RIB® Building Automation

Functional Devices, Inc. | 101 Commerce Drive, Sharpsville, IN 46068
Email: sales@functionaldevices.com | **Website:** www.functionaldevices.com
Toll Free: (800) 888-5538 | **Office:** (765) 883-5538 | **Fax:** (765) 883-7505
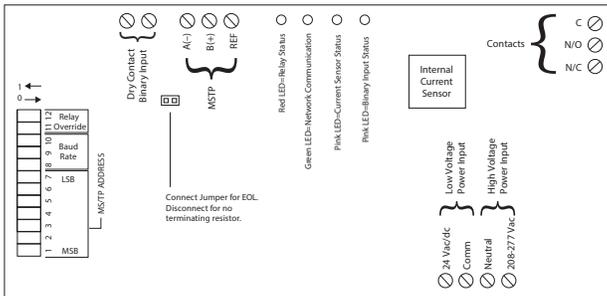
INTELLIGENT FIELD DEVICE - RELAY / CURRENT SENSOR COMBO

RIBMNWX2402B-BC
BACnet MS/TP Network Relay Device, One Binary Output + Override, Two Binary Inputs (One Current Sensor Relay Load Sensing & One Dry Contact Digital Input), 24 Vac/dc or 208-277 Vac Power Input, 2.75" Track Mount

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"H x 2.75"W x 1.25"D1/1.75"D2
Housing Detail:	See **Housing H** in housing guide for dimensions
Origin:	Made of US and non-US parts
Track Mount:	MT212-6 Mounting Track Provided
Approvals:	UL Listed, UL916, C-UL, CE, RoHS, BTL Certified
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.
• 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.

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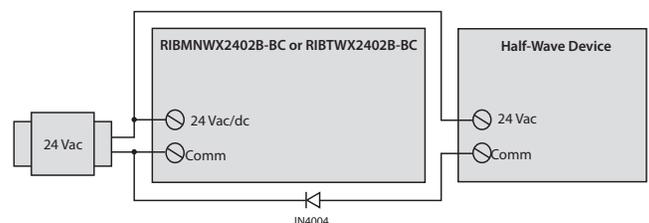
^^ Option 2: Add diode on 24 Vac power (Comm) interconnection between devices. Band on diode faces towards RIB(s).