

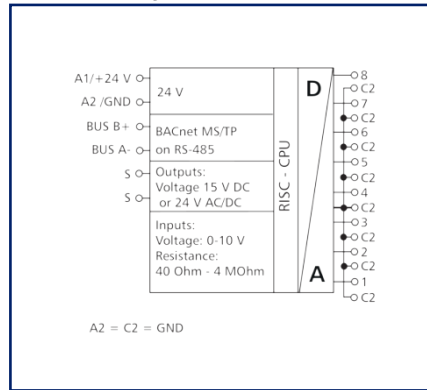
# Data sheet

## BMT-AI8 BACnet MS/TP

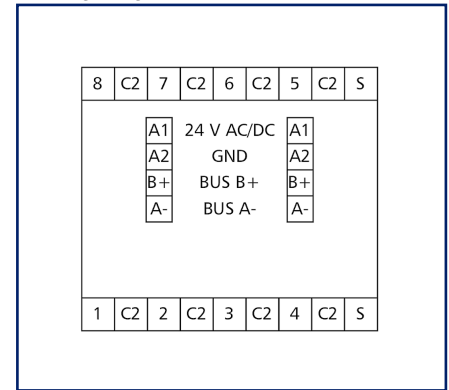
### Illustrations



Principle diagram



Wiring diagram



See enlarged drawings at the end of document

### Product specification

The BACnet MS/TP module with 8 individually configurable resistance or voltage inputs was developed for decentralized switching tasks. It is suitable for detecting resistances and voltages of, for example, passive and active temperature sensors, electrical vent and mixing valves, valve positions, etc. The inputs can be configured universally by means of standard objects via a BACnet client. The module is addressed and the baud rate is set by means of two address switches on the front. Suitable for decentralized mounting on DIN TH35 rail according to IEC 60715 in electrical distribution cabinets.

- Connection with screw type terminal blocks

## Technical Data

### Approvals



Open Energy Management Equipment 34TZ



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### 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.)	65 mA
Power consumption DC (max.)	25 mA
Duty cycle relative	100 %

### Inputs

Analog inputs	8, individually configurable
Resistance range	
Resistance range	40 Ohm - 4 MOhm
Error resistance input < 12 kOhm	0.1 %
Error resistance input >= 12 kOhm	1 %
Voltage range	
Voltage range	0 V - 10 V DC
Resolution voltage input	10 mV / digit
Error voltage input	10 mV

### Technical Data

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.
Weight	104 g
Mounting style	Standard rail TH35
Mounting position	any
Apposition	without distance 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.
Connection type	Screw type terminal blocks
Indicator	green and red 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	min. 0.3 mm max. 1.4 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
Protection circuit	Polarity reversal protection for DC operating voltage Protection against interchanging power supply and bus

### Technical Data

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
Climatic Data	
Operating	
Temperature - Operating °C	-5 °C - 55 °C
Temperature - Operating °F	23 °F - 131 °F
Relative humidity	max. 85 % non-condensing
Storage	
Temperature - Storage °C	-20 °C - 70 °C
Temperature - Storage °F	-4 °F - 158 °F
Classifications	
ETIM 7.0	EC000794
ETIM 8.0	EC000794
ETIM 9.0	EC000794
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>

### Application note

This product is a standard product of METZ CONNECT. METZ CONNECT is not aware of the specific intended use of the goods by the Customer or any customers of the Customer. The Customer guarantees that it has fully and sufficiently tested the use of the goods and any product modifications, product changes or product enhancements with regard to the specific intended use in accordance with the state of the art or in any other way. At METZ CONNECT's request, the Customer shall submit and make available meaningful evidence (e.g. test and laboratory protocols, certifications, etc.).

