

# TABLE OF CONTENTS

2016 RIB® Catalog



**Functional**  
Devices, Inc.™

<b>NEW PRODUCTS</b>	<b>2</b>
<b>RELAYS</b> 10-15 AMP: 3   20-30 AMP: 23   LATCHING: 44   LOW INPUT / OPTOISOLATED: 47   ALARM: 55 DRY CONTACT INPUT: 59   NETWORK COMPATIBLE DEVICES: 65   SPECIALTY PERIPHERAL CONTROLS: 83	<b>3</b>
<b>CURRENT SENSORS</b> SOLID & SPLIT CORE: 93   TRANSDUCERS: 95   T STYLE: 98   TRACK MOUNT: 99 ENCLOSED, T STYLE & TRACK MOUNT COMBINATIONS: 100	<b>91</b>
<b>POWER SUPPLIES</b> AC: 108   DC: 125	<b>107</b>
<b>TRANSFORMERS</b> U.S. MANUFACTURED: 130	<b>129</b>
<b>POWER CONTROL</b> POWER CONTROL CENTERS: 134   TRACK MOUNT CIRCUIT BREAKER SWITCHES: 134 PREPACKAGED SWITCHES: 135   UPS INTERFACE DEVICES: 136	<b>133</b>
<b>ENCLOSURES</b> PLASTIC: 141   SMALL METAL: 142   MEDIUM METAL: 143   LARGE METAL: 144	<b>141</b>
<b>ACCESSORIES</b> SUB-PANELS: 148   MOUNTING SUPPLIES: 152   REPLACEMENT PARTS: 153	<b>147</b>
<b>WIRELESS DEVICES</b> WIRELESS CONTROL RELAYS: 156   WIRELESS TRANSMITTERS: 157	<b>155</b>
<b>ENERGY SAVING DEVICES</b> HALF-LIGHT® BALLAST CONTROLLERS: 160	<b>159</b>
<b>INDEX</b>	<b>163</b>

# PILOT RELAYS: 10–15 AMPS

Enclosed | T Style | Track Mount



**Made in the U.S.A.**  
Meets the "Buy American" provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).

## Prepackaged For Convenience – Great Time Saver

- LED indicator
- Multi-voltage coil input
- Several different contact ratings
- True override switch on load side of relay
- High/low voltage separation
- 10-15 Amp models
- Pre-wired
- Track mount panel style
- Time delay models

### ENCLOSED PILOT RELAYS

MODEL #	UL	COIL VOLTAGE		RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
		AC/DC	AC					
RIBU1C	•	10-30	120	1	SPDT			4
RIBH1C	•	10-30	208-277	1	SPDT			4
RIBU2C	•	10-30	120	2	2 SPDT			5
RIBH2C	•	10-30	208-277	2	2 SPDT			5
RIBL3C	•	10-30		3	3 SPST			5
RIBL4C	•	10-30		4	3 SPST, 1 SPDT			5
RIBU1S	•	10-30	120	1	SPST	1		6
RIBH1S	•	10-30	208-277	1	SPST	1		6
RIBU1SM-250	•	10-30	120	1	SPST	1+monitor		6
RIBH1SM-250	•	10-30	208-277	1	SPST	1+monitor		6
RIB2401D	•	24	120	1	DPDT			7
RIB2402D	•	24	208-277	1	DPDT			7
RIBU1SC	•	10-30	120	1	SPDT	2 <sup>3</sup>		7
RIBH1SC	•	10-30	208-277	1	SPDT	2 <sup>3</sup>		7
RIBL1C-DC	•	10-30 <sup>1</sup>		1	SPDT			8
RIB2421C	•	24	120-277	1	SPDT			8
RIBD2421C	•	24	120-277	1	SPDT		2	9
RIBU2SC	•	10-30	120	2	1 SPST, 1 SPDT	1		10
RIBU2S2	•	10-30	120	2	2 SPST	2		10

### T STYLE PILOT RELAYS

MODEL #	UL	COIL VOLTAGE		RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
		AC/DC	AC					
RIBTU1C	•	10-30	120	1	SPDT			11
RIBTH1C	•	10-30	208-277	1	SPDT			11
RIBTU2C	•	10-30	120	2	2 SPDT			11
RIBTH2C	•	10-30	208-277	2	2 SPDT			11
RIBU1CW	•	10-30	120	1	SPDT			12
RIBH1CW	•	10-30	208-277	1	SPDT			12
RIBTU1S	•	10-30	120	1	SPST	1		12
RIBTH1S	•	10-30	208-277	1	SPST	1		12
RIBTU1SC	•	10-30	120	1	SPDT	2 <sup>3</sup>		13
RIBTH1SC	•	10-30	208-277	1	SPDT	2 <sup>3</sup>		13
RIBT2401D	•	24	120	1	DPDT			13

UL = UL Listed : UL916 Energy Management, UL864 Fire ; USA & Canada

1 = DC Only

2 = Time Delay

3 = SPDT with override requires 2 switches

# TRACK MOUNT PILOT RELAYS

RELAYS

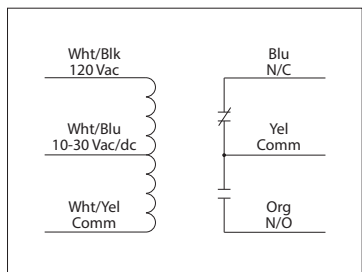
MODEL #	UL	COIL VOLTAGE		RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
		AC/DC	AC					
RIBAN12C	• 1	12		1	SPDT			14
RIBAN24C	• 1	24		1	SPDT			14
RIBM12C	•	12		1	SPDT			15
RIBM12S	•	12		1	SPST	1		15
RIBM24C	•	24		1	SPDT			15
RIBM24S	•	24		1	SPST	1		15
RIBM2401D	•	24	120	1	DPDT			16
RIBM2402D	•	24	208-277	1	DPDT			16
RIBMU1C	•	10-30	120	1	SPDT			16
RIBMU1S	•	10-30	120	1	SPST	1		17
RIBMH1C	•	10-30	208-277	1	SPDT			16
RIBMH1S	•	10-30	208-277	1	SPST	1		17
RIBMU2C	•	10-30	120	2	2 SPDT			17
RIBMH2C	•	10-30	208-277	2	2 SPDT			17
RIBMU1SM-250	•	10-30	120	1	SPST	1+monitor		18
RIBMH1SM-250	•	10-30	208-277	1	SPST	1+monitor		18
RIBMU1SC	•	10-30	120	1	SPDT	2 <sup>2</sup>		18
RIBMH1SC	•	10-30	208-277	1	SPDT	2 <sup>2</sup>		18
RIBMN12C	•	12		1	SPDT			19
RIBMN12S	•	12		1	SPST	1		19
RIBMN24C	•	24		1	SPDT			19
RIBMN24S	•	24		1	SPST	1		19
RIBMN24S-J	•	24		1	SPST	1		20
RIBMN24C-4T	•	24		4	4 SPDT			20
RIBMN24S-4T	•	24		4	4 SPST	4		20
RIBMN2401D	•	24	120	1	DPDT			21
RIBMNU1C	•	10-30	120	1	SPDT			21
RIBMNU1S	•	10-30	120	1	SPST	1		22
RIBMNH1C	•	10-30	208-277	1	SPDT			21
RIBMNH1S	•	10-30	208-277	1	SPST	1		22

UL = UL Listed : UL916 Energy Management, UL864 Fire ; USA & Canada      1 = UL Listed : UL508 only ; USA & Canada      2 = SPDT with override requires 2 switches

## 10 AMP PILOT CONTROL RELAYS

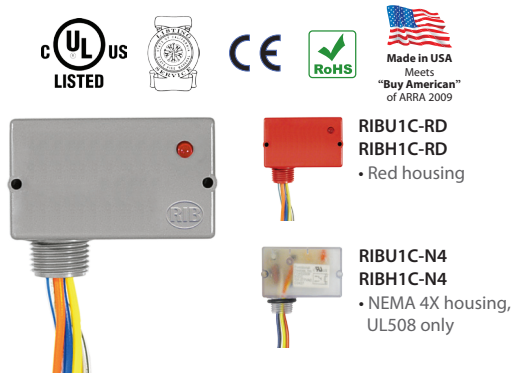
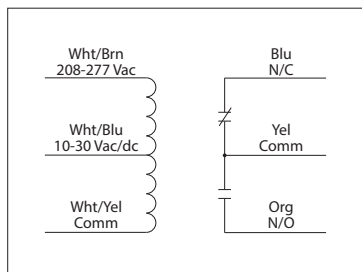
### RIBU1C

Enclosed Relay 10 Amp SPDT with 10-30 Vac/dc/120 Vac Coil



### RIBH1C

Enclosed Relay 10 Amp SPDT with 10-30 Vac/dc/208-277 Vac Coil



## 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 10 Amp Resistive @ 28 Vdc  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

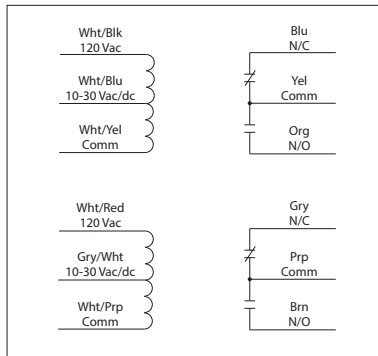
**Coil Current:**  
 33 mA @ 10 Vac      13 mA @ 10 Vdc  
 35 mA @ 12 Vac      15 mA @ 12 Vdc  
 46 mA @ 24 Vac      18 mA @ 24 Vdc  
 55 mA @ 30 Vac      20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBU1C)  
 39 mA @ 208-277 Vac (RIBH1C)

**Coil Voltage Input:**  
 10-30 Vac/dc ; 120 Vac ; 50-60 Hz (RIBU1C)  
 10-30 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBH1C)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 10 AMP PILOT CONTROL RELAYS

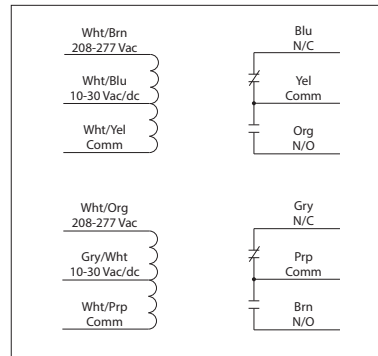
### RIBU2C

Enclosed Relays 10 Amp 2 SPDT with  
10-30 Vac/dc/**120 Vac Coil**



### RIBH2C

Enclosed Relays 10 Amp 2 SPDT with  
10-30 Vac/dc/**208-277 Vac Coil**



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** Two (2) 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .75" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 10 Amp Resistive @ 28 Vdc  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

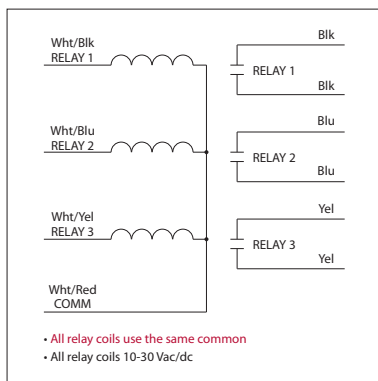
**Coil Current:**  
 33 mA @ 10 Vac    13 mA @ 10 Vdc  
 35 mA @ 12 Vac    15 mA @ 12 Vdc  
 46 mA @ 24 Vac    18 mA @ 24 Vdc  
 55 mA @ 30 Vac    20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBU2C)  
 39 mA @ 208-277 Vac (RIBH2C)

**Coil Voltage Input:**  
 10-30 Vac/dc ; 120 Vac ; 50-60 Hz (RIBU2C)  
 10-30 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBH2C)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 10 AMP PILOT CONTROL RELAYS

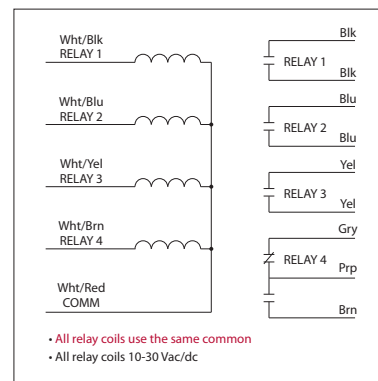
### RIBL3C

Enclosed Relays 10 Amp **3 SPST-N/O** with  
10-30 Vac/dc Coil



### RIBL4C

Enclosed Relays 10 Amp **3 SPST-N/O + 1 SPDT** with 10-30 Vac/dc Coil



## SPECIFICATIONS

**# Relays & Contact Type:** Three (3) SPST Continuous Duty Coil (RIBL3C)  
 Three (3) SPST + One (1) SPDT Continuous Duty Coil (RIBL4C)  
**Expected Relay Life:** 10 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Operate Time:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 10 Amp Resistive @ 28 Vdc  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

**Coil Current:**  
 33 mA @ 10 Vac    13 mA @ 10 Vdc  
 35 mA @ 12 Vac    15 mA @ 12 Vdc  
 46 mA @ 24 Vac    18 mA @ 24 Vdc  
 55 mA @ 30 Vac    20 mA @ 30 Vdc

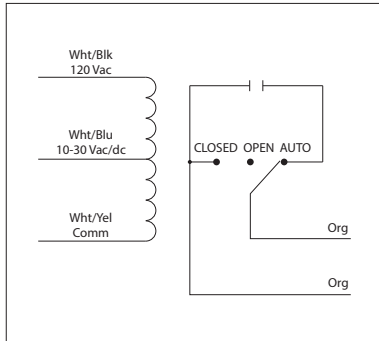
**Coil Voltage Input:**  
 10-30 Vac/dc ; 50-60 Hz  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 10 AMP PILOT CONTROL RELAYS

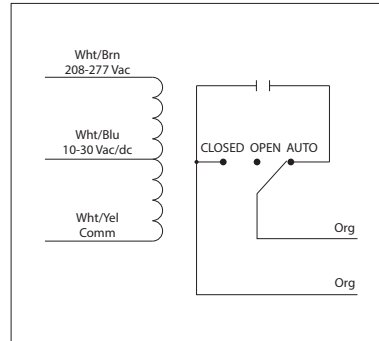
### RIBU1S

Enclosed Relay 10 Amp SPST-N/O + Override with 10-30 Vac/dc/120 Vac Coil



### RIBH1S

Enclosed Relay 10 Amp SPST-N/O + Override with 10-30 Vac/dc/208-277 Vac Coil



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** Yes

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)  
**Coil Voltage Input:**  
 10-30 Vac/dc ; 120 Vac ; 50-60 Hz (RIBU1S)  
 10-30 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBH1S)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

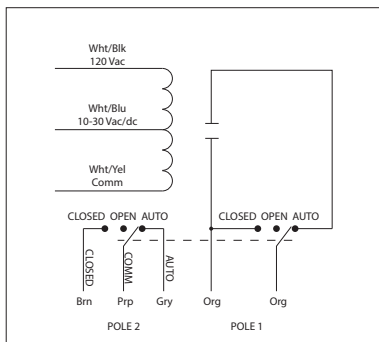
**Coil Current:**  
 33 mA @ 10 Vac      13 mA @ 10 Vdc  
 35 mA @ 12 Vac      15 mA @ 12 Vdc  
 46 mA @ 24 Vac      18 mA @ 24 Vdc  
 55 mA @ 30 Vac      20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBU1S)  
 39 mA @ 208-277 Vac (RIBH1S)

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 10 AMP PILOT CONTROL RELAYS

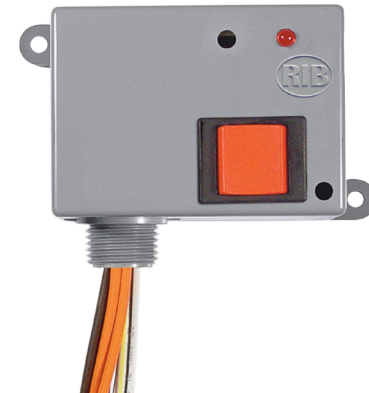
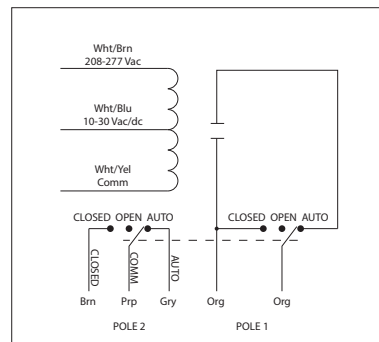
### RIBU1SM-250

Enclosed Relay 10 Amp SPST-N/O + Override + Monitor with 10-30 Vac/dc/120 Vac Coil



### RIBH1SM-250

Enclosed Relay 10 Amp SPST-N/O + Override + Monitor with 10-30 Vac/dc/208-277 Vac Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** Yes + Monitor

**Contact Ratings:**  
 10 Amp Resistive @ 120/250 Vac  
 345 VA Pilot Duty @ 120/240 Vac  
 211 VA Pilot Duty @ 120/240 Vac  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)

**Coil Current:**  
 55 mA @ 30 Vac  
 28 mA @ 120 Vac (RIBU1SM-250)  
 39 mA @ 208-277 Vac (RIBH1SM-250)  
 20 mA @ 30 Vdc

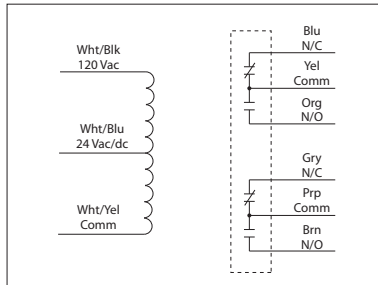
**Coil Voltage Input:**  
 10-30 Vac/dc ; 120 Vac ; 50-60 Hz (RIBU1SM-250)  
 10-30 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBH1SM-250)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

**Notes:**  
 • Second pole of override switch can be connected to digital-in of controller to report position of override switch  
 • Rating of second pole is 250 Vac max and 5 Amp max  
 • Order Normally Closed by adding "-NC" to end of model number

## 10 AMP PILOT CONTROL RELAYS

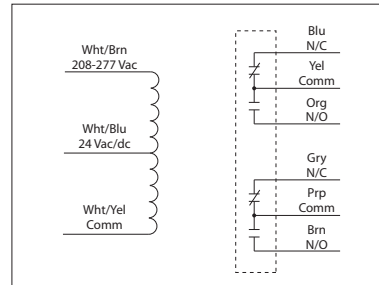
### RIB2401D

Enclosed Relay 10 Amp DPDT with  
24 Vac/dc/120 Vac Coil



### RIB2402D

Enclosed Relay 10 Amp DPDT with  
24 Vac/dc/208-277 Vac Coil



**RIB2401D-RD**  
**RIB2402D-RD**  
• Red housing



**RIB2401D-N4**  
**RIB2402D-N4**  
• NEMA 4X housing,  
UL508 only

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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:** 8ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 30 Vdc  
 10 Amp General Use @ 277 Vac  
 1/2 HP @ 120/240 Vac (N/O)  
 1/3 HP @ 120/240 Vac (N/C)  
**B300 Pilot Duty**  
 120 Vac 30A Make 3A Break (360 VA)  
 240 Vac 15A Make 1.5A Break (360 VA)  
 208 Vac 17.3A Make 1.73A Break (360 VA)  
 277 Vac 13A Make 1.3A Break (360 VA)  
 24 Vac 30A Make 5A Break (120VA) 5A Max

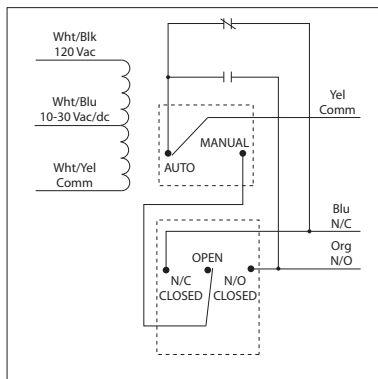
**Coil Current:**  
 24 mA @ 18 Vac      20 mA @ 20 Vdc  
 32 mA @ 24 Vac      24 mA @ 24 Vdc  
 40 mA @ 30 Vac      36 mA @ 30 Vdc  
 31 mA @ 120 Vac (RIB2401D)  
 36 mA @ 208-277 Vac (RIB2402D)

**Coil Voltage Input:**  
 24 Vac/dc ; 120 Vac ; 50-60 Hz (RIB2401D)  
 24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIB2402D)  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 20 Vdc

## 10 AMP PILOT CONTROL RELAYS

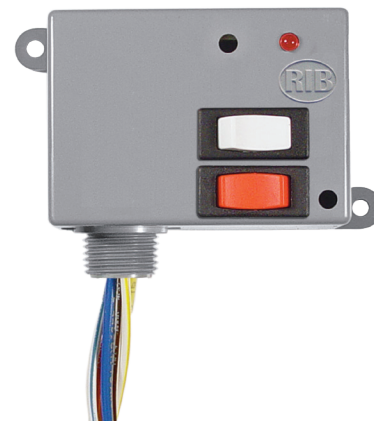
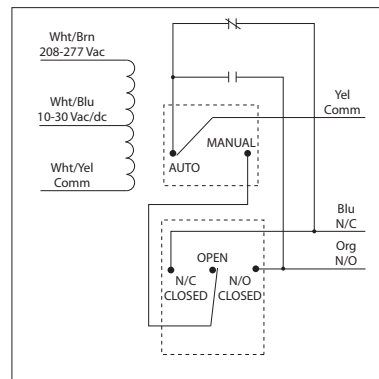
### RIBU1SC

Enclosed Relay 10 Amp SPDT + Override with  
10-30 Vac/dc/120 Vac Coil



### RIBH1SC

Enclosed Relay 10 Amp SPDT + Override with  
10-30 Vac/dc/208-277 Vac Coil



## 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** Yes (2)

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

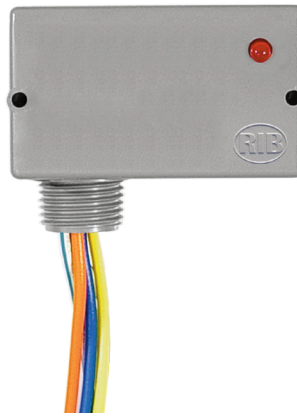
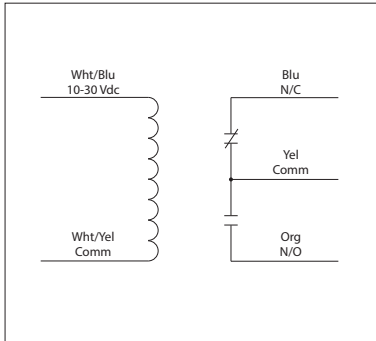
**Coil Current:**  
 33 mA @ 10 Vac      13 mA @ 10 Vdc  
 35 mA @ 12 Vac      15 mA @ 12 Vdc  
 46 mA @ 24 Vac      18 mA @ 24 Vdc  
 55 mA @ 30 Vac      20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBU1SC)  
 39 mA @ 208-277 Vac (RIBH1SC)

**Coil Voltage Input:**  
 10-30 Vac/dc ; 120 Vac ; 50-60 Hz (RIBU1SC)  
 10-30 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBH1SC)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 10 AMP PILOT CONTROL RELAYS

### RIBL1C-DC

Enclosed Relay 10 Amp SPDT with 10-30 Vdc  
Limited Inrush Coil



RIBL1C-DC-RD  
• Red housing



RIBL1C-DC-N4  
• NEMA 4X housing,  
UL508 only



### 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 10 Amp Resistive @ 28 Vdc  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

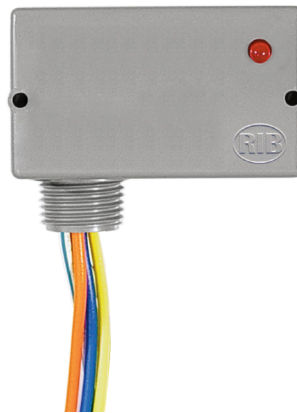
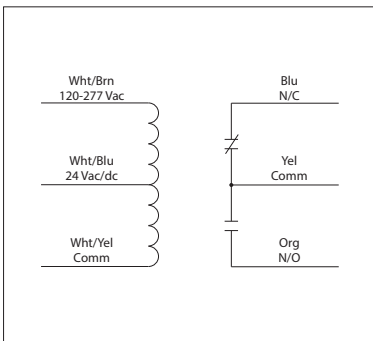
**Coil Current:**  
 13 mA @ 10 Vdc  
 15 mA @ 12 Vdc  
 18 mA @ 24 Vdc  
 20 mA @ 30 Vdc

**Coil Voltage Input:**  
 10-30 Vdc  
 Drop Out = 2.8 Vdc  
 Pull In = 10 Vdc

## 10 AMP PILOT CONTROL RELAYS

### RIB2421C

Enclosed Relay 10 Amp SPDT with  
24 Vac/dc/120-277 Vac Coil



RIB2421C-RD  
• Red housing



RIB2421C-N4  
• NEMA 4X housing,  
UL508 only



**GREAT SERVICE  
TRUCK RELAY  
ONE RELAY COVERS  
MOST APPLICATIONS**

### 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 C300 Pilot Duty

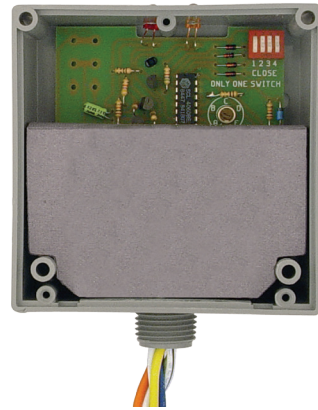
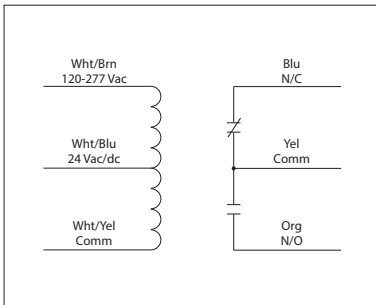
**Coil Current:**  
 66 mA @ 24 Vac  
 38 mA @ 24 Vdc  
 40 mA @ 120-277 Vac

**Coil Voltage Input:**  
 24 Vac/dc ; 120-277 Vac ; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 20 Vdc

# 10 AMP PILOT CONTROL RELAY

## RIBD2421C

Enclosed Time Delay Relay 10 Amp SPDT with 24 Vac/dc/120-277 Vac Coil



RELAYS

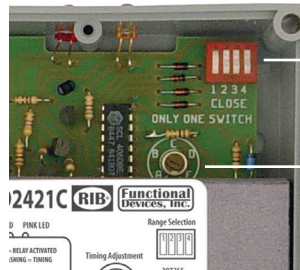
### SPECIFICATIONS

- # 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:** 6ms after time delay
  - Relay Status:** RED LED On = Activated
  - Time Delay Status:** PINK LED FLASHING = Timing
  - Timing Mode:** Delay On Make (N/O)
  - Timing Range:** 6 seconds - 20 minutes
  - Timing Adjustment:** 4 position DIP switch for range selection and single turn potentiometer for timing adjustment within range
- Timing Tolerance:** Switches 1 & 2 = ±10%  
Switches 3 & 4 = ±5%
- Timing Repeatability:** ±1%
- Temperature Timing Variance:** ±1%
- Voltage Timing Variance:** ±1%
- Recycle Time:** 750ms Maximum
- Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple
- Wires:** 16", 600V Rated
- Approvals:** UL Listed, UL916, UL864, C-UL California State Fire Marshal, CE, RoHS
- Housing Rating:** UL Accepted for Use in Plenum, NEMA 1
- Gold Flash:** No
- Override Switch:** No

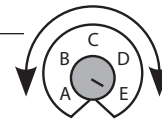
- Contact Ratings:**
  - 10 Amp General Use @ 277 Vac
  - 10 Amp Resistive @ 30 Vdc (N/O)
  - 7 Amp Resistive @ 30 Vdc (N/C)
  - 1/2 HP @ 125 Vac
  - 1 HP @ 250 Vac
  - 1/4 HP @ 277 Vac
  - C300 Pilot Duty

- Input Current:**
  - 66 mA @ 24 Vac
  - 38 mA @ 24 Vdc
  - 40 mA @ 120-277 Vac

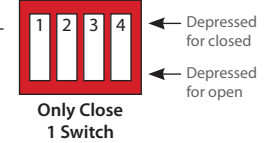
- Coil Voltage Input:**
  - 24 Vac/dc; 120-277 Vac; 50-60 Hz
  - Drop Out = 3 Vac / 3.8 Vdc
  - Pull In = 20 Vac / 20 Vdc



Timing Adjustment

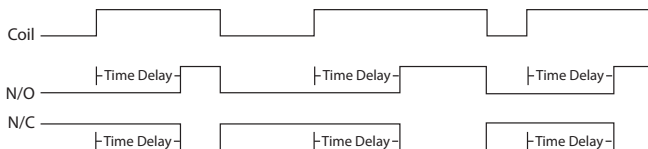


Range Selection



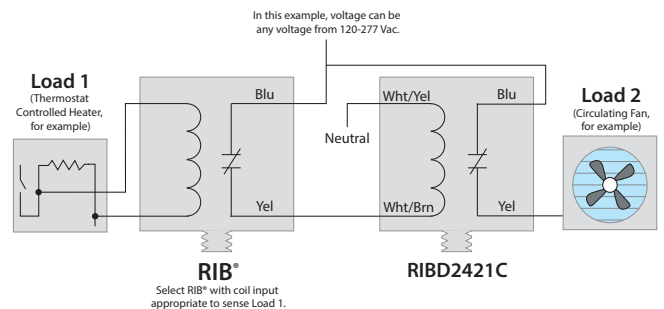
TIMING TABLE						
Switch Ranges	Close Dip Switch	Potentiometer Setting				
		A	B	C	D	E
6s-20s	1	6s	9s	13s	16s	20s
22s-1min15s	2	22s	36s	50s	1min4s	1min15s
1min30s-5min	3	1min30s	2min10s	3min20s	4min16s	5min
6min-20min	4	6min	9min	13min20s	17min20s	20min

Timing Diagram



### Time Delay Application

Load 2 stays on selected amount of time after Load 1 goes off.

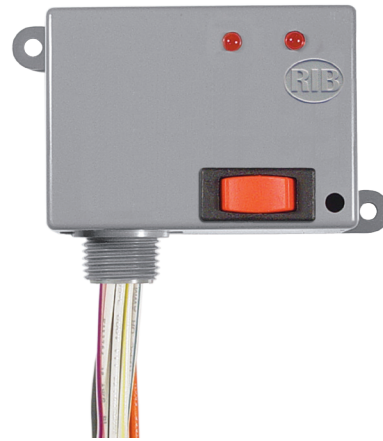
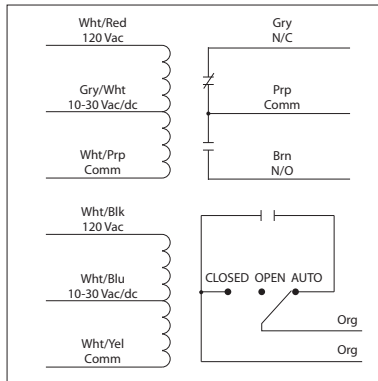




## 10 AMP PILOT CONTROL RELAY

### RIBU2SC

Enclosed Relays 10 Amp SPST-N/O + Override  
+ 1 SPDT with 10-30 Vac/dc/120 Vac Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST + 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:** 20ms

**Relay Status:** LED On = Activated

**Dimensions:** 2.30" x 3.20" x 1.80" with .75" NPT nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** Yes

**Override Switch:** Yes

**Contact Ratings:**  
10 Amp Resistive @ 277 Vac  
480 VA Pilot Duty @ 277 Vac  
480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
600 Watt Tungsten @ 120 Vac (N/O)  
240 Watt Tungsten @ 120 Vac (N/C)  
1/3 HP @ 120-240 Vac (N/O)  
1/6 HP @ 120-240 Vac (N/C)  
1/4 HP @ 277 Vac (N/O)  
1/8 HP @ 277 Vac (N/C)

**Coil Current:**  
33 mA @ 10 Vac  
35 mA @ 12 Vac  
46 mA @ 24 Vac  
55 mA @ 30 Vac  
28 mA @ 120 Vac  
13 mA @ 10 Vdc  
15 mA @ 12 Vdc  
18 mA @ 24 Vdc  
20 mA @ 30 Vdc

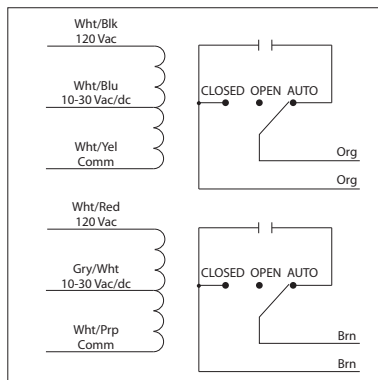
**Coil Voltage Input:**  
10-30 Vac/dc; 120 Vac; 50-60 Hz  
Drop Out = 2.1 Vac / 2.8 Vdc  
Pull In = 9 Vac / 10 Vdc

**Notes:**  
• Order Normally Closed by adding  
"-NC" to end of model number

## 10 AMP PILOT CONTROL RELAY

### RIBU2S2

Enclosed Relays 10 Amp 2 SPST-N/O + 2  
Overrides with 10-30 Vac/dc/120 Vac Coil



### SPECIFICATIONS

**# Relays & Contact Type:** Two (2) SPST 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:** 20ms

**Relay Status:** LED On = Activated

**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** Yes

**Override Switch:** Yes (2)

**Contact Ratings:**  
10 Amp Resistive @ 277 Vac  
480 VA Pilot Duty @ 277 Vac  
480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
600 Watt Tungsten @ 120 Vac (N/O)  
240 Watt Tungsten @ 120 Vac (N/C)  
1/3 HP @ 120-240 Vac (N/O)  
1/6 HP @ 120-240 Vac (N/C)  
1/4 HP @ 277 Vac (N/O)  
1/8 HP @ 277 Vac (N/C)

**Coil Current:**  
33 mA @ 10 Vac  
35 mA @ 12 Vac  
46 mA @ 24 Vac  
55 mA @ 30 Vac  
28 mA @ 120 Vac  
13 mA @ 10 Vdc  
15 mA @ 12 Vdc  
18 mA @ 24 Vdc  
20 mA @ 30 Vdc

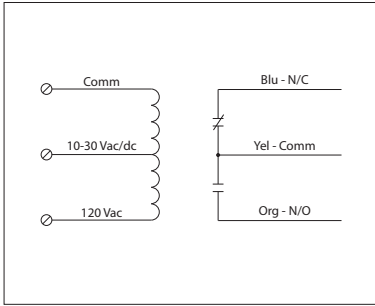
**Coil Voltage Input:**  
10-30 Vac/dc; 120 Vac; 50-60 Hz  
Drop Out = 2.1 Vac / 2.8 Vdc  
Pull In = 9 Vac / 10 Vdc

**Notes:**  
• Order Normally Closed by adding  
"-NC" to end of model number

## 10 AMP PILOT CONTROL RELAYS

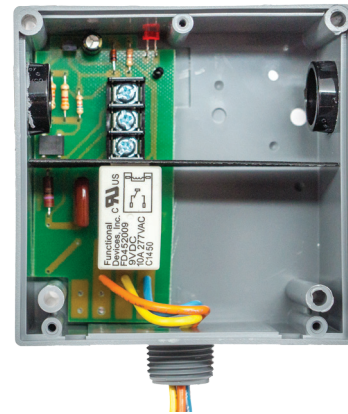
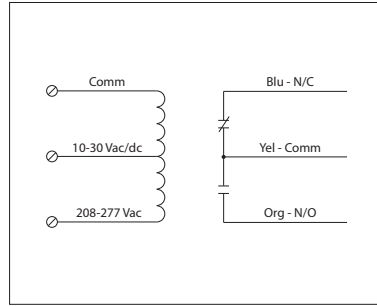
### RIBTU1C

Enclosed Relay Hi/Low Separation 10 Amp  
SPDT with 10-30 Vac/dc/**120 Vac Coil**



### RIBTH1C

Enclosed Relay Hi/Low Separation 10 Amp  
SPDT with 10-30 Vac/dc/**208-277 Vac Coil**



## 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 10 Amp Resistive @ 28 Vdc  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

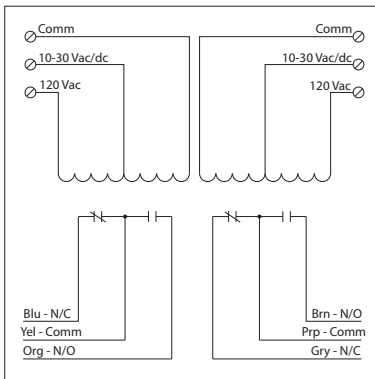
**Coil Current:**  
 33 mA @ 10 Vac    13 mA @ 10 Vdc  
 35 mA @ 12 Vac    15 mA @ 12 Vdc  
 46 mA @ 24 Vac    18 mA @ 24 Vdc  
 55 mA @ 30 Vac    20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBTU1C)  
 39 mA @ 208-277 Vac (RIBTH1C)

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBTU1C)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBTH1C)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 10 AMP PILOT CONTROL RELAYS

