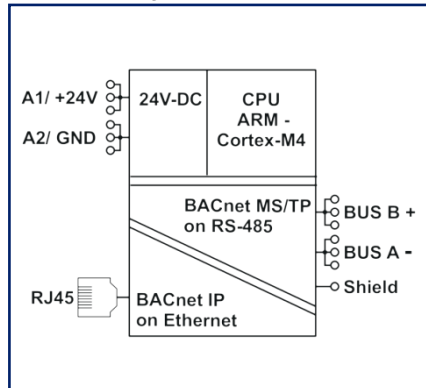


Data sheet BMT-RTR BACnet-Router

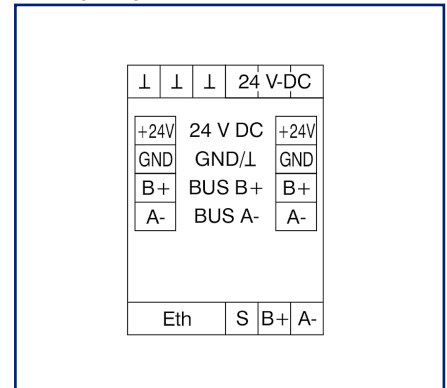
Illustrations



Principle diagram



Wiring diagram



See enlarged drawings at the end of document

Product specification

BMT-(F)-RTR is a compact Router and enables bidirectional data exchange between BACnet/IP and BACnet MS/TP fieldbus devices. The BMT-(F)-RTR can be connected to METZ CONNECT BACnet MS/TP devices via two 4-pole terminals on the front of the device and a jumper plug. An integrated web server is used for parameter settings, management and monitoring of the two interfaces (Ethernet / RS485). The web interface is also used to update the firmware. The BMT-(F)-RTR is suitable for decentralised mounting in electrical sub-distribution boards or in control cabinets on TH35 mounting rails in accordance with IEC 60715.

- Connection with screw type terminal blocks
- Access to 32 devices on the BACnet MS/TP bus
- Bidirectional exchange of data between BACnet/IP and BACnet MS/TP devices
- Protocol: BACnet MS/TP, BACnet/IP, BACnet Ethernet, HTTP 1.0
- Integrated web server
- Intuitive and software-independent TCP configuration via web interface
- Recording and analysis of IP and RS485 communication
- Simple device search of METZ CONNECT BACnet MS/TP devices on the RS485 bus
- Fast connection of METZ CONNECT BACnet MS/TP devices via proven jumper plug technology



Technical Data

Approvals



Open Energy Management Equipment 34TZ



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.

Ethernet interface

Network connection	1 x Ethernet port (RJ-45 IEC 60603-7-51 (2010))
Speed	10/100 Mbits with auto-negotiation
Protocol	HTTP 1.0, BACnet Ethernet, BACnet/IP

RS485 interface

Protocol	BACnet MS/TP
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
Galvanic isolation	1.5 kV
Bus termination resistor	120 Ohm switchable
Number of bus participants	32; with 1 unit load per participant

Supply

Operating voltage	24 V DC +/- 10 % (SELV)
Power consumption (max.)	50 mA
Power loss (max.)	1.3 W

Housing

Dimensions	
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	64 g
Mounting style	Standard rail TH35
Mounting position	any

Data sheet BMT-RTR BACnet-Router

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Technical Data

Housing	
Apposition	without distance
Connection type	Screw type terminal blocks
Indicator	
Operation "RDY"	green LED
LAN connection "LINK 10/100"	green LED (100 Mbit), yellow LED (10 Mbit)
RS485 bus "TX" / "RX"	green LED
Terminal blocks	
Supply and bus	
Terminal block	4-pole, pluggable, on front of housing
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	0.2 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
Screw torque (max.)	0.5 Nm
Stripping length (min.)	8 mm
Ethernet connection	RJ45-jack
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

Data sheet
BMT-RTR BACnet-Router

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Technical Data

Temperature range (min. - max.)	
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	EC000673
ETIM 8.0	EC000673
ETIM 9.0	EC000673
Software and additional documents	
Software	MC Search Tool: Windows-based and free tool to configure and search the BMT-(F)-RTR in a TCP/IP network (free download at www.metz-connect.com)



