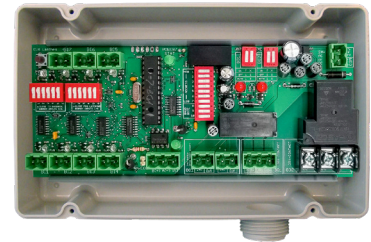
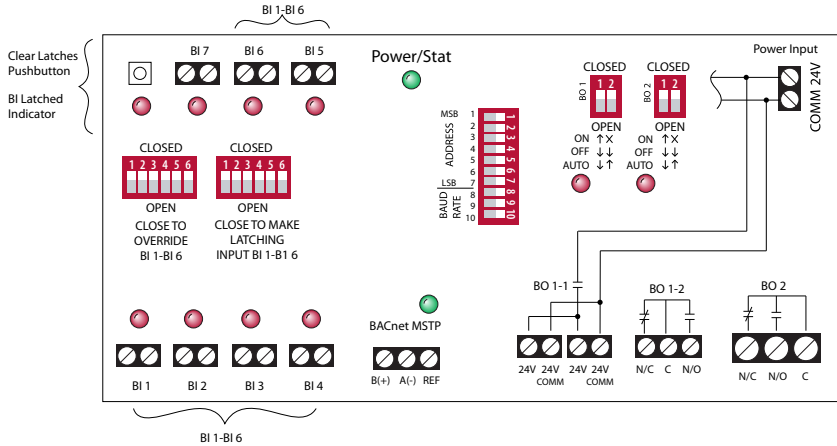


## FAN SAFETY ALARM CIRCUITS

### RIBTWLB-7-BC

Enclosed BACnet® AHU Fan Safety Alarm and General Purpose Logic Circuit, 24Vac/dc Power Input, Standard BACnet® RIB 7, BI and 2 BO Relays when Fan Safety Alarm Circuit Disabled



**RIBTWLB-7-BC**

• NEMA 1 Housing

*Shown without cover*

**RIBTWLB-7-BC-N4**

• NEMA 4/4X Housing

## SPECIFICATIONS

- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 8ms
- Power Input:** 24 Vac/dc: 50-60 Hz  
Max current input determined by adding load current user applies to BO 1-1 (3A Max) plus 75 mA @ 24 Vac or 30 mA @ 24 Vdc depending on power source supplied by user to power RIB device, 24 Vac or 24 Vdc
- Dimensions:** 4.28" x 7.00" x 2.00"
- Approvals:** UL864, UL916, C-UL, CE, RoHS (RIBTWLB-7-BC)  
UL916, C-UL, CE, RoHS (RIBTWLB-7-BC-N4)
- Housing Rating:** NEMA 1 (RIBTWLB-7-BC)  
NEMA 4/4X acceptable only in UL916 applications (RIBTWLB-7-BC-N4)
- Relay Rating, BO 1-1:** 3 Amp Max @ 24 Vac or 24 Vdc (depending on power source supplied by user to power RIB device)
- Relay Rating, BO 1-2:** 10 Amp Resistive @ 30 Vdc  
10 Amp General Use @ 277 Vac  
1/2 HP @ 120/240 Vac
- Relay Rating, BO 2:** 20 Amp Resistive @ 277 Vac  
5 Amp @ 480 Vac  
20 Amp Ballast @ 277 Vac  
16 Amp Electronic Ballast @ 277 Vac  
1 HP @ 120 Vac  
2 HP @ 277 Vac
- 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)

### 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. ^^
- RIBTWLB-7-BC operates as a Fan-Safety-Circuit by default from the factory. However, Fan-Safety-Circuit function can be disabled and RIB can be used as a standard BACnet RIB with 2 BO relays and 7 general-purpose BI. Fan-Safety-Circuit mode sets up BI 1-BI 6 in an AND function where when all of BI 1-BI 6 are closed, BO 1 will close.
- Enable and disable Fan-Safety-Circuit function by way of Proprietary Property AND\_Function\_Enable (No. 277001) in BO 1. (Binding of BI 7 to BO 2 is usually used as part of Fan-Safety-Circuit function and it may be desirable to disable this too if not using Fan-Safety-Circuit function.)

### 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:

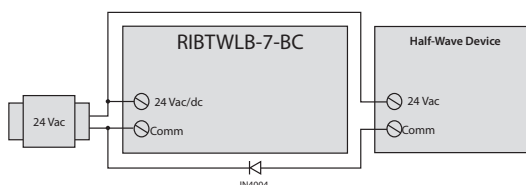
|                     |
|---------------------|
| MS/TP Address - 004 |
| Device ID - 277004  |
| MS/TP Address - 121 |
| Device ID - 277121  |

- 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.)

| 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

\* 0 = Open ; 1 = Closed



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

## WIRING DIAGRAM

