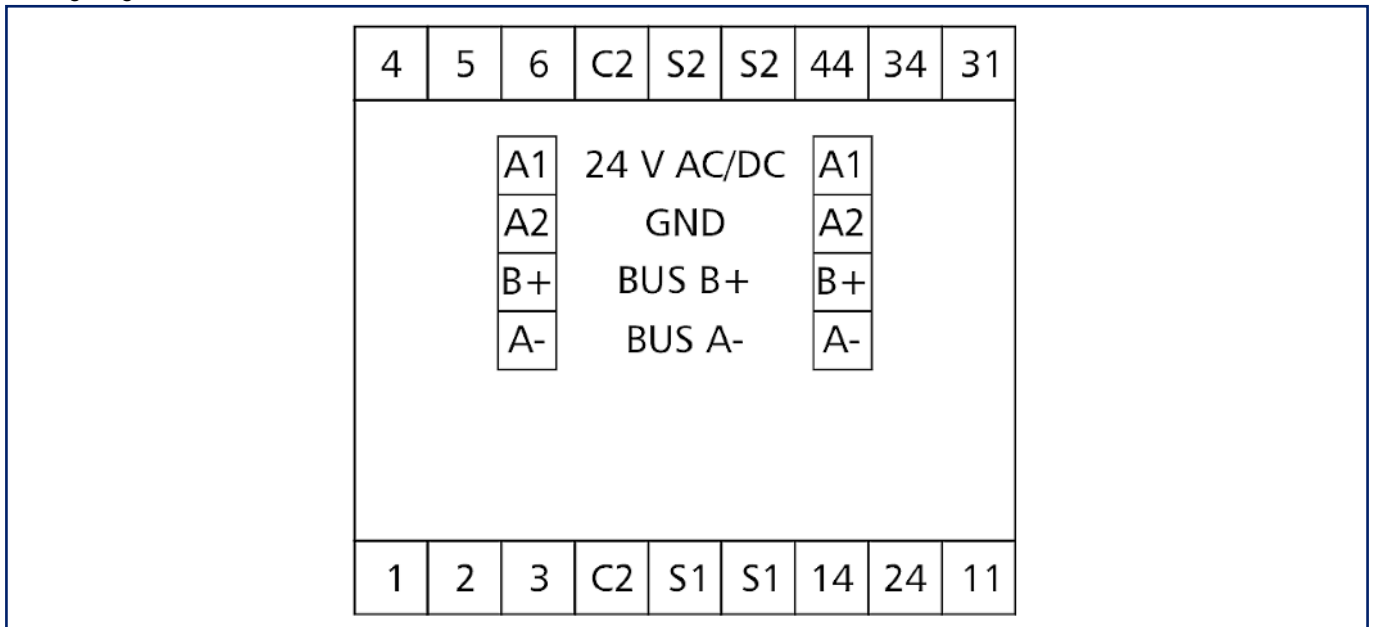
| P/N | Designation |
|------------|-------------------------|
| 11088001 | BMT-RTR BACnet-Router |
| 1108800170 | BMT-F-RTR BACnet-Router |

Illustrations

Dimensional drawing



Wiring diagram



Illustrations

Principle diagram