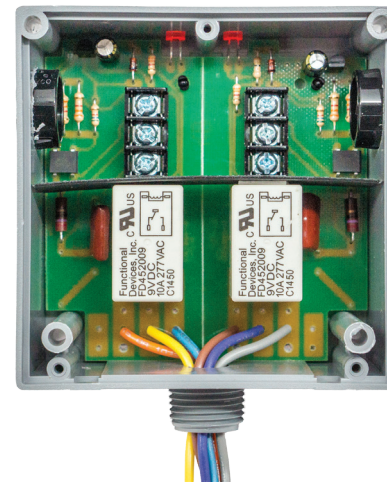
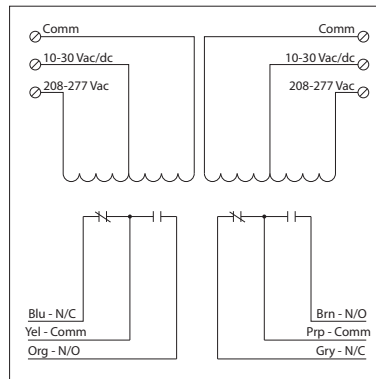
### RIBTU2C

Enclosed Relays Hi/Low Separation 10 Amp  
2 SPDT with 10-30 Vac/dc/**120 Vac Coil**



### RIBTH2C

Enclosed Relays Hi/Low Separation 10 Amp  
2 SPDT with 10-30 Vac/dc/**208-277 Vac Coil**



## SPECIFICATIONS

**# Relays & Contact Type:** Two (2) 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 10 Amp Resistive @ 28 Vdc  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

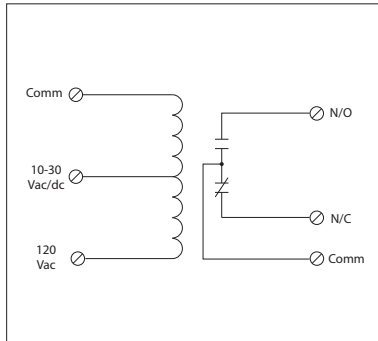
**Coil Current:**  
 33 mA @ 10 Vac    13 mA @ 10 Vdc  
 35 mA @ 12 Vac    15 mA @ 12 Vdc  
 46 mA @ 24 Vac    18 mA @ 24 Vdc  
 55 mA @ 30 Vac    20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBTU2C)  
 39 mA @ 208-277 Vac (RIBTH2C)

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBTU2C)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBTH2C)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 15 AMP PILOT CONTROL RELAYS

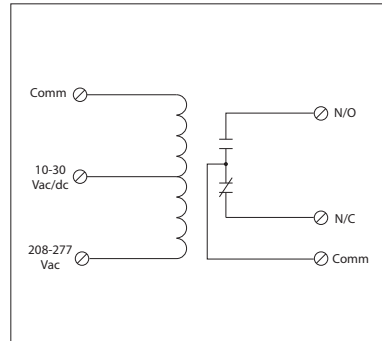
### RIBU1CW

Enclosed Relay Hi/Low Separation 15 Amp SPDT with 10-30 Vac/dc/120 Vac Coil



### RIBH1CW

Enclosed Relay Hi/Low Separation 15 Amp SPDT with 10-30 Vac/dc/208-277 Vac Coil



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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple  
**Approvals:** UL Listed, UL916, UL864, C-UL California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 15 Amp Resistive @ 150 Vac, 28Vdc  
 15 Amp Inductive @ 150 Vac  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

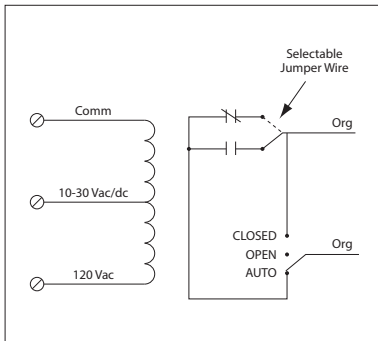
**Coil Current:**  
 33 mA @ 10 Vac    13 mA @ 10 Vdc  
 35 mA @ 12 Vac    15 mA @ 12 Vdc  
 46 mA @ 24 Vac    18 mA @ 24 Vdc  
 55 mA @ 30 Vac    20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBU1CW)  
 39 mA @ 208-277 Vac (RIBH1CW)

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBU1CW)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBH1CW)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 10 AMP PILOT CONTROL RELAYS

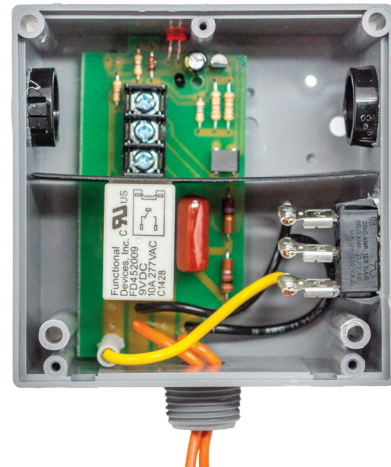
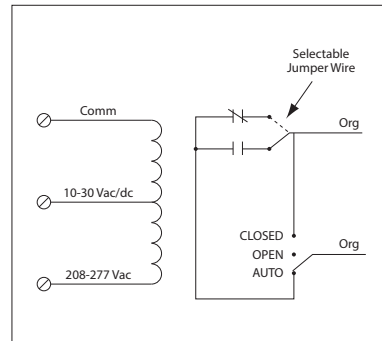
### RIBTU1S

Enclosed Relay Hi/Low Separation 10 Amp SPST + Override with 10-30 Vac/dc/120 Vac Coil



### RIBTH1S

Enclosed Relay Hi/Low Separation 10 Amp SPST + Override with 10-30 Vac/dc/208-277 Vac Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** Yes

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

**Notes:**  
 • Normally Open or Normally Closed selected by yellow jumper wire

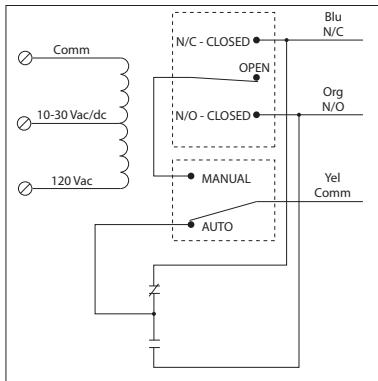
**Coil Current:**  
 33 mA @ 10 Vac    13 mA @ 10 Vdc  
 35 mA @ 12 Vac    15 mA @ 12 Vdc  
 46 mA @ 24 Vac    18 mA @ 24 Vdc  
 55 mA @ 30 Vac    20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBTU1S)  
 39 mA @ 208-277 Vac (RIBTH1S)

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBTU1S)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBTH1S)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 10 AMP PILOT CONTROL RELAYS

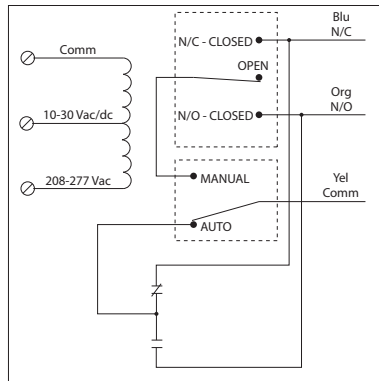
### RIBTU1SC

Enclosed Relay Hi/Low Separation 10 Amp  
SPDT + Override with 10-30 Vac/dc/  
120 Vac Coil



### RIBTH1SC

Enclosed Relay Hi/Low Separation 10 Amp  
SPDT + Override with 10-30 Vac/dc/  
208-277 Vac Coil



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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** Yes (2)

**Contact Ratings:**  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

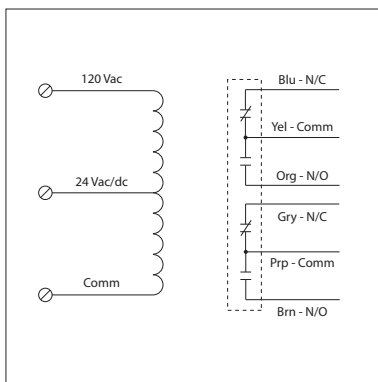
**Coil Current:**  
 33 mA @ 10 Vac      13 mA @ 10 Vdc  
 35 mA @ 12 Vac      15 mA @ 12 Vdc  
 46 mA @ 24 Vac      18 mA @ 24 Vdc  
 55 mA @ 30 Vac      20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBTU1SC)  
 39 mA @ 208-277 Vac (RIBTH1SC)

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBTU1SC)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBTH1SC)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 10 AMP PILOT CONTROL RELAY

### RIBT2401D

Enclosed Relay Hi/Low Separation 10 Amp  
DPDT with 24 Vac/dc/120 Vac Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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:** 8ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 30 Vdc  
 10 Amp General Use @ 277 Vac  
 1/2 HP @ 120/240 Vac (N/O)  
 1/3 HP @ 120/240 Vac (N/C)  
**B300 Pilot Duty**  
 120 Vac 30A Make 3A Break (360 VA)  
 240 Vac 15 A Make 1.5A Break (360 VA)  
 208 Vac 17.3A Make 1.73A Break (360 VA)  
 277 Vac 13A Make 1.3A Break (360 VA)  
 24 Vac 30A Make 5A Break (120VA) 5A Max

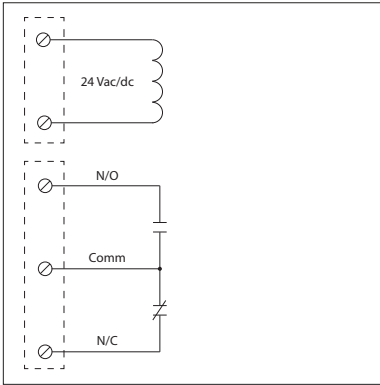
**Coil Current:**  
 24 mA @ 18 Vac  
 32 mA @ 24 Vac  
 40 mA @ 30 Vac  
 31 mA @ 120 Vac  
 20 mA @ 20 Vdc  
 24 mA @ 24 Vdc  
 36 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc; 120 Vac; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 20 Vdc

## 10 AMP TRACK MOUNT CONTROL RELAYS

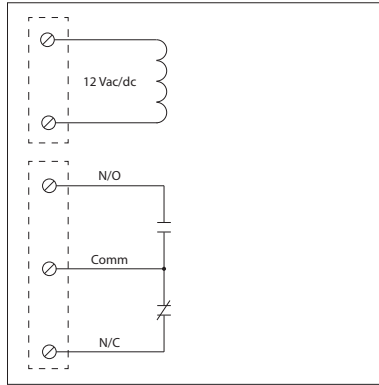
### RIBAN24C

Track Mount Relay 10 Amp SPDT with  
24 Vac/dc Coil



### RIBAN12C

Track Mount Relay 10 Amp SPDT with  
12 Vac/dc Coil



**REMOVABLE  
TERMINALS**

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPDT Continuous Duty Coil

**Expected Relay Life:** 10 million cycles minimum mechanical

**Operating Temperature:** -30 to 140° F

**Operate Time:** 6ms

**Relay Status:** LED On = Activated

**Dimensions:** 1.025" x 2.750" x 2.850"

**Terminals:** Removable, Accepts 22-16 AWG copper wires

**Mounting:** A: 2.750" Track Mount, See MT212 Series on page 152. **MT212 Mounting Track Sold Separately.**

B: 35mm x 7.5mm symmetrical DIN rail EN50022

C: Screw Mount, See DS80625 on page 153.

**DS80625 Self-Tapping Drill Screws Sold Separately.**

D: Current Sensor Mount, See RIBXG Series on page 94 or RIBXK Series on page 93.

**Current Sensors Sold Separately.**

**Approvals:** UL Listed, UL508, C-UL, CE, RoHS

**Gold Flash:** No

**Override Switch:** No

### Contact Ratings:

10 Amp General Use @ 277 Vac

10 Amp Resistive @ 30 Vdc (N/O)

7 Amp Resistive @ 30 Vdc (N/C)

1/2 HP @ 125 Vac

1 HP @ 250 Vac

1/4 HP @ 277 Vac

C300 Pilot Duty

### Coil Voltage Input (RIBAN24C):

24 Vac/dc ; 50-60 Hz

Drop Out = 3 Vac / 3.8 Vdc

Pull In = 20 Vac / 20 Vdc

### Coil Voltage Input (RIBAN12C):

12 Vac/dc ; 50-60 Hz

Drop Out = 2 Vac / 2.5 Vdc

Pull In = 9 Vac / 11 Vdc

### Coil Current (RIBAN24C):

26 mA @ 20 Vac

31 mA @ 24 Vac

14 mA @ 20 Vdc

18 mA @ 24 Vdc

28 mA @ 35 Vdc

### Coil Current (RIBAN12C):

53 mA @ 10 Vac

62 mA @ 12 Vac

29 mA @ 11 Vdc

35 mA @ 12 Vdc

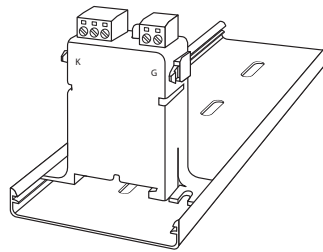
### Notes:

- Set of replacement terminals available. Order model number: TS-AN

## RELAY MOUNTING OPTIONS A & B

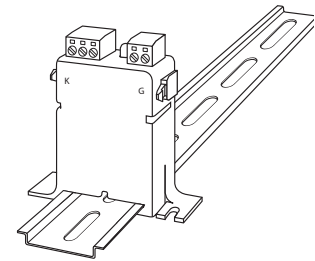
### Mounting Option A:

2.75" Track Mount  
MT212 Series

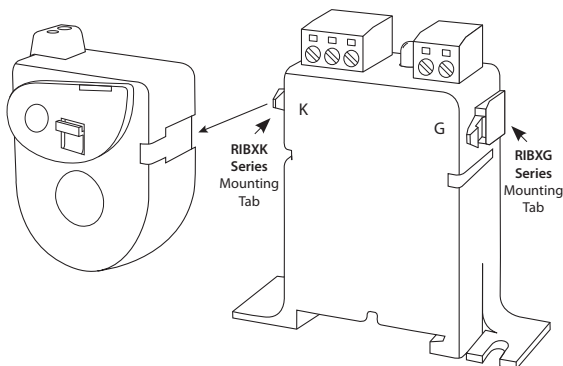


### Mounting Option B:

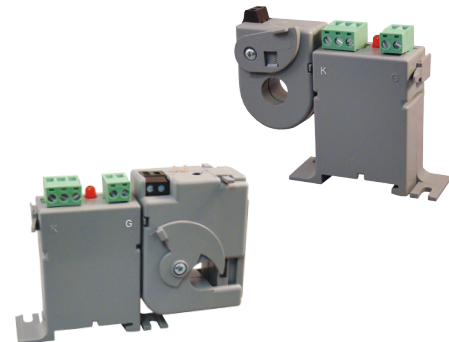
35mm x 7.5mm symmetrical  
DIN rail EN50022



## CURRENT SENSOR MOUNTING OPTION D



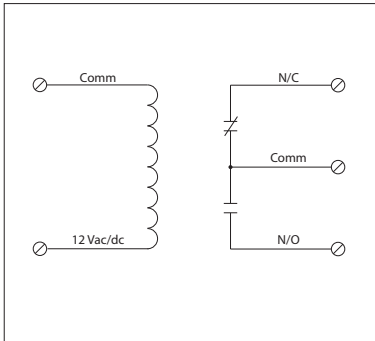
1. Slide current sensor onto corresponding mounting tab.
2. Snap into place.
3. Depress tab to remove current sensor.



## 15 AMP TRACK MOUNT CONTROL RELAYS

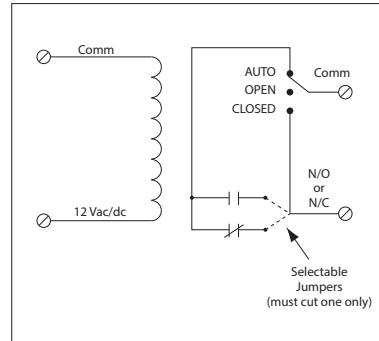
### RIBM12C

4.00" Track Mount Relay 15 Amp SPDT with 12 Vac/dc Coil



### RIBM12S

4.00" Track Mount Relay 15 Amp SPST + Override with 12 Vac/dc Coil



Cut for N/O  
Cut for N/C

RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPDT Continuous Duty Coil (RIBM12C)  
One (1) SPST Continuous Duty Coil (RIBM12S)

**Expected Relay Life:** 10 million cycles minimum mechanical

**Operating Temperature:** -30 to 140° F

**Humidity Range:** 5 to 95% (noncondensing)

**Operate Time:** 6ms

**Relay Status:** LED On = Activated

**Dimensions:** 1.250" x 4.000" x 1.750"

**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Gold Flash:** No

**Override Switch:** No (RIBM12C)  
Yes (RIBM12S)

**Contact Ratings:**  
15 Amp General Use @ 125 Vac  
10 Amp General Use @ 277 Vac  
10 Amp Resistive @ 30 Vdc (N/O)  
7 Amp Resistive @ 30 Vdc (N/C)  
1/2 HP @ 125 Vac  
1 HP @ 250 Vac  
1/4 HP @ 277 Vac  
C300 Pilot Duty

**Coil Current:**  
53 mA @ 10 Vac  
62 mA @ 12 Vac  
29 mA @ 11 Vdc  
36 mA @ 12 Vdc

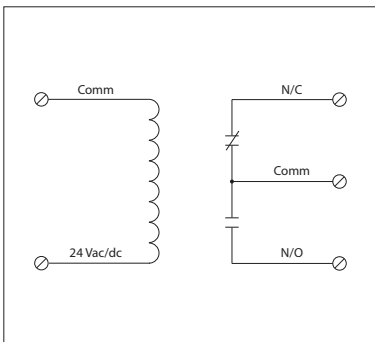
**Coil Voltage Input:**  
12 Vac/dc ; 50-60 Hz  
Drop Out = 2 Vac / 2.5 Vdc  
Pull In = 9 Vac / 11 Vdc

**Notes:**  
• Must cut appropriate jumper to select Normally Open or Normally Closed (RIBM12S)

## 15 AMP TRACK MOUNT CONTROL RELAYS

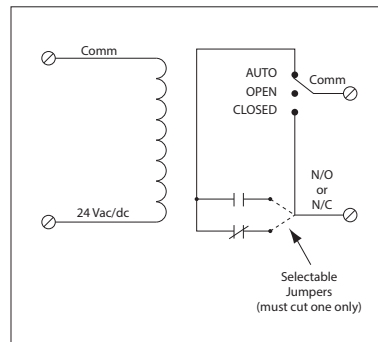
### RIBM24C

4.00" Track Mount Relay 15 Amp SPDT with 24 Vac/dc Coil



### RIBM24S

4.00" Track Mount Relay 15 Amp SPST + Override with 24 Vac/dc Coil



Cut for N/O  
Cut for N/C

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPDT Continuous Duty Coil (RIBM24C)  
One (1) SPST Continuous Duty Coil (RIBM24S)

**Expected Relay Life:** 10 million cycles minimum mechanical

**Operating Temperature:** -30 to 140° F

**Humidity Range:** 5 to 95% (noncondensing)

**Operate Time:** 6ms

**Relay Status:** LED On = Activated

**Dimensions:** 1.250" x 4.000" x 1.750"

**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Gold Flash:** No

**Override Switch:** No (RIBM24C)  
Yes (RIBM24S)

**Contact Ratings:**  
15 Amp General Use @ 125 Vac  
10 Amp General Use @ 277 Vac  
10 Amp Resistive @ 30 Vdc (N/O)  
7 Amp Resistive @ 30 Vdc (N/C)  
1/2 HP @ 125 Vac  
1 HP @ 250 Vac  
1/4 HP @ 277 Vac  
C300 Pilot Duty

**Coil Current:**  
26 mA @ 20 Vac  
31 mA @ 24 Vac  
48 mA @ 35 Vac  
14 mA @ 20 Vdc  
18 mA @ 24 Vdc  
28 mA @ 35 Vdc

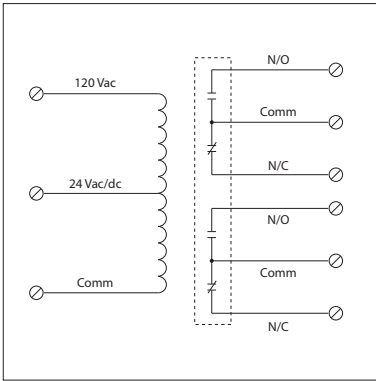
**Coil Voltage Input:**  
24 Vac/dc ; 50-60 Hz  
Drop Out = 3 Vac / 3.8 Vdc  
Pull In = 20 Vac / 20 Vdc

**Notes:**  
• Must cut appropriate jumper to select Normally Open or Normally Closed (RIBM24S)

## 10 AMP TRACK MOUNT CONTROL RELAYS

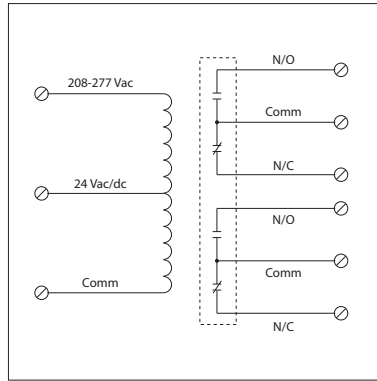
### RIBM2401D

4.00" Track Mount Relay 10 Amp DPDT with  
24 Vac/dc/120 Vac Coil



### RIBM2402D

4.00" Track Mount Relay 10 Amp DPDT with  
24 Vac/dc/208-277 Vac Coil



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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:** 8ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.700" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 30 Vdc  
 10 Amp General Use @ 277 Vac  
 1/2 HP @ 120/240 Vac (N/O)  
 1/3 HP @ 120/240 Vac (N/C)  
**B300 Pilot Duty**  
 120 Vac 30A Make 3A Break (360 VA)  
 240 Vac 15 A Make 1.5A Break (360 VA)  
 208 Vac 17.3A Make 1.73A Break (360 VA)  
 277 Vac 13A Make 1.3A Break (360 VA)  
 24 Vac 30A Make 5A Break (120VA) 5A Max

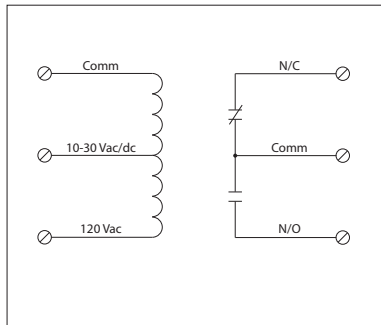
**Coil Current:**  
 24 mA @ 18 Vac 20 mA @ 20 Vdc  
 32 mA @ 24 Vac 24 mA @ 24 Vdc  
 40 mA @ 30 Vac 36 mA @ 30 Vdc  
 31 mA @ 120 Vac (RIBM2401D)  
 36 mA @ 208-277 Vac (RIBM2402D)

**Coil Voltage Input:**  
 24 Vac/dc; 120 Vac; 50-60 Hz (RIBM2401D)  
 24 Vac/dc; 208-277 Vac; 50-60 Hz (RIBM2402D)  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 20 Vdc

## 15 AMP TRACK MOUNT CONTROL RELAYS

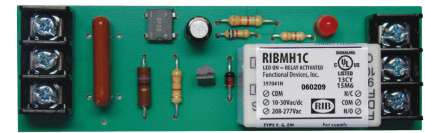
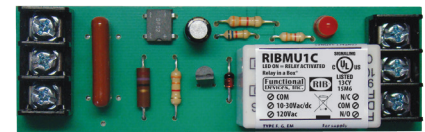
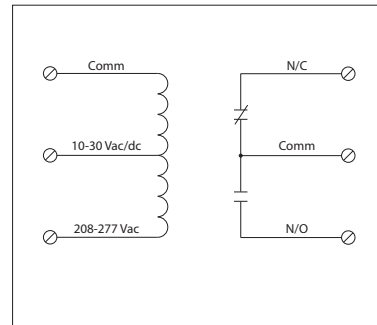
### RIBMU1C

4.00" Track Mount Relay 15 Amp SPDT with  
10-30 Vac/dc/120 Vac Coil



### RIBMH1C

4.00" Track Mount Relay 15 Amp SPDT with  
10-30 Vac/dc/208-277 Vac Coil



## 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.250" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 15 Amp Inductive @ 150 Vac  
 15 Amp Resistive @ 150 Vac, 28 Vdc  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

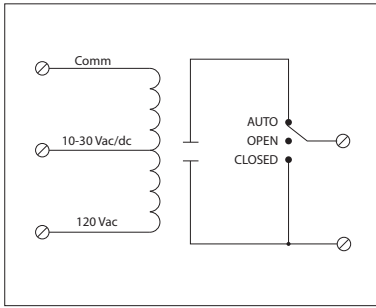
**Coil Current:**  
 33 mA @ 10 Vac 13 mA @ 10 Vdc  
 35 mA @ 12 Vac 15 mA @ 12 Vdc  
 46 mA @ 24 Vac 18 mA @ 24 Vdc  
 55 mA @ 30 Vac 20 mA @ 30 Vdc  
 28 mA @ 120 Vac (RIBMU1C)  
 39 mA @ 208-277 Vac (RIBMH1C)

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBMU1C)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBMH1C)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 15 AMP TRACK MOUNT CONTROL RELAYS

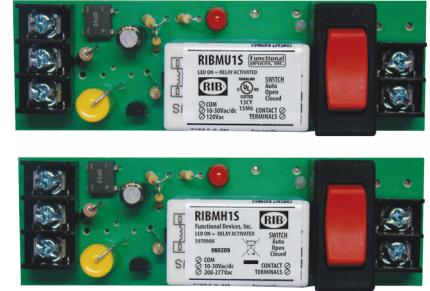
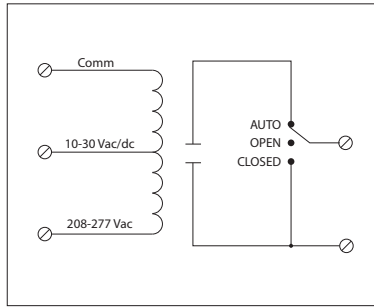
### RIBMU1S

4.00" Track Mount Relay 15 Amp SPST-N/O +  
Override with 10-30 Vac/dc/**120 Vac Coil**



### RIBMH1S

4.00" Track Mount Relay 15 Amp SPST-N/O +  
Override with 10-30 Vac/dc/**208-277 Vac Coil**



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.275" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** Yes

**Contact Ratings:**  
 15 Amp Resistive @ 150 Vac  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)  
**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBMU1S)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBMH1S)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

**Coil Current:**

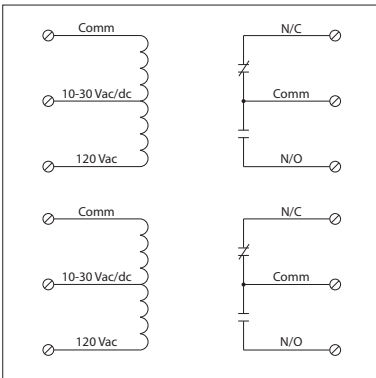
33 mA @ 10 Vac	13 mA @ 10 Vdc
35 mA @ 12 Vac	15 mA @ 12 Vdc
46 mA @ 24 Vac	18 mA @ 24 Vdc
55 mA @ 30 Vac	20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBMU1S)	
39 mA @ 208-277 Vac (RIBMH1S)	

**Notes:**  
 • Order Normally Closed by adding "-NC"  
 to end of model number

## 15 AMP TRACK MOUNT CONTROL RELAYS

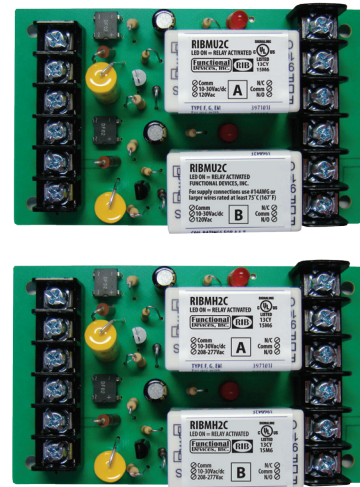
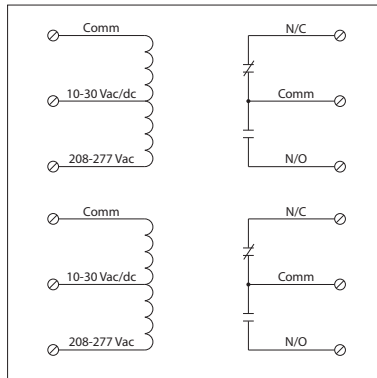
### RIBMU2C

4.00" Track Mount Relays 15 Amp 2 SPDT with  
10-30 Vac/dc/**120 Vac Coil**



### RIBMH2C

4.00" Track Mount Relays 15 Amp 2 SPDT with  
10-30 Vac/dc/**208-277 Vac Coil**



## SPECIFICATIONS

**# Relays & Contact Type:** Two (2) 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.450" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 15 Amp Inductive @ 150 Vac  
 15 Amp Resistive @ 150 Vac, 28 Vdc  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

**Coil Current:**

33 mA @ 10 Vac	13 mA @ 10 Vdc
35 mA @ 12 Vac	15 mA @ 12 Vdc
46 mA @ 24 Vac	18 mA @ 24 Vdc
55 mA @ 30 Vac	20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBMU2C)	
39 mA @ 208-277 Vac (RIBMH2C)	

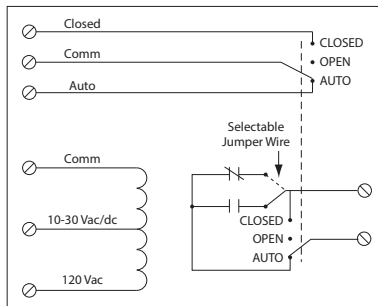
**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBMU2C)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBMH2C)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc



## 15 AMP TRACK MOUNT CONTROL RELAYS

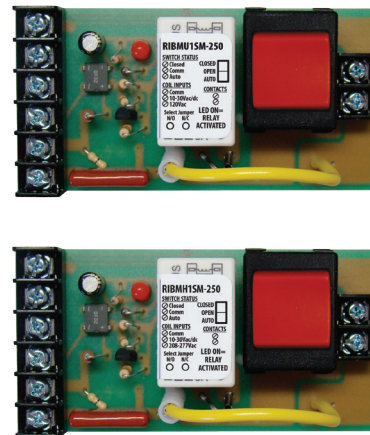
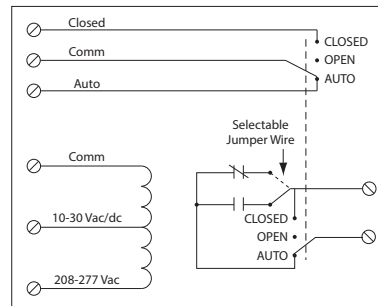
### RIBMU1SM-250

4.00" Track Mount Relay 15 Amp SPST +  
Override + Monitor with 10-30 Vac/dc/  
120 Vac Coil



### RIBMH1SM-250

4.00" Track Mount Relay 15 Amp SPST +  
Override + Monitor with 10-30 Vac/dc/  
208-277 Vac Coil



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.000" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** Yes + Monitor

**Contact Ratings:**  
 15 Amp Resistive @ 125 Vac  
 10 Amp Resistive @ 250 Vac  
 345 VA Pilot Duty @ 120/240 Vac (N/O)  
 211 VA Pilot Duty @ 120/240 Vac (N/C)  
 1/3 HP for N/O @ 120-240 Vac  
 1/6 HP for N/C @ 120-240 Vac

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBMU1SM-250)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBMH1SM-250)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

**Coil Current:**

33 mA @ 10 Vac	13 mA @ 10 Vdc
35 mA @ 12 Vac	15 mA @ 12 Vdc
46 mA @ 24 Vac	18 mA @ 24 Vdc
55 mA @ 30 Vac	20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBMU1SM-250)	
39 mA @ 208-277 Vac (RIBMH1SM-250)	

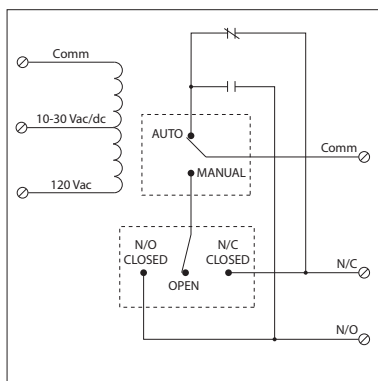
**Notes:**

- Normally Open or Normally Closed selected by yellow jumper wire
- Second pole of override switch can be connected to digital-in of controller to report position of override switch
- Rating of second pole is 50 Vac/dc, 0.25 Amp max

## 15 AMP TRACK MOUNT CONTROL RELAYS

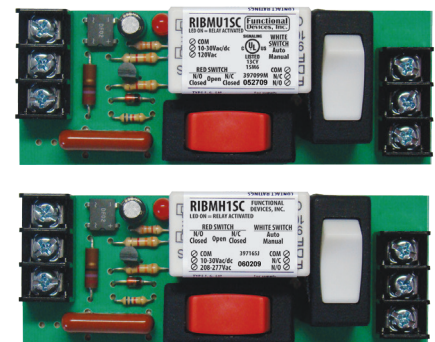
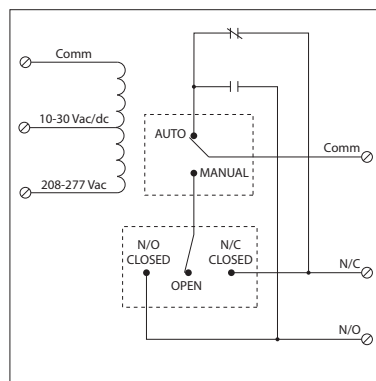
### RIBMU1SC

4.00" Track Mount Relay 15 Amp SPDT +  
Override with 10-30 Vac/dc/120 Vac Coil



### RIBMH1SC

4.00" Track Mount Relay 15 Amp SPDT +  
Override with 10-30 Vac/dc/208-277 Vac Coil



## 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.500" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** Yes (2)

**Contact Ratings:**  
 15 Amp Resistive @ 150 Vac  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

**Coil Current:**

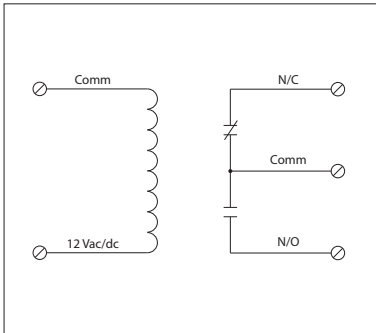
33 mA @ 10 Vac	13 mA @ 10 Vdc
35 mA @ 12 Vac	15 mA @ 12 Vdc
46 mA @ 24 Vac	18 mA @ 24 Vdc
55 mA @ 30 Vac	20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBMU1SC)	
39 mA @ 208-277 Vac (RIBMH1SC)	

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBMU1SC)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBMH1SC)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 15 AMP TRACK MOUNT CONTROL RELAYS

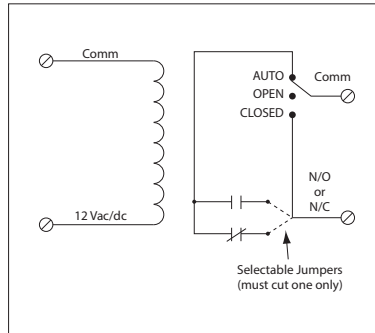
### RIBMN12C

2.75" Track Mount Relay 15 Amp SPDT with 12 Vac/dc Coil



### RIBMN12S

2.75" Track Mount Relay 15 Amp SPST + Override with 12 Vac/dc Coil



Cut for N/O  
Cut for N/C

RELAYS

## SPECIFICATIONS

- # Relays & Contact Type:** One (1) SPDT Continuous Duty Coil (RIBMN12C)  
One (1) SPST Continuous Duty Coil (RIBMN12S)
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 6ms
- Relay Status:** LED On = Activated
- Dimensions:** 1.100" x 2.750" x 1.750" (RIBMN12C)  
1.250" x 2.750" x 1.750" (RIBMN12S)
- Track Mount:** 2.750"; See MT212 Series on page 152  
**MT212 Mounting Track Sold Separately**
- Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS
- Gold Flash:** No
- Override Switch:** No (RIBMN12C)  
Yes (RIBMN12S)

- Contact Ratings:**  
15 Amp General Use @ 125 Vac  
10 Amp General Use @ 277 Vac  
10 Amp Resistive @ 30 Vdc (N/O)  
7 Amp Resistive @ 30 Vdc (N/C)  
1/2 HP @ 125 Vac  
1 HP @ 250 Vac  
1/4 HP @ 277 Vac  
C300 Pilot Duty

- Coil Current:**  
53 mA @ 10 Vac  
62 mA @ 12 Vac  
29 mA @ 11 Vdc  
35 mA @ 12 Vdc

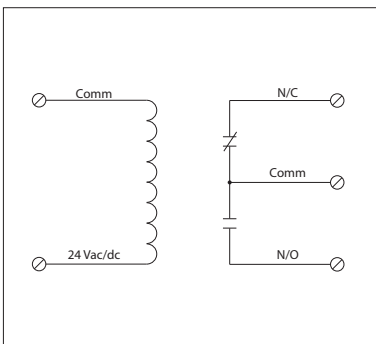
- Coil Voltage Input:**  
12 Vac/dc; 50-60 Hz  
Drop Out = 2 Vac / 2.5 Vdc  
Pull In = 9 Vac / 11 Vdc

- Notes:**  
• Must cut appropriate jumper to select Normally Open or Normally Closed (RIBMN12S)

