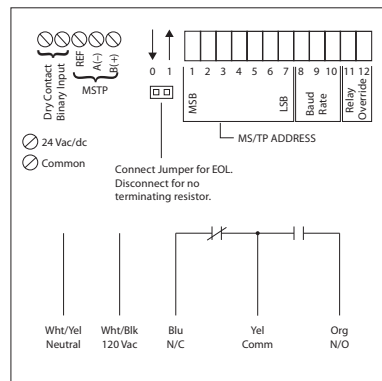


**NETWORK COMPATIBLE RELAYS**

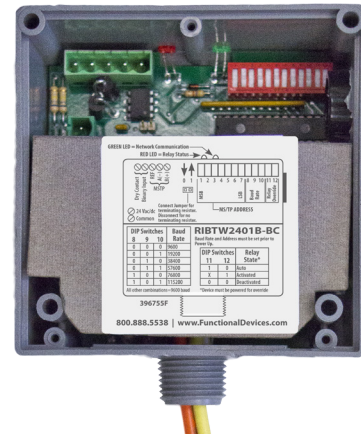
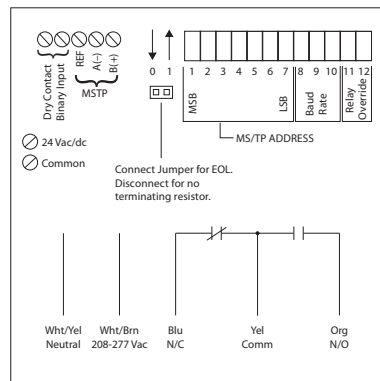
**RIBTW2401B-BC**

Enclosed BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); One Binary Input (Dry Contact, Class 2); 24 Vac/dc or 120 Vac Power Input, Optional End of Line Resistor (EOL) Included.



**RIBTW2402B-BC**

Enclosed BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); One Binary Input (Dry Contact, Class 2); 24 Vac/dc or 208-277 Vac Power Input, Optional End of Line Resistor (EOL) Included.



RELAYS

**SPECIFICATIONS**

- # Relays & Contact Type:** One (1) SPDT Continuous Duty Coil
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 18ms
- Green LED:** Network Communication
- Red LED:** Relay Status
- Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple
- Wires:** 16", 600V Rated
- Approvals:** CE, UL Listed, UL916, C-UL, RoHS
- Housing Rating:** UL Accepted for Use in Plenum, NEMA 1
- Gold Flash:** No
- Relay Override Switch:** DIP Switch Control
- Network Media:** Twisted Pair 22-24AWG, shielded recommended
- Terminations:** Functional Devices product installed at both ends of the MS/TP network – Use 120 Ω end of line resistors. All other cases – Follow instructions from the device installed at the end of the MS/TP network.
- Polarity:** Network is polarity sensitive
- Baud Rate:** 9600, 19200, 38400, 57600, 76800, 115200 (DIP Switch Selectable)

- Contact Ratings:**
  - 20 Amp Resistive @ 277 Vac
  - 20 Amp Ballast @ 277 Vac
  - 16 Amp Electronic Ballast @ 277 Vac (N/O)
  - 10 Amp Tungsten @ 120 Vac (N/O)
  - 1110 VA Pilot Duty @ 277 Vac
  - 770 VA Pilot Duty @ 120 Vac
  - 2 HP @ 277 Vac
  - 1 HP @ 120 Vac
- Power Input Ratings:**
  - 81 mA @ 24Vdc
  - 111 mA @ 24 Vac
  - 96 mA @ 120 Vac (RIBTW2401B-BC)
  - 121 mA @ 208-277 Vac (RIBTW2402B-BC)
- Power Input:**
  - 24 Vac/dc; 120 Vac; 50/60 Hz (RIBTW2401B-BC)
  - 24 Vac/dc; 208-277 Vac; 50/60 Hz (RIBTW2402B-BC)
- Notes:**
  - When connecting 24 Vac to both the RIB(s) and a half-wave device, damage to device can occur.
  - Option 1: Use separate transformers for each device.
  - Option 2: Add diode between devices, see Option 2 note below. ^^

- BACnet® Details:**
  - MS/TP Address & Baud Rate must be set prior to power up via DIP switches.
  - Device ID will default to 277XXX where XXX is the MS/TP Address. Examples:
    - MS/TP Address - 004  
Device ID - 277004
    - MS/TP Address - 121  
Device ID - 277121
  - Device ID can be changed via network command. Once changed, it will no longer default to 277XXX. (MS/TP Address & Device ID must be unique.)
  - This model utilizes: BO 1 (Relay output), BI 1: (Dry contact binary input)
  - Software objects also included but not utilized: BI 2 (Binary input), AI 1 (Analog input)
  - Device Instance changed via Object Identifier Property of Device Object
  - Each unit is 1/8 unit load if date code 041510 or later. (One full load prior to 041510)
  - PIC Statement available on website. [http://www.functionaldevices.com/pdf/datasheets/pics/BACnetRIB\\_PICS\\_V105.pdf](http://www.functionaldevices.com/pdf/datasheets/pics/BACnetRIB_PICS_V105.pdf)
  - Or scan QR code with your smart phone.

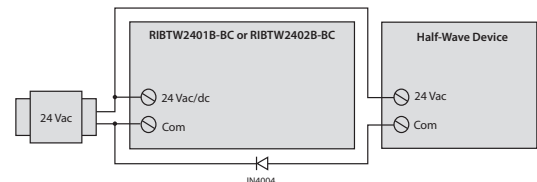
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

DIP SWITCHES*		RELAY STATE**
11	12	
1	0	Auto
X	1	Override on
0	0	Override off

\* 0 = Open ; 1 = Closed  
\*\* Device must be powered for override

All other combinations=9600 baud

• Dry contact binary input is a general purpose input that is not tied to the relay internally. Can be used with any dry contact switching device, such as a current sensor, to report back to the network.



^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).