

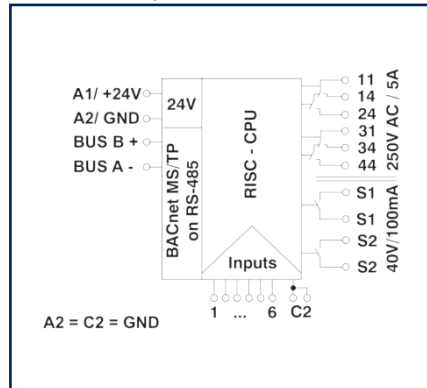
# Data sheet

## BMT-TP BACnet MS/TP

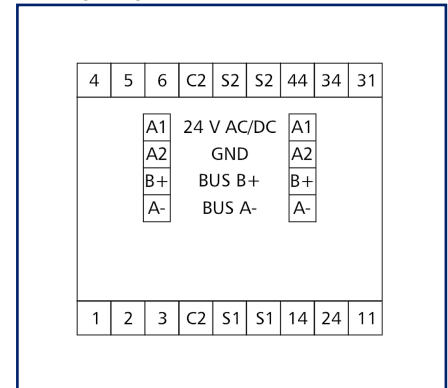
### Illustrations



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, for potential-free contacts
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### 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
Switching frequency	360 switching cycles/h
Mechanical life	30x10 <sup>6</sup> switching cycles

## Technical Data

Outputs	
Electrical life	9x10 <sup>4</sup> 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 <sup>2</sup> / max. 16 AWG
Stranded wire (AWG)	max. 1 mm <sup>2</sup> / max. 18 AWG
Wire diameter	max. 1.4 mm - min. 0.3 mm
Module connection	
Wire cross section solid	0.34 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

## Technical Data

### Terminal blocks

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

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 <a href="http://www.metz-connect.com">www.metz-connect.com</a>
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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



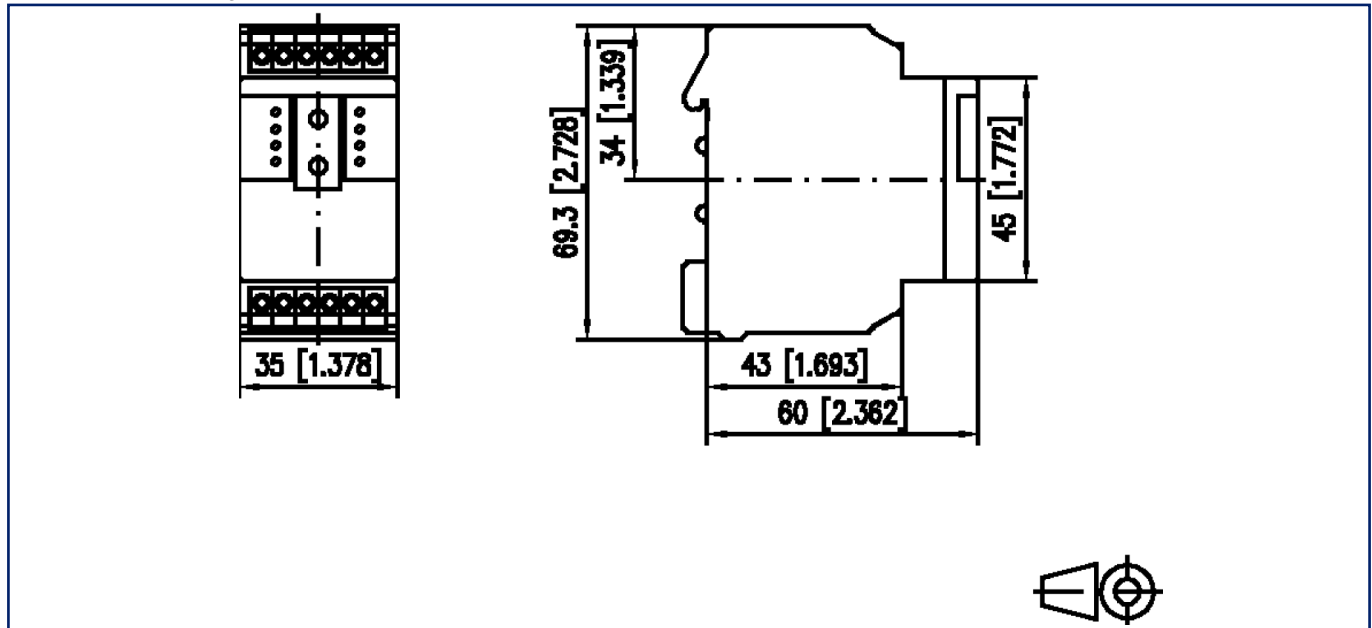
### Accessories from

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

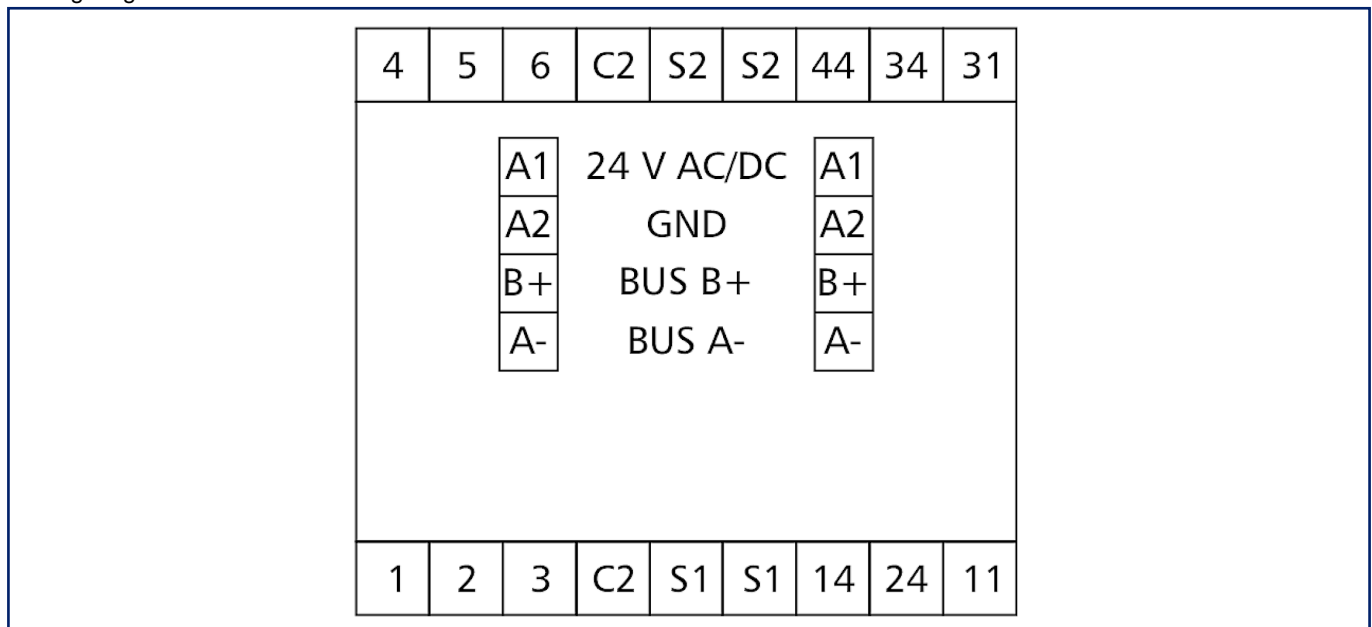


### Illustrations

Dimensional drawing



Wiring diagram



**Illustrations**

Principle diagram