Accessories

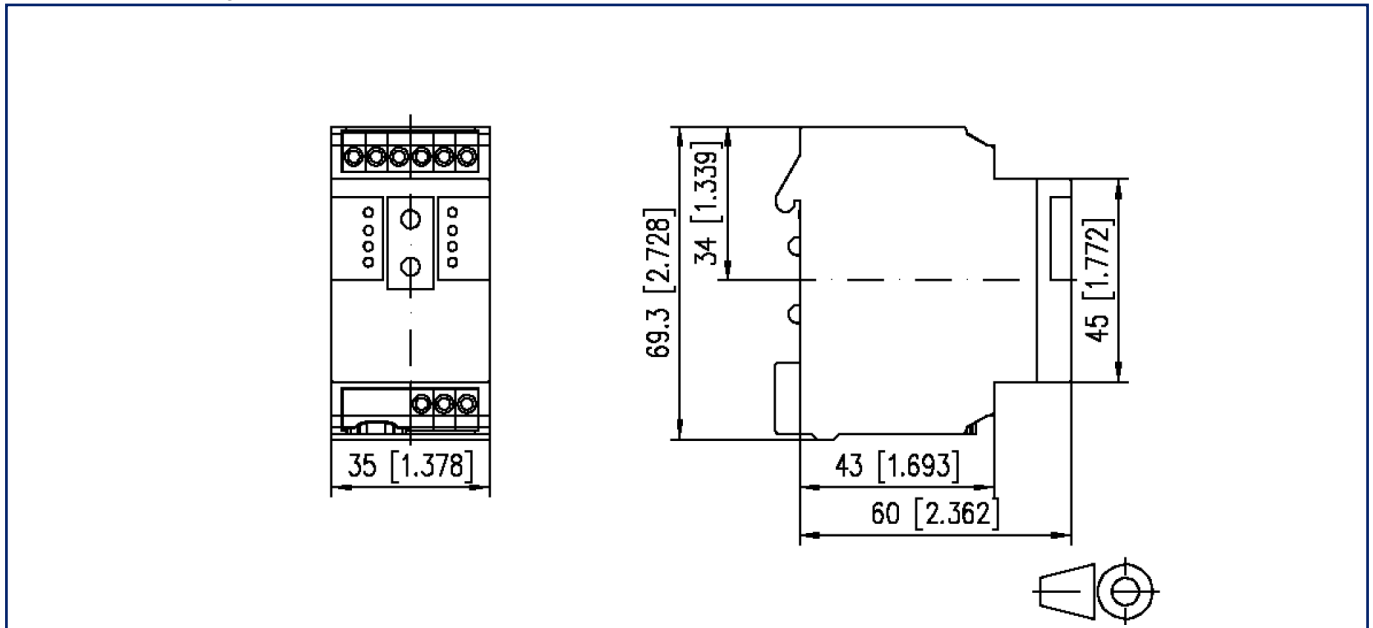
P/N	Designation
110561	Power supply NG4 24 V DC
11056170	Power supply NG4-F 24 V DC
11088013	BMT-TO4 BACnet MS/TP
1108801370	BMT-F-TO4 BACnet MS/TP
1108811319	BMT-DI10 BACnet MS/TP
110881131970	BMT-F-DI10 BACnet MS/TP
11088213	BMT-AI8 BACnet MS/TP
1108821370	BMT-F-AI8 BACnet MS/TP
1108830526IP	BMT-DIO4/2-IP65 BACnet MS/TP 230 V
1108831326	BMT-DIO4/2 BACnet MS/TP
110883132670	BMT-F-DIO4/2 BACnet MS/TP
1108831326IP	BMT-DIO4/2-IP65 BACnet MS/TP
1108841319	BMT-DI4 BACnet MS/TP
110884131970	BMT-F-DI4 BACnet MS/TP
1108841319IP	BMT-DI4-IP65 BACnet MS/TP
1108851302	BMT-AO4 BACnet MS/TP
110885130270	BMT-F-AO4 BACnet MS/TP
1108861321	BMT-DO4 BACnet MS/TP
110886132170	BMT-F-DO4 BACnet MS/TP
1108871302	BMT-AOP4 BACnet MS/TP
110887130270	BMT-F-AOP4 BACnet MS/TP
1108871303	
110887130370	
11088813	BMT-TP BACnet MS/TP
1108881370	BMT-F-TP BACnet MS/TP
11088913	BMT-SI4 BACnet MS/TP
1108891370	BMT-F-SI4 BACnet MS/TP
1108901332	BMT-CI4 BACnet MS/TP
110890133270	BMT-F-CI4 BACnet MS/TP
11089313	BMT-Multi I/O BACnet MS/TP

