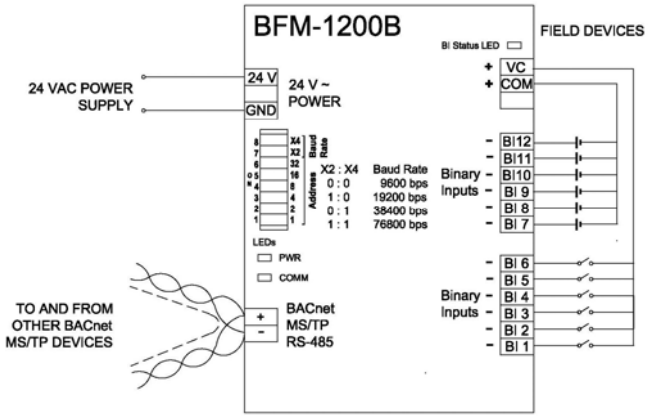
BACnet MS/TP Binary Input/Output Field Modules
Installation and Wiring Instructions

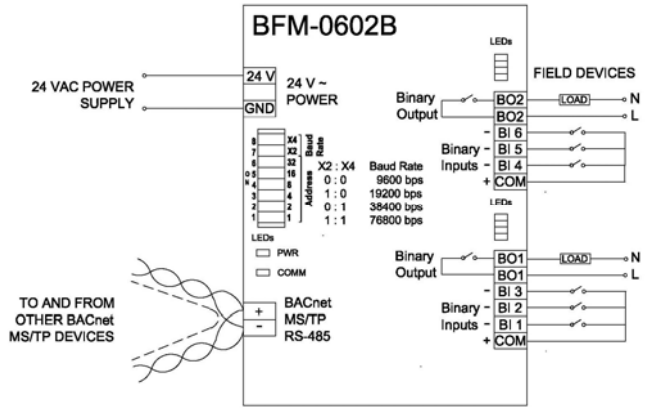
Network & Cabling Requirements

To ensure network stability and reliable communications, particularly at high speeds on a BACnet MS/TP network for a number of devices, it is imperative that the following network and cabling requirements are adhered to:

Item	Description
Cabling	For BACnet MS/TP networks, it is recommended to use networking cabling that matches the following specifications: • Balanced 100 to 120 ohms nominal impedance, 22 or 24 AWG Twisted Shielded Pair (TSP) Cable • Nominal capacitance of 52 pF/m or lower • Nominal velocity of propagation of 66% or higher • Terminating the shield to ground at one end only for each isolated segment will prevent ground loops in the shield and drain RF energy to ground. Grounding at the BACnet router or controller is preferred.
Topology	Ensure the MS/TP or FClink network cable is installed as a daisy chain from one device to the next.
Maximum Nodes	The maximum number of devices per MS/TP network without any repeaters is 32.
Terminator	A terminator of 120-ohm impedance must be installed at each end of each MS/TP network segment, or two per MS/TP or network. Ensure that this requirement is not overlooked in laying out the network architecture and ordering product.
Repeater	A repeater is not necessary unless MS/TP network has more than 32 devices or is extended beyond 1,000 m.

Termination and Wiring Diagrams

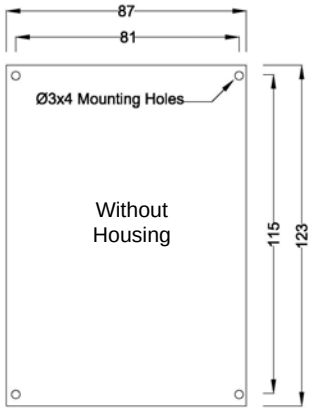




Dimensions in mm

Mounting

The bare field modules without housing can be mounted directly inside a panel with 2 or 4 screws. With the housing, the modules can be rack-mounted in DIN rail or mounted directly on a surface with 2 or 4 screws.



Baud Rate Setting By Dip Switches

X2 : X4	Baud Rate
0 : 0	9600 bps
1 : 0	19200 bps
0 : 1	38400 bps
1 : 1	76800 bps

MAC Address Setting by Dip Switches (On)

Switch	Binary Address
6	32
5	16
4	8
3	4
2	2
1	1