

# NETWORK COMPATIBLE RELAY / CURRENT SENSOR COMBOS

### **RIBMNWX2401B-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 120 Vac Power Input, Optional End of Line Resistor (EOL) Included.

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Contact Ratings:

2 HP @ 277 Vac

1 HP @ 120 Vac

Power Input:

20 Amp Resistive @ 277 Vac

1110 VA Pilot Duty @ 277 Vac 770 VA Pilot Duty @ 120 Vac

24 Vac/dc ; 120 Vac ; 50/60 Hz

**Power Input Ratings:** 

105 mA @ 24 Vac

78 mA @ 24 Vdc

0.25 - 20 Amps

105 mA @ 120 Vac

**Current Sensor Range:** 

Threshold fixed at .25 Amps.

16 Amp Electronic Ballast @ 277 Vac (N/O)

10 Amp Tungsten @ 120 Vac (N/O)

20 Amp Ballast @ 277 Vac



### 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" (RIBMNWX2401B-BC) 4.28" x 7.00" x 2.00" with .75" NPT Nipple (RIBTWX2401B-BC) Track Mount: MT212-6 Mounting Track Provided Approvals: UL Listed, UL916, C-UL 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  $\Omega$  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)

DI	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



CHES*	RELAY STATE**	
12		
0	Auto	
1	Override on	
0	Override off	
0 = Closed	Override off	
	<b>CHES*</b> 12 0 1 0 2 Closed	

- 🚫 24 Vac/do

🛇 Con

24 Va

 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.

Half-Wave Device

-🚫 24 Vac

-🚫 Com



Or scan QR code with your smart phone.









#### Notes:

- Device can be powered by either 24 Vac/dc or 120 Vac, but not both.
- Order NEMA 4 housing by adding "-N4" to end of model number. (RIBTWX2401B-BC-N4)
- Order with grey lid by adding "-GY" to end of model number. (RIBTWX2401B-BC-GY)
- Order NEMA 4 housing with grey lid by adding "-N4-GY" to end of model number. (RIBTWX2401B-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)
- Device Instance changed via Object Identifier Property of Device Object
- PIC Statement available on website. http://www.functionaldevices.com/pdf/ pics/RIBxWX240xB-BC PICS.pdf



-14-AA Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

BMNWX2401B-BC or RIBTWX2401B-BC