Accessories from

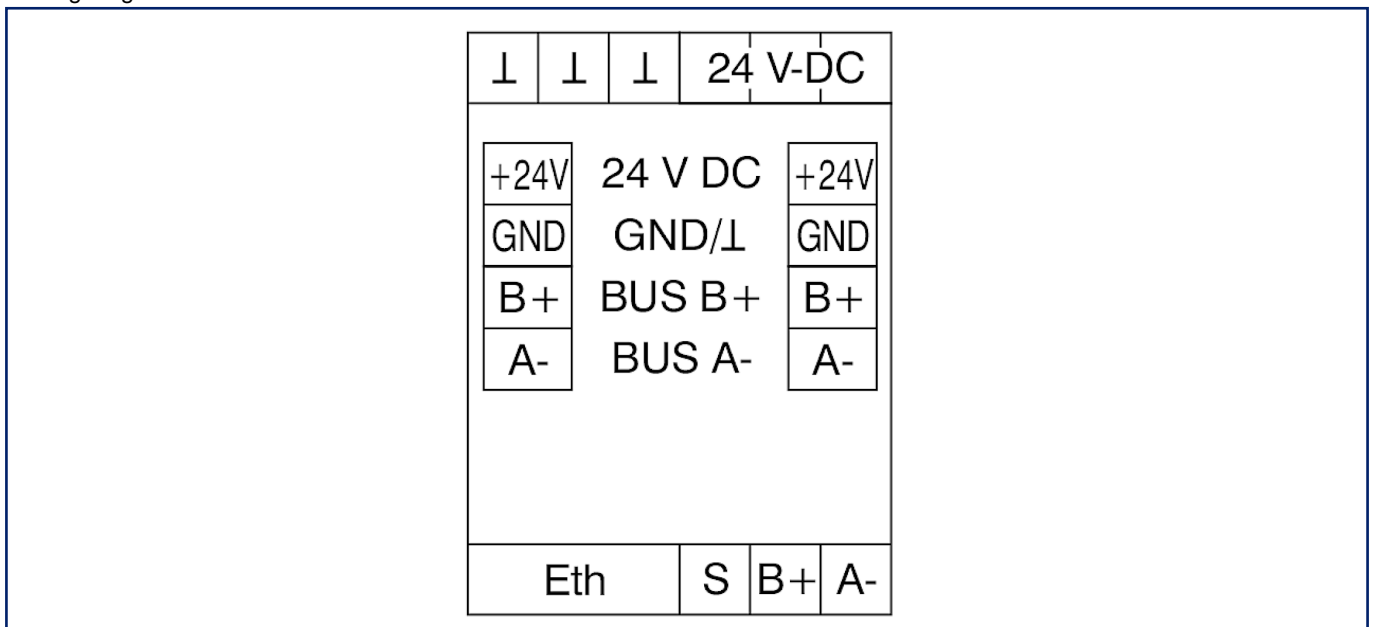
P/N	Designation
1108110526IP	MB-DIO2/1-IP Modbus/BACnet 230 V
1108111326IP	MB-DIO2/1-IP Modbus/BACnet 24V AC/DC
1108120526IP	MB-DIO4/2-IP Modbus/BACnet 230 V
1108121326IP	MB-DIO4/2-IP Modbus/BACnet 24V AC/DC

Illustrations

Dimensional drawing

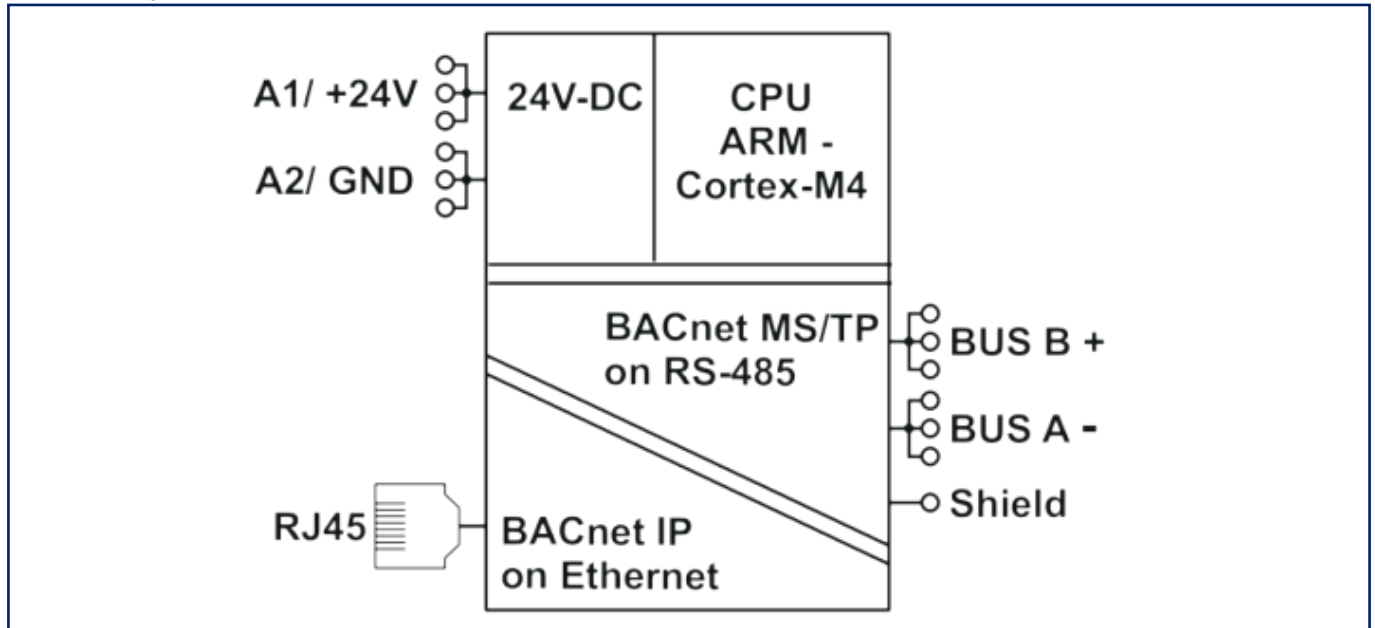


Wiring diagram



Illustrations

Principle diagram



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