

**NETWORK COMPATIBLE RELAY / CURRENT SENSOR COMBOS**

**RIBMNWX2402B-BC**

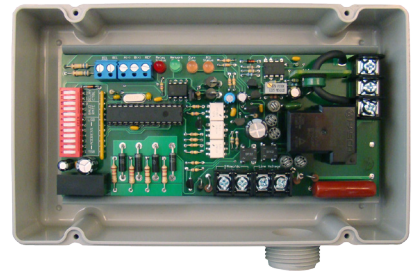
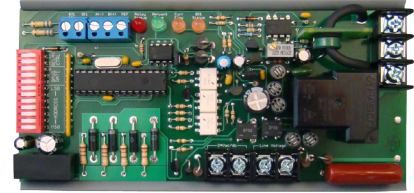
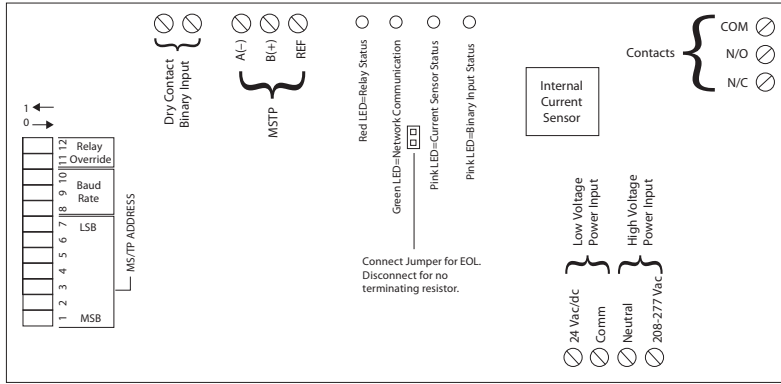
2.75" Track Mount BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); Two Binary Inputs (One Current Sensor 0.25 - 20 Amp, Relay Load Sensing & One Dry Contact Binary Input), 24 Vac/dc or 208-277 Vac Power Input, Optional End of Line Resistor (EOL) Included.

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Made in USA  
Meets "Buy American" of ABRA 2009



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
- Network Communication:** Green LED
- Relay Status:** Red LED On = Activated
- Current Sensor Status:** Pink LED On = Activated
- Binary Input Status:** Pink LED On = Activated
- Dimensions:** 6.00" x 2.75" x 1.75" (RIBMNWX2402B-BC)  
4.28" x 7.00" x 2.00"  
with .75" NPT Nipple (RIBTWX2402B-BC)
- Track Mount:** MT212-6 Mounting Track Provided
- Approvals:** CE, UL Listed, UL916, C-UL, RoHS
- Housing Rating:** UL Listed, NEMA 1, C-UL, CE Approved, UL Accepted for Use in Plenum, Also available NEMA 4 / 4X
- 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:** 24 Vac/dc ; 208-277 Vac ; 50/60 Hz

- Power Input Ratings:**
  - 105 mA @ 24 Vac
  - 78 mA @ 24 Vdc
  - 120 mA @ 208-277 Vac

- Current Sensor Range:** 0.25 - 20 Amps  
Threshold fixed at .25 Amps.

**Notes:**

- Device can be powered by either 24 Vac/dc or 208-277 Vac, but not both.
- Order NEMA 4 housing by adding "-N4" to end of model number. (RIBTWX2402B-BC-N4)
- Order with grey lid by adding "-GY" to end of model number. (RIBTWX2402B-BC-GY)
- Order NEMA 4 housing with grey lid by adding "-N4-GY" to end of model number. (RIBTWX2402B-BC-N4-GY)
- 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), BI 2 (Internal current sensor input)
- Software objects also included but not utilized: 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.

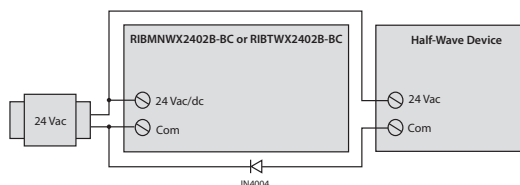
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

All other combinations=9600 baud

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

• 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).