## 15 AMP TRACK MOUNT CONTROL RELAYS

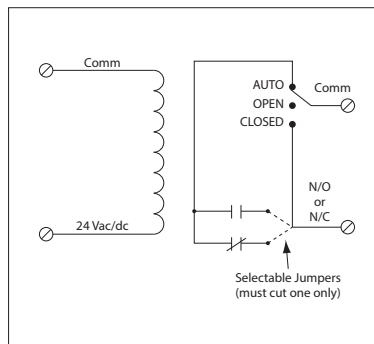
### RIBMN24C

2.75" Track Mount Relay 15 Amp SPDT with 24 Vac/dc Coil



### RIBMN24S

2.75" Track Mount Relay 15 Amp SPST + Override with 24 Vac/dc Coil



Cut for N/O  
Cut for N/C

## SPECIFICATIONS

- # Relays & Contact Type:** One (1) SPDT Continuous Duty Coil (RIBMN24C)  
One (1) SPST Continuous Duty Coil (RIBMN24S)
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 6ms
- Relay Status:** LED On = Activated
- Dimensions (RIBMN24C):** 1.100" x 2.750" x 0.750" (without track)  
1.100" x 2.750" x 1.250" (including track)
- Dimensions (RIBMN24S):** 1.250" x 2.750" x 1.000" (without track)  
1.250" x 2.750" x 1.500" (including track)
- Track Mount:** 2.750"; See MT212 Series on page 152  
**MT212 Mounting Track Sold Separately**
- Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS
- Gold Flash:** No
- Override Switch:** No (RIBMN24C), Yes (RIBMN24S)

- Contact Ratings:**  
15 Amp General Use @ 125 Vac  
10 Amp General Use @ 277 Vac  
10 Amp Resistive @ 30 Vdc (N/O)  
7 Amp Resistive @ 30 Vdc (N/C)  
1/2 HP @ 125 Vac  
1 HP @ 250 Vac  
1/4 HP @ 277 Vac  
C300 Pilot Duty

- Coil Current:**  
26 mA @ 20 Vac  
31 mA @ 24 Vac  
48 mA @ 35 Vac  
14 mA @ 20 Vdc  
18 mA @ 24 Vdc  
28 mA @ 35 Vdc

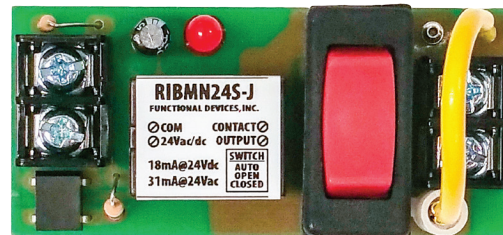
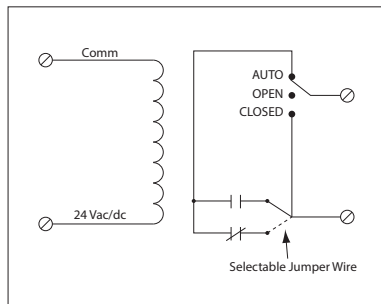
- Coil Voltage Input:**  
24 Vac/dc; 50-60 Hz  
Drop Out = 3 Vac / 3.8 Vdc  
Pull In = 20 Vac / 20 Vdc

- Notes:**  
• Must cut appropriate jumper to select Normally Open or Normally Closed (RIBMN24S)

## 15 AMP TRACK MOUNT CONTROL RELAY

### RIBMN24S-J

2.75" Track Mount Relay 15 Amp SPST +  
Override with 24 Vac/dc Coil and Jumper  
Selectable Output



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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:** 6ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.250" x 2.750" x 1.750"  
**Track Mount:** 2.750", See MT212 Series on page 152  
**MT212 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 15 Amp General Use @ 125 Vac  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 C300 Pilot Duty

**Coil Current:**  
 26 mA @ 20 Vac  
 31 mA @ 24 Vac  
 48 mA @ 35 Vac  
 14 mA @ 20 Vdc  
 18 mA @ 24 Vdc  
 28 mA @ 35 Vdc

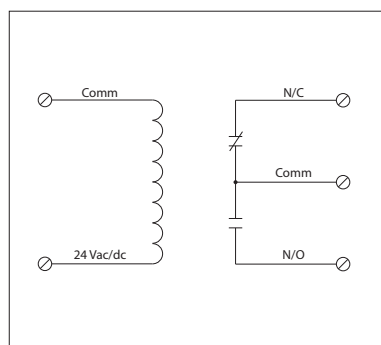
**Coil Voltage Input:**  
 24 Vac/dc ; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 20 Vdc

**Notes:**  
 • Normally Open or Normally Closed selected by yellow jumper wire.

## 15 AMP TRACK MOUNT CONTROL RELAYS

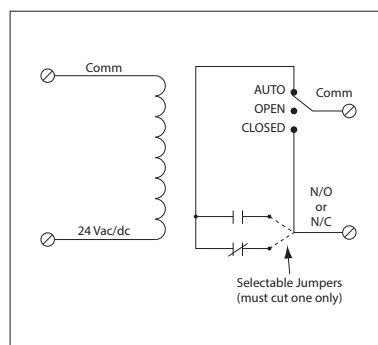
### RIBMN24C-4T

Four 2.75" Track Mount Relays 15 Amp SPDT  
with 24 Vac/dc Coil and 2.75" x 6.00"  
Mounting Track



### RIBMN24S-4T

Four 2.75" Track Mount Relays 15 Amp SPST  
+ Override with 24 Vac/dc Coil and 2.75" x  
6.00" Mounting Track



### SPECIFICATIONS

**# Relays & Contact Type:** Four (4) SPDT Continuous Duty Coils (RIBMN24C-4T)  
 Four (4) SPST Continuous Duty Coils (RIBMN24S-4T)  
**Expected Relay Life:** 10 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Operate Time:** 6ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 6.000" x 2.750" x 1.150" (RIBMN24C-4T)  
 6.000" x 2.750" x 1.500" (RIBMN24S-4T)  
**Track Mount:** 2.750" x 6.000"; MT212-6 Mounting Track Included  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No (RIBMN24C-4T)  
 Yes (RIBMN24S-4T)

**Contact Ratings:**  
 15 Amp General Use @ 125 Vac  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 C300 Pilot Duty

**Coil Current:**  
 26 mA @ 20 Vac  
 31 mA @ 24 Vac  
 48 mA @ 35 Vac  
 14 mA @ 20 Vdc  
 18 mA @ 24 Vdc  
 28 mA @ 35 Vdc

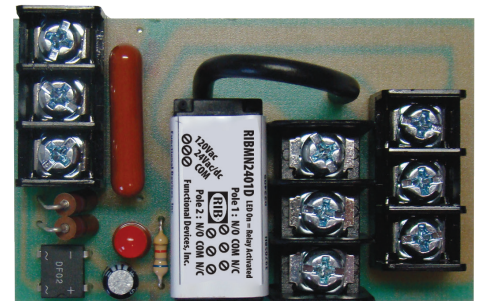
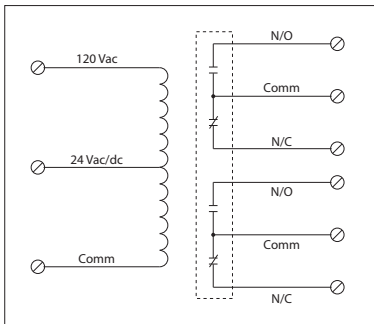
**Coil Voltage Input:**  
 24 Vac/dc ; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 20 Vdc

**Notes:**  
 • Must cut appropriate jumper to select Normally Open or Normally Closed (RIBMN24S-4T)

## 10 AMP TRACK MOUNT CONTROL RELAY

### RIBMN2401D

2.75" Track Mount Relay 10 Amp DPDT with 24 Vac/dc/120 Vac Coil



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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:** 8ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.700" x 2.750" x 1.750"  
**Track Mount:** 2.750", See MT212 Series on page 152  
**Approvals:** UL Listed, UL916, UL864, C-UL  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp Resistive @ 30 Vdc  
 10 Amp General Use @ 277 Vac  
 1/2 HP @ 120/240 Vac (N/O)  
 1/3 HP @ 120/240 Vac (N/C)  
**B300 Pilot Duty**  
 120 Vac 30A Make 3A Break (360 VA)  
 240 Vac 15 A Make 1.5A Break (360 VA)  
 208 Vac 17.3A Make 1.73A Break (360 VA)  
 277 Vac 13A Make 1.3A Break (360 VA)  
 24Vac 30A Make 5A Break (120VA) 5A Max

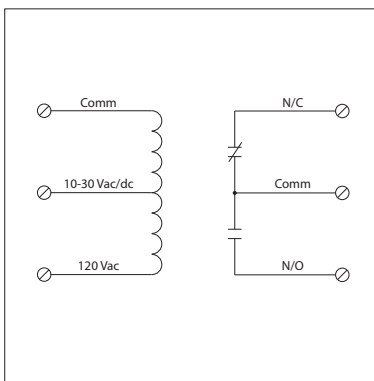
**Coil Current:**  
 36 mA @ 30Vdc  
 24 mA @ 18 Vac  
 32 mA @ 24 Vac  
 40 mA @ 30 Vac  
 31 mA @ 120 Vac

**Coil Voltage Input:**  
 24 Vac/dc; 120 Vac; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 20 Vdc

## 15 AMP TRACK MOUNT CONTROL RELAYS

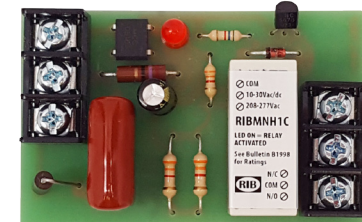
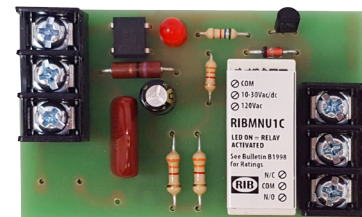
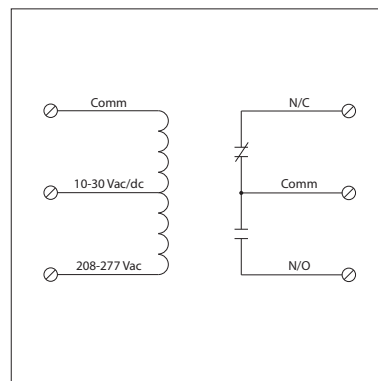
### RIBMNU1C

2.75" Track Mount Relay 15 Amp SPDT with 10-30 Vac/dc/120 Vac Coil



### RIBMNH1C

2.75" Track Mount Relay 15 Amp SPDT with 10-30 Vac/dc/208-277 Vac Coil



## 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.700" x 2.750" x 1.750"  
**Track Mount:** 2.750", See MT212 Series on page 152  
**Approvals:** UL Listed, UL916, UL864, C-UL  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 15 Amp Resistive @ 150 Vac, 28Vdc  
 15 Amp Inductive @ 150 Vac  
 10 Amp Resistive @ 120-277 Vac, 28 Vdc  
 480 VA Pilot Duty @ 240-277 Vac  
 480 VA Ballast @ 277 Vac  
**Not rated for Electronic Ballast**  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

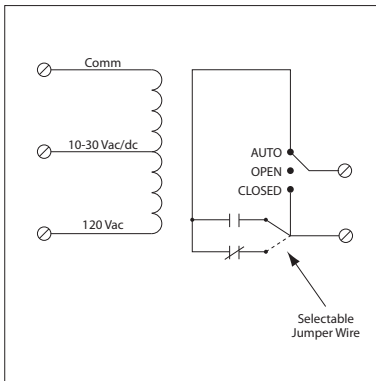
**Coil Current:**  
 33 mA @ 10 Vac  
 35 mA @ 12 Vac  
 46 mA @ 24 Vac  
 55 mA @ 30 Vac  
 28 mA @ 120 Vac (RIBMNU1C)  
 39 mA @ 208-277 Vac (RIBMNH1C)

**Coil Voltage Input:**  
 10-30 Vac/dc; 120 Vac; 50-60 Hz (RIBMNU1C)  
 10-30 Vac/dc; 208-277 Vac; 50-60 Hz (RIBMNH1C)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

## 15 AMP TRACK MOUNT CONTROL RELAYS

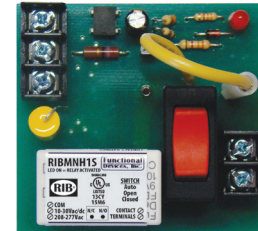
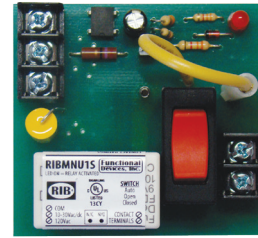
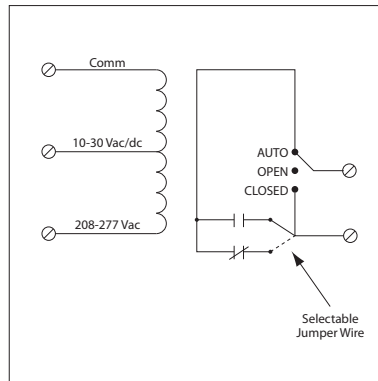
### RIBMNU1S

2.75" Track Mount Relay 15 Amp SPST  
+ Override with 10-30 Vac/dc/120 Vac Coil



### RIBMNH1S

2.75" Track Mount Relay 15 Amp SPST  
+ Override with 10-30 Vac/dc/208-277 Vac Coil



Made in USA  
Meets  
"Buy American"  
of ARRA 2009

RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.500" x 2.750" x 1.750"  
**Track Mount:** 2.750", See MT212 Series on page 152  
**MT212 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** Yes

### Contact Ratings:

15 Amp Resistive @ 150 Vac  
 10 Amp Resistive @ 277 Vac  
 480 VA Pilot Duty @ 277 Vac  
 480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 600 Watt Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 1/3 HP @ 120-240 Vac (N/O)  
 1/6 HP @ 120-240 Vac (N/C)  
 1/4 HP @ 277 Vac (N/O)  
 1/8 HP @ 277 Vac (N/C)

### Coil Voltage Input:

10-30 Vac/dc ; 120 Vac ; 50-60 Hz (RIBMNU1S)  
 10-30 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBMNH1S)  
 Drop Out = 2.1 Vac / 2.8 Vdc  
 Pull In = 9 Vac / 10 Vdc

### Coil Current:

33 mA @ 10 Vac	13 mA @ 10Vdc
35 mA @ 12 Vac	15 mA @ 12Vdc
46 mA @ 24 Vac	18 mA @ 24 Vdc
55 mA @ 30 Vac	20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBMNU1S)	
39 mA @ 208-277 Vac (RIBMNH1S)	

### Notes:

- Normally Open or Normally Closed selected by yellow jumper wire

# POWER RELAYS: 20–30 AMPS

Enclosed | T Style | Track Mount



**Made in the U.S.A.**  
Meets the "Buy American" provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).

## ENCLOSED POWER RELAYS

MODEL #	UL	COIL VOLTAGE		RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
		AC/DC	AC					
RIB2401B	•	24	120	1	SPDT			24
RIB2402B	•	24	208-277	1	SPDT			24
RIB2401SB	•	24	120	1	SPST	1		25
RIB2402SB	•	24	208-277	1	SPST	1		25
RIB2421B	•	24	120/208-277	1	SPDT			25
RIB2421SB	•	24	120/208-277	1	SPST	1		25
RIB01P	•		120	1	DPDT			26
RIB02P	•		208-277	1	DPDT			27
RIB347P	•		347	1	DPDT		NEW	27
RIB04P	•		480	1	DPDT			28
RIB2401SBC	•	24	120	1	SPDT	2 <sup>1</sup>		26
RIB2402SBC	•	24	208-277	1	SPDT	2 <sup>1</sup>		26
RIB243P	• <sup>3</sup>	24		1	3PST			28
RIB013P	•		120	1	3PST			29
RIB023P	•		208-277	1	3PST			29
RIB043P	•		480	1	3PST			30
RIB24Z	•	24		1	1 SPST N/O, 1 SPST N/C			30
RIB12P	•	12		1	DPDT			31
RIB12P30	•	12		1	DPDT			31
RIB24P	•	24		1	DPDT			31
RIB24P30	•	24		1	DPDT			31
RIB01P30	•		120	1	DPST			32
RIB01P30-S	•		120	1	DPST	1		32
RIB02P30	•		208-277	1	DPST			32

RELAYS

## T STYLE POWER RELAYS

MODEL #	UL	COIL VOLTAGE		RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
		AC/DC	AC					
RIBT24B	•	24		1	SPDT			33
RIBT2401B	•	24	120	1	SPDT			33
RIBTD2401B	•	24	120	1	SPDT		2	35
RIBT2402B	•	24	208-277	1	SPDT			33
RIBT242B	•	24		2	2 SPDT			36
RIBT243B	• <sup>3</sup>	24		3	2 SPST, 1 SPDT			36
RIBT24SB	•	24		1	SPST	1		33
RIBT2401SB	•	24	120	1	SPST	1		34
RIBT2402SB	•	24	208-277	1	SPST	1		34
RIBT2401SBC	•	24	120	1	SPDT	2 <sup>1</sup>		34
RIBT2402SBC	•	24	208-277	1	SPDT	2 <sup>1</sup>		34
RIBT24P	•	24		1	DPDT			36
RIBT24Z	•	24		1	1 SPST N/O, 1 SPST N/C			37
RIBT243P	• <sup>3</sup>	24		1	3PST			37

UL = UL Listed : UL916 Energy Management, UL864 Fire ; USA & Canada

1 = SPDT with override requires 2 switches

2 = Time Delay

3 = UL Listed : UL916 Energy Management ; USA & Canada

# TRACK MOUNT POWER RELAYS

RELAYS

MODEL #	UL	COIL VOLTAGE		RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
		AC/DC	AC					
RIBM2401B	•	24	120	1	SPDT			38
RIBM2402B	•	24	208-277	1	SPDT			38
RIBM2401SB	•	24	120	1	SPST	1		38
RIBM2402SB	•	24	208-277	1	SPST	1		38
RIBM2401SBC	•	24	120	1	SPDT	2 <sup>1</sup>		39
RIBM2402SBC	•	24	208-277	1	SPDT	2 <sup>1</sup>		39
RIBM24ZN	UL	24		1	DPDT			39
RIBM24ZL	•	24		1	DPST			40
RIBM24ZL	•	24		1	DPST			40
RIBM243PN	UL	24		1	3PDT			41
RIBM013PN	UL		120	1	3PDT			41
RIBM023PN	UL		208-277	1	3PDT			42
RIBM043PN	UL		480	1	3PDT			42
RIBM043PN-HD	UL		480	1	3PDT			43

UL = UL Listed : UL916 Energy Management, UL864 Fire ; USA & Canada

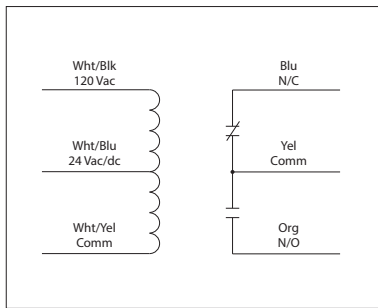
1 = SPDT with override requires 2 switches

UL = UL Component Recognized : UL916 Energy Management; USA & Canada

## 20 AMP POWER CONTROL RELAYS

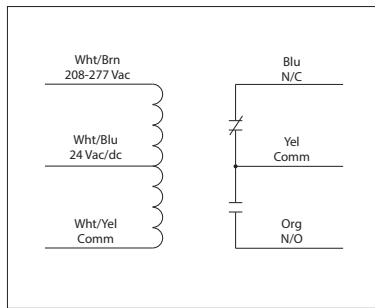
### RIB2401B

Enclosed Relay 20 Amp SPDT with 24 Vac/dc/120 Vac Coil



### RIB2402B

Enclosed Relay 20 Amp SPDT with 24 Vac/dc/208-277 Vac Coil



## 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 5 Amp Resistive @ 480 Vac  
 20 Amp Ballast @ 277 Vac  
 16 Amp Electronic Ballast @ 277 Vac (N/O)  
 10 Amp Tungsten @ 120 Vac (N/O)  
 770 VA Pilot Duty @ 120 Vac  
 1,110 VA Pilot Duty @ 277 Vac  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

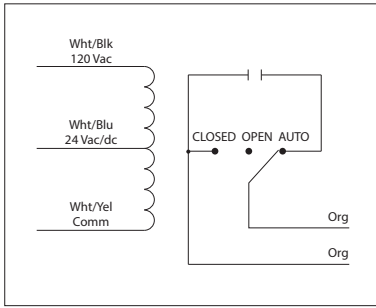
**Coil Current:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac (RIB2401B)  
 69 mA @ 208-277 Vac (RIB2402B)  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc ; 120 Vac ; 50-60 Hz (RIB2401B)  
 24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIB2402B)  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

## 20 AMP POWER CONTROL RELAYS

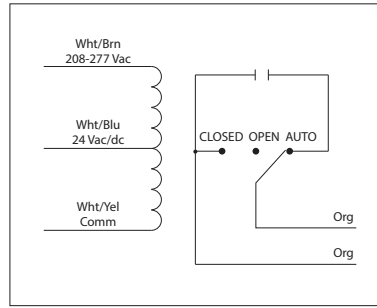
### RIB2401SB

Enclosed Relay 20 Amp SPST-N/O + Override with 24 Vac/dc/120 Vac Coil



### RIB2402SB

Enclosed Relay 20 Amp SPST-N/O + Override with 24 Vac/dc/208-277 Vac Coil



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, UL508, C-UL California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 10 Amp Tungsten @ 120 Vac (N/O)  
 770 VA Pilot Duty @ 120 Vac  
 1,110 VA Pilot Duty @ 277 Vac  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

**Coil Voltage Input:**  
 24 Vac/dc; 120 Vac; 50-60 Hz (RIB2401SB)  
 24 Vac/dc; 208-277 Vac; 50-60 Hz (RIB2402SB)  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

**Coil Current:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac (RIB2401SB)  
 69 mA @ 208-277 Vac (RIB2402SB)

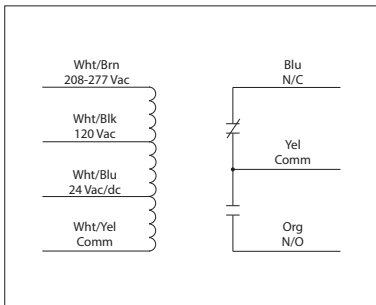
33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 20 AMP POWER CONTROL RELAYS

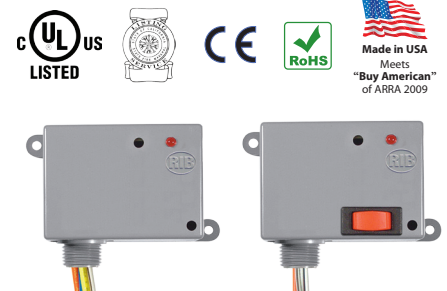
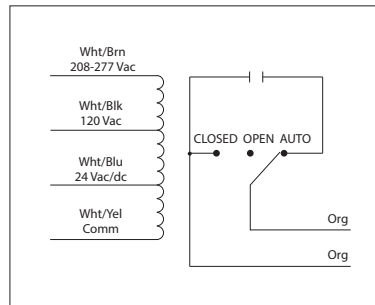
### RIB2421B

Enclosed Relay 20 Amp with 24 Vac/dc/208-277 Vac/120 Vac Coil



### RIB2421SB

Enclosed Relay 20 Amp + Override with 24 Vac/dc/208-277 Vac/120 Vac Coil



**GREAT SERVICE TRUCK RELAY**  
 ONE RELAY COVERS MOST APPLICATIONS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPDT Continuous Duty Coil (RIB2421B)  
 One (1) SPST Continuous Duty Coil (RIB2421SB)  
**Expected Relay Life:** 10 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Operate Time:** 18ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No (RIB2421B)  
 Yes (RIB2421SB)

**Contact Ratings (RIB2421B):**  
 20 Amp Resistive @ 277 Vac  
 5 Amp Resistive @ 480 Vac  
 20 Amp Ballast @ 277 Vac  
 16 Amp Electronic Ballast @ 277 Vac (N/O)  
 10 Amp Tungsten @ 120 Vac (N/O)  
 770 VA Pilot Duty @ 120 Vac  
 1,110 VA Pilot Duty @ 277 Vac  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

**Coil Current:**  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac  
 69 mA @ 208-277 Vac  
 47 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc; 208-277 Vac;  
 120 Vac; 50-60 Hz  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

**Contact Ratings (RIB2421SB):**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 10 Amp Tungsten @ 120 Vac (N/O)  
 770 VA Pilot Duty @ 120 Vac  
 1,110 VA Pilot Duty @ 277 Vac  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

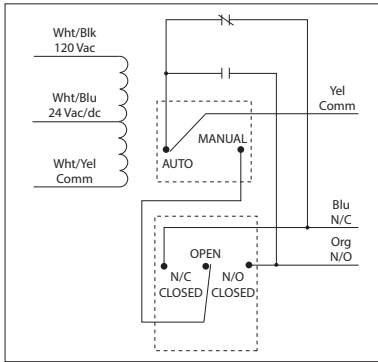
**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number (RIB2421SB)



## 20 AMP POWER CONTROL RELAYS

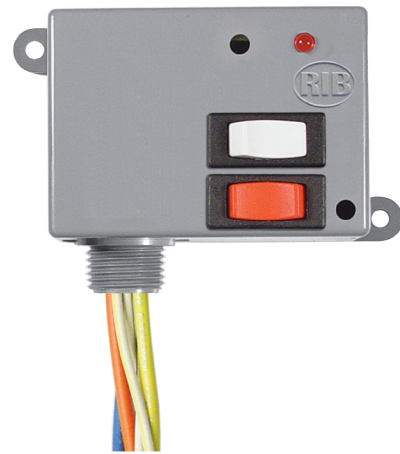
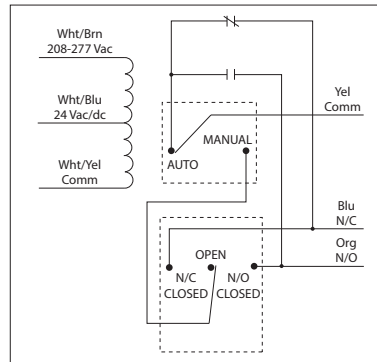
### RIB2401SBC

Enclosed Relay 20 Amp SPDT + Override with 24 Vac/dc/120 Vac Coil



### RIB2402SBC

Enclosed Relay 20 Amp SPDT + Override with 24 Vac/dc/208-277 Vac Coil



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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes (2)

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 10 Amp Tungsten @ 120 Vac (N/O)  
 770 VA Pilot Duty @ 120 Vac  
 1,110 VA Pilot Duty @ 277 Vac  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

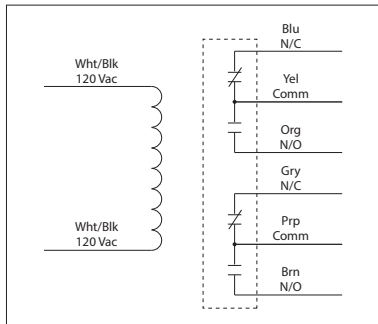
**Coil Current:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac (RIB2401SBC)  
 69 mA @ 208-277 Vac (RIB2402SBC)  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc ; 120 Vac ; 50-60 Hz (RIB2401SBC)  
 24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIB2402SBC)  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

## 20 AMP POWER CONTROL RELAY

### RIB01P

Enclosed Relay 20 Amp DPDT with 120 Vac Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

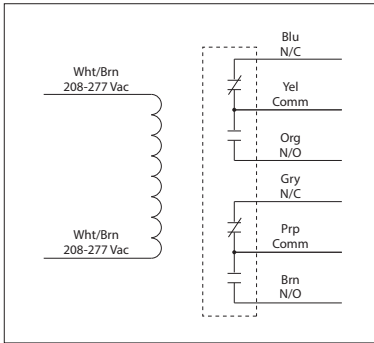
**Coil Current:**  
 105 mA @ 120 Vac

**Coil Voltage Input:**  
 120 Vac ; 50-60 Hz  
 Drop Out = 35 Vac  
 Pull In = 85 Vac

## 20 AMP POWER CONTROL RELAY

### RIB02P

Enclosed Relay 20 Amp DPDT with  
208-277 Vac Coil



RELAYS

### SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

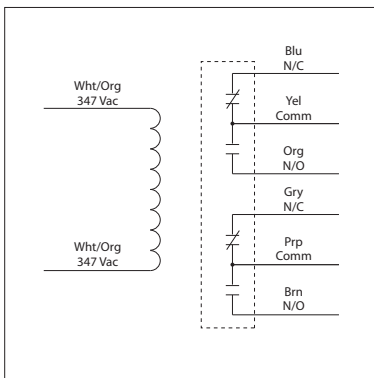
**Coil Current:**  
 105 mA @ 208-277 Vac

**Coil Voltage Input:**  
 208-277 Vac ; 50-60 Hz  
 Drop Out = 60 Vac  
 Pull In = 160 Vac

## 20 AMP POWER CONTROL RELAY

### RIB347P

Enclosed Relay 20 Amp DPDT with 347 Vac Coil



**LIGHTING RETROFITS**  
**347 VAC FOR OUR FRIENDS IN CANADA**



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, C-UL, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac

1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

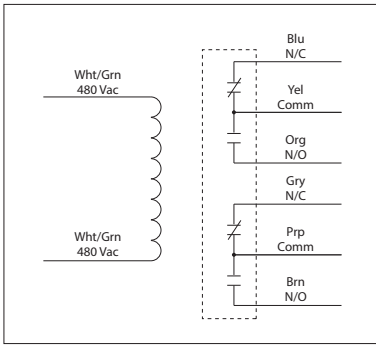
**Coil Current:**  
 105 mA @ 347 Vac

**Coil Voltage Input:**  
 347 Vac ; 50-60 Hz  
 Drop Out = 70 Vac  
 Pull In = 295 Vac

## 20 AMP POWER CONTROL RELAY

### RIB04P

Enclosed Relay 20 Amp DPDT with 480 Vac Coil



RELAYS

### SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

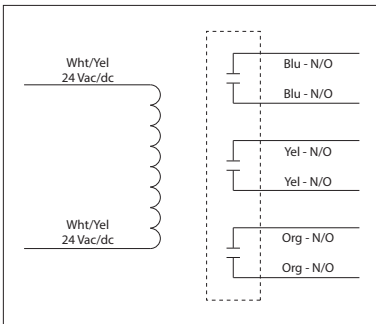
**Coil Current:**  
 105 mA @ 480 Vac

**Coil Voltage Input:**  
 480 Vac ; 50-60 Hz  
 Drop Out = 140 Vac  
 Pull In = 340 Vac

## 20 AMP POWER CONTROL RELAY

### RIB243P

Enclosed Relay 20 Amp 3PST-N/O with 24 Vac/dc Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac, 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac, 1 Phase  
 1158 VA Pilot Duty @ 240 Vac, 1 Phase  
 1110 VA Pilot Duty @ 277 Vac, 1 Phase  
 1640 VA Pilot Duty @ 480 Vac, 1 Phase  
 1466 VA Pilot Duty @ 240 Vac, 3 Phase  
 2112 VA Pilot Duty @ 480 Vac, 3 Phase  
 Heavy Pilot Duty @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

**Coil Current:**  
 210 mA @ 24 Vac  
 154 mA @ 30 Vdc

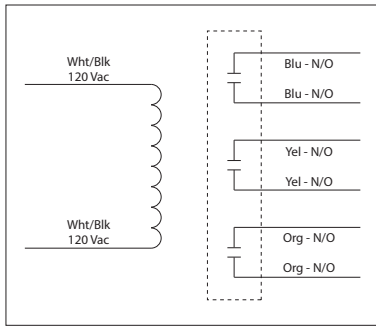
**Coil Voltage Input:**  
 24 Vac/dc ; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 22 Vdc

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 20 AMP POWER CONTROL RELAY

### RIB013P

Enclosed Relay 20 Amp 3PST-N/O with  
120 Vac Coil



RELAYS

### SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac, 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac, 1 Phase  
 1158 VA Pilot Duty @ 240 Vac, 1 Phase  
 1110 VA Pilot Duty @ 277 Vac, 1 Phase  
 1640 VA Pilot Duty @ 480 Vac, 1 Phase  
 1466 VA Pilot Duty @ 240 Vac, 3 Phase  
 2112 VA Pilot Duty @ 480 Vac, 3 Phase  
 Heavy Pilot Duty @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

**Coil Current:**  
 154 mA @ 120 Vac

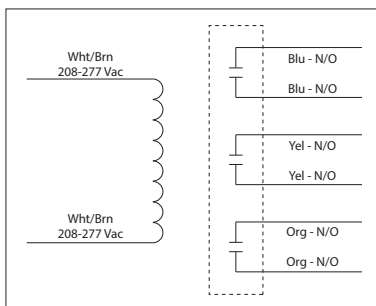
**Coil Voltage Input:**  
 120 Vac ; 50-60 Hz  
 Drop Out = 35 Vac  
 Pull In = 85 Vac

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 20 AMP POWER CONTROL RELAY

### RIB023P

Enclosed Relay 20 Amp 3PST-N/O with  
208-277 Vac Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac, 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac, 1 Phase  
 1158 VA Pilot Duty @ 240 Vac, 1 Phase  
 1110 VA Pilot Duty @ 277 Vac, 1 Phase  
 1640 VA Pilot Duty @ 480 Vac, 1 Phase  
 1466 VA Pilot Duty @ 240 Vac, 3 Phase  
 2112 VA Pilot Duty @ 480 Vac, 3 Phase  
 Heavy Pilot Duty @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

**Coil Current:**  
 187 mA @ 208-277 Vac

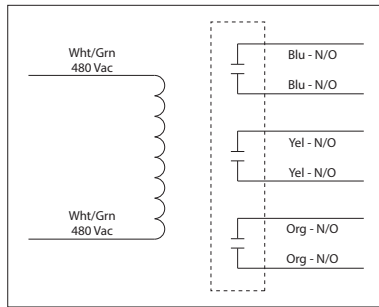
**Coil Voltage Input:**  
 208-277 Vac ; 50-60 Hz  
 Drop Out = 60 Vac  
 Pull In = 160 Vac

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 20 AMP POWER CONTROL RELAY

### RIB043P

Enclosed Relay 20 Amp 3PST-N/O with 480 Vac Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac, 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac, 1 Phase  
 1158 VA Pilot Duty @ 240 Vac, 1 Phase  
 1110 VA Pilot Duty @ 277 Vac, 1 Phase  
 1640 VA Pilot Duty @ 480 Vac, 1 Phase  
 1466 VA Pilot Duty @ 240 Vac, 3 Phase  
 2112 VA Pilot Duty @ 480 Vac, 3 Phase  
 Heavy Pilot Duty @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

**Coil Current:**  
 132 mA @ 480 Vac

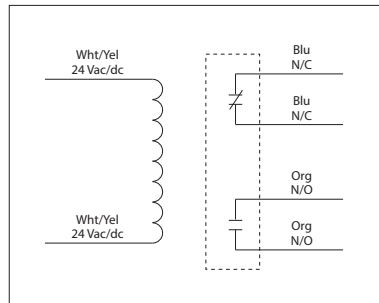
**Coil Voltage Input:**  
 480 Vac ; 50-60 Hz  
 Drop Out = 140 Vac  
 Pull In = 340 Vac

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 30 AMP POWER CONTROL RELAY

### RIB24Z

Enclosed Relay 30 Amp SPST-N/O + SPST-N/C with 24 Vac/dc Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST-N/O + SPST-N/C 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp Resistive @ 300 Vac  
 25 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

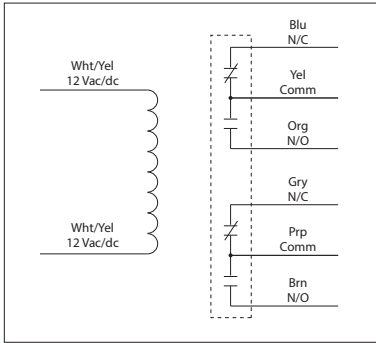
**Coil Current:**  
 110 mA @ 20 Vac  
 138 mA @ 24 Vac  
 55 mA @ 20 Vdc  
 55 mA @ 24 Vdc  
 77 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc ; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 20 Vdc

## 20 / 30 AMP POWER CONTROL RELAYS

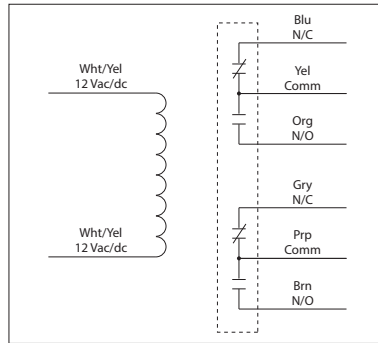
### RIB12P

Enclosed Relay 20 Amp DPDT with  
12 Vac/dc Coil



### RIB12P30

Enclosed Relay 30 Amp DPDT with  
12 Vac/dc Coil



Made in USA  
Meets  
"Buy American"  
of ARRA 2009

RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80"  
 with .50" NPT Nipple (RIB12P)  
 2.30" x 3.20" x 1.80"  
 with .75" NPT Nipple (RIB12P30)  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL60947, C-UL, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings: (RIB12P)**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

**Contact Ratings: (RIB12P30)**  
 30 Amp Resistive @ 300 Vac  
 25 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

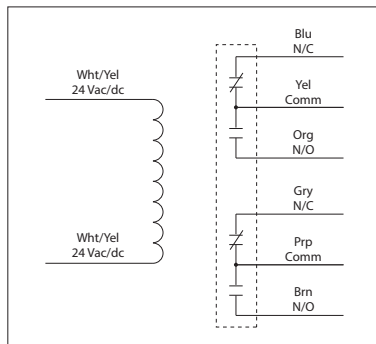
**Coil Current:**  
 115 mA @ 10 Vac  
 180 mA @ 12 Vac  
 79 mA @ 11 Vdc  
 90 mA @ 12 Vdc  
 115 mA @ 15 Vdc

**Coil Voltage Input:**  
 12 Vac/dc ; 50-60 Hz  
 Drop Out = 4.5 Vac / 4.8 Vdc  
 Pull In = 9.7 Vac / 11 Vdc

## 20 / 30 AMP POWER CONTROL RELAYS

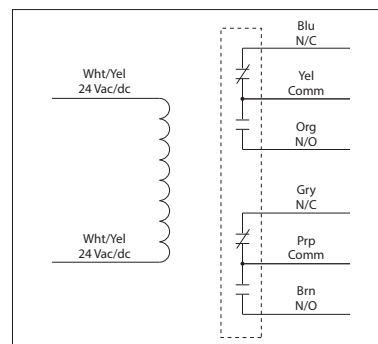
### RIB24P

Enclosed Relay 20 Amp DPDT with  
24 Vac/dc Coil



### RIB24P30

Enclosed Relay 30 Amp DPDT with  
24 Vac/dc Coil



Made in USA  
Meets  
"Buy American"  
of ARRA 2009

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80"  
 with .50" NPT Nipple (RIB24P)  
 2.30" x 3.20" x 1.80"  
 with .75" NPT Nipple (RIB24P30)  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, UL60947, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings: (RIB24P)**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

**Contact Ratings: (RIB24P30)**  
 30 Amp Resistive @ 300 Vac  
 25 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

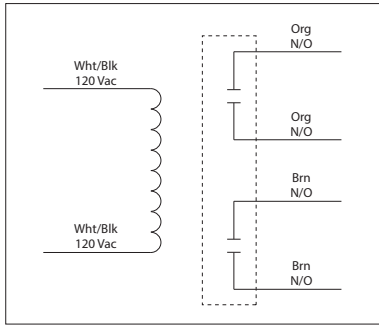
**Coil Current:**  
 110 mA @ 20 Vac  
 138 mA @ 24 Vac  
 55 mA @ 20 Vdc  
 55 mA @ 24 Vdc  
 77 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc ; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 20 Vdc

## 30 AMP POWER CONTROL RELAYS

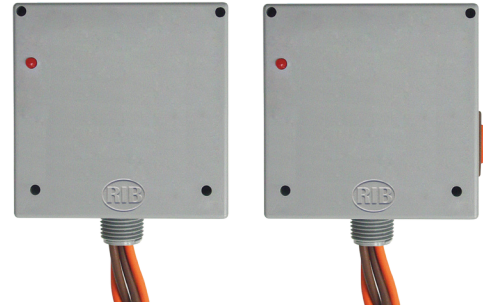
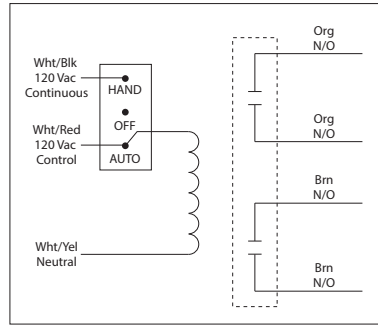
### RIB01P30

Enclosed Relay 30 Amp DPST-N/O with 120 Vac Coil



### RIB01P30-S

Enclosed Relay 30 Amp DPST-N/O + Coil Side Override with 120 Vac Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No (RIB01P30)  
 Coil Side (RIB01P30-S)

**Contact Ratings:**  
 30 Amp Resistive @ 300 Vac  
 25 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

**Coil Current:**  
 105 mA @ 120 Vac

**Coil Voltage Input:**  
 120 Vac; 50-60 Hz  
 Drop Out = 35 Vac  
 Pull In = 85 Vac

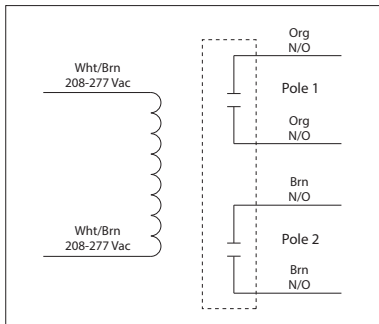
**Control Input:** (RIB01P30-S)  
 Wht/Blk = 120 Vac Continuous  
 Wht/Red = 120 Vac Control  
 Wht/Yel = Neutral

**Notes:**  
 • Order Both Poles Normally Closed by adding "-NC" to end of model number  
 • Order Pole 1 Normally Open and Pole 2 Normally Closed by adding "-NONC" to end of model number

## 30 AMP POWER CONTROL RELAY

### RIB02P30

Enclosed Relay 30 Amp DPST-N/O with 208-277 Vac Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp Resistive @ 300 Vac  
 25 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

**Coil Current:**  
 105 mA @ 208-277 Vac

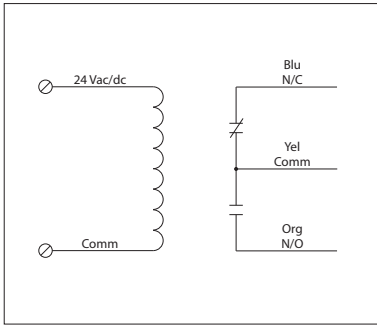
**Coil Voltage Input:**  
 208-277 Vac; 50-60 Hz  
 Drop Out = 60 Vac  
 Pull In = 160 Vac

**Notes:**  
 • Order Both Poles Normally Closed by adding "-NC" to end of model number  
 • Order Pole 1 Normally Open and Pole 2 Normally Closed by adding "-NONC" to end of model number

## 20 AMP POWER CONTROL RELAYS

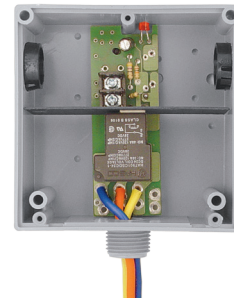
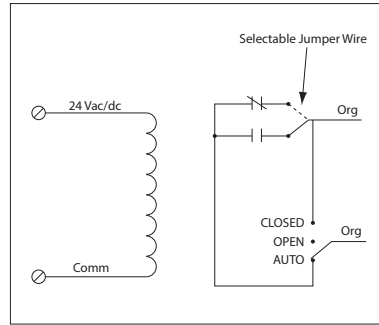
### RIBT24B

Enclosed Relay Hi/Low Separation 20 Amp  
SPDT with 24 Vac/dc Coil



### RIBT24SB

Enclosed Relay Hi/Low Separation 20 Amp  
SPST + **Override** with 24 Vac/dc Coil



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPDT Continuous Duty Coil (RIBT24B)  
One (1) SPST Continuous Duty Coil (RIBT24SB)

**Expected Relay Life:** 10 million cycles minimum mechanical

**Operating Temperature:** -30 to 140° F

**Humidity Range:** 5 to 95% (noncondensing)

**Operate Time:** 18ms

**Relay Status:** LED On = Activated

**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** No

**Override Switch:** No (RIBT24B)  
Yes (RIBT24SB)

**Contact Ratings (RIBT24B):**  
20 Amp Resistive @ 277 Vac  
5 Amp Resistive @ 480 Vac  
20 Amp Ballast @ 277 Vac  
16 Amp Electronic Ballast @ 277 Vac (N/O)  
10 Amp Tungsten @ 120 Vac (N/O)  
770 VA Pilot Duty @ 120 Vac  
1,110 VA Pilot Duty @ 277 Vac  
2 HP @ 277 Vac  
1 HP @ 120 Vac

**Coil Current:**  
45 mA @ 18 Vac  
75 mA @ 24 Vac  
30 mA @ 22 Vdc  
32 mA @ 24 Vdc  
42 mA @ 30 Vdc

**Coil Voltage Input:**  
24 Vac/dc; 50-60 Hz  
Drop Out = 2.1 Vac / 3.8 Vdc  
Pull In = 18 Vac / 22 Vdc

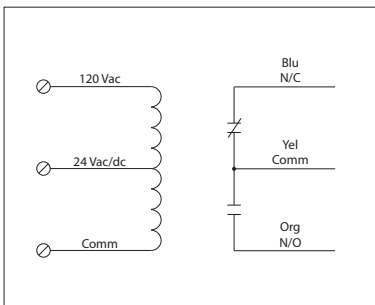
**Contact Ratings (RIBT24SB):**  
20 Amp Resistive @ 277 Vac  
20 Amp Ballast @ 277 Vac (N/O)  
10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
10 Amp Tungsten @ 120 Vac (N/O)  
770 VA Pilot Duty @ 120 Vac  
1,110 VA Pilot Duty @ 277 Vac  
2 HP @ 277 Vac  
1 HP @ 120 Vac

**Notes:**  
• Normally Open or Normally Closed selected by yellow jumper wire (RIBT24SB)

## 20 AMP POWER CONTROL RELAYS

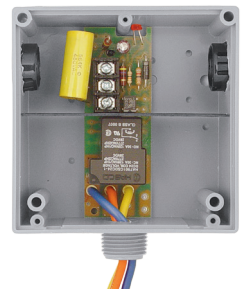
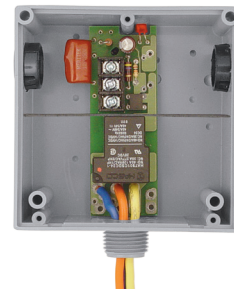
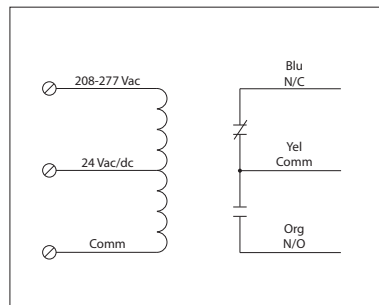
### RIBT2401B

Enclosed Relay Hi/Low Separation 20 Amp  
SPDT with 24 Vac/dc/120 Vac Coil



### RIBT2402B

Enclosed Relay Hi/Low Separation 20 Amp  
SPDT with 24 Vac/dc/208-277 Vac Coil



## 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

**Relay Status:** LED On = Activated

**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** No

**Override Switch:** No

**Contact Ratings:**  
20 Amp Resistive @ 277 Vac  
5 Amp Resistive @ 480 Vac  
20 Amp Ballast @ 277 Vac  
16 Amp Electronic Ballast @ 277 Vac (N/O)  
10 Amp Tungsten @ 120 Vac (N/O)  
770 VA Pilot Duty @ 120 Vac  
1,110 VA Pilot Duty @ 277 Vac  
2 HP @ 277 Vac  
1 HP @ 120 Vac

**Coil Current:**  
50 mA @ 18 Vac  
83 mA @ 24 Vac  
47 mA @ 120 Vac (RIBT2401B)  
69 mA @ 208-277 Vac (RIBT2402B)

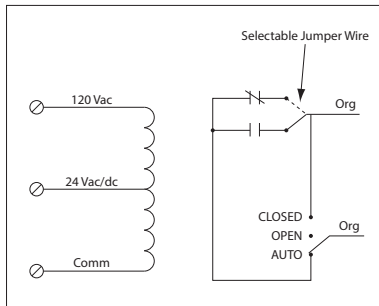
**Coil Voltage Input:**  
24 Vac/dc; 120 Vac; 50-60 Hz (RIBT2401B)  
24 Vac/dc; 208-277 Vac; 50-60 Hz (RIBT2402B)  
Drop Out = 2.1 Vac / 3.8 Vdc  
Pull In = 18 Vac / 22 Vdc



## 20 AMP POWER CONTROL RELAYS

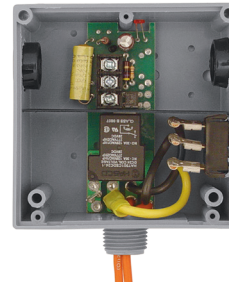
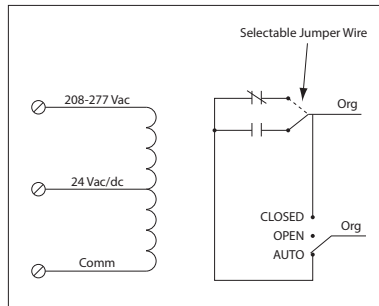
### RIBT2401SB

Enclosed Relay Hi/Low Separation 20 Amp SPST + Override with 24 Vac/dc/120 Vac Coil



### RIBT2402SB

Enclosed Relay Hi/Low Separation 20 Amp SPST + Override with 24 Vac/dc/208-277 Vac Coil



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 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

**Coil Voltage Input:**  
 24 Vac/dc ; 120 Vac ; 50-60 Hz (RIBT2401SB)  
 24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBT2402SB)  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

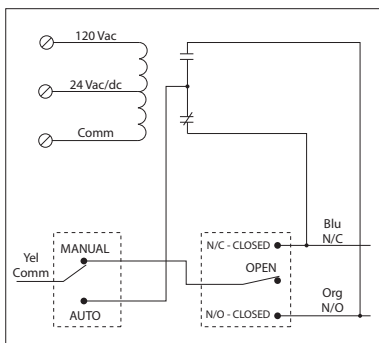
**Coil Current:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac (RIBT2401SB)  
 69 mA @ 208-277 Vac (RIBT2402SB)  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Notes:**  
 • Normally Open or Normally Closed selected by yellow jumper wire

## 20 AMP POWER CONTROL RELAYS

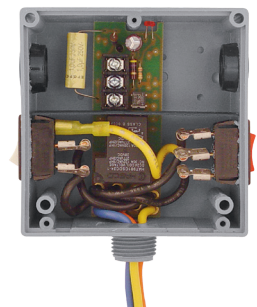
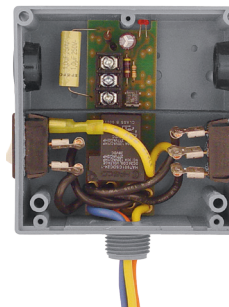
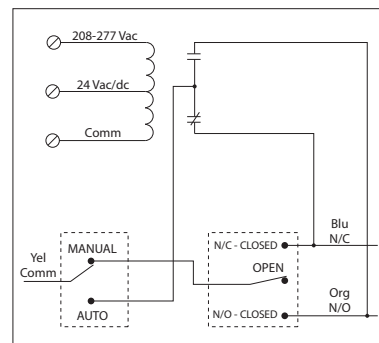
### RIBT2401SBC

Enclosed Relay Hi/Low Separation 20 Amp SPDT + Override with 24 Vac/dc/120 Vac Coil



### RIBT2402SBC

Enclosed Relay Hi/Low Separation 20 Amp SPDT + Override with 24 Vac/dc/208-277 Vac Coil



## 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes (2)

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 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

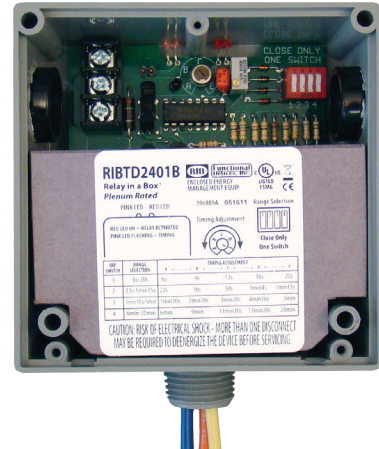
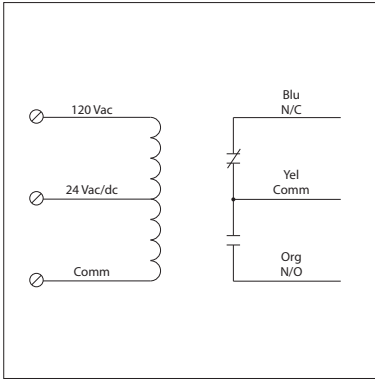
**Coil Voltage Input:**  
 24 Vac/dc ; 120 Vac ; 50-60 Hz (RIBT2401SBC)  
 24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBT2402SBC)  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

**Coil Current:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac (RIBT2401SBC)  
 69 mA @ 208-277 Vac (RIBT2402SBC)  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

# 20 AMP TIME DELAY RELAY

## RIBTD2401B

Enclosed Time Delay Relay 20 Amp SPDT with 24 Vac/dc/120 Vac Coil



RELAYS

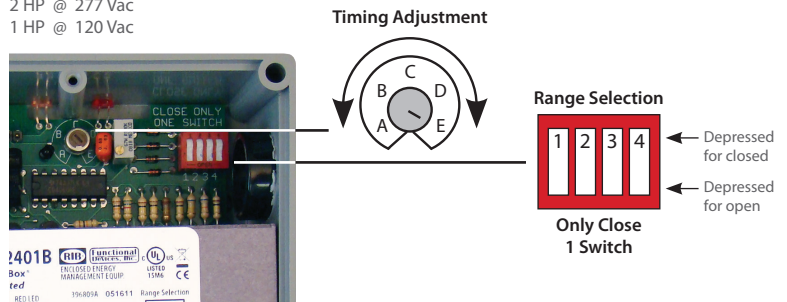
### SPECIFICATIONS

- # 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:** 6ms after time delay
- Relay Status:** RED LED On = Activated
- Time Delay Status:** PINK LED FLASHING = Timing
- Timing Mode:** Delay On Make (N/O)
- Timing Range:** 6 seconds - 20 minutes
- Timing Adjustment:** 4 position DIP switch for range selection and single turn potentiometer for timing adjustment within range
- Timing Tolerance:** Switches 1 & 2 = ±10%  
Switches 3 & 4 = ±5%
- Timing Repeatability:** ±1%
- Temperature Timing Variance:** ±1%
- Voltage Timing Variance:** ±1%
- Recycle Time:** 750ms Maximum
- Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple
- Approvals:** UL Listed, UL916, C-UL, CE, RoHS
- Housing Rating:** UL Accepted for Use in Plenum, NEMA 1
- Gold Flash:** No
- Override Switch:** No

- 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)
  - 770 VA Pilot Duty @ 120 Vac
  - 1,110 VA Pilot Duty @ 277 Vac
  - 2 HP @ 277 Vac
  - 1 HP @ 120 Vac

- Input Current:**
  - 133 mA @ 24 Vac
  - 45 mA @ 24 Vdc
  - 51 mA @ 120 Vac

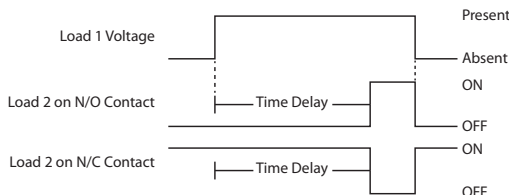
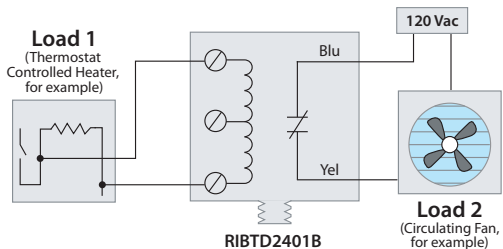
- Coil Voltage Input:**
  - 24 Vac/dc; 120 Vac; 50-60 Hz
  - Drop Out = 3 Vac / 3.8 Vdc
  - Pull In = 20 Vac / 20 Vdc



Switch Ranges	Close Dip Switch	Potentiometer Setting				
		A	B	C	D	E
6s-20s	1	6s	9s	13s	16s	20s
22s-1min15s	2	22s	36s	50s	1min4s	1min15s
1min30s-5min	3	1min30s	2min10s	3min20s	4min16s	5min
6min-20min	4	6min	9min	13min20s	17min20s	20min

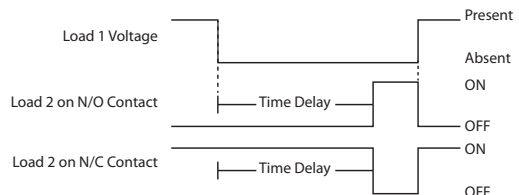
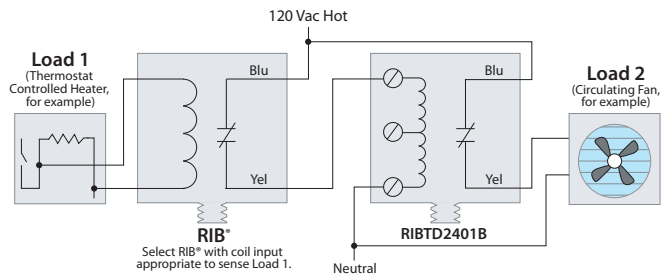
### Time Delay Application Example #1

Load 2 stays ON selected amount of time after Load 1 turns ON (N/C)  
Load 2 stays OFF selected amount of time after Load 1 turns ON (N/O)



### Time Delay Application Example #2 (Requires an Inverting Relay)

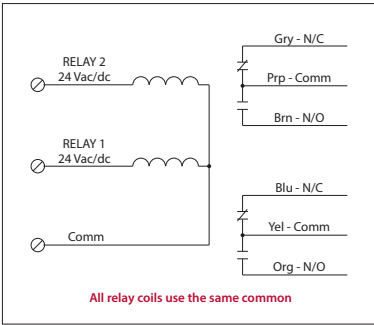
Load 2 stays ON selected amount of time after Load 1 turns OFF (N/C)  
Load 2 stays OFF selected amount of time after Load 1 turns OFF (N/O)



## 20 AMP POWER CONTROL RELAYS

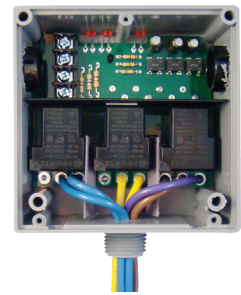
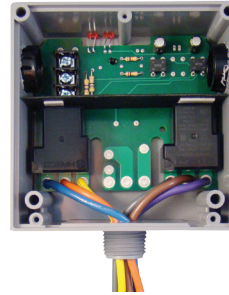
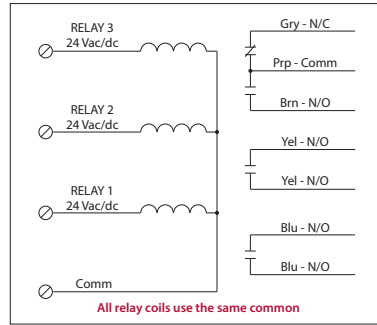
### RIBT242B

Enclosed Relays Hi/Low Separation 20 Amp  
2 SPDT with 24 Vac/dc Coil



### RIBT243B

Enclosed Relays Hi/Low Separation 20 Amp  
2 SPST + 1 SPDT with 24 Vac/dc Coil



## SPECIFICATIONS

**# Relays & Contact Type:** Two (2) SPDT Continuous Duty Coil (RIBT242B)  
Two (2) SPST + One (1) SPDT Continuous Duty Coil (RIBT243B)

**Expected Relay Life:** 10 million cycles minimum mechanical

**Operating Temperature:** -30 to 140° F

**Humidity Range:** 5 to 95% (noncondensing)

**Operate Time:** 18ms

**Relay Status:** LED On = Activated

**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL

California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** No

**Override Switch:** No

### Contact Ratings:

20 Amp Resistive @ 277 Vac

5 Amp Resistive @ 480 Vac

20 Amp Ballast @ 277 Vac

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

10 Amp Tungsten @ 120 Vac (N/O)

770 VA Pilot Duty @ 120 Vac

1,110 VA Pilot Duty @ 277 Vac

2 HP @ 277 Vac

1 HP @ 120 Vac

### Coil Current:

50 mA @ 18 Vac

83 mA @ 24 Vac

33 mA @ 22 Vdc

35 mA @ 24 Vdc

47 mA @ 30 Vdc

### Coil Voltage Input:

24 Vac/dc; 50-60 Hz

Drop Out = 2.1 Vac / 3.8 Vdc

Pull In = 18 Vac / 22 Vdc

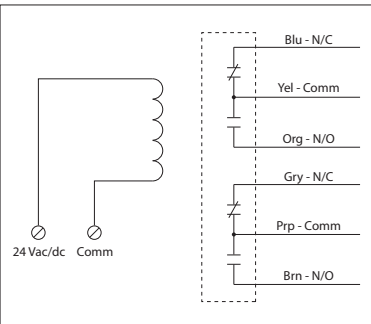
### Notes:

- RIBT243B not rated for UL864.

## 20 AMP POWER CONTROL RELAY

### RIBT24P

Enclosed Relay Hi/Low Separation 20 Amp  
DPDT with 24 Vac/dc Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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

**Relay Status:** LED On = Activated

**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL

California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** Yes

**Override Switch:** No

### Contact Ratings:

20 Amp Resistive @ 300 Vac

20 Amp Resistive @ 28 Vdc

20 Amp Ballast @ 277-480 Vac

*Not rated for Electronic Ballast*

15 Amp Resistive @ 600 Vac

770 VA Pilot Duty @ 120 Vac

1158 VA Pilot Duty @ 240 Vac

1109 VA Pilot Duty @ 277 Vac

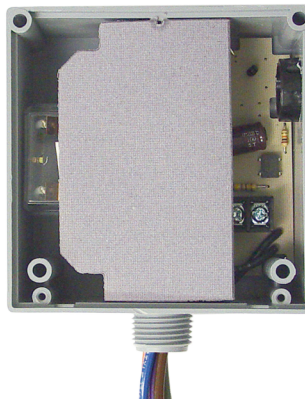
1640 VA Pilot Duty @ 480 Vac

Heavy Pilot Duty @ 600 Vac

3 HP @ 480-600 Vac

2 HP @ 240-277 Vac

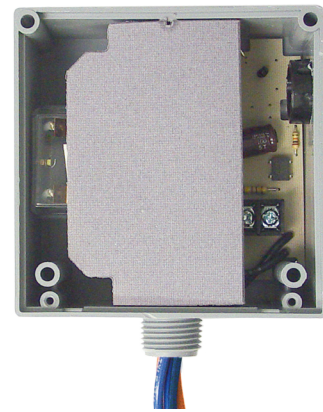
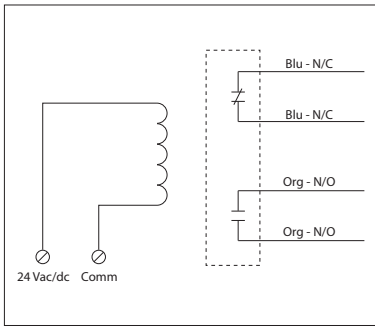
1 HP @ 120 Vac



## 30 AMP POWER CONTROL RELAY

### RIBT24Z

Enclosed Relay Hi/Low Separation 30 Amp  
SPST-N/O + SPST-N/C with 24 Vac/dc Coil



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST-N/O + One (1) SPST-N/C  
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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
30 Amp Resistive @ 300 Vac  
25 Amp Resistive @ 28 Vdc  
20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
15 Amp Resistive @ 600 Vac  
770 VA Pilot Duty @ 120 Vac  
1158 VA Pilot Duty @ 240 Vac  
1109 VA Pilot Duty @ 277 Vac  
1640 VA Pilot Duty @ 480 Vac  
Heavy Pilot Duty @ 600 Vac  
3 HP @ 480-600 Vac  
2 HP @ 240-277 Vac  
1 HP @ 120 Vac

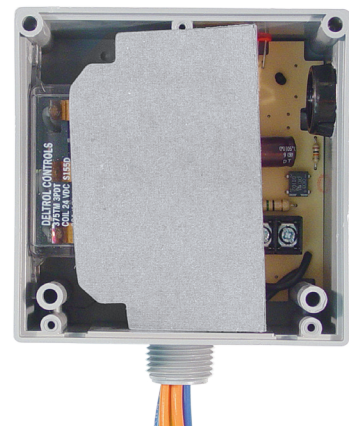
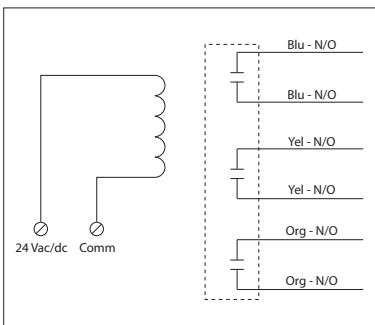
**Coil Current:**  
110 mA @ 20 Vac  
138 mA @ 24 Vac  
55 mA @ 20 Vdc  
55 mA @ 24 Vdc  
77 mA @ 30 Vdc

**Coil Voltage Input:**  
24 Vac/dc ; 50-60 Hz  
Drop Out = 3 Vac / 3.8 Vdc  
Pull In = 20 Vac / 20 Vdc

## 20 AMP POWER CONTROL RELAY

### RIBT243P

Enclosed Relay Hi/Low Separation 20 Amp  
3PST-N/O with 24 Vac/dc Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PST 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, C-UL  
California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
20 Amp Resistive @ 300 Vac, 28 Vdc  
20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
15 Amp Resistive @ 600 Vac  
770 VA Pilot Duty @ 120 Vac, 1 Phase  
1158 VA Pilot Duty @ 240 Vac, 1 Phase  
1110 VA Pilot Duty @ 277 Vac, 1 Phase  
1640 VA Pilot Duty @ 480 Vac, 1 Phase  
1466 VA Pilot Duty @ 240 Vac, 3 Phase  
2112 VA Pilot Duty @ 480 Vac, 3 Phase  
Heavy Pilot Duty @ 600 Vac  
7.5 HP @ 480 Vac, 3 Phase  
5 HP @ 240 Vac, 3 Phase  
3 HP @ 480-600 Vac, 1 Phase  
2 HP @ 240-277 Vac, 1 Phase  
1 HP @ 120 Vac, 1 Phase

**Coil Current:**  
210 mA @ 24 Vac  
154 mA @ 30 Vdc

**Coil Voltage Input:**  
24 Vac/dc ; 50-60 Hz  
Drop Out = 3 Vac / 3.8 Vdc  
Pull In = 20 Vac / 22 Vdc

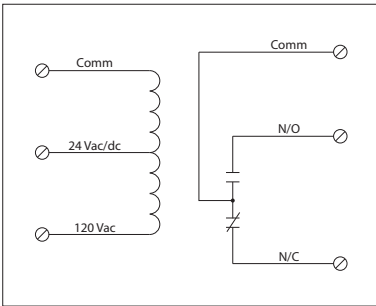
**Notes:**

- Order Normally Closed by adding "-NC" to end of model number

## 20 AMP TRACK MOUNT CONTROL RELAYS

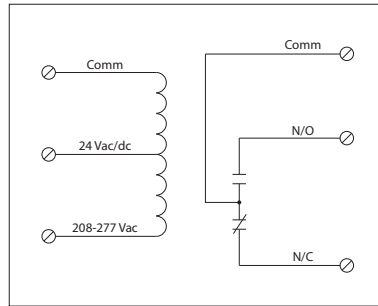
### RIBM2401B

4.00" Track Mount Relay 20 Amp SPDT with 24 Vac/dc/120 Vac Coil



### RIBM2402B

4.00" Track Mount Relay 20 Amp SPDT with 24 Vac/dc/208-277 Vac Coil



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  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.250" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**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

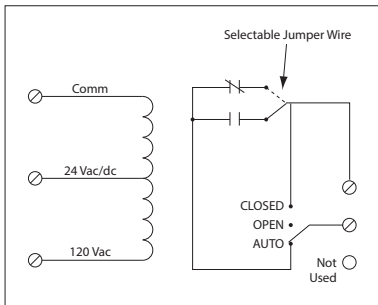
**Coil Current:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac (RIBM2401B)  
 69 mA @ 208-277 Vac (RIBM2402B)  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc ; 120 Vac ; 50-60 Hz (RIBM2401B)  
 24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBM2402B)  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

## 20 AMP TRACK MOUNT CONTROL RELAYS

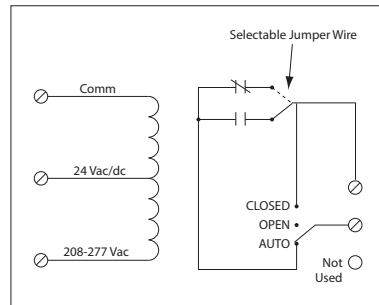
### RIBM2401SB

4.00" Track Mount Relay 20 Amp SPST + Override with 24 Vac/dc/120 Vac Coil



### RIBM2402SB

4.00" Track Mount Relay 20 Amp SPST + Override with 24 Vac/dc/208-277 Vac Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.600" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 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

**Coil Voltage Input:**  
 24 Vac/dc ; 120 Vac ; 50-60 Hz (RIBM2401SB)  
 24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBM2402SB)  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

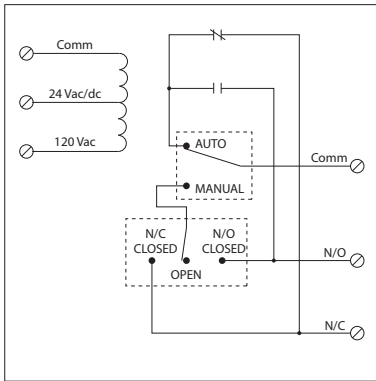
**Coil Current:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac (RIBM2401SB)  
 69 mA @ 208-277 Vac (RIBM2402SB)  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Notes:**  
 • Normally Open or Normally Closed selected by yellow jumper wire

## 20 AMP TRACK MOUNT CONTROL RELAYS

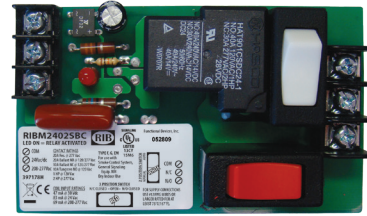
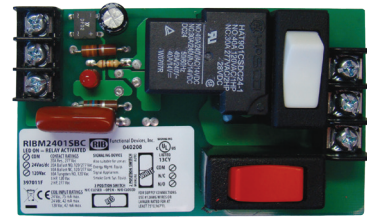
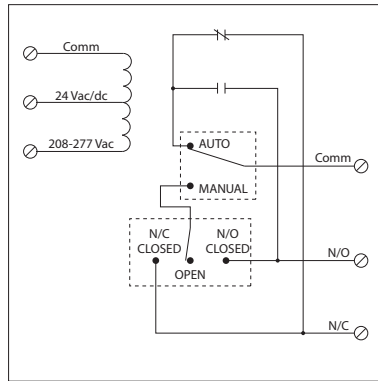
### RIBM2401SBC

4.00" Track Mount Relay 20 Amp SPDT +  
Override with 24 Vac/dc/120 Vac Coil



### RIBM2402SBC

4.00" Track Mount Relay 20 Amp SPDT +  
Override with 24 Vac/dc/208-277 Vac Coil



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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.350" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** Yes (2)

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 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

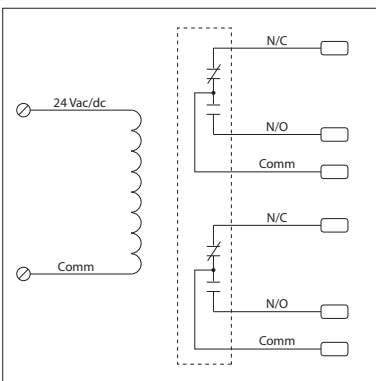
**Coil Current:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 47 mA @ 120 Vac (RIBM2401SBC)  
 69 mA @ 208-277 Vac (RIBM2402SBC)  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc; 120 Vac; 50-60 Hz (RIBM2401SBC)  
 24 Vac/dc; 208-277 Vac; 50-60 Hz (RIBM2402SBC)  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

## 30 AMP TRACK MOUNT CONTROL RELAY

### RIBM24ZN

4.00" Track Mount Relay 30 Amp DPDT with  
24 Vac/dc Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.600" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**Approvals:** UL Component Recognized, UL916  
 C-UL, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp Resistive @ 300 Vac  
 25 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 3 HP @ 480-600 Vac  
 2 HP @ 240/277 Vac  
 1 HP @ 120 Vac  
 NEMA B600 Pilot Duty

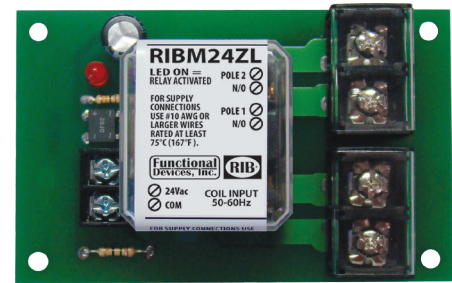
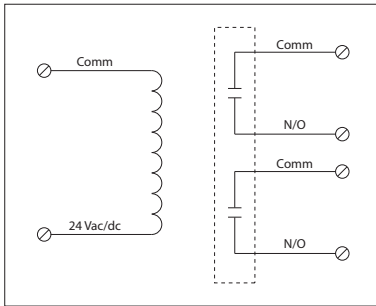
**Coil Current:**  
 110 mA @ 20 Vac  
 125 mA @ 24 Vac  
 55 mA @ 20 Vdc  
 55 mA @ 24 Vdc  
 70 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 20 Vdc

## 30 AMP TRACK MOUNT CONTROL RELAY

### RIBM24ZL

4.00" Track Mount Relay 30 Amp DPST-N/O with 24 Vac/dc Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.350" x 4.000" x 2.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp Resistive @ 300 Vac  
 25 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 3 HP @ 480-600 Vac  
 2 HP @ 240/277 Vac  
 1 HP @ 120 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac

**Coil Current:**  
 110 mA @ 20 Vac  
 138 mA @ 24 Vac  
 55 mA @ 20 Vdc  
 55 mA @ 24 Vdc  
 77 mA @ 30 Vdc

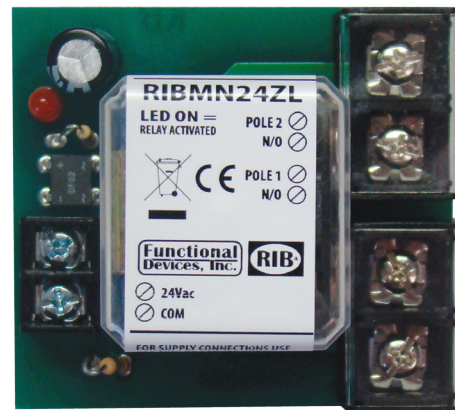
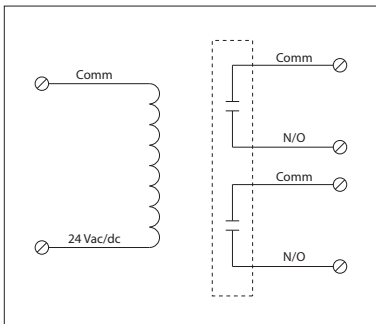
**Coil Voltage Input:**  
 24 Vac/dc; 50-60 Hz  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 30 AMP TRACK MOUNT CONTROL RELAY

### RIBMN24ZL

2.75" Track Mount Relay 30 Amp DPST-N/O with 24 Vac/dc Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.350" x 2.750" x 2.750"  
**Track Mount:** 2.750", See MT212 Series on page 152  
**MT212 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp Resistive @ 300 Vac  
 25 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240/277 Vac  
 1 HP @ 120 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1109 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 Heavy Pilot Duty @ 600 Vac

**Coil Current:**  
 110 mA @ 20 Vac  
 138 mA @ 24 Vac  
 55 mA @ 20 Vdc  
 55 mA @ 24 Vdc  
 77 mA @ 30 Vdc

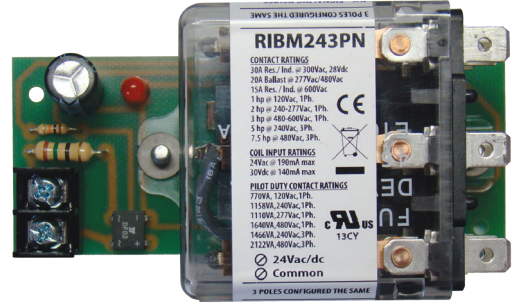
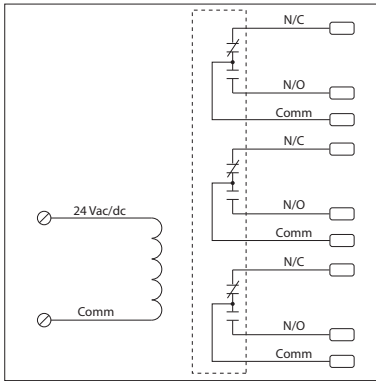
**Coil Voltage Input:**  
 24 Vac/dc; 50-60 Hz  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number

## 30 AMP TRACK MOUNT CONTROL RELAY

### RIBM243PN

4.00" Track Mount Relay 30 Amp 3PDT with 24 Vac/dc Coil



RELAYS

### SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PDT 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.450" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Component Recognized, UL916  
 C-UL, California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp General Use @ 300 Vac  
 30 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

Heavy Pilot Duty @ 600 Vac  
 770 VA @ 120 Vac, 1 Phase  
 1158 VA @ 240 Vac, 1 Phase  
 1110 VA @ 277 Vac, 1 Phase  
 1640 VA @ 480 Vac, 1 Phase  
 1466 VA @ 240 Vac, 3 Phase  
 2122 VA @ 480 Vac, 3 Phase

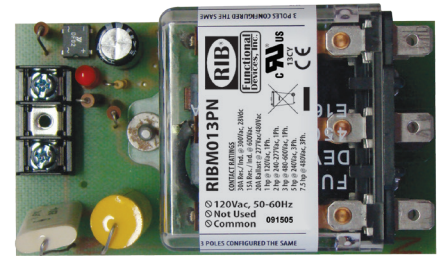
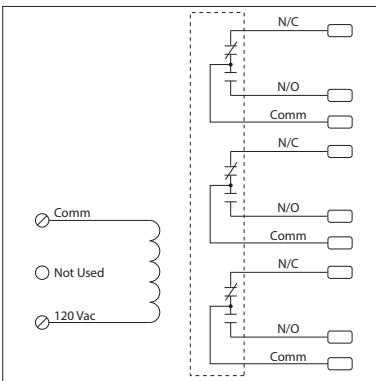
**Coil Current:**  
 190 mA @ 24 Vac  
 140 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 22 Vdc

## 30 AMP TRACK MOUNT CONTROL RELAY

### RIBM013PN

4.00" Track Mount Relay 30 Amp 3PDT with 120 Vac Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PDT 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.450" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Component Recognized, UL916, UL864  
 C-UL, California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp General Use @ 300 Vac  
 30 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

Heavy Pilot Duty @ 600 Vac  
 770 VA @ 120 Vac, 1 Phase  
 1158 VA @ 240 Vac, 1 Phase  
 1110 VA @ 277 Vac, 1 Phase  
 1640 VA @ 480 Vac, 1 Phase  
 1466 VA @ 240 Vac, 3 Phase  
 2122 VA @ 480 Vac, 3 Phase

**Coil Current:**  
 140 mA @ 120 Vac

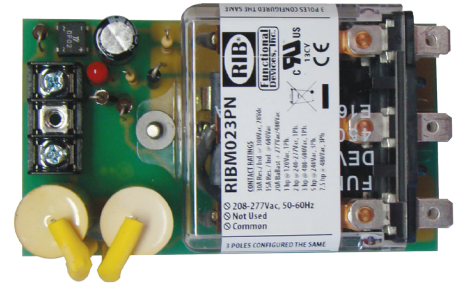
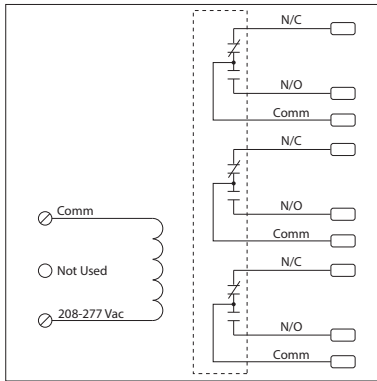
**Coil Voltage Input:**  
 120 Vac; 50-60 Hz  
 Drop Out = 35 Vac  
 Pull In = 85 Vac



## 30 AMP TRACK MOUNT CONTROL RELAY

### RIBM023PN

4.00" Track Mount Relay 30 Amp 3PDT with 208-277 Vac Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PDT 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.450" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Component Recognized, UL916, UL864  
 C-UL, California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp General Use @ 300 Vac  
 30 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

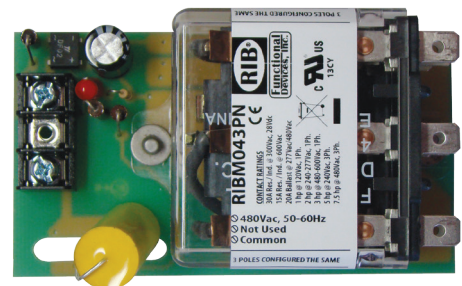
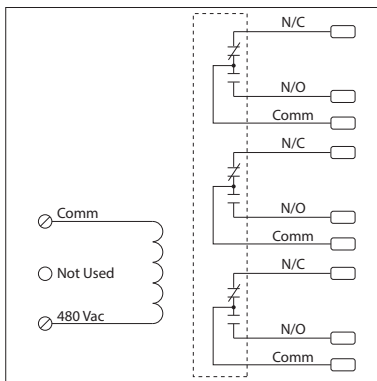
Heavy Pilot Duty @ 600 Vac  
 770 VA @ 120 Vac, 1 Phase  
 1158 VA @ 240 Vac, 1 Phase  
 1110 VA @ 277 Vac, 1 Phase  
 1640 VA @ 480 Vac, 1 Phase  
 1466 VA @ 240 Vac, 3 Phase  
 2122 VA @ 480 Vac, 3 Phase

**Coil Current:**  
 170 mA @ 208-277 Vac  
**Coil Voltage Input:**  
 208-277 Vac ; 50-60 Hz  
 Drop Out = 60 Vac  
 Pull In = 160 Vac

## 30 AMP TRACK MOUNT CONTROL RELAY

### RIBM043PN

4.00" Track Mount Relay 30 Amp 3PDT with 480 Vac Coil



### SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PDT 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.450" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Component Recognized, UL916, UL864  
 C-UL, California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp General Use @ 300 Vac  
 30 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

Heavy Pilot Duty @ 600 Vac  
 770 VA @ 120 Vac, 1 Phase  
 1158 VA @ 240 Vac, 1 Phase  
 1110 VA @ 277 Vac, 1 Phase  
 1640 VA @ 480 Vac, 1 Phase  
 1466 VA @ 240 Vac, 3 Phase  
 2122 VA @ 480 Vac, 3 Phase

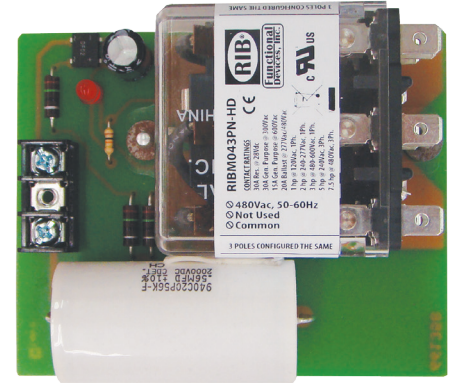
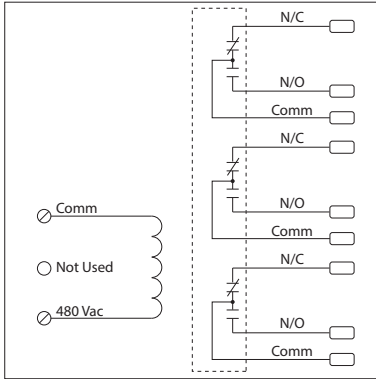
**Coil Current:**  
 140 mA @ 480 Vac  
**Coil Voltage Input:**  
 480 Vac/dc ; 50-60 Hz  
 Drop Out = 140 Vac  
 Pull In = 340 Vac

**Notes:**  
 • See model RIBM043PN-HD for use in more transient prone environments

## 30 AMP TRACK MOUNT CONTROL RELAY

### RIBM043PN-HD

4.00" Track Mount Relay 30 Amp 3PDT with 480 Vac Coil (-HD for More Transient Prone Environments)



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PDT 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 3.250" x 4.000" x 1.750"  
**Track Mount:** 4.000", See MT4 Series on page 152  
**Approvals:** UL Component Recognized, UL916, UL864  
 C-UL, California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp General Use @ 300 Vac  
 30 Amp Resistive @ 28 Vdc  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 15 Amp Resistive @ 600 Vac  
 7.5 HP @ 480 Vac, 3 Phase  
 5 HP @ 240 Vac, 3 Phase  
 3 HP @ 480-600 Vac, 1 Phase  
 2 HP @ 240-277 Vac, 1 Phase  
 1 HP @ 120 Vac, 1 Phase

Heavy Pilot Duty @ 600 Vac  
 770 VA @ 120 Vac, 1 Phase  
 1158 VA @ 240 Vac, 1 Phase  
 1110 VA @ 277 Vac, 1 Phase  
 1640 VA @ 480 Vac, 1 Phase  
 1466 VA @ 240 Vac, 3 Phase  
 2122 VA @ 480 Vac, 3 Phase

**Coil Current:**  
 140 mA @ 480 Vac  
**Coil Voltage Input:**  
 480 Vac/dc ; 50-60 Hz  
 Drop Out = 140 Vac  
 Pull In = 340 Vac

# LATCHING RELAYS

Enclosed

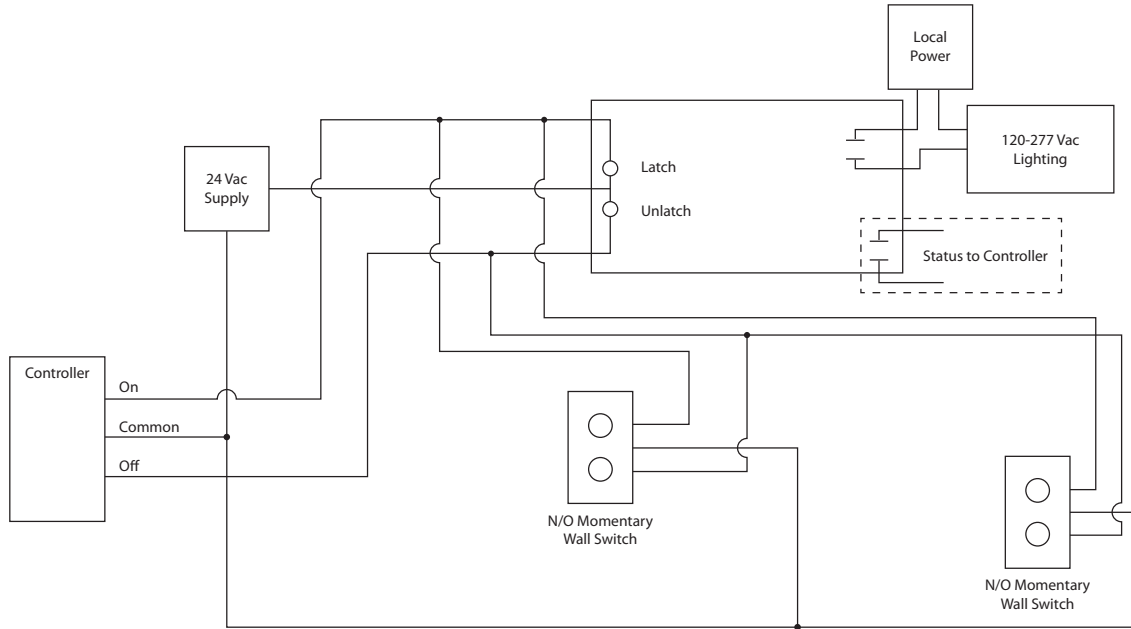


**Made in the U.S.A.**  
Meets the "Buy American" provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).

## Features

- Prepackaged for convenience
- Electromechanical relay
- Mechanically latching
- Status output contact
- Electronic ballast rating
- 20 Amp rating

RELAYS



## ENCLOSED LATCHING RELAYS

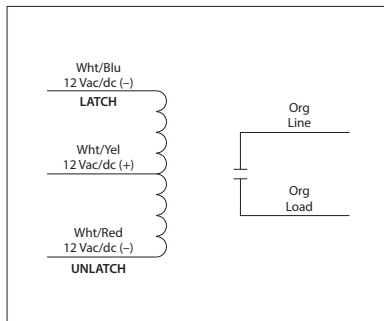
MODEL #	UL	COIL VOLTAGE		RELAYS	CONTACTS	OVERRIDE SWITCH	AUXILIARY OUTPUT	NOTES	SPEC PAGE
		AC/DC							
RIBL12B	•	12		1	SPST				45
RIBL12BM	•	12		1	SPST		•		45
RIBL12SB	•	12		1	SPST	•			45
RIBL12SBM	•	12		1	SPST	•	•		45
RIBL24B	•	24		1	SPST				46
RIBL24BM	•	24		1	SPST		•		46
RIBL24SB	•	24		1	SPST	•			46
RIBL24SBM	•	24		1	SPST	•	•		46

UL = UL Listed : UL60947 Low-Voltage Switchgear and Controlgear

## LATCHING RELAYS

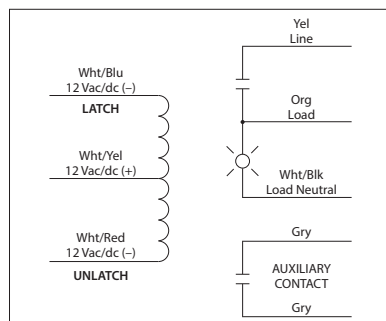
### RIBL12B

Enclosed Mechanically Latching Relay 20 Amp SPST with 12 Vac/dc Coil



### RIBL12BM

Enclosed Mechanically Latching Relay 20 Amp SPST with 12 Vac/dc Coil, Status LED and Auxiliary Output



**RIBL12B-RD**  
• Red housing



**RIBL12B-N4**  
• NEMA 4X housing (Not available on switched models)

RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST Latching Relay, Dual Coil  
**Expected Relay Life:** 1 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Operate Time:** 50ms  
**Maximum Pulse Length:** 30 seconds  
**Relay Status / Auxiliary**  
**Contact Closed:** LED On = Voltage Detected on Load Wire (RIBL12BM)  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT Nipple (RIBL12B)  
 2.30" x 3.20" x 1.80" with .50" NPT Nipple (RIBL12BM)  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL60947, C-UL, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No

**Contact Ratings:**  
 20 Amp Resistive @ 120-277 Vac  
 20 Amp Ballast @ 120-277 Vac  
 16 Amp Electronic Ballast @ 120-277 Vac  
 5540 Watt Tungsten @ 277 Vac  
 720 VA Pilot Duty @ 120-277 Vac  
 2 HP @ 277 Vac  
 3 HP @ 240 Vac  
 1.5 HP @ 120 Vac

**Coil Current:**  
 182 mA @ 10 Vac  
 250 mA @ 12 Vac  
 165 mA @ 10 Vdc  
 198 mA @ 12 Vdc  
 250 mA @ 15 Vdc

**Latch / Unlatch:**  
 Min. 10 Vdc / 11 Vac

**Auxiliary Contact:**  
 3 Amp @ 30 Vac/dc max.

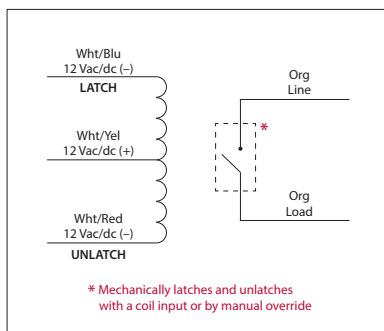
#### Notes:

- Application of voltage on latch coil (Wht/Blu & Wht/Yel) will close the contact.
- Application of voltage on unlatch coil (Wht/Red & Wht/Yel) will open the contact.
- Auxiliary contact and status LED activate when 120-277 Vac is applied between Load (Org) wire and Load Neutral (Wht/Blk) wire. (RIBL12BM)

## LATCHING RELAYS

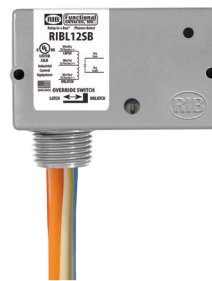
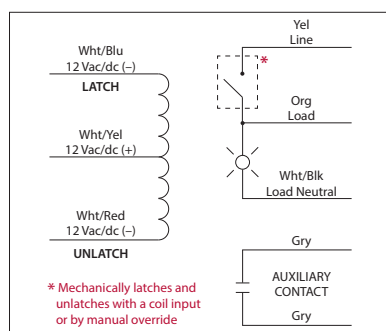
### RIBL12SB

Enclosed Mechanically Latching Relay 20 Amp SPST + Override with 12 Vac/dc Coil



### RIBL12SBM

Enclosed Mechanically Latching Relay 20 Amp SPST + Override with 12 Vac/dc Coil, Status LED and Auxiliary Output



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST Latching Relay, Dual Coil  
**Expected Relay Life:** 1 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Operate Time:** 50ms  
**Maximum Pulse Length:** 30 seconds  
**Relay Status / Auxiliary**  
**Contact Closed:** LED On = Voltage Detected on Load Wire (RIBL12SBM)  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT Nipple (RIBL12SB)  
 2.30" x 3.20" x 1.80" with .50" NPT Nipple (RIBL12SBM)  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL60947, C-UL, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 120-277 Vac  
 20 Amp Ballast @ 120-277 Vac  
 16 Amp Electronic Ballast @ 120-277 Vac  
 5540 Watt Tungsten @ 277 Vac  
 720 VA Pilot Duty @ 120-277 Vac  
 2 HP @ 277 Vac  
 3 HP @ 240 Vac  
 1.5 HP @ 120 Vac

**Coil Current:**  
 182 mA @ 10 Vac  
 250 mA @ 12 Vac  
 165 mA @ 10 Vdc  
 198 mA @ 12 Vdc  
 250 mA @ 15 Vdc

**Latch / Unlatch:**  
 Min. 10 Vdc / 11 Vac

**Auxiliary Contact:**  
 3 Amp @ 30 Vac/dc max.

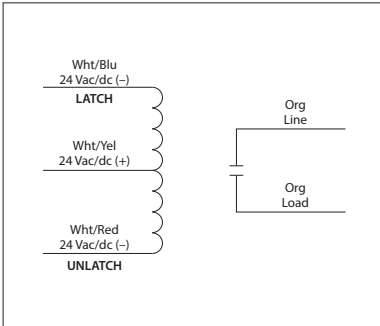
#### Notes:

- Application of voltage on latch coil (Wht/Blu & Wht/Yel) will close the contact.
- Application of voltage on unlatch coil (Wht/Red & Wht/Yel) will open the contact.
- Auxiliary contact and status LED activate when 120-277 Vac is applied between Load (Org) wire and Load Neutral (Wht/Blk) wire. (RIBL12SBM)

## LATCHING RELAYS

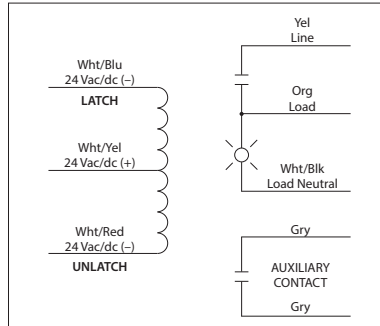
### RIBL24B

Enclosed Mechanically Latching Relay 20 Amp  
SPST with 24 Vac/dc Coil



### RIBL24BM

Enclosed Mechanically Latching Relay 20 Amp  
SPST with 24 Vac/dc Coil, **Status LED and  
Auxiliary Output**



**RIBL24B-RD**  
• Red housing



**RIBL24BM-N4**  
• NEMA 4X housing  
(Not available on  
switched models)

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST Latching Relay Dual Coil  
**Expected Relay Life:** 1 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Operate Time:** 50ms  
**Maximum Pulse Length:** 30 seconds  
**Relay Status / Auxiliary**  
**Contact Closed:** LED On = Voltage Detected on Load Wire (RIBL24BM)  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT Nipple (RIBL24B)  
2.30" x 3.20" x 1.80" with .50" NPT Nipple (RIBL24BM)  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL60947, C-UL, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No

**Contact Ratings:**  
20 Amp Resistive @ 120-277 Vac  
20 Amp Ballast @ 120-277 Vac  
16 Amp Electronic Ballast @ 120-277 Vac  
5540 Watt Tungsten @ 277 Vac  
720 VA Pilot Duty @ 120-277 Vac  
2 HP @ 277 Vac  
3 HP @ 240 Vac  
1.5 HP @ 120 Vac

**Coil Current:**  
175 mA @ 20 Vac  
210 mA @ 24 Vac  
92 mA @ 20 Vdc  
110 mA @ 24 Vdc  
138 mA @ 30 Vdc

**Latch / Unlatch:**  
Min. 20 Vdc / 22 Vac

**Auxiliary Contact:**  
3 Amp @ 30 Vac/dc max.

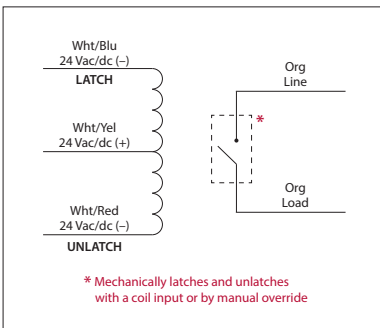
### Notes:

- Application of voltage on latch coil (Wht/Blu & Wht/Yel) will close the contact.
- Application of voltage on unlatch coil (Wht/Red & Wht/Yel) will open the contact.
- Auxiliary contact and status LED activate when 120-277 Vac is applied between Load (Org) wire and Load Neutral (Wht/Blk) wire. (RIBL24BM)

## LATCHING RELAYS

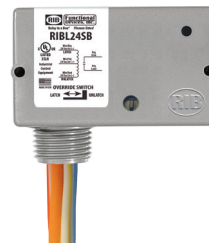
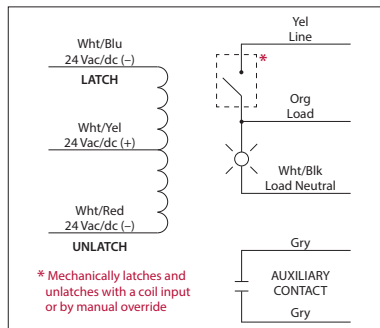
### RIBL24SB

Enclosed Mechanically Latching Relay 20 Amp  
SPST + Override with 24 Vac/dc Coil



### RIBL24SBM

Enclosed Mechanically Latching Relay 20 Amp  
SPST + Override with 24 Vac/dc Coil,  
**Status LED and Auxiliary Output**



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST Latching Relay Dual Coil  
**Expected Relay Life:** 1 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Operate Time:** 50ms  
**Maximum Pulse Length:** 30 seconds  
**Relay Status / Auxiliary**  
**Contact Closed:** LED On = Voltage Detected on Load Wire (RIBL24SBM)  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT Nipple (RIBL24SB)  
2.30" x 3.20" x 1.80" with .50" NPT Nipple (RIBL24SBM)  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL60947, C-UL, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
20 Amp Resistive @ 120-277 Vac  
20 Amp Ballast @ 120-277 Vac  
16 Amp Electronic Ballast @ 120-277 Vac  
5540 Watt Tungsten @ 277 Vac  
720 VA Pilot Duty @ 120-277 Vac  
2 HP @ 277 Vac  
3 HP @ 240 Vac  
1.5 HP @ 120 Vac

**Coil Current:**  
175 mA @ 20 Vac  
210 mA @ 24 Vac  
92 mA @ 20 Vdc  
110 mA @ 24 Vdc  
138 mA @ 30 Vdc

**Latch / Unlatch:**  
Min. 20 Vdc / 22 Vac

**Auxiliary Contact:**  
3 Amp @ 30 Vac/dc max.

### Notes:

- Application of voltage on latch coil (Wht/Blu & Wht/Yel) will close the contact.
- Application of voltage on unlatch coil (Wht/Red & Wht/Yel) will open the contact.
- Auxiliary contact and status LED activate when 120-277 Vac is applied between Load (Org) wire and Load Neutral (Wht/Blk) wire. (RIBL24SBM)

# LOW-INPUT / OPTOISOLATED RELAYS

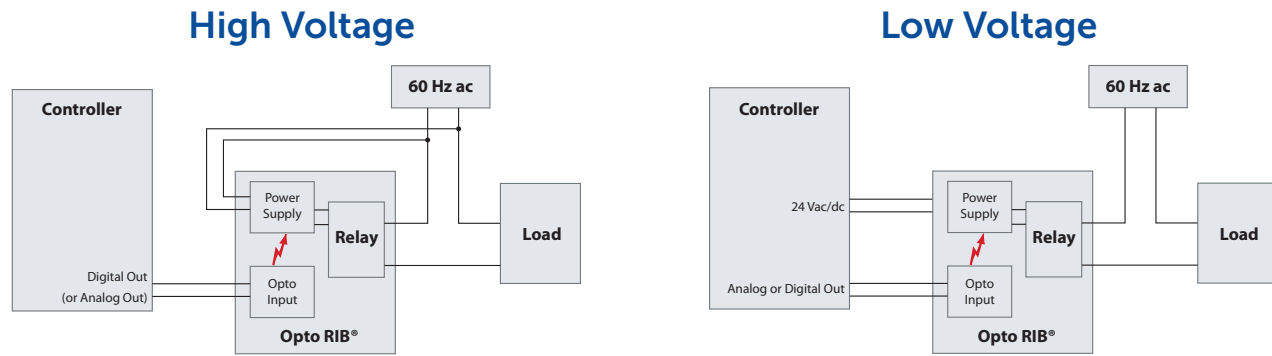
Enclosed | Track Mount



**Made in the U.S.A.**  
Meets the "Buy American" provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).

## Prepackaged Like the Original RIB® with Special Features

- Extremely low current draw on the input
- Control input can connect to AO for relay control
- Protect controller from feedback or voltage transients



- Optoisolated relays help isolate noisy loads from the controller. Good for controlling power relays from analog outputs.

## ENCLOSED LOW-INPUT / OPTOISOLATED RELAYS

MODEL #	UL	CONTROL INPUT	POWER INPUT	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBTELC	•	5-25 Vac/dc	10-30 Vac/dc	1	SPDT			48
RIBTELS	•	5-25 Vac/dc	10-30 Vac/dc	1	SPST	1		48
RIBTE24B	•	5-25 Vac/dc	24 Vac/dc	1	SPDT			48
RIBTE01B	•	5-25 Vac/dc	120 Vac	1	SPDT			49
RIBTE02B	•	5-25 Vac/dc	208-277 Vac	1	SPDT			49
RIBTE24SB	•	5-25 Vac/dc	24 Vac/dc	1	SPST	1		50
RIBTE01SB	•	5-25 Vac/dc	120 Vac	1	SPST	1		50
RIBTE02SB	•	5-25 Vac/dc	208-277 Vac	1	SPST	1		51
RIBTE24P	•	5-25 Vac/dc	24 Vac/dc	1	DPDT			51
RIBTE01P	•	5-25 Vac/dc	120 Vac	1	DPDT			52
RIBTE02P	•	5-25 Vac/dc	208-277 Vac	1	DPDT			52
RIBTE01P-S	•	5-25 Vac/dc	120 Vac	1	DPDT	1		53
RIBTE02P-S	•	5-25 Vac/dc	208-277 Vac	1	DPDT	1		53

## TRACK MOUNT LOW-INPUT / OPTOISOLATED RELAYS

MODEL #	UL	CONTROL INPUT	POWER INPUT	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBME2401B	•	5-25 Vac/dc	24 Vac/dc/120 Vac	1	SPDT			53
RIBME2402B	•	5-25 Vac/dc	24 Vac/dc/208-277 Vac	1	SPDT			53
RIBME2401SB	•	5-25 Vac/dc	24 Vac/dc/120 Vac	1	SPST	1		54
RIBME2402SB	•	5-25 Vac/dc	24 Vac/dc/208-277 Vac	1	SPST	1		54
RIBME2401P	•	5-25 Vac/dc	24 Vac/dc/120 Vac	1	DPST			54
RIBME2402P	•	5-25 Vac/dc	24 Vac/dc/208-277 Vac	1	DPST			54

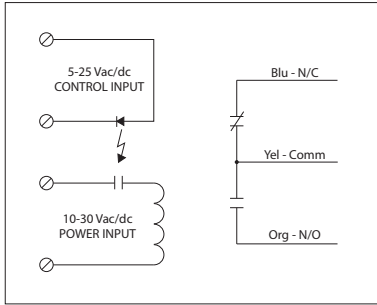
UL = UL Listed : UL916 Energy Management, UL864 Fire ; USA & Canada

RELAYS

## LOW COIL INPUT RELAYS

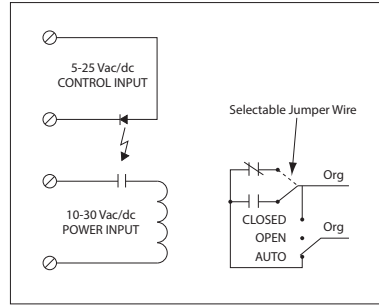
### RIBTELC

Enclosed Relay Hi/Low Separation 10 Amp  
SPDT, 10-30 Vac/dc Power Input + 5-25 Vac/dc  
Control Input

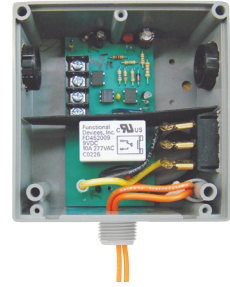
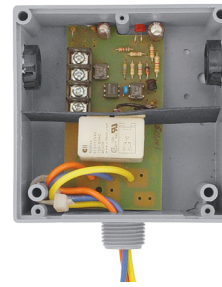


### RIBTELS

Enclosed Relay Hi/Low Separation 10 Amp  
SPST + **Override**, 10-30 Vac/dc Power Input  
+ 5-25 Vac/dc Control Input



Meets  
"Buy American"  
of ARRA 2009



## SPECIFICATIONS

**Power Input:** 10-30 Vac/dc, 50-60 Hz  
**Control Input:** 5-25 Vac/dc, 50-60 Hz  
**# 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:** 20ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes (RIBTELC), No (RIBTELS)  
**Override Switch:** No (RIBTELC), Yes (RIBTELS)

**Contact Ratings:**  
10 Amp Resistive @ 120-277 Vac  
10 Amp Resistive @ 28 Vdc  
480 VA Pilot Duty @ 240-277 Vac  
480 VA Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
600 Watt Tungsten @ 120 Vac (N/O)  
240 Watt Tungsten @ 120 Vac (N/C)  
1/3 HP @ 120-240 Vac (N/O)  
1/6 HP @ 120-240 Vac (N/C)  
1/4 HP @ 277 Vac (N/O)  
1/8 HP @ 277 Vac (N/C)

**Power Input Ratings:**  
33 mA @ 10 Vac  
35 mA @ 12 Vac  
46 mA @ 24 Vac  
55 mA @ 30 Vac  
13 mA @ 10 Vdc  
15 mA @ 12 Vdc  
18 mA @ 24 Vdc  
20 mA @ 30 Vdc

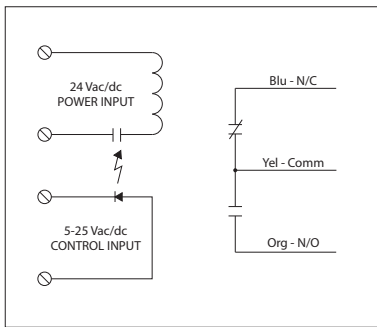
**Control Input Ratings:**  
.4 mA @ 5 Vdc  
.9 mA @ 10 Vdc  
1 mA @ 12 Vdc  
2 mA @ 24 Vdc  
3 mA @ 24 Vdc  
(Non Polarized)

**Notes:**  
• Normally Open or Normally Closed selected by yellow jumper wire (RIBTELS)

## LOW COIL INPUT RELAY

### RIBTE24B

Enclosed Relay Hi/Low Separation 20 Amp SPDT,  
24 Vac/dc Power Input + 5-25 Vac/dc Control Input



Meets  
"Buy American"  
of ARRA 2009

## SPECIFICATIONS

**Power Input:** 24 Vac/dc, 50-60 Hz  
**Control Input:** 5-25 Vac/dc, 50-60 Hz  
**# 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
20 Amp Resistive @ 277 Vac  
5 Amp Resistive @ 480 Vac  
1110 VA Pilot Duty @ 277 Vac  
770 VA Pilot Duty @ 120 Vac  
20 Amp Ballast @ 277 Vac  
16 Amp Electronic Ballast @ 277 Vac (N/O)  
10 Amp Tungsten @ 120 Vac (N/O)  
240 Watt Tungsten @ 120 Vac (N/C)  
2 HP @ 277 Vac  
1 HP @ 120 Vac

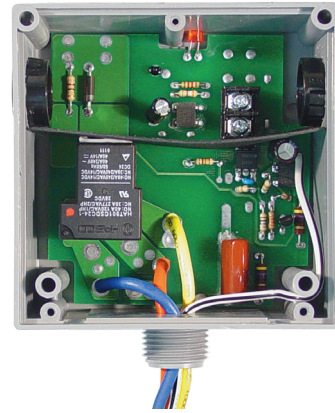
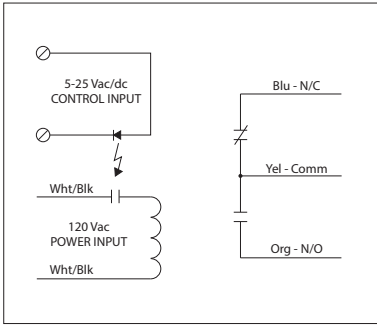
**Power Input Ratings:**  
50 mA @ 18 Vac  
83 mA @ 24 Vac  
33 mA @ 22 Vdc  
35 mA @ 24 Vdc  
47 mA @ 30 Vdc

**Control Input Ratings:**  
.4 mA @ 5 Vdc  
.9 mA @ 10 Vdc  
1 mA @ 12 Vdc  
2 mA @ 24 Vdc  
3 mA @ 24 Vdc  
(Non Polarized)

## LOW COIL INPUT RELAY

### RIBTE01B

Enclosed Relay Hi/Low Separation 20 Amp SPDT, 120 Vac Power Input + 5-25 Vac/dc Control Input



Made in USA  
Meets  
"Buy American"  
of ARRA 2009

RELAYS

## SPECIFICATIONS

**Power Input:** 120 Vac, 50-60 Hz

**Control Input:** 5-25 Vac/dc, 50-60 Hz

**# 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

**Relay Status:** LED On = Activated

**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL

California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** No

**Override Switch:** No

### Contact Ratings:

20 Amp Resistive @ 277 Vac

5 Amp Resistive @ 480 Vac

1110 VA Pilot Duty @ 277 Vac

770 VA Pilot Duty @ 120 Vac

20 Amp Ballast @ 277 Vac

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

10 Amp Tungsten @ 120 Vac (N/O)

240 Watt Tungsten @ 120 Vac (N/C)

2 HP @ 277 Vac

1 HP @ 120 Vac

### Power Input Ratings:

47 mA @ 120 Vac

### Control Input Ratings:

.4 mA @ 5 Vdc

.9 mA @ 10 Vdc

1 mA @ 12 Vdc

2 mA @ 24 Vdc

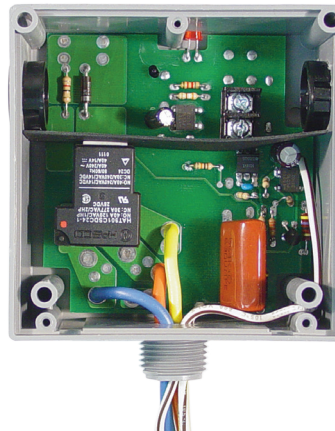
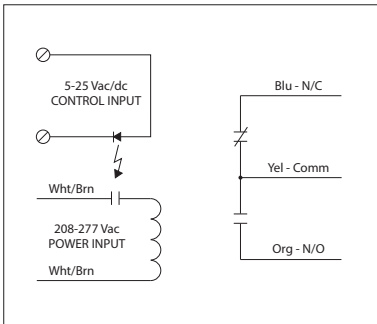
3 mA @ 24 Vac

(Non Polarized)

## LOW COIL INPUT RELAY

### RIBTE02B

Enclosed Relay Hi/Low Separation 20 Amp SPDT, 208-277 Vac Power Input + 5-25 Vac/dc Control Input



Made in USA  
Meets  
"Buy American"  
of ARRA 2009

## SPECIFICATIONS

**Power Input:** 208-277 Vac, 50-60 Hz

**Control Input:** 5-25 Vac/dc, 50-60 Hz

**# 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

**Relay Status:** LED On = Activated

**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL

California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** No

**Override Switch:** No

### Contact Ratings:

20 Amp Resistive @ 277 Vac

5 Amp Resistive @ 480 Vac

1110 VA Pilot Duty @ 277 Vac

770 VA Pilot Duty @ 120 Vac

20 Amp Ballast @ 277 Vac

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

10 Amp Tungsten @ 120 Vac (N/O)

240 Watt Tungsten @ 120 Vac (N/C)

2 HP @ 277 Vac

1 HP @ 120 Vac

### Power Input Ratings:

69 mA @ 208-277 Vac

### Control Input Ratings:

.4 mA @ 5 Vdc

.9 mA @ 10 Vdc

1 mA @ 12 Vdc

2 mA @ 24 Vdc

3 mA @ 24 Vac

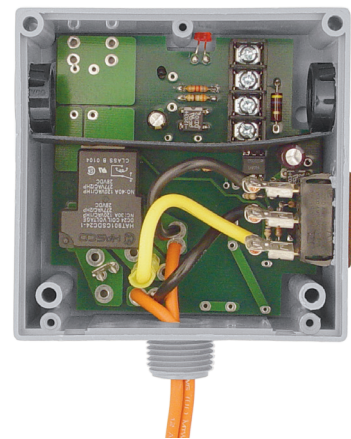
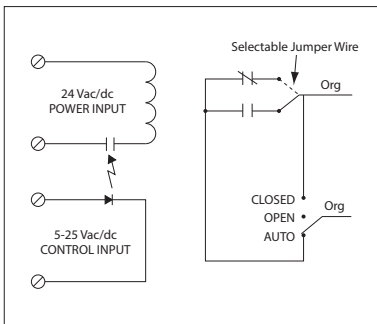
(Non Polarized)



## LOW COIL INPUT RELAY

### RIBTE24SB

Enclosed Relay Hi/Low Separation 20 Amp SPST  
+ Override, 24 Vac/dc Power Input + 5-25 Vac/dc  
Control Input



## SPECIFICATIONS

**Power Input:** 24 Vac/dc, 50-60 Hz  
**Control Input:** 5-25 Vac/dc, 50-60 Hz  
**# Relays & Contact Type:** One (1) SPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 770 VA Pilot Duty @ 120 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 10 Amp Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

**Power Input Ratings:**  
 50 mA @ 18 Vac  
 83 mA @ 24 Vac  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Control Input Ratings:**  
 .4 mA @ 5 Vdc  
 .9 mA @ 10 Vdc  
 1 mA @ 12 Vdc  
 2 mA @ 24 Vdc  
 3 mA @ 24 Vac  
 (Non Polarized)

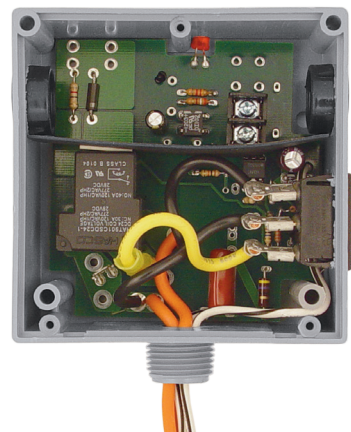
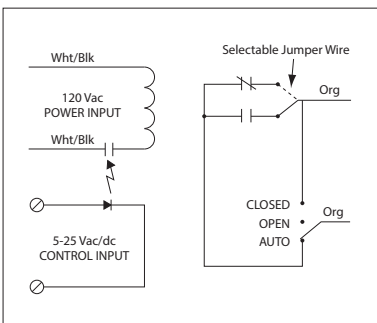
### Notes:

• Normally Open or Normally Closed selected by yellow jumper wire

## LOW COIL INPUT RELAY

### RIBTE01SB

Enclosed Relay Hi/Low Separation 20 Amp SPST  
+ Override, 120 Vac Power Input + 5-25 Vac/dc  
Control Input



## SPECIFICATIONS

**Power Input:** 120 Vac, 50-60 Hz  
**Control Input:** 5-25 Vac/dc, 50-60 Hz  
**# Relays & Contact Type:** One (1) SPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 770 VA Pilot Duty @ 120 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 10 Amp Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

**Control Input Ratings:**  
 .4 mA @ 5 Vdc  
 .9 mA @ 10 Vdc  
 1 mA @ 12 Vdc  
 2 mA @ 24 Vdc  
 3 mA @ 24 Vac  
 (Non Polarized)

**Power Input Ratings:**  
 47 mA @ 120 Vac

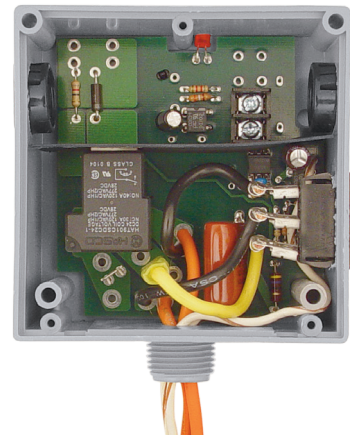
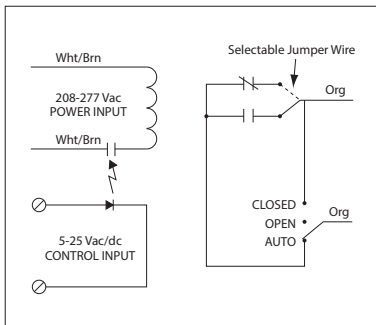
### Notes:

• Normally Open or Normally Closed selected by yellow jumper wire

## LOW COIL INPUT RELAY

### RIBTE02SB

Enclosed Relay Hi/Low Separation 20 Amp SPST + Override, 208-277 Vac Power Input + 5-25 Vac/dc Control Input



RELAYS

## SPECIFICATIONS

**Power Input:** 208-277 Vac, 50-60 Hz  
**Control Input:** 5-25 Vac/dc, 50-60 Hz  
**# Relays & Contact Type:** One (1) SPST 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 770 VA Pilot Duty @ 120 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 10 Amp Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

**Power Input Ratings:**  
 69 mA @ 208-277 Vac

**Control Input Ratings:**  
 .4 mA @ 5 Vdc  
 .9 mA @ 10 Vdc  
 1 mA @ 12 Vdc  
 2 mA @ 24 Vdc  
 3 mA @ 24 Vdc  
 (Non Polarized)

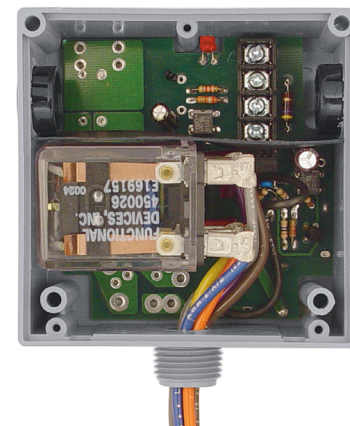
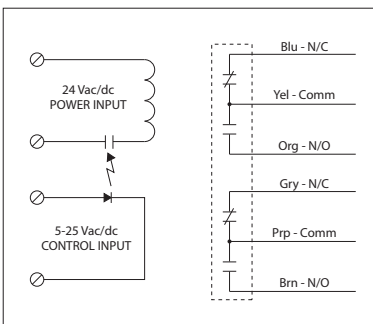
#### Notes:

- Normally Open or Normally Closed selected by yellow jumper wire

## LOW COIL INPUT RELAY

### RIBTE24P

Enclosed Relay Hi/Low Separation 20 Amp DPDT, 24 Vac/dc Power Input + 5-25 Vac/dc Control Input



## SPECIFICATIONS

**Power Input:** 24 Vac/dc, 50-60 Hz  
**Control Input:** 5-25 Vac/dc, 50-60 Hz  
**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

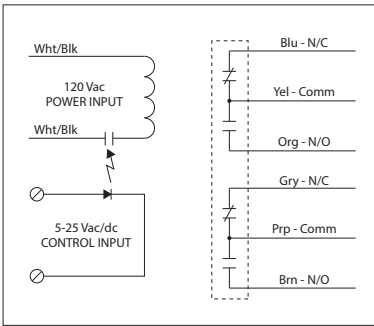
**Power Input Ratings:**  
 110 mA @ 20 Vac  
 138 mA @ 24 Vac  
 55 mA @ 20 Vdc  
 55 mA @ 24 Vdc  
 77 mA @ 30 Vdc

**Control Input Ratings:**  
 .4 mA @ 5 Vdc  
 .9 mA @ 10 Vdc  
 1 mA @ 12 Vdc  
 2 mA @ 24 Vdc  
 3 mA @ 24 Vac  
 (Non Polarized)

## LOW COIL INPUT RELAY

### RIBTE01P

Enclosed Relay Hi/Low Separation 20 Amp DPDT, 120 Vac Power Input + 5-25 Vac/dc Control Input



## SPECIFICATIONS

**Power Input:** 120 Vac, 50-60 Hz  
**Control Input:** 5-25 Vac/dc, 50-60 Hz  
**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

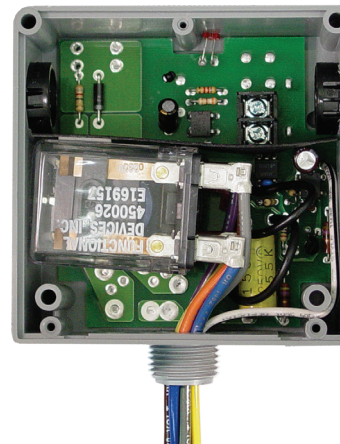
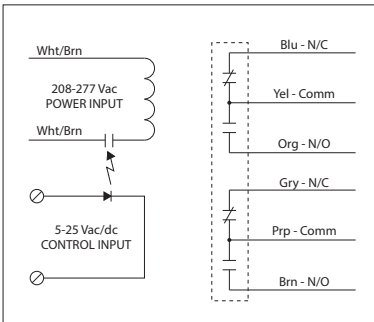
**Power Input Ratings:**  
 105 mA @ 120 Vac

**Control Input Ratings:**  
 .4 mA @ 5 Vdc  
 .9 mA @ 10 Vdc  
 1 mA @ 12 Vdc  
 2 mA @ 24 Vdc  
 3 mA @ 24 Vac  
 (Non Polarized)

## LOW COIL INPUT RELAY

### RIBTE02P

Enclosed Relay Hi/Low Separation 20 Amp DPDT, 208-277 Vac Power Input + 5-25 Vac/dc Control Input



## SPECIFICATIONS

**Power Input:** 208-277 Vac, 50-60 Hz  
**Control Input:** 5-25 Vac/dc, 50-60 Hz  
**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc  
 15 Amp Resistive @ 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 770 VA Pilot Duty @ 120 Vac  
 1158 VA Pilot Duty @ 240 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 1640 VA Pilot Duty @ 480 Vac  
 3 HP @ 480-600 Vac  
 2 HP @ 240-277 Vac  
 1 HP @ 120 Vac

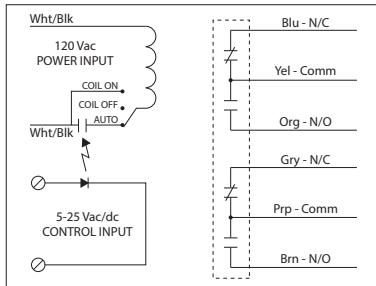
**Power Input Ratings:**  
 105 mA @ 208-277 Vac

**Control Input Ratings:**  
 .4 mA @ 5 Vdc  
 .9 mA @ 10 Vdc  
 1 mA @ 12 Vdc  
 2 mA @ 24 Vdc  
 3 mA @ 24 Vac  
 (Non Polarized)

## LOW COIL INPUT RELAYS

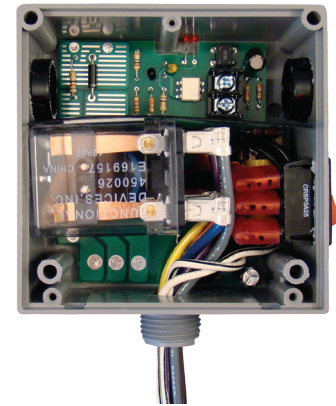
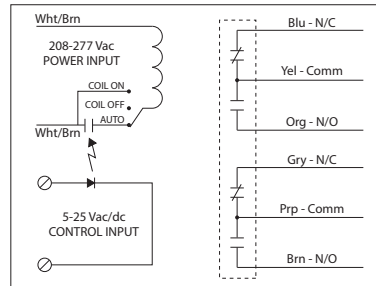
### RIBTE01P-S

Enclosed Relay Hi/Low Separation 20 Amp DPDT  
+Override, 120 Vac Power Input + 5-25 Vac/dc  
Control Input



### RIBTE02P-S

Enclosed Relay Hi/Low Separation 20 Amp DPDT  
+Override, 208-277 Vac Power Input +  
5-25 Vac/dc Control Input



RELAYS

## SPECIFICATIONS

**Power Input:** 120 Vac, 50-60 Hz (RIBTE01P-S)  
208-277 Vac, 50-60 Hz (RIBTE02P-S)

**Control Input:** 5-25 Vac/dc, 50-60 Hz

**# Relays & Contact Type:** One (1) DPDT 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

**Relay Status:** LED On = Activated

**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple

**Wires:** 16", 600V Rated

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1

**Gold Flash:** Yes

**Override Switch:** Yes\*

### Contact Ratings:

20 Amp Resistive @ 300 Vac  
20 Amp Resistive @ 28 Vdc  
15 Amp Resistive @ 600 Vac  
20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
770 VA Pilot Duty @ 120 Vac  
1158 VA Pilot Duty @ 240 Vac  
1110 VA Pilot Duty @ 277 Vac  
1640 VA Pilot Duty @ 480 Vac  
3 HP @ 480-600 Vac  
2 HP @ 240-277 Vac  
1 HP @ 120 Vac

### Control Input Ratings:

.4 mA @ 5 Vdc  
.9 mA @ 10 Vdc  
1 mA @ 12 Vdc  
2 mA @ 24 Vdc  
3 mA @ 24 Vac  
(Non Polarized)

### Notes:

\* Override capability is made possible by supplying constant voltage on the Power Input. No Control Input Voltage is necessary to override the relay.\*

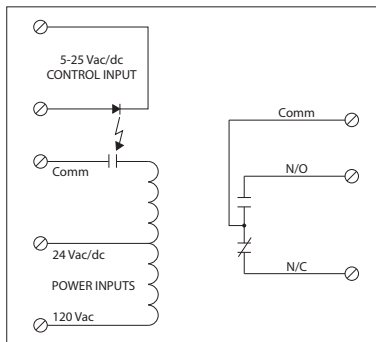
### Power Input Ratings:

105 mA @ 120 Vac (RIBTE01P-S)  
105 mA @ 208-277 Vac (RIBTE02P-S)

## LOW COIL INPUT TRACK MOUNT RELAYS

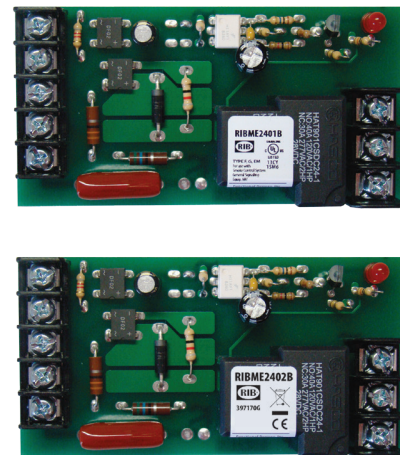
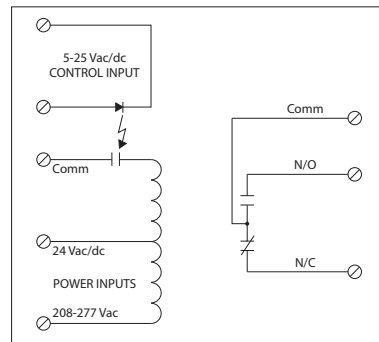
### RIBME2401B

4.00" Track Mount Relay 20 Amp SPDT,  
24 Vac/dc/120 Vac Power Input +  
5-25 Vac/dc Control Input



### RIBME2402B

4.00" Track Mount Relay 20 Amp SPDT,  
24 Vac/dc/208-277 Vac Power Input +  
5-25 Vac/dc Control Input



## SPECIFICATIONS

**Power Input:** 24 Vac/dc/120 Vac, 50-60 Hz (RIBME2401B)  
24 Vac/dc/208-277 Vac, 50-60 Hz (RIBME2402B)

**Control Input:** 5-25 Vac/dc, 50-60 Hz

**# 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

**Relay Status:** LED On = Activated

**Dimensions:** 2.050" x 4.000" x 1.750"

**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Gold Flash:** No

**Override Switch:** No

### Contact Ratings:

20 Amp Resistive @ 277 Vac  
1110 VA Pilot Duty @ 277 Vac  
770 VA Pilot Duty @ 120 Vac  
20 Amp Ballast @ 277 Vac  
16 Amp Electronic Ballast @ 277 Vac (N/O)  
10 Amp Tungsten @ 120 Vac (N/O)  
240 Watt Tungsten @ 120 Vac (N/C)  
2 HP @ 277 Vac  
1 HP @ 120 Vac

### Power Input Ratings:

50 mA @ 18 Vac  
83 mA @ 24 Vac  
47 mA @ 120 Vac (RIBME2401B)  
69 mA @ 208-277 Vac (RIBME2402B)

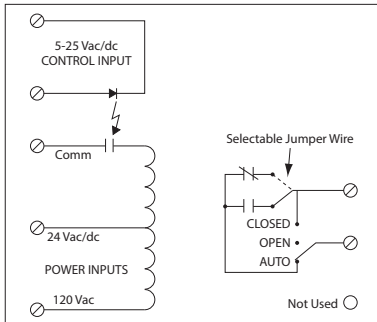
### Control Input Ratings:

.4 mA @ 5 Vdc  
.9 mA @ 10 Vdc  
1 mA @ 12 Vdc  
2 mA @ 24 Vdc  
3 mA @ 24 Vac  
(Non Polarized)

## LOW COIL INPUT TRACK MOUNT RELAYS

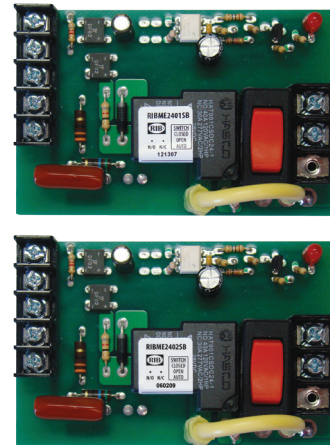
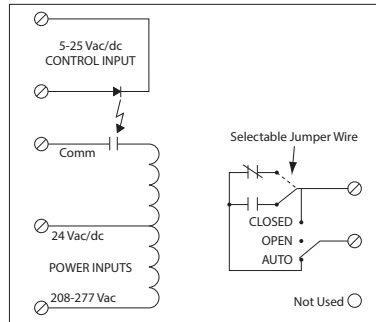
### RIBME2401SB

4.00" Track Mount Relay 20 Amp SPST + Override,  
24 Vac/dc/120 Vac Power Input +  
5-25 Vac/dc Control Input



### RIBME2402SB

4.00" Track Mount Relay 20 Amp SPST + Override,  
24 Vac/dc/208-277 Vac Power Input +  
5-25 Vac/dc Control Input



RELAYS

## SPECIFICATIONS

**Power Input:** 24 Vac/dc/120 Vac, 50-60 Hz (RIBME2401SB)  
24 Vac/dc/208-277 Vac, 50-60 Hz (RIBME2402SB)

**Control Input:** 5-25 Vac/dc, 50-60 Hz

**# Relays & Contact Type:** One (1) SPST 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

**Relay Status:** LED On = Activated

**Dimensions:** 2.550" x 4.000" x 1.750"

**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Gold Flash:** No

**Override Switch:** Yes

**Contact Ratings:**  
20 Amp Resistive @ 277 Vac  
1110 VA Pilot Duty @ 277 Vac  
770 VA Pilot Duty @ 120 Vac  
20 Amp Ballast @ 277 Vac (N/O)  
10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
10 Amp Tungsten @ 120 Vac (N/O)  
240 Watt Tungsten @ 120 Vac (N/C)  
2 HP @ 277 Vac  
1 HP @ 120 Vac

**Control Input Ratings:**  
.4 mA @ 5 Vdc      2 mA @ 24 Vdc  
.9 mA @ 10 Vdc    3 mA @ 24 Vdc  
1 mA @ 12 Vdc     (Non Polarized)

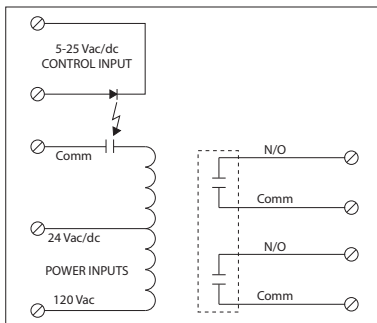
**Power Input Ratings:**  
50 mA @ 18 Vac                      33 mA @ 22 Vdc  
83 mA @ 24 Vac                      35 mA @ 24 Vdc  
47 mA @ 120 Vac (RIBME2401SB)    47 mA @ 30 Vdc  
69 mA @ 208-277 Vac (RIBME2402SB)

**Notes:**  
• Normally Open or Normally Closed selected by yellow jumper wire

## LOW COIL INPUT TRACK MOUNT RELAYS

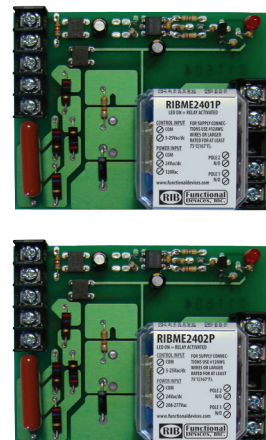
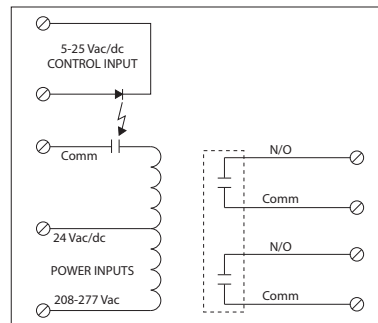
### RIBME2401P

4.00" Track Mount Relay 20 Amp DPST,  
24 Vac/dc/120 Vac Power Input +  
5-25 Vac/dc Control Input



### RIBME2402P

4.00" Track Mount Relay 20 Amp DPST,  
24 Vac/dc/208-277 Vac Power Input +  
5-25 Vac/dc Control Input



## SPECIFICATIONS

**Power Input:** 24 Vac/dc/120 Vac, 50-60 Hz (RIBME2401P)  
24 Vac/dc/208-277 Vac, 50-60 Hz (RIBME2402P)

**Control Input:** 5-25 Vac/dc, 50-60 Hz

**# Relays & Contact Type:** One (1) DPST 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

**Relay Status:** LED On = Activated

**Dimensions:** 3.100" x 4.000" x 2.750"

**Track Mount:** 4.000", See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**

**Approvals:** UL Listed, UL916, UL864, C-UL  
California State Fire Marshal, CE, RoHS

**Gold Flash:** Yes

**Override Switch:** No

**Contact Ratings:**  
20 Amp Resistive @ 300 Vac  
20 Amp Resistive @ 28 Vdc, 15 Vdc  
20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
15 Amp Resistive @ 600 Vac  
770 VA Pilot Duty @ 120 Vac  
1158 VA Pilot Duty @ 240 Vac  
1110 VA Pilot Duty @ 277 Vac  
1640 VA Pilot Duty @ 480 Vac  
3 HP @ 480-600 Vac  
2 HP @ 240-277 Vac  
1 HP @ 120 Vac

**Power Input Ratings:**  
138 mA @ 24 Vac  
105 mA @ 120 Vac (RIBME2401P)  
105 mA @ 208-277 Vac (RIBME2402P)  
77 mA @ 30 Vdc

**Control Input Ratings:**  
.4 mA @ 5 Vdc  
.9 mA @ 10 Vdc  
1 mA @ 12 Vdc  
2 mA @ 24 Vdc  
3 mA @ 24 Vac  
(Non Polarized)

# POLARIZED RELAYS

Enclosed | Track Mount



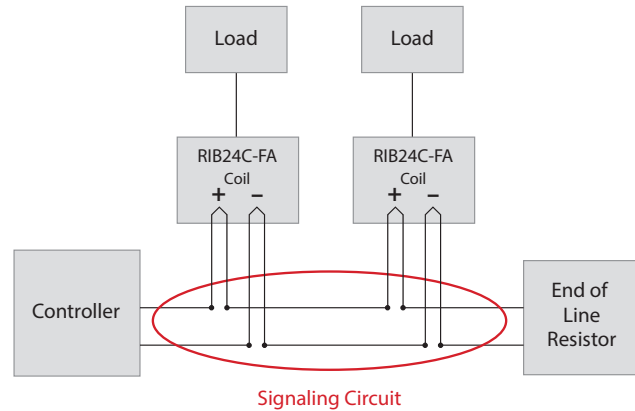
**Made in the U.S.A.**  
Meets the "Buy American" provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).

## Same Great Prepackaging

- Relays are polarized to work in a supervised system and may be turned on and off by reversing polarity. For fire alarm systems, smoke control systems, etc.

## Fire Alarm Systems Application

- Coil input is polarity sensitive
- For use with fire alarm systems
- System supervision for controllers that utilize end-of-line resistors
- Four wire circuit ensures indication of broken wiring connection with RIB®



RELAYS

## ENCLOSED ALARM RELAYS

MODEL #	UL	COIL VOLTAGE	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIB12C-FA	•	12 Vac/dc	1	SPDT			56
RIB24C-FA	•	24 Vac/dc	1	SPDT			56
RIB12S-FA	•	12 Vac/dc	1	SPST	1		56
RIB24S-FA	•	24 Vac/dc	1	SPST	1		56
RIBT24B-FA	•	24 Vac/dc	1	SPDT			57
RIB24P-FA	•	24 Vac/dc	1	DPDT			57

## TRACK MOUNT ALARM RELAYS

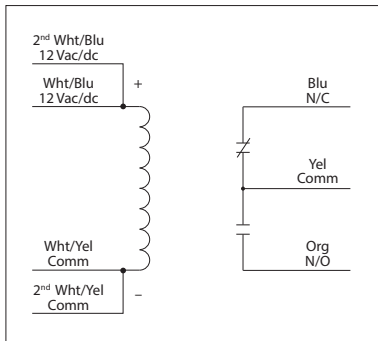
MODEL #	UL	COIL VOLTAGE	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBMN12C-FA	•	12 Vac/dc	1	SPDT			58
RIBMN24C-FA	•	24 Vac/dc	1	SPDT			58
RIBMN12S-FA	•	12 Vac/dc	1	SPST	1		58
RIBMN24S-FA	•	24 Vac/dc	1	SPST	1		58

UL = UL Listed : UL916 Energy Management, UL864 Fire ; USA & Canada

## FIRE ALARM RELAYS

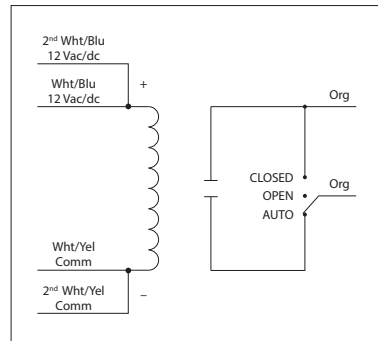
### RIB12C-FA

Enclosed Relay 10 Amp, Polarized with 12 Vac/dc Coil



### RIB12S-FA

Enclosed Relay 10 Amp + Override, Polarized with 12 Vac/dc Coil



RIB12C-FA-RD  
RIB12S-FA-RD  
• Red housing



RIB12C-FA-N4  
• NEMA 4X housing, UL508 only

## 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:** 6ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No (RIB12C-FA)  
 Yes (RIB12S-FA)

**Contact Ratings:**  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 470 VA Pilot Duty @ 125 Vac  
 770 VA Pilot Duty @ 250 Vac

**Coil Current:**  
 53 mA @ 10 Vac  
 62 mA @ 12 Vac  
 29 mA @ 11 Vdc  
 36 mA @ 12 Vdc

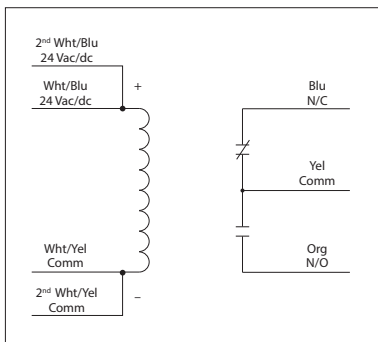
**Coil Voltage Input:**  
 12 Vac/dc; 50-60 Hz  
 Drop Out = 2 Vac / 2.5 Vdc  
 Pull In = 9 Vac / 11 Vdc

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number (RIB12S-FA)

## FIRE ALARM RELAYS

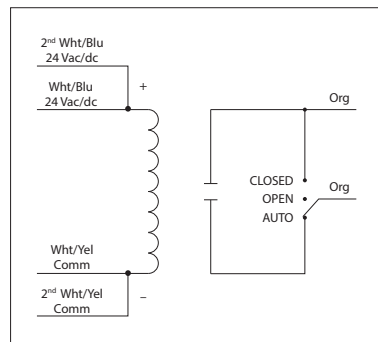
### RIB24C-FA

Enclosed Relay 10 Amp, Polarized with 24 Vac/dc Coil



### RIB24S-FA

Enclosed Relay 10 Amp + Override, Polarized with 24 Vac/dc Coil



RIB24C-FA-RD  
RIB24S-FA-RD  
• Red housing



RIB24C-FA-N4  
• NEMA 4X housing, UL508 only

## 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:** 6ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No (RIB24C-FA)  
 Yes (RIB24S-FA)

**Contact Ratings:**  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 470 VA Pilot Duty @ 125 Vac  
 770 VA Pilot Duty @ 250 Vac

**Coil Current:**  
 26 mA @ 20 Vac  
 31 mA @ 24 Vac  
 48 mA @ 35 Vac  
 14 mA @ 20 Vdc  
 18 mA @ 24 Vdc  
 28 mA @ 35 Vdc

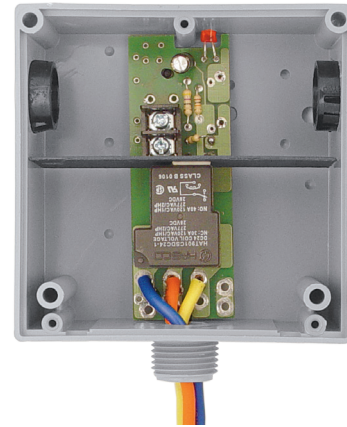
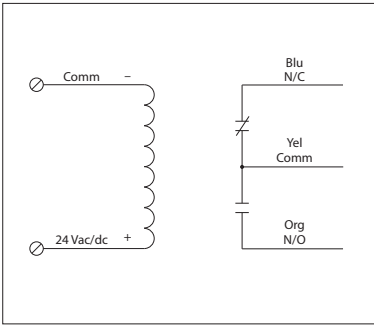
**Coil Voltage Input:**  
 24 Vac/dc; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 20 Vdc

**Notes:**  
 • Order Normally Closed by adding "-NC" to end of model number (RIB24S-FA)

## FIRE ALARM RELAY

### RIBT24B-FA

Enclosed Relay Hi/Low Separation 20 Amp SPDT,  
Polarized with 24 Vac/dc Coil



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  
**Relay Status:** LED On = Activated  
**Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 5 Amp Resistive @ 480 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 770 VA Pilot Duty @ 120 Vac  
 20 Amp Ballast @ 277 Vac  
 16 Amp Electronic Ballast @ 277 Vac (N/O)  
 10 Amp Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

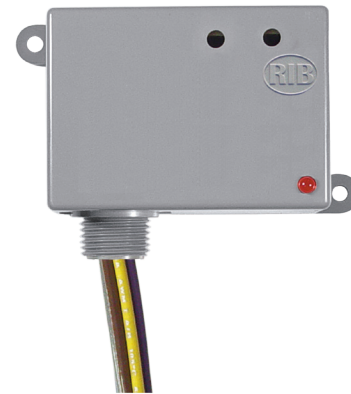
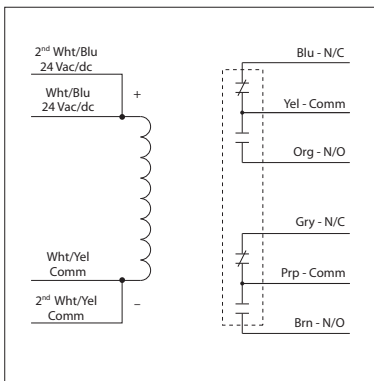
**Coil Current:**  
 47 mA @ 18 Vac  
 83 mA @ 24 Vac  
 33 mA @ 22 Vdc  
 35 mA @ 24 Vdc  
 47 mA @ 30 Vdc

**Coil Voltage Input:**  
 24 Vac/dc ; 50-60 Hz  
 Drop Out = 2.1 Vac / 3.8 Vdc  
 Pull In = 18 Vac / 22 Vdc

## FIRE ALARM RELAY

### RIB24P-FA

Enclosed Relay 20 Amp DPDT, Polarized with  
24 Vac/dc Coil



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 300 Vac  
 20 Amp Resistive @ 28 Vdc, 15 Vdc  
 15 Amp Resistive @ 600 Vac  
 1 HP @ 120 Vac  
 2 HP @ 240-277 Vac  
 3 HP @ 480 Vac - 600 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*  
 770 VA Pilot Duty @ 120 Vac  
 1,158 VA Pilot Duty @ 240 Vac  
 1,110 VA Pilot Duty @ 277 Vac  
 1,640 VA Pilot Duty @ 480 Vac

**Coil Current:**  
 110 mA @ 20 Vac  
 138 mA @ 24 Vac  
 55 mA @ 20 Vdc  
 55 mA @ 24 Vdc  
 77 mA @ 30 Vdc

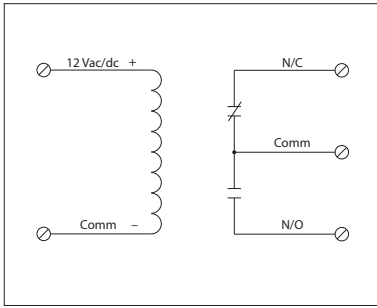
**Coil Voltage Input:**  
 24 Vac/dc ; 50-60 Hz  
 Drop Out = 3 Vac / 3.8 Vdc  
 Pull In = 20 Vac / 20 Vdc



## FIRE ALARM TRACK MOUNT RELAYS

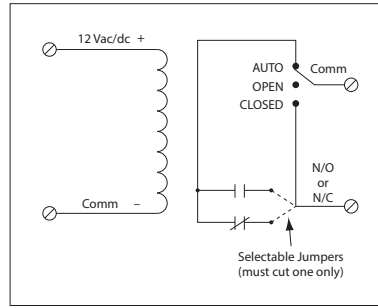
### RIBMN12C-FA

2.75" Track Mount Relay 15 Amp, Polarized with 12 Vac/dc Coil



### RIBMN12S-FA

2.75" Track Mount Relay 15 Amp + Override, Polarized with 12 Vac/dc Coil



Cut for N/O  
Cut for N/C

## 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:** 6ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.100" x 2.750" x 1.750"  
**Track Mount:** 2.750", See MT212 Series on page 152  
**MT212 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No (RIBMN12C-FA)  
 Yes (RIBMN12S-FA)

**Contact Ratings:**  
 15 Amp General Use @ 125 Vac  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 470 VA Pilot Duty @ 125 Vac  
 770 VA Pilot Duty @ 250 Vac

**Coil Current:**  
 53 mA @ 10 Vac  
 62 mA @ 12 Vac  
 29 mA @ 11 Vdc  
 35 mA @ 12 Vdc

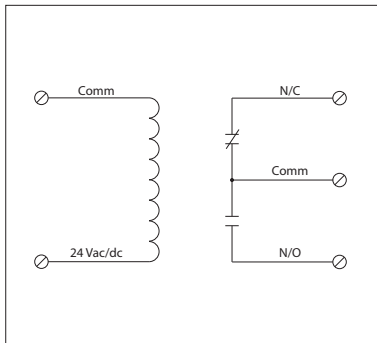
**Coil Voltage Input:**  
 12 Vac/dc; 50-60 Hz  
 Drop Out = 2 Vac / 2.5 Vdc  
 Pull In = 9 Vac / 11 Vdc

**Notes:**  
 • Must cut appropriate jumper to select Normally Open or Normally Closed (RIBMN12S-FA)

## FIRE ALARM TRACK MOUNT RELAYS

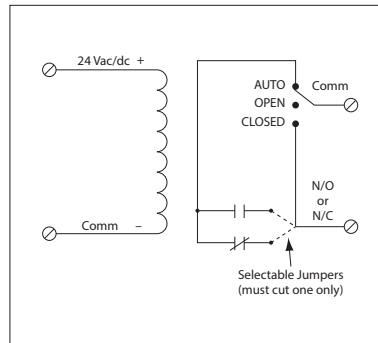
### RIBMN24C-FA

2.75" Track Mount Relay 15 Amp, Polarized with 24 Vac/dc Coil



### RIBMN24S-FA

2.75" Track Mount Relay 15 Amp + Override, Polarized with 24 Vac/dc Coil



Cut for N/O  
Cut for N/C

## 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:** 6ms  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.100" x 2.750" x 1.750"  
**Track Mount:** 2.750", See MT212 Series on page 152  
**MT212 Mounting Track Sold Separately**  
**Approvals:** UL Listed, UL916, UL864, C-UL  
 California State Fire Marshal, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No (RIBMN24C-FA)  
 Yes (RIBMN24S-FA)

**Contact Ratings:**  
 15 Amp General Use @ 125 Vac  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 470 VA Pilot Duty @ 125 Vac  
 770 VA Pilot Duty @ 250 Vac

**Coil Current:**  
 26 mA @ 20 Vac  
 31 mA @ 24 Vac  
 48 mA @ 35 Vac  
 14 mA @ 20 Vdc  
 18 mA @ 24 Vdc  
 28 mA @ 35 Vdc

**Coil Voltage Input:**  
 24 Vac/dc; 50-60 Hz  
 Drop Out = 2 Vac / 2.5 Vdc  
 Pull In = 9 Vac / 11 Vdc

**Notes:**  
 • Must cut appropriate jumper to select Normally Open or Normally Closed (RIBMN24S-FA)

# DRY CONTACT INPUT RELAYS

Enclosed | Track Mount



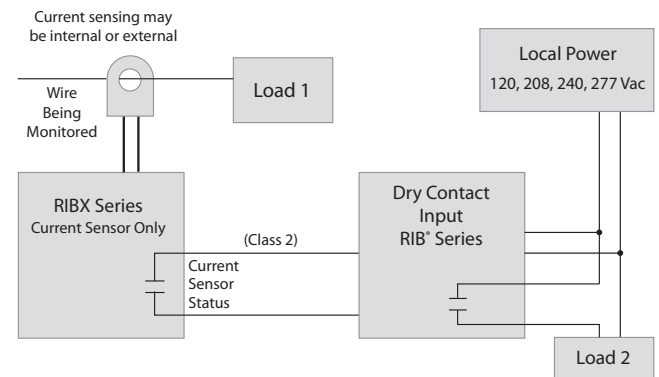
**Made in the U.S.A.**  
Meets the "Buy American" provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).

The Dry Contact Input RIB® Series offers all the advantages of the standard RIB® line plus it can be activated by a wide range of dry contacts such as thermostats, current switches, other relays, solid-state switches, etc. The Dry Contact Input RIB® accepts local power to provide the low-voltage (Class 2) power needed to activate the relay; just close the dry contact input. The power to energize the relay can be brought to the relay on a separate pair of wires along with the control output of a controller, or can be a local power

source near the relay. The relay contacts are isolated from the input power and the dry contact input; thus, the relay contacts can be wired to switch any other power-load or low-voltage load (see specifications for contact ratings.) One model can be used for many installations (model RIB21CDC can be powered from any voltage from 120 Vac to 277 Vac; see specifications for the input power of other models.)

## Can be activated by dry contacts such as thermostats, current switches, etc.

- Self-powered current switches of the RIBX Series and relays of the Dry Contact Input RIB® Series may be applied to interlock Load 2 to Load 1.



## ENCLOSED DRY CONTACT INPUT RELAYS

MODEL #	UL	POWER INPUT	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIB21CDC	•	120-277 Vac	1	SPDT			60
RIB01BDC	•	120 Vac	1	SPDT			60
RIB02BDC	•	208-277 Vac	1	SPDT			60
RIB01SBDC	•	120 Vac	1	SPST	1		61
RIB02SBDC	•	208-277 Vac	1	SPST	1		61
RIB01SBCDC	•	120 Vac	1	SPDT	2		61
RIB02SBCDC	•	208-277 Vac	1	SPDT	2		61
RIBD01BDC	•	120 Vac	1	SPDT		#	62
RIBD02BDC	•	208-277 Vac	1	SPDT		#	62
RIBD01BDC-DOB	•	120 Vac	1	SPDT		#	63
RIBD02BDC-DOB	•	208-277 Vac	1	SPDT		#	63

## TRACK MOUNT DRY CONTACT INPUT RELAYS

MODEL #	UL	POWER INPUT	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBM01ZNDC	•	120 Vac	1	DPDT			64
RIBM02ZNDC	•	208-277 Vac	1	DPDT			64
RIBM013PNDC	•	120 Vac	1	3PDT			64

UL = UL Listed : UL916 Energy Management; USA & Canada

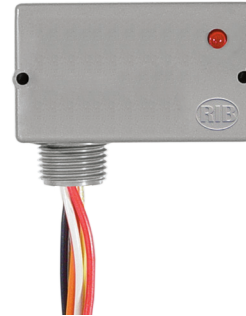
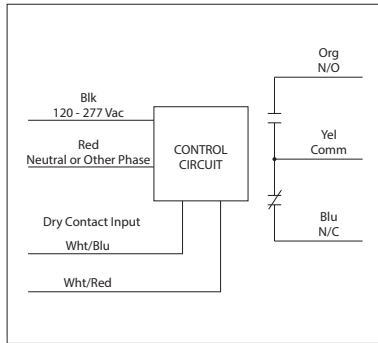
# = Time Delay

UL = UL Component Recognized : UL916 Energy Management; USA & Canada

## DRY CONTACT INPUT RELAYS

### RIB21CDC

Enclosed Relay 10 Amp SPDT, Class 2 Dry Contact Input, 120-277 Vac Power Input



**RIB21CDC-RD**  
• Red housing



**RIB21CDC-N4**  
• NEMA 4X housing, UL508 only

### 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:** 1.8 Seconds  
**Relay Status:** LED On = Activated  
**Dimensions:** 1.70" x 2.80" x 1.50" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, C-UL California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 470 VA Pilot Duty @ 125 Vac  
 770 VA Pilot Duty @ 250 Vac

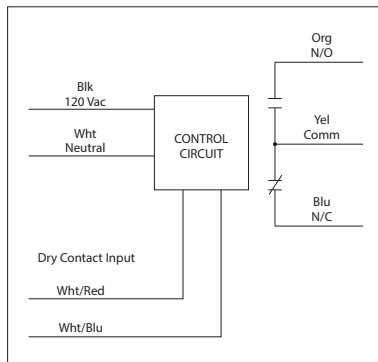
**Power Input:**  
 50 mA @ 240 Vac Max.

**Notes:**  
 • **Dry Contact Input Operation:** Close White/Red wire to White/Blue wire to activate relay. If more than one dry contact RIB® shares a single dry contact input, White/Blue must be common.

## DRY CONTACT INPUT RELAYS

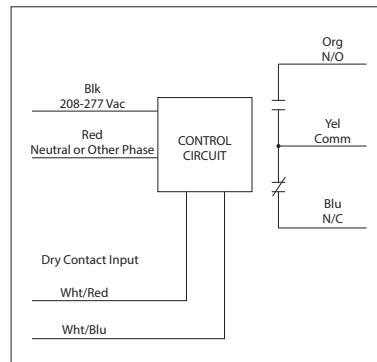
### RIB01BDC

Enclosed Relay 20 Amp SPDT, Class 2 Dry Contact Input, 120 Vac Power Input



### RIB02BDC

Enclosed Relay 20 Amp SPDT, Class 2 Dry Contact Input, 208-277 Vac Power Input



### 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:** 1.8 Seconds  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, C-UL California State Fire Marshal, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 770 VA Pilot Duty @ 120 Vac  
 20 Amp Ballast @ 277 Vac  
 16 Amp Electronic Ballast @ 277 Vac (N/O)  
 10 Amp Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

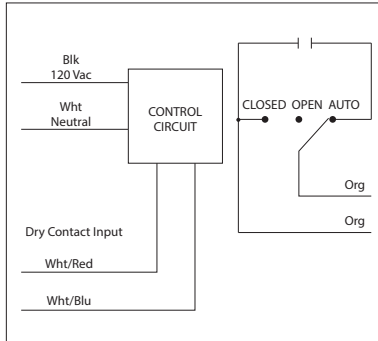
**Power Input:**  
 42 mA @ 120 Vac (RIB01BDC)  
 62 mA @ 208-277 Vac (RIB02BDC)

**Notes:**  
 • **Dry Contact Input Operation:** Close White/Red wire to White/Blue wire to activate relay. If more than one dry contact RIB® shares a single dry contact input, White/Blue must be common.

## DRY CONTACT INPUT RELAYS

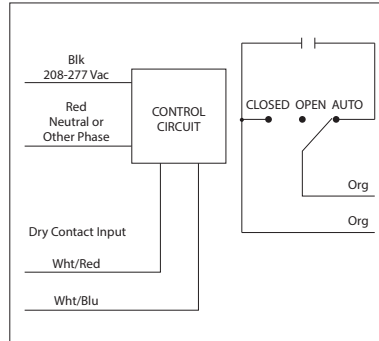
### RIB01SBDC

Enclosed Relay 20 Amp SPST-N/O + Override, Class 2 Dry Contact Input, 120 Vac Power Input



### RIB02SBDC

Enclosed Relay 20 Amp SPST-N/O + Override, Class 2 Dry Contact Input, 208-277 Vac Power Input



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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:** 1.8 Seconds  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, C-UL, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 1110 VA Pilot Duty @ 277 Vac  
 770 VA Pilot Duty @ 120 Vac  
 20 Amp Ballast @ 277 Vac (N/O)  
 10 Amp Ballast @ 277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 10 Amp Tungsten @ 120 Vac (N/O)  
 240 Watt Tungsten @ 120 Vac (N/C)  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

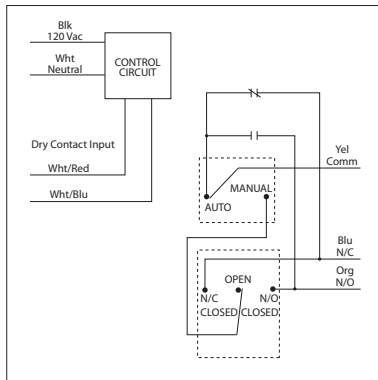
**Power Input:**  
 42 mA @ 120 Vac (RIB01SBDC)  
 62 mA @ 208-277 Vac (RIB02SBDC)

**Notes:**  
 • **Dry Contact Input Operation:**  
 Close White/Red wire to White/Blue wire to activate relay. If more than one dry contact RIB® shares a single dry contact input, White/Blue must be common.  
 • Order Normally Closed by adding "-NC" to end of model number

## DRY CONTACT INPUT RELAYS

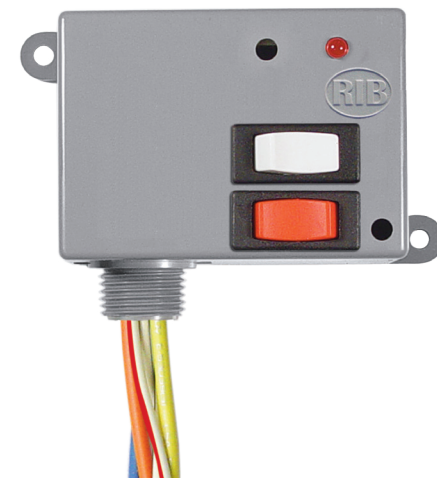
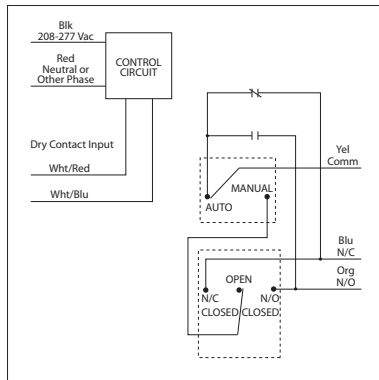
### RIB01SBDCDC

Enclosed Relay 20 Amp SPDT + Override, Class 2 Dry Contact Input, 120 Vac Power Input



### RIB02SBDCDC

Enclosed Relay 20 Amp SPDT + Override, Class 2 Dry Contact Input, 208-277 Vac Power Input



## 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:** 1.8 Seconds  
**Relay Status:** LED On = Activated  
**Dimensions:** 2.30" x 3.20" x 1.80" with .50" NPT Nipple  
**Wires:** 16", 600V Rated  
**Approvals:** UL Listed, UL916, C-UL, CE, RoHS  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 1  
**Gold Flash:** No  
**Override Switch:** Yes (2)

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 277 Vac  
*Not rated for Electronic Ballast*  
 10 Amp Tungsten @ 120 Vac  
 770 VA Pilot Duty @ 120 Vac  
 1,110 VA Pilot Duty @ 277 Vac  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

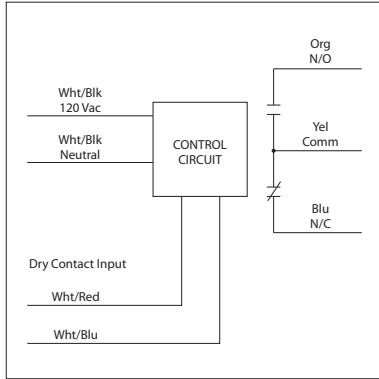
**Power Input:**  
 42 mA @ 120 Vac (RIB01SBDCDC)  
 62 mA @ 208-277 Vac (RIB02SBDCDC)

**Notes:**  
 • **Dry Contact Input Operation:**  
 Close White/Red wire to White/Blue wire to activate relay. If more than one dry contact RIB® shares a single dry contact input, White/Blue must be common.

# DRY CONTACT INPUT TIME DELAY RELAYS

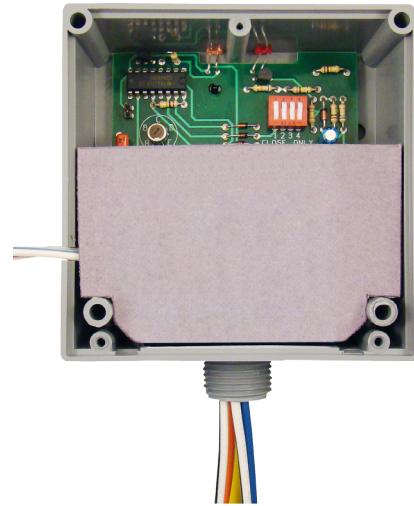
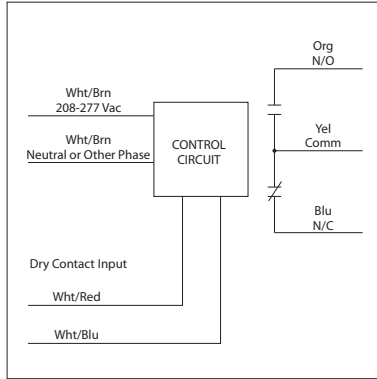
## RIBD01BDC

Enclosed Delay on Make Relay 20 Amp  
SPDT, Class 2 Dry Contact Input, 120 Vac  
Power Input



## RIBD02BDC

Enclosed Delay on Make Relay 20 Amp  
SPDT, Class 2 Dry Contact Input, 208-277 Vac  
Power Input



Made in USA  
Meets  
"Buy American"  
of ARRA 2009

RELAYS

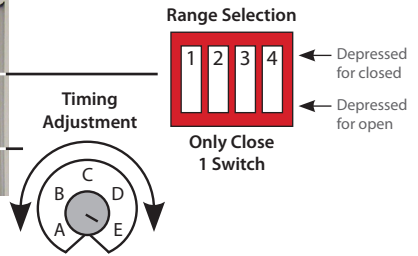
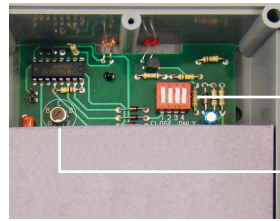
## SPECIFICATIONS

- # 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 after time delay
- Relay Status:** Red LED On = Activated
- Time Delay Status:** Pink LED FLASHING = Timing / Relay Deactivated
- Timing Mode:** Delay On Make
- Timing Range:** 6 seconds - 20 minutes
- Timing Adjustment:** 4 position DIP switch for range selection and single turn potentiometer for timing adjustment within range
- Timing Tolerance:** Switches 1 & 2 = ±10%  
Switches 3 & 4 = ±5%
- Timing Repeatability:** ±1%
- Temperature Timing Variance:** ±1%
- Voltage Timing Variance:** ±1%
- Recycle Time:** 750ms Maximum
- Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple
- Wires:** 16", 600V Rated
- Approvals:** UL Listed, UL916, C-UL, CE, RoHS
- Housing Rating:** UL Accepted for Use in Plenum, NEMA 1
- Gold Flash:** No
- Override Switch:** No

- 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)
  - 770 VA Pilot Duty @ 120 Vac
  - 1,110 VA Pilot Duty @ 277 Vac
  - 2 HP @ 277 Vac
  - 1 HP @ 120 Vac

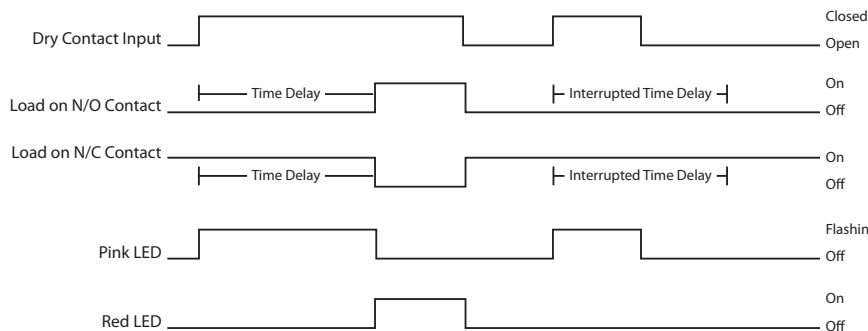
- Power Input:**
  - 42 mA @ 120 Vac (RIBD01BDC)
  - 62 mA @ 208-277 Vac (RIBD02BDC)

- Notes:**
  - **Dry Contact Input Operation:** Close White/Red wire to White/Blue wire to start timing. Relay will activate after timing sequence has ended.
  - If more than one dry contact RIB® shares a single dry contact input, White/Blue must be common.

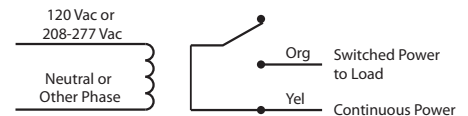


TIMING TABLE						
Switch Ranges	Close Dip Switch	Potentiometer Setting				
		A	B	C	D	E
6s-20s	1	6s	9s	13s	16s	20s
22s-1min15s	2	22s	36s	50s	1min4s	1min15s
1min30s-5min	3	1min30s	2min10s	3min20s	4min16s	5min
6min-20min	4	6min	9min	13min20s	17min20s	20min

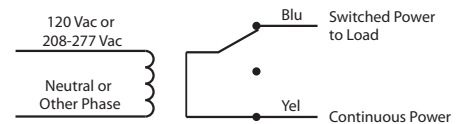
### Delay on Make



### Wiring for Load on N/O Contact



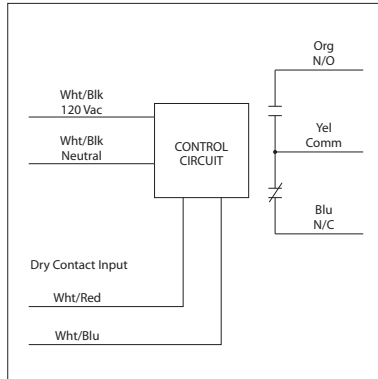
### Wiring for Load on N/C Contact



# DRY CONTACT INPUT TIME DELAY RELAYS

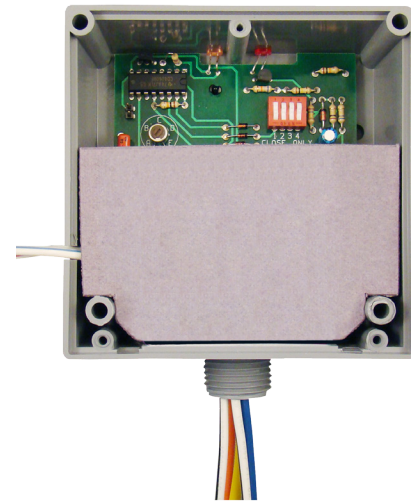
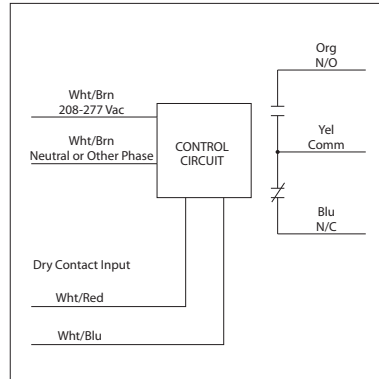
## RIBD01BDC-DOB

Enclosed Delay on Break Relay 20 Amp SPDT,  
Class 2 Dry Contact Input, 120 Vac  
Power Input



## RIBD02BDC-DOB

Enclosed Delay on Break Relay 20 Amp SPDT,  
Class 2 Dry Contact Input, 208-277 Vac Power  
Input



RELAYS

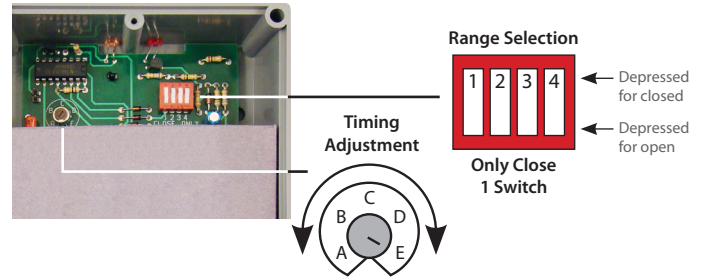
## SPECIFICATIONS

- # 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 after time delay
- Relay Status:** Red LED On = Activated
- Time Delay Status:** Pink LED FLASHING = Timing / Relay Deactivated
- Timing Mode:** Delay On Break
- Timing Range:** 6 seconds - 20 minutes
- Timing Adjustment:** 4 position DIP switch for range selection and single turn potentiometer for timing adjustment within range
- Timing Tolerance:** Switches 1 & 2 = ±10%  
Switches 3 & 4 = ±5%
- Timing Repeatability:** ±1%
- Temperature Timing Variance:** ±1%
- Voltage Timing Variance:** ±1%
- Recycle Time:** 750ms Maximum
- Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT nipple
- Wires:** 16", 600V Rated
- Approvals:** UL Listed, UL916, C-UL, CE, RoHS
- Housing Rating:** UL Accepted for Use in Plenum, NEMA 1
- Gold Flash:** No
- Override Switch:** No

- 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)
  - 770 VA Pilot Duty @ 120 Vac
  - 1,110 VA Pilot Duty @ 277 Vac
  - 2 HP @ 277 Vac
  - 1 HP @ 120 Vac

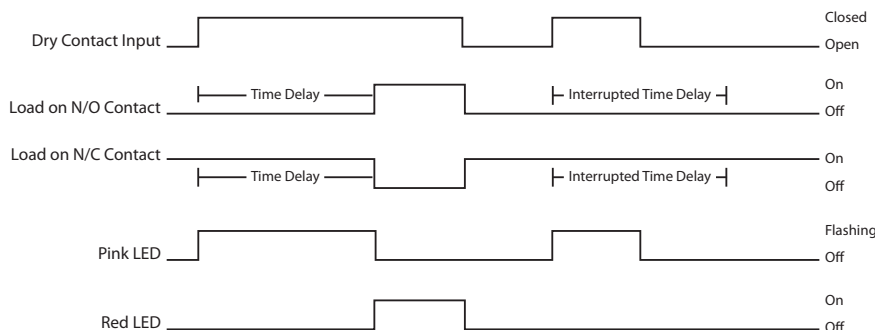
- Power Input:**
  - 42 mA @ 120 Vac (RIBD01BDC-DOB)
  - 62 mA @ 208-277 Vac (RIBD02BDC-DOB)

- Notes:**
  - **Dry Contact Input Operation:** Open White/Red wire and White/Blue wire to start timing. Relay will activate after timing sequence has ended.
  - If more than one dry contact RIB® shares a single dry contact input, White/Blue must be common.

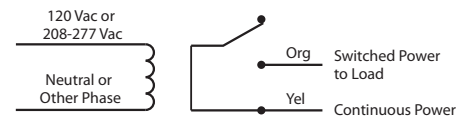


Switch Ranges	Close Dip Switch	Potentiometer Setting				
		A	B	C	D	E
6s-20s	1	6s	9s	13s	16s	20s
22s-1min15s	2	22s	36s	50s	1min4s	1min15s
1min30s-5min	3	1min30s	2min10s	3min20s	4min16s	5min
6min-20min	4	6min	9min	13min20s	17min20s	20min

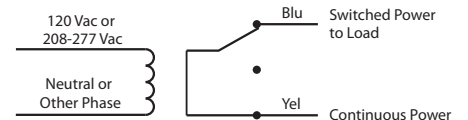
### Delay on Make



### Wiring for Load on N/O Contact



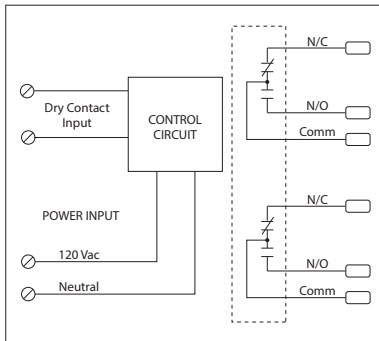
### Wiring for Load on N/C Contact



## DRY CONTACT INPUT TRACK MOUNT RELAYS

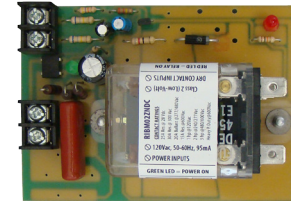
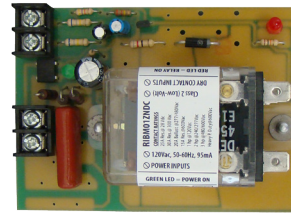
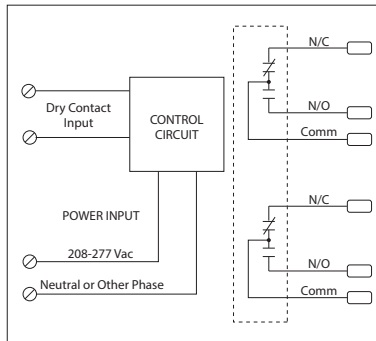
### RIBM01ZNDK

4.00" Track Mount Relay 30 Amp DPDT, Class 2  
Dry Contact Input, 120 Vac Power Input



### RIBM02ZNDK

4.00" Track Mount Relay 30 Amp DPDT, Class 2  
Dry Contact Input, 208-277 Vac Power Input



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) DPDT 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  
**Relay Status:** Red LED On = Activated  
**Power Status:** Green LED On = Activated  
**Dimensions:** 2.875" x 4.000" x 1.750"  
**Track Mount:** 4.000"; See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Component Recognized, UL916  
 C-UL, CE, RoHS  
**Gold Flash:** Yes  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp Resistive @ 300 Vac 770 VA @ 120 Vac  
 25 Amp Resistive @ 28 Vdc 1158 VA @ 240 Vac  
 15 Amp Resistive @ 600 Vac 1109 VA @ 277 Vac  
 3 HP @ 480-600 Vac 1640 VA @ 480 Vac  
 2 HP @ 240/277 Vac NEMA B600 Pilot Duty  
 1 HP @ 120 Vac  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*

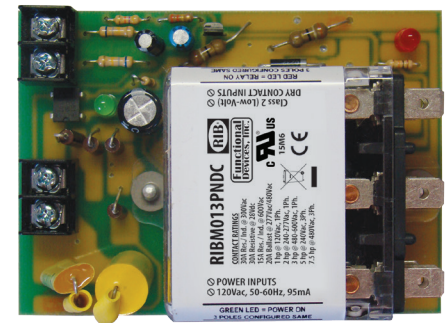
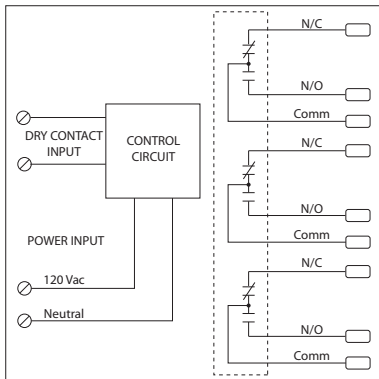
**Power Input:**  
 95 mA @ 120 Vac (RIBM01ZNDK)  
 95 mA @ 208-277 Vac (RIBM02ZNDK)

**Notes:**  
 • **Dry Contact Input Operation:**  
 Close dry contact to activate relay.

## DRY CONTACT INPUT TRACK MOUNT RELAYS

### RIBM013PNDK

4.00" Track Mount Relay 30 Amp 3PDT, Class 2  
Dry Contact Input, 120 Vac Power Input



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) 3PDT 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:** 20ms  
**Relay Status:** Red LED On = Activated  
**Power Status:** Green LED On = Activated  
**Dimensions:** 2.875" x 4.000" x 1.750"  
**Track Mount:** 4.000"; See MT4 Series on page 152  
**MT4 Mounting Track Sold Separately**  
**Approvals:** UL Component Recognized, UL916  
 C-UL, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 30 Amp Resistive @ 300 Vac Heavy Pilot Duty  
 30 Amp Resistive @ 28 Vdc 770 VA @ 120 Vac, 1 Phase  
 15 Amp Resistive @ 600 Vac 1158 VA @ 240 Vac, 1 Phase  
 7.5 HP @ 480 Vac, 3 Phase 1109 VA @ 277 Vac, 1 Phase  
 5 HP @ 240 Vac, 3 Phase 1640 VA @ 480 Vac, 1 Phase  
 3 HP @ 480-600 Vac, 1 Phase 1466 VA @ 240 Vac, 3 Phase  
 2 HP @ 240/277 Vac, 1 Phase 2122 VA @ 480 Vac, 3 Phase  
 1 HP @ 120 Vac, 1Phase  
 20 Amp Ballast @ 277-480 Vac  
*Not rated for Electronic Ballast*

**Power Input:**  
 95 mA @ 120 Vac

**Notes:**  
 • **Dry Contact Input Operation:**  
 Close dry contact to activate relay.

# NETWORK COMPATIBLE RELAYS

LonMark® | BACnet® | Wi-Fi | Modbus®



**Made in the U.S.A.**  
Meets the "Buy American" provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).

## Use These Devices When a More Expensive Multi-Output Controller is Too Much for the Job

- UL Listed
- LonWorks®/BACnet®, Wi-Fi, and Modbus® protocol
- Analog input
- Analog output
- Binary output
- Binary input
- Thermistor inputs available
- On-board current sensors available
- Panel mount
- Enclosed versions
- NEMA 4X available

### LONMARK® DEVICES

MODEL #	UL	RELAY OUTPUT	DRY CONTACT BINARY INPUT	ANALOG INPUT	INTERNAL CURRENT SENSOR FEEDBACK	PRECON® THERMISTOR INPUT	DEVICE POWER		CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
							AC/DC	AC				
RIBTW2401B-LN	•	1	1				24	120	SPDT			66
RIBTW2402B-LN	•	1	1				24	208-277	SPDT			66
RIBTW2401SB-LN	•	1	1				24	120	SPST	1		67
RIBTW2402SB-LN	•	1	1				24	208-277	SPST	1		67
RIBMNWX2401SB-LN	•	1			•		24	120	SPST	1		68
RIBTWX2401SB-LN	•	1			•		24	120	SPST	1		68
RIBMNWX2402SB-LN	•	1			•		24	208-277	SPST	1		69
RIBTWX2402SB-LN	•	1			•		24	208-277	SPST	1		69
RIBMW245B-LNAI	•	1	1	1			24		SPST	1		70
RIBTW245B-LNAI	•	1	1	1			24		SPST	1		70
RIBMW245B-LNT2	•	1	1			10kΩ Type 2	24		SPST	1		71
RIBTW245B-LNT2	•	1	1			10kΩ Type 2	24		SPST	1		71
RIBMW245B-LNT3	•	1	1			10kΩ Type 3	24		SPST	1		71
RIBTW245B-LNT3	•	1	1			10kΩ Type 3	24		SPST	1		71

### BACNET® DEVICES

MODEL #	UL	RELAY OUTPUT	DRY CONTACT BINARY INPUT	ANALOG INPUT	ANALOG OUTPUT	ACCUMULATOR INPUT	INTERNAL CURRENT SENSOR FEEDBACK	PRECON® THERMISTOR INPUT	DEVICE POWER		CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
									AC/DC	AC				
RIBTW2401B-BC	•	1	1						24	120	SPDT	#		72
RIBTW2402B-BC	•	1	1						24	208-277	SPDT	#		72
RIBMNWX2401B-BC	•	1	1				•		24	120	SPDT	#		73
RIBTWX2401B-BC	•	1	1				•		24	120	SPDT	#		73
RIBMNWX2402B-BC	•	1	1				•		24	208-277	SPDT	#		74
RIBTWX2402B-BC	•	1	1				•		24	208-277	SPDT	#		74
RIBMNW24B-BCAI	•	1	2	1				10kΩ Type 2 or 3	24		SPDT	#		75
RIBTW24B-BCAI	•	1	2	1				10kΩ Type 2 or 3	24		SPDT	#		75
RIBTW24B-BCAO	•	1	2	1	1			10kΩ Type 2 or 3	24		SPDT	#	NEW	76
RIBMNWD12-BCDI			12						24					77
RIBMNWD12-BC			12			2			24					78
RIBMW24B-44-BC	•	4	4						24		SPDT	#		79

### WI-FI DEVICES

MODEL #	UL	RELAY OUTPUT	DRY CONTACT BINARY INPUT	UNIVERSAL INPUT	DEVICE POWER		CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE	
					AC/DC	AC					
RIBTW24B-WI-N4	•	1	1			24	SPDT	#	NEW	80	
RIBTW2401B-WIUI-N4	•	1	1	2		24	120	SPDT	#	NEW	81

### MODBUS® DEVICES

MODEL #	UL	RELAY OUTPUT	DRY CONTACT BINARY INPUT	ANALOG INPUT	INTERNAL CURRENT SENSOR FEEDBACK	PRECON® THERMISTOR INPUT	DEVICE POWER		CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
							AC/DC	AC				
RIBMNW24B-MBAI	•	1	2	1		10kΩ Type 2	24		SPDT	#		82
RIBTW24B-MBAI	•	1	2	1		10kΩ Type 2	24		SPDT	#		82

UL = UL Listed : UL916 Energy Management, USA & Canada  
Precon® is a registered trademark of Kele and Associates.

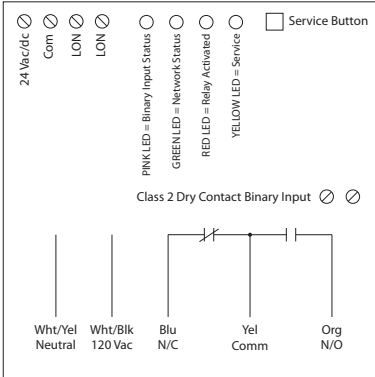
# = Coil Side Relay Override (requires unit to be powered)



# NETWORK COMPATIBLE RELAYS

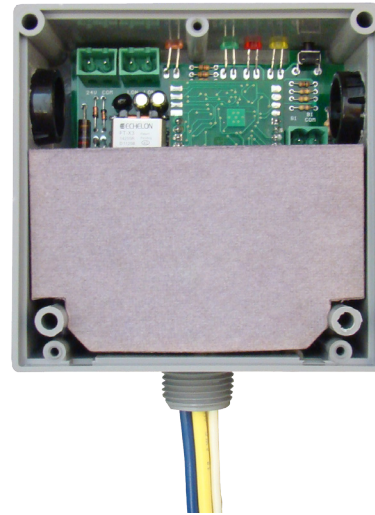
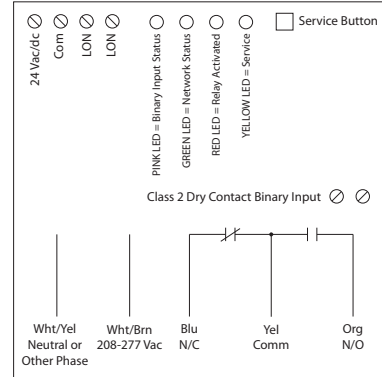
## RIBTW2401B-LN

LonWorks® Twisted-Pair FT-10 Network Enclosed Dual I/O Device: One Binary Output (20 Amp Relay SPDT), One Binary Input (Dry Contact Class 2); 24 Vac/dc or **120 Vac Power Input**



## RIBTW2402B-LN

LonWorks® Twisted-Pair FT-10 Network Enclosed Dual I/O Device: One Binary Output (20 Amp Relay SPDT), One Binary Input (Dry Contact Class 2); 24 Vac/dc or **208-277 Vac Power Input**



RELAYS

### SPECIFICATIONS

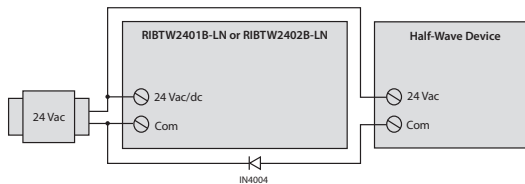
- # Relays & Contact Type:** One (1) SPDT Continuous Duty Coil
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 18ms
- Green LED:** Network Status
- Red LED:** Relay Status
- Yellow LED:** Service Status
- Pink LED:** Binary Input Status
- Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple
- Wires:** 16", 600V Rated
- Approvals:** FCC, LonMark®, CE, RoHS, UL Listed, UL916, C-UL
- Housing Rating:** UL Accepted for Use in Plenum, NEMA 1
- Gold Flash:** No
- Override Switch:** No

- Contact Ratings:**
  - 20 Amp Resistive @ 277 Vac
  - 20 Amp Ballast @ 120/277 Vac (N/O)
  - 20 Amp Ballast @ 277 Vac (N/C)
  - 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:**
  - 111 mA @ 24 Vac
  - 96 mA @ 120 Vac (RIBTW2401B-LN)
  - 105 mA @ 208-277 Vac (RIBTW2402B-LN)
  - 81 mA @ 24 Vdc

- Power Input:**
  - 24 Vac/dc ; 120 Vac ; 50-60 Hz (RIBTW2401B-LN)
  - 24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBTW2402B-LN)

- Notes:**
  - Order with P1 option by adding "P1" to end of model number. The P1 option is pre-programmed to allow dry contact binary input to command the relay. Contact closure on the BI will activate relay.
  - 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. ^^

- Channel:** TP/FT-10
- Transceiver Type:** FT5000 Smart Transceiver
- Transceiver Compatibility:** FT3120 / FT3150, FTT-10 / FTT-10A, and LPT-10 / LPT-11 Transceivers
- Functional Blocks:**
  - 0000 Node Object
  - 0004 Closed Loop Actuator Object
  - 0001 Open Loop Sensor Object
- Downloadable Files:** PDF, XIF, APB, VSS and NXE available on website.

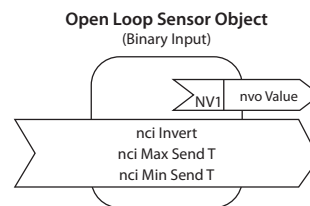
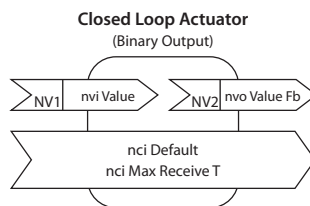
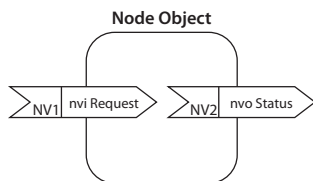


^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

DESCRIPTION	SNVT NAME	SNVT TYPE
Command to open/close relay	nvi Value	SNVT_switch
Command status of relay	nvo Value Fb	SNVT_switch
Default state of relay on/off	nci Default	SNVT_switch
Communication timer	nci Max Receive T	SNVT_elapsed_tm
Status of Binary Input	nvo Value	SNVT_switch
Invert status of Binary Input	nci Invert	SNVT_lev_disc
Max time between updates	nci Max Send T	SNVT_elapsed_tm
Min time between updates	nci Min Send T	SNVT_elapsed_tm

The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

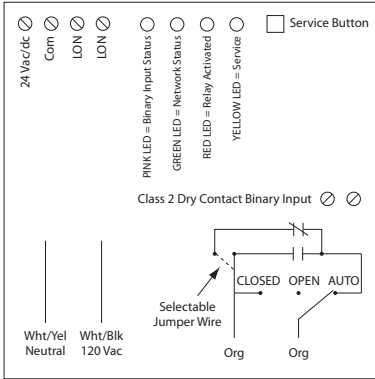
It is recommended to put a value in nci Max Send T to ensure the RIB re-synchronizes itself on the network after power loss. It is the responsibility of the user to ensure this value does not cause conflicts in network traffic. (No value = No "heartbeat" updates / no re-synchronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)



# NETWORK COMPATIBLE RELAYS

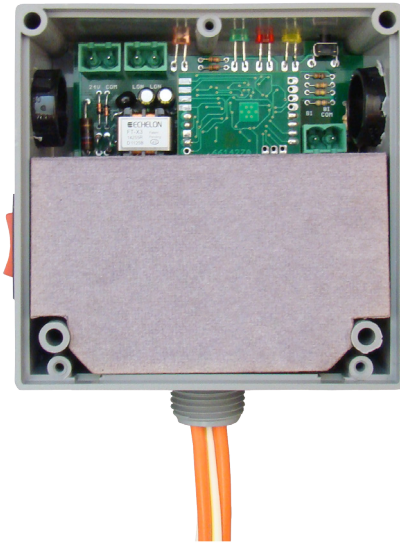
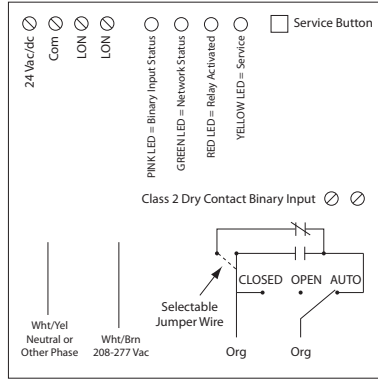
## RIBTW2401SB-LN

LonWorks® Twisted-Pair FT-10 Network Enclosed Dual I/O Device: One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); 24 Vac/dc or **120 Vac Power Input**



## RIBTW2402SB-LN

LonWorks® Twisted-Pair FT-10 Network Enclosed Dual I/O Device: One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); 24 Vac/dc or **208-277 Vac Power Input**



RELAYS

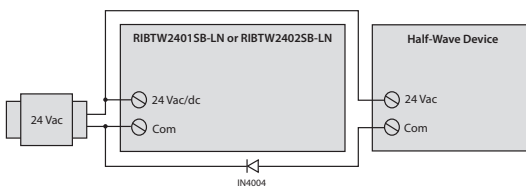
## SPECIFICATIONS

- # Relays & Contact Type:** One (1) SPST 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 Status
- Red LED:** Relay Status
- Yellow LED:** Service Status
- Pink LED:** Binary Input Status
- Dimensions:** 4.00" x 4.00" x 1.80" with .50" NPT Nipple
- Wires:** 16", 600V Rated
- Approvals:** FCC, LonMark®, CE, RoHS  
UL Listed, UL916, C-UL
- Housing Rating:** UL Accepted for Use in Plenum, NEMA 1
- Gold Flash:** No
- Override Switch:** Yes
- Channel:** TP/FT-10
- Transceiver Type:** FT5000 Smart Transceiver
- Transceiver Compatibility:** FT3120 / FT3150, FTT-10 / FTT-10A, and LPT-10 / LPT-11 Transceivers
- Functional Blocks:** 0000 Node Object  
0004 Closed Loop Actuator Object  
0001 Open Loop Sensor Object
- Downloadable Files:** PDF, XIF, APB, VSS and NXE available on website.

- Contact Ratings:**  
20 Amp Resistive @ 277 Vac  
20 Amp Ballast @ 120/277 Vac (N/O)  
10 Amp Ballast @ 120/277 Vac Vac (N/C)  
*Not rated for Electronic Ballast*  
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:**  
111 mA @ 24 Vac (RIBTW2401SB-LN)  
96 mA @ 120 Vac (RIBTW2401SB-LN)  
105 mA @ 208-277 Vac (RIBTW2402SB-LN)  
81 mA @ 24 Vdc

- Power Input:**  
24 Vac/dc ; 120 Vac ; 50-60 Hz (RIBTW2401SB-LN)  
24 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBTW2402SB-LN)
- Notes:**
  - **Order with P1 option by adding "-P1" to end of model number.** The P1 option is pre-programmed to allow dry contact binary input to command the relay. Contact closure on the BI will activate relay.
  - **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. ^^

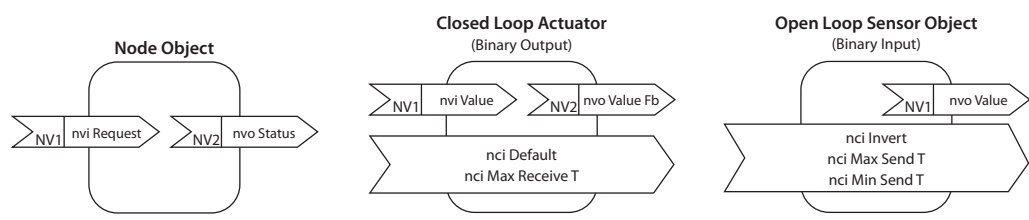
DESCRIPTION	SNVT NAME	SNVT TYPE
Command to open/close relay	nvi Value	SNVT_switch
Command status of relay	nvo Value Fb	SNVT_switch
Default state of relay on/off	nci Default	SNVT_switch
Communication timer	nci Max Receive T	SNVT_elapsed_tm
Status of Binary Input	nvo Value	SNVT_switch
Invert status of Binary Input	nci Invert	SNVT_lev_disc
Max time between updates	nci Max Send T	SNVT_elapsed_tm
Min time between updates	nci Min Send T	SNVT_elapsed_tm



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

The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

It is recommended to put a value in nci Max Send T to ensure the RIB re-synchronizes itself on the network after power loss. It is the responsibility of the user to ensure this value does not cause conflicts in network traffic. (No value = No "heartbeat" updates / no re-synchronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)



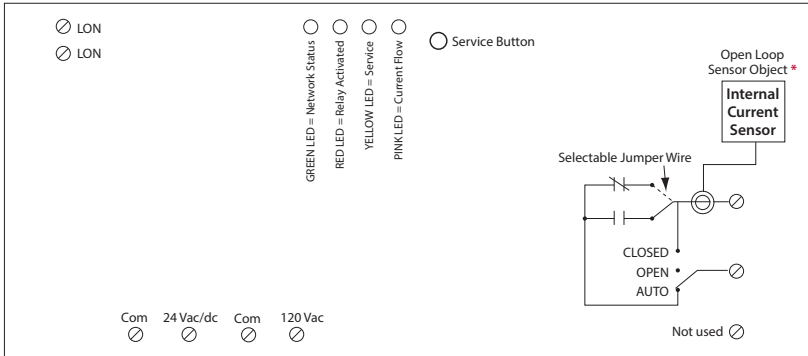
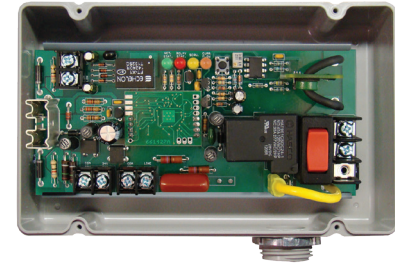
# NETWORK COMPATIBLE RELAY / CURRENT SENSOR COMBOS

## RIBMNWX2401SB-LN

2.75" Track Mount LonWorks® Twisted-Pair FT-10 Network Dual I/O Device; One Binary Output (20 Amp Relay SPST + Override); One Binary Input (Current Sensor 0.25 - 20 Amp, Relay Load Sensing), 24 Vac/dc or 120 Vac Power Input

## RIBTWX2401SB-LN

Enclosed LonWorks® Twisted-Pair FT-10 Network Dual I/O Device; One Binary Output (20 Amp Relay SPST + Override); One Binary Input (Current Sensor 0.25 - 20 Amp, Relay Load Sensing), 24 Vac/dc or 120 Vac Power Input



## SPECIFICATIONS

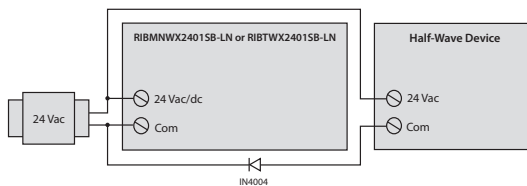
- # Relays & Contact Type:** One (1) SPST Continuous Duty Coil
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 18ms
- Green LED:** Network Status
- Red LED:** Relay Status
- Yellow LED:** Service Status
- Dimensions:** 6.00" x 2.75" x 1.75" (RIBMNWX2401SB-LN)  
7.00" x 4.28" x 2.00" with .75" NPT Nipple (RIBTWX2401SB-LN)
- Track Mount:** MT212-6 Mounting Track Provided
- Approvals:** FCC, LonMark®, CE, RoHS  
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
- Override Switch:** Yes
- Channel:** TP/FT-10
- Transceiver Type:** FT5000 Smart Transceiver
- Functional Blocks:** 0000 Node Object  
0004 Closed Loop Actuator Object  
0001 Open Loop Sensor Object
- Downloadable Files:** PDF, XIF, APB, VSS and NXE available on website.

- Contact Ratings:**  
20 Amp Resistive @ 277 Vac  
20 Amp Ballast @ 120/277 Vac (N/O)  
10 Amp Ballast @ 120/277 Vac (N/C)  
*Not rated for Electronic Ballast*  
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:**  
105 mA @ 24 Vac  
78 mA @ 24 Vdc  
105 mA @ 120 Vac

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

- Notes:**
- Normally Open or Normally Closed selected by yellow jumper wire.
  - Order NEMA 4 housing by adding "-N4" to end of model number. (RIBTWX2401SB-LN-N4)
  - Order with grey lid by adding "-GY" to end of model number. (RIBTWX2401SB-LN-GY)
  - Order NEMA 4 housing with grey lid by adding "-N4-GY" to end of model number. (RIBTWX2401SB-LN-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. ^^**

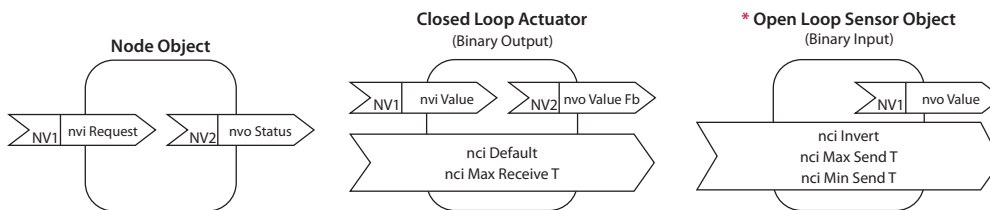
DESCRIPTION	SNVT NAME	SNVT TYPE
Command to open/close relay	nvi Value	SNVT_switch
Command status of relay	nvo Value Fb	SNVT_switch
Default state of relay on/off	nci Default	SNVT_switch
Communication timer	nci Max Receive T	SNVT_elapsed_tm
Status of Binary Input	nvo Value	SNVT_switch
Invert status of Binary Input	nci Invert	SNVT_lev_disc
Max time between updates	nci Max Send T	SNVT_elapsed_tm
Min time between updates	nci Min Send T	SNVT_elapsed_tm



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

The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

It is recommended to put a value in nci Max Send T to ensure the RIB re-synchronizes itself on the network after power loss. It is the responsibility of the user to ensure this value does not cause conflicts in network traffic. (No value = No "heartbeat" updates / no re-synchronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)



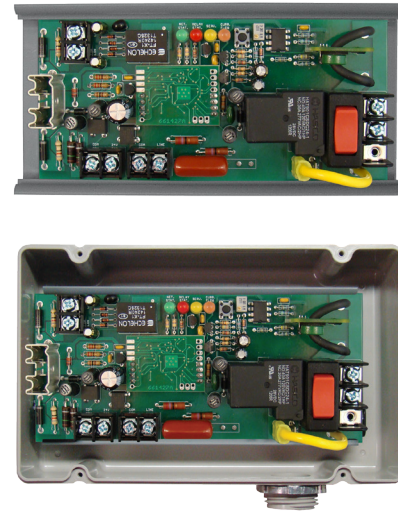
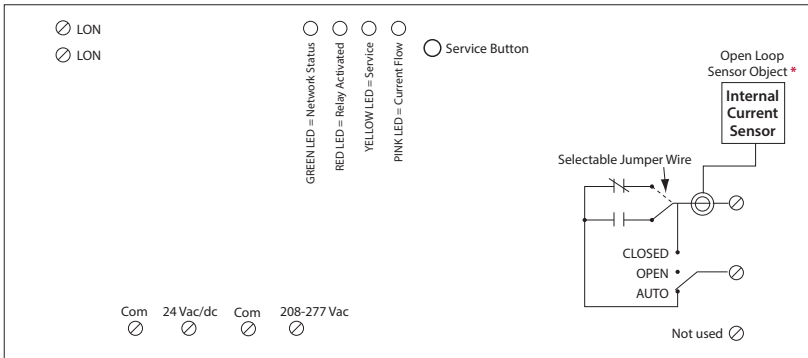
# NETWORK COMPATIBLE RELAY / CURRENT SENSOR COMBOS

## RIBMNX2402SB-LN

2.75" Track Mount LonWorks® Twisted-Pair FT-10 Network Dual I/O Device; One Binary Output (20 Amp Relay SPST + Override); One Binary Input (Current Sensor 0.25 - 20 Amp, Relay Load Sensing), 24 Vac/dc or 208-277 Vac Power Input

## RIBTWX2402SB-LN

Enclosed LonWorks® Twisted-Pair FT-10 Network Dual I/O Device; One Binary Output (20 Amp Relay SPST + Override); One Binary Input (Current Sensor 0.25 - 20 Amp, Relay Load Sensing), 24 Vac/dc or 208-277 Vac Power Input



RELAYS

## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPST 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 Status  
**Red LED:** Relay Status  
**Yellow LED:** Service Status  
**Dimensions:** 6.00" x 2.75" x 1.75" (RIBMNX2402SB-LN)  
 7.00" x 4.28" x 2.00" with .75" NPT Nipple (RIBTWX2402SB-LN)  
**Track Mount:** MT212-6 Mounting Track Provided  
**Approvals:** FCC, LonMark®, CE, RoHS  
 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  
**Override Switch:** Yes

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 20 Amp Ballast @ 120/277 Vac (N/O)  
 10 Amp Ballast @ 120/277 Vac (N/C)  
*Not rated for Electronic Ballast*  
 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:**  
 105 mA @ 24 Vac  
 78 mA @ 24 Vdc  
 120 mA @ 208-277 Vac

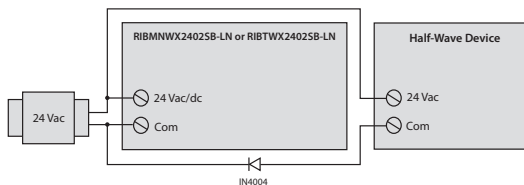
**Current Sensor Range:**  
 0.25 - 20 Amps  
 Threshold fixed at .25 Amps.

**Notes:**

- Normally Open or Normally Closed selected by yellow jumper wire.
- Order NEMA 4 housing by adding "-N4" to end of model number. (RIBTWX2402SB-LN-N4)
- Order with grey lid by adding "-GY" to end of model number. (RIBTWX2402SB-LN-GY)
- Order NEMA 4 housing with grey lid by adding "-N4-GY" to end of model number. (RIBTWX2402SB-LN-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. ^^**

**Channel:** TP/FT-10  
**Transceiver Type:** FT5000 Smart Transceiver  
**Functional Blocks:** 0000 Node Object  
 0004 Closed Loop Actuator Object  
 0001 Open Loop Sensor Object  
**Downloadable Files:** PDF, XIF, APB, VSS and NXE available on website.

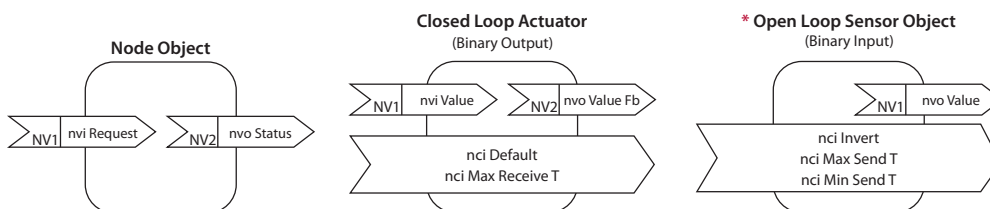
DESCRIPTION	SNVT NAME	SNVT TYPE
Command to open/close relay	nvi Value	SNVT_switch
Command status of relay	nvo Value Fb	SNVT_switch
Default state of relay on/off	nci Default	SNVT_switch
Communication timer	nci Max Receive T	SNVT_elapsed_tm
Status of Binary Input	nvo Value	SNVT_switch
Invert status of Binary Input	nci Invert	SNVT_lev_disc
Max time between updates	nci Max Send T	SNVT_elapsed_tm
Min time between updates	nci Min Send T	SNVT_elapsed_tm



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

The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

It is recommended to put a value in nci Max Send T to ensure the RIB re-synchronizes itself on the network after power loss. It is the responsibility of the user to ensure this value does not cause conflicts in network traffic. (No value = No "heartbeat" updates / no re-synchronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)



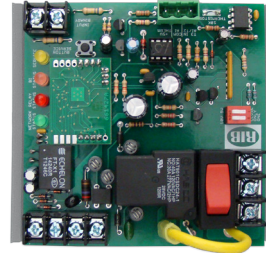
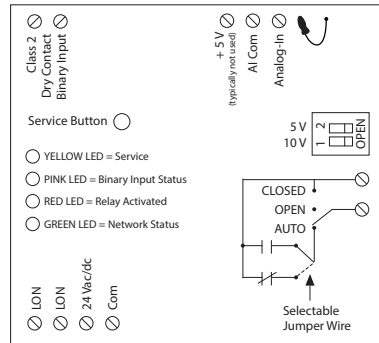
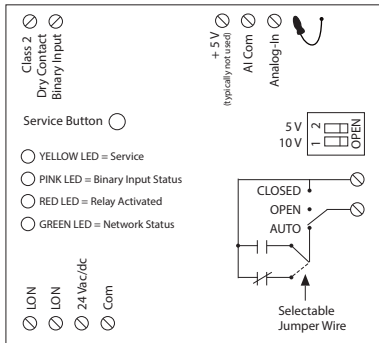
# NETWORK COMPATIBLE RELAY / CURRENT SENSOR COMBOS

## RIBMW24SB-LNAI

4.00" Track Mount LonWorks® Twisted-Pair FT-10 Network Three I/O Device; One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); One Analog Input (0-5Vdc / 0-10 Vdc); 24 Vac/dc Power Input

## RIBTW24SB-LNAI

Enclosed LonWorks® Twisted-Pair FT-10 Network Enclosed Three I/O Device; One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); One Analog Input (0-5Vdc / 0-10 Vdc); 24 Vac/dc Power Input.



RELAYS

## SPECIFICATIONS

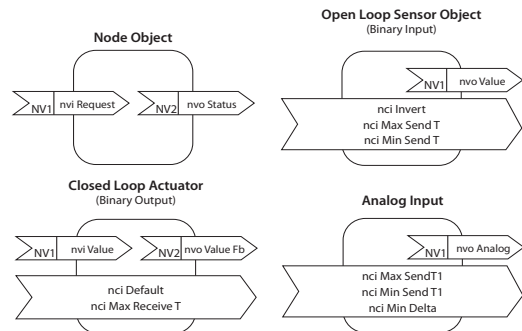
- # Relays & Contact Type:** One (1) SPST Continuous Duty Coil
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 18ms
- Green LED:** Network Status
- Red LED:** Relay Status
- Yellow LED:** Service Status
- Pink LED:** Binary Input Status
- Dimensions:** 4.00" x 4.00" x 1.50" (RIBMW24SB-LNAI)  
4.28" x 7.00" x 2.00" with .75" NPT Nipple (RIBTW24SB-LNAI)
- Track Mount:** MT4-4 Mounting Track Provided
- Approvals:** FCC, LonMark®, CE, RoHS  
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
- Override Switch:** Yes
- Channel:** TP/FT-10
- Transceiver Type:** FT5000 Smart Transceiver
- Transceiver Compatibility:** FT3120 / FT3150, FTT-10 / FTT-10A, and  
LPT-10 / LPT-11 Transceivers
- Functional Blocks:** 0000 Node Object  
0004 Closed Loop Actuator Object  
0001 Open Loop Sensor Object  
0520 Analog Input
- Downloadable Files:** PDF, XIF, APB, VSS and NXE  
available on website.

- Contact Ratings:**  
20 Amp Resistive @ 277 Vac  
20 Amp Ballast @ 120/277 Vac (N/O)  
10 Amp Ballast @ 120/277 Vac (N/C)  
*Not rated for Electronic Ballast*  
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:**  
111 mA @ 24 Vac  
81 mA @ 24 Vdc

**Power Input:**  
24 Vac/dc ; 50-60 Hz \*

### Notes:

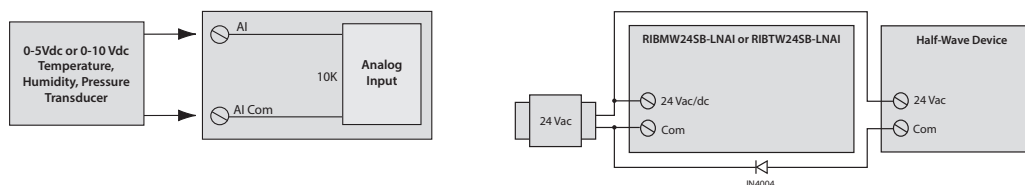
- Order with P1 option by adding "P1" to end of model number. The P1 option is pre-programmed to allow dry contact binary input to command the relay. Contact closure on the BI will activate relay.
- Normally Open or Normally Closed selected by yellow jumper wire.
- Order NEMA 4 housing by adding "N4" to end of model number. (RIBTW24SB-LNAI-N4)
- Close DIP switch 1 for 0-5 Vdc Analog Input. Close DIP switch 2 for 0-10 Vdc Analog Input.
- 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. ^^
- See page 71 for -LNT2 or -LNT3 models if using a thermistor. If using a thermistor on the Analog Input, set DIP switches to the 0-5 Vdc setting. A look-up table must also be made.



DESCRIPTION	SNVT NAME	SNVT TYPE
Command to open/close relay	nvi Value	SNVT_switch
Command status of relay	nvo Value Fb	SNVT_switch
Default state of relay on/off	nci Default	SNVT_switch
Communication timer	nci Max Receive T	SNVT_elapsed_tm
Status of Binary Input	nvo Value	SNVT_switch
Invert status of Binary Input	nci Invert	SNVT_lev_disc
Max time between updates	nci Max Send T	SNVT_elapsed_tm
Min time between updates	nci Min Send T	SNVT_elapsed_tm
Value of Analog-In	nvo Analog	SNVT_lev_percent
Max time between Analog updates	nci Max Send T1	SNVT_elapsed_tm
Min time between Analog updates	nci Min Send T1	SNVT_elapsed_tm
Min change in Analog before updates	nci Min Delta	SNVT_lev_percent

The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

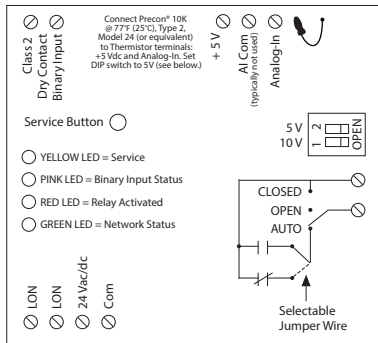
It is recommended to put a value in nci Max Send T to ensure the RIB re-synchronizes itself on the network after power loss. It is the responsibility of the user to ensure this value does not cause conflicts in network traffic. (No value = No "heartbeat" updates / no re-synchronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)



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

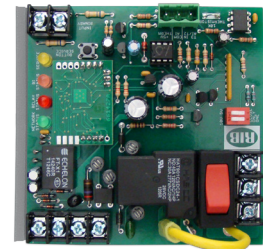
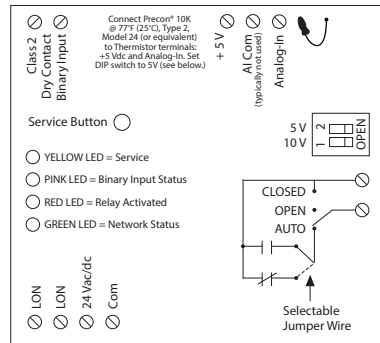
**RIBMW24SB-LNT2**

4.00" Track Mount LonWorks® Twisted-Pair FT-10 Network Three I/O Device; One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); Precon® Type 2 Thermistor Input; 24 Vac/dc Power Input



**RIBTW24SB-LNT2**

Enclosed LonWorks® Twisted-Pair FT-10 Network Three I/O Device; One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); Precon® Type 2 Thermistor Input; 24 Vac/dc Power Input



**THERMISTOR INPUT**

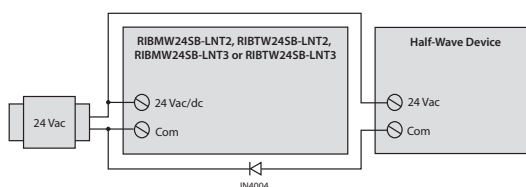
RELAYS

**SPECIFICATIONS**

- # Relays & Contact Type:** One (1) SPST 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 Status
- Red LED:** Relay Status
- Yellow LED:** Service Status
- Pink LED:** Binary Input Status
- Dimensions:** 4.00" x 4.00" x 1.50" (RIBMW24SB-LNT2)  
4.28" x 7.00" x 2.00" with .75" NPT Nipple (RIBTW24SB-LNT2)
- Track Mount:** MT4-4 Mounting Track Provided
- Approvals:** FCC, LonMark®, CE, RoHS  
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
- Override Switch:** Yes
- Channel:** TP/FT-10
- Transceiver Type:** FT5000 Smart Transceiver
- Transceiver Compatibility:** FT3120 / FT3150, FTT-10 / FTT-10A, and  
LPT-10 / LPT-11 Transceivers
- Functional Blocks:** 0000 Node Object  
0004 Closed Loop Actuator Object  
0001 Open Loop Sensor Object  
1040 Temperature Sensor
- Downloadable Files:** PDF, XIF, APB, VSS and NXE  
available on website.

- Contact Ratings:**  
20 Amp Resistive @ 277 Vac  
20 Amp Ballast @ 120/277 Vac (N/O)  
10 Amp Ballast @ 120/277 Vac (N/C)  
*Not rated for Electronic Ballast*  
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:**  
111 mA @ 24 Vac  
81 mA @ 24 Vdc
- Power Input:**  
24 Vac/dc ; 50/60 Hz ^

- Notes:**
- Order with P1 option by adding "-P1" to end of model number. The P1 option is pre-programmed to allow dry contact binary input to command the relay. Contact closure on the BI will activate relay.
  - Normally Open or Normally Closed selected by yellow jumper wire.
  - Order NEMA 4 housing by adding "-N4" to end of model number. (RIBTW24SB-LNT2-N4)
  - 35 to 100°C range in one degree steps. -36°C indicates below range, 101°C indicates above range.
  - 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. ^^
  - Can be used with Precon® Type 3 Thermistor Input. Use suffix "-LNT3" instead of "LNT2" when ordering. Thermistor not included.

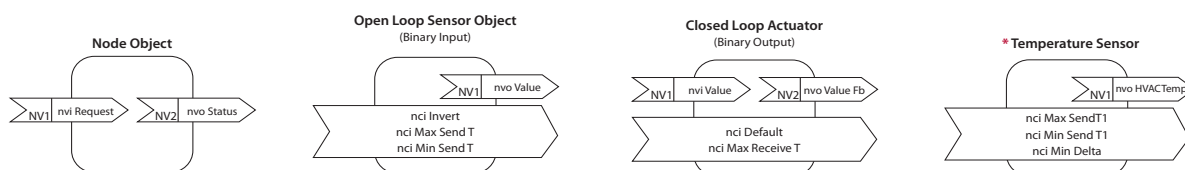


^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

DESCRIPTION	SNVT NAME	SNVT TYPE
Command to open/close relay	nvi Value	SNVT_switch
Command status of relay	nvo Value Fb	SNVT_switch
Default state of relay on/off	nci Default	SNVT_switch
Communication timer	nci Max Receive T	SNVT_elapsed_tm
Status of Digital-In	nvo Value	SNVT_switch
Invert status of Digital-In	nci Invert	SNVT_lev_disc
Max time between updates	nci Max Send T	SNVT_elapsed_tm
Min time between updates	nci Min Send T	SNVT_elapsed_tm
T2 Thermistor input *	nvo HVACTemp	SNVT_temp_p
Max time between Temperature updates	nci Max Send T1	SNVT_elapsed_tm
Min time between Temperature updates	nci Min Send T1	SNVT_elapsed_tm
Min change in Temperature before updates	nci Min Delta	SNVT_temp_p

The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

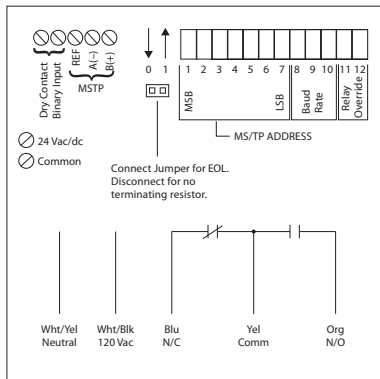
It is recommended to put a value in nci Max Send T to ensure the RIB re-synchronizes itself on the network after power loss. It is the responsibility of the user to ensure this value does not cause conflicts in network traffic. (No value = No "heartbeat" updates / no re-synchronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)



# NETWORK COMPATIBLE RELAYS

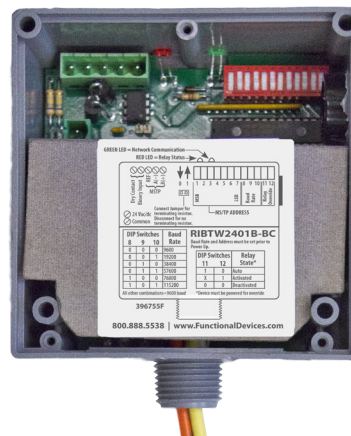
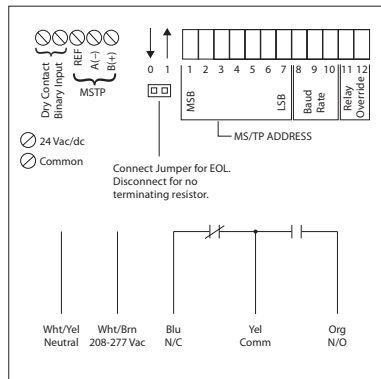
## RIBTW2401B-BC

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.



## 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 @ 24 Vdc
  - 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), 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/RIBTW240x8-BC\\_PICS.pdf](http://www.functionaldevices.com/pdf/pics/RIBTW240x8-BC_PICS.pdf)
- Or scan QR code with your smart phone.

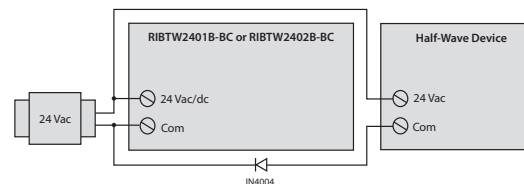
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

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).

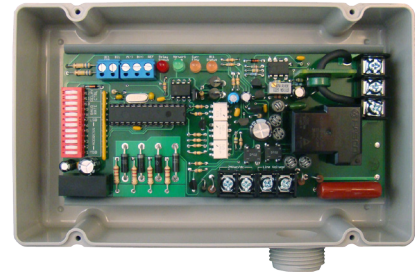
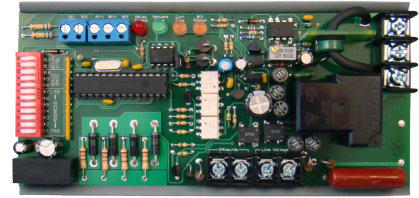
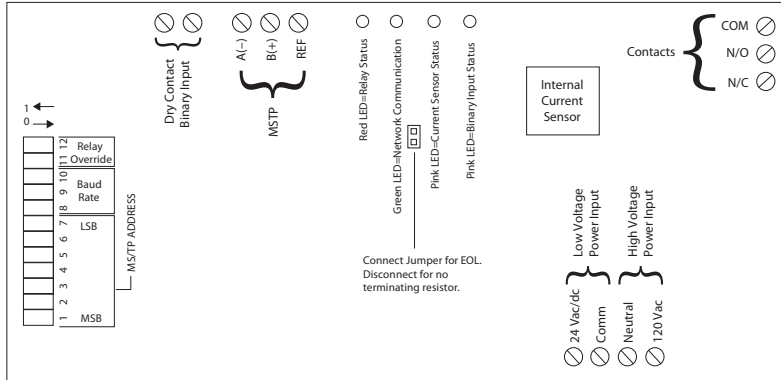
# NETWORK COMPATIBLE RELAY / CURRENT SENSOR COMBOS

## RIBMNX2401B-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.

## RIBTWX2401B-BC

Enclosed 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.



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" (RIBMNX2401B-BC)  
 4.28" x 7.00" x 2.00" with .75" NPT Nipple (RIBTWX2401B-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 ; 120 Vac ; 50/60 Hz

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

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

### 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](http://www.functionaldevices.com/pdf/pics/RIBxWX240xