

Data sheet

BMT-F-RTR BACnet-Router

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P/N

1108800170

EAN 4251394650227

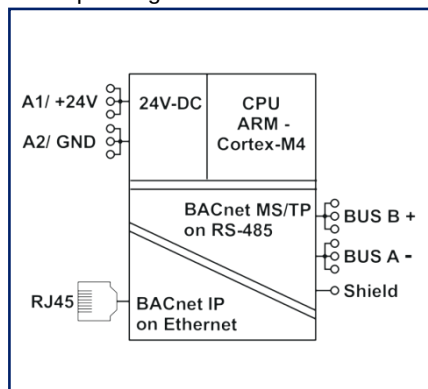
2023/06/23

Version: E

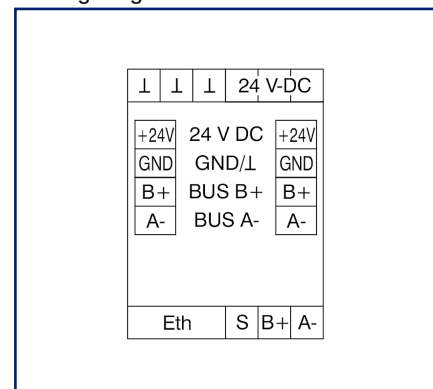
Illustrations



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 spring clamp terminal blocks (push-in)
- 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



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Technical Data

Approvals



Open Energy Management Equipment 34TZ



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Ethernet interface

Network connection	1 x Ethernet port (RJ-45 IEC 60603-7-51 (2010))
Speed	10/100 Mbps 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

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Housing	
Apposition	without distance
Connection type	Spring clamp 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 24-14
Wire cross section multi	0.25 mm ² - 2.5 mm ² / AWG 24-12
Wire cross section with wire ferrule	0.25 mm ² - 1.5 mm ² / AWG 24-16
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

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

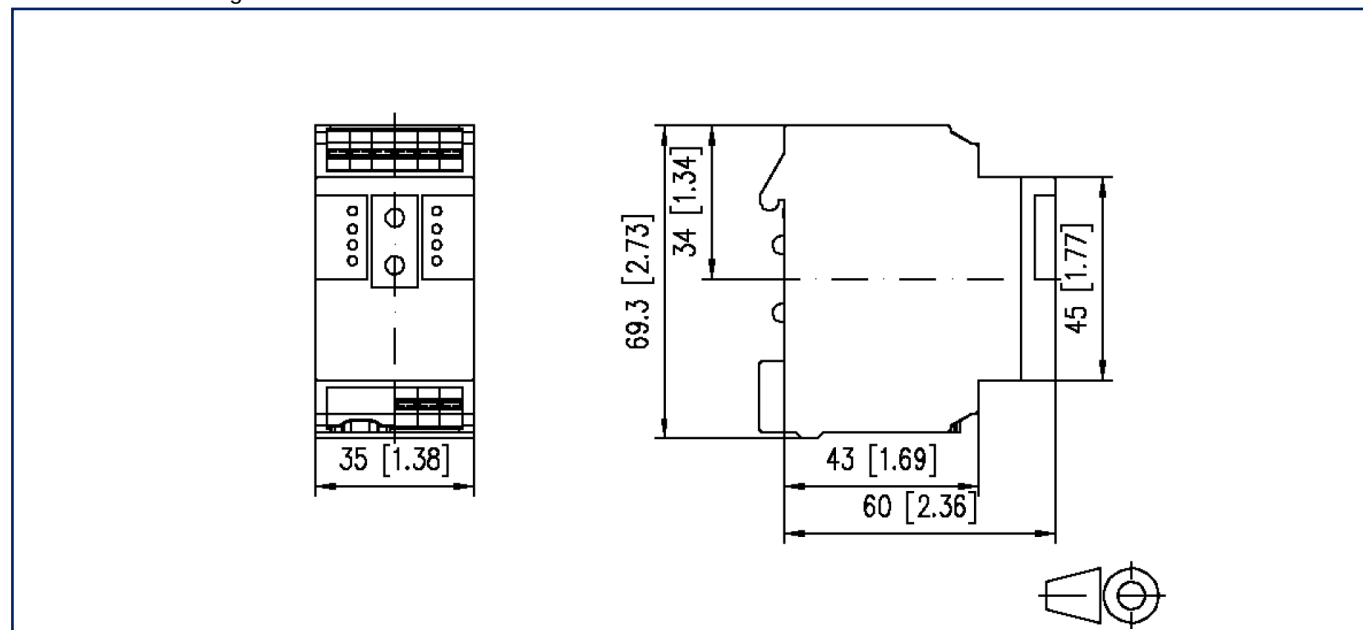
P/N	Designation
110561	Power supply NG4 24 V DC
11056170	Power supply NG4-F 24 V DC
11088013	BMT-TO4 BACnet MS/TP
1108801370	BMT-F-TO4 BACnet MS/TP
1108811319	BMT-DI10 BACnet MS/TP
110881131970	BMT-F-DI10 BACnet MS/TP
11088213	BMT-AI8 BACnet MS/TP
1108821370	BMT-F-AI8 BACnet MS/TP
1108830526IP	BMT-DIO4/2-IP65 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

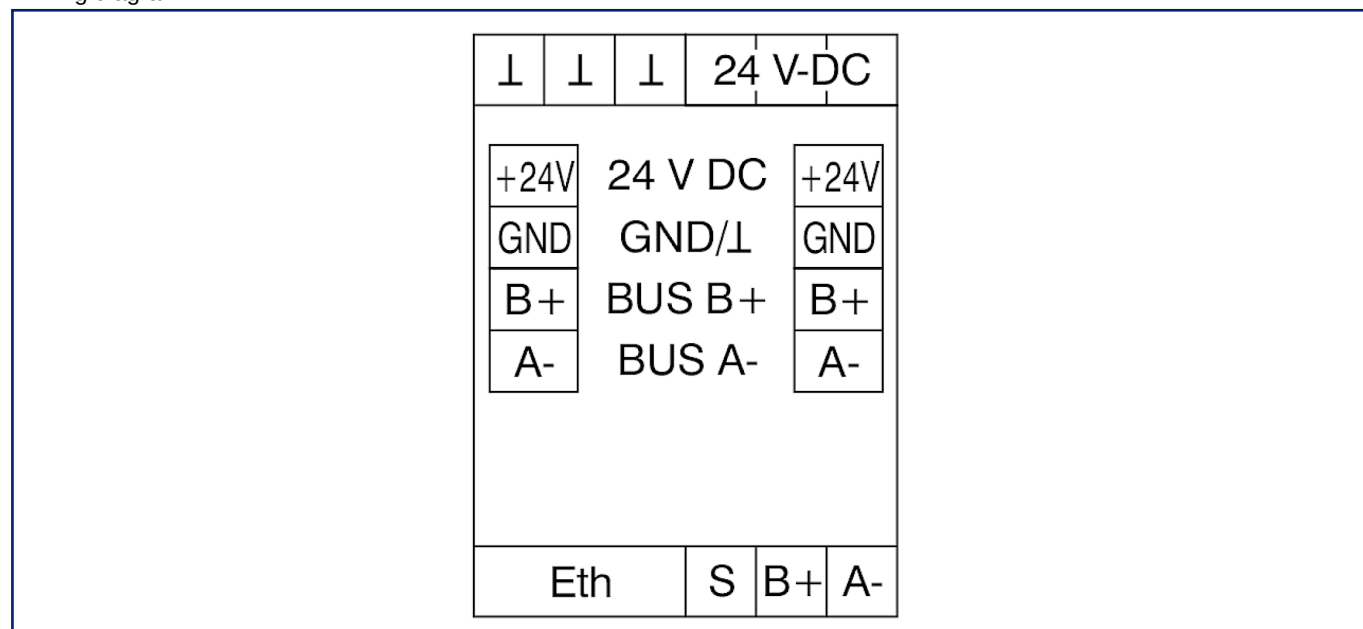
P/N	Designation
1108110526IP	MB-DIO2/1-IP Modbus/BACnet 230 V
1108111326IP	MB-DIO2/1-IP Modbus/BACnet 24V AC/DC
1108120526IP	MB-DIO4/2-IP Modbus/BACnet 230 V
1108121326IP	MB-DIO4/2-IP Modbus/BACnet 24V AC/DC

Illustrations

Dimensional drawing



Wiring diagram



Illustrations

Principle diagram