## 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

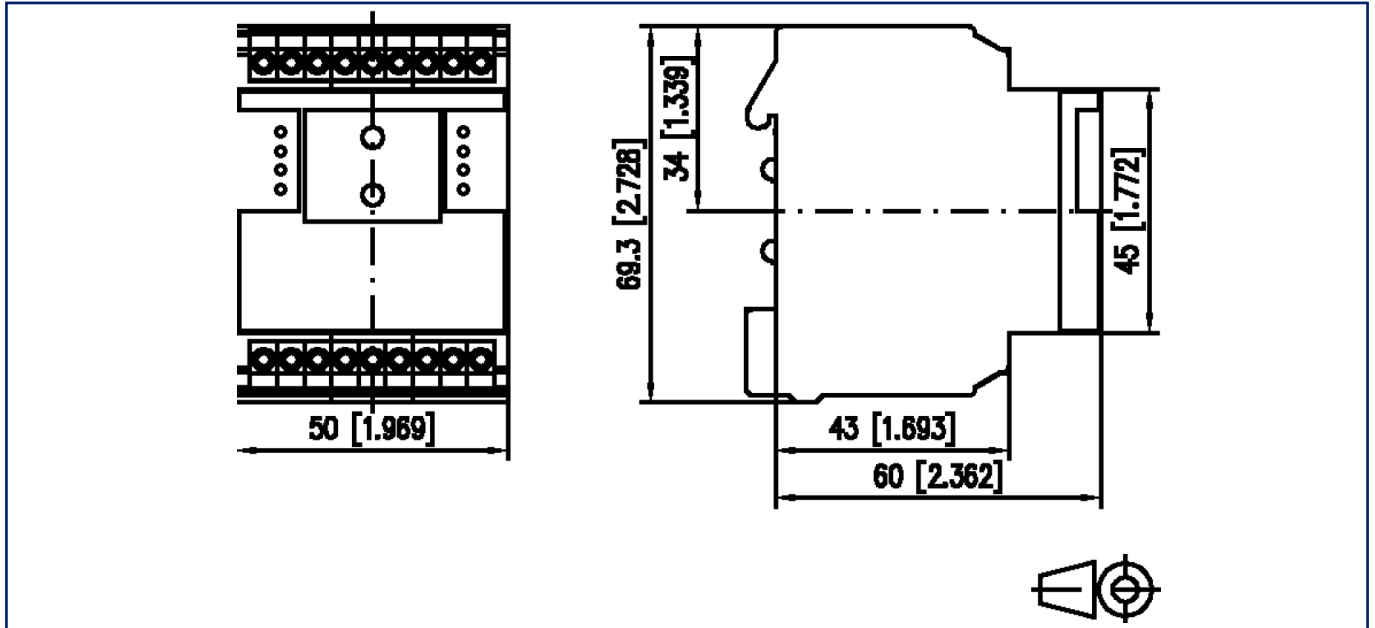
### Accessories from

P/N	Designation
11088001	BMT-RTR BACnet-Router
1108800170	BMT-F-RTR BACnet-Router
11088101	BMT-RTR/SC BACnet/SC Router
1108810170	BMT-F-RTR/SC BACnet/SC Router

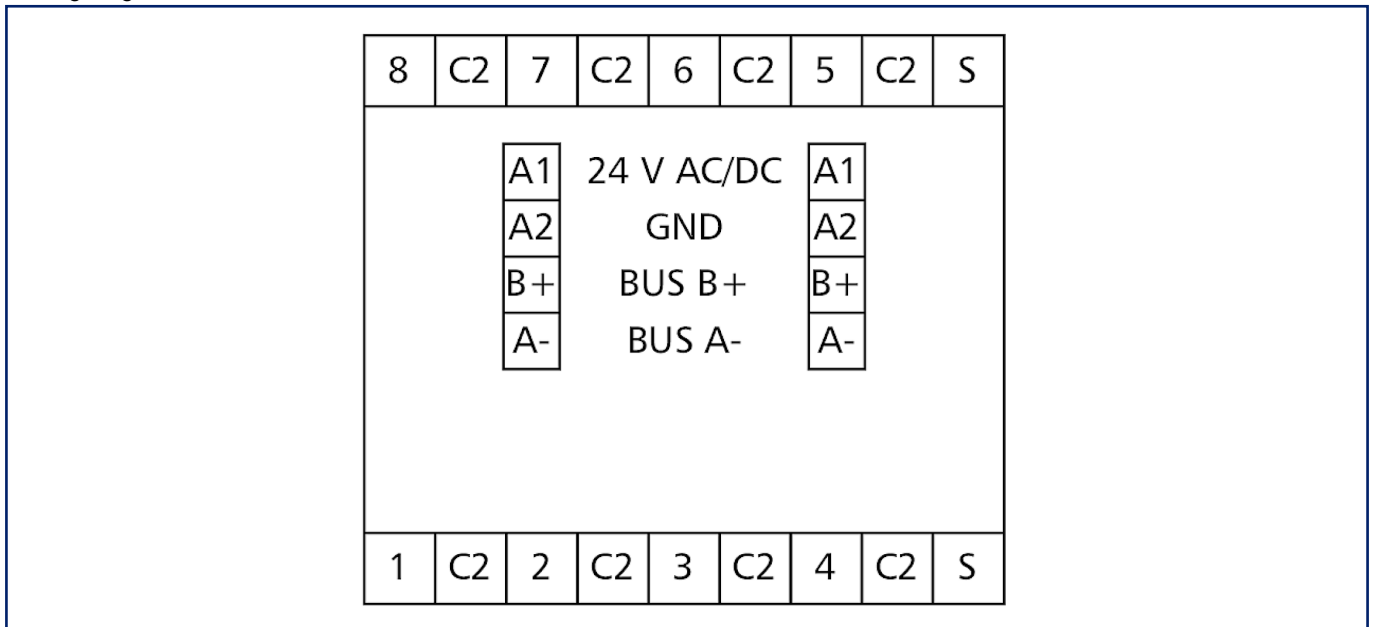


### Illustrations

Dimensional drawing

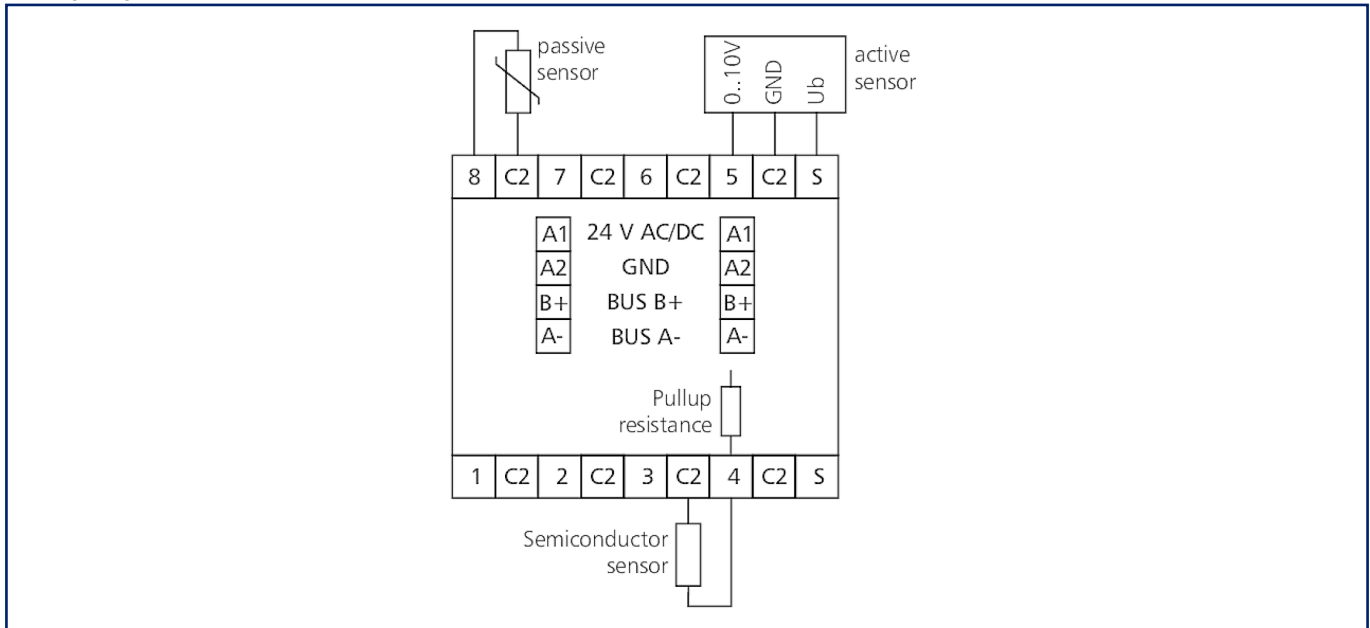


Wiring diagram

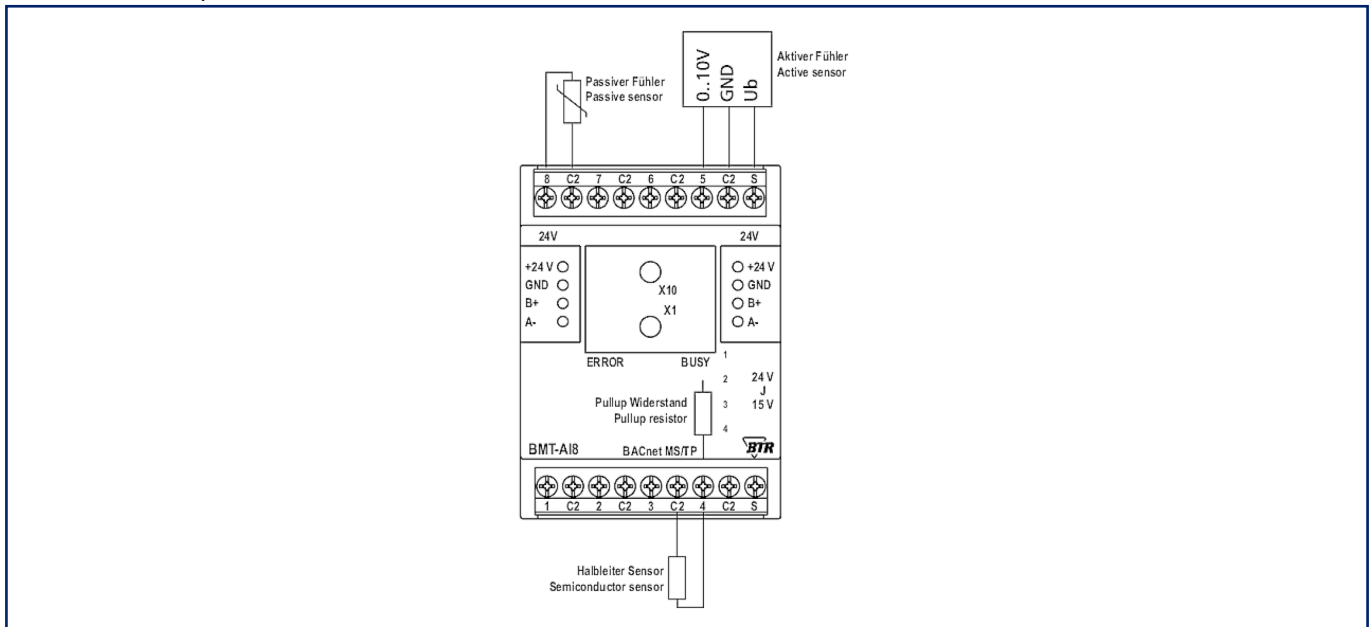


**Illustrations**

Wiring diagram



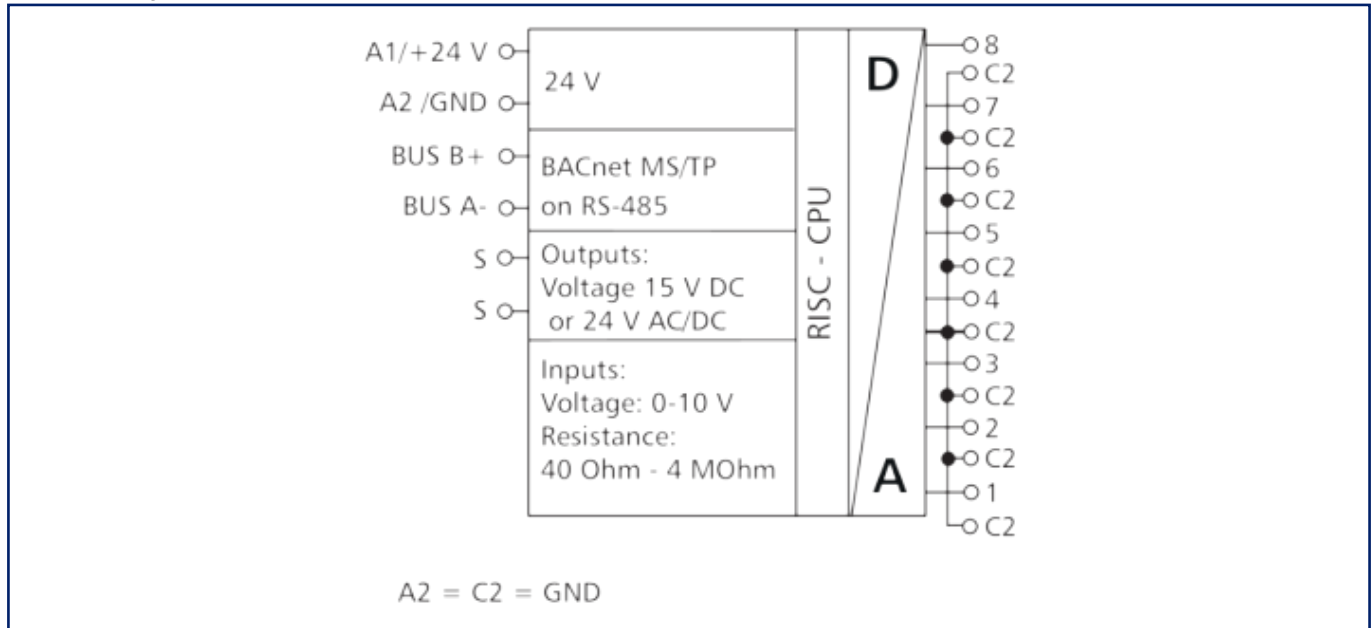
Connection example





### Illustrations

Principle diagram



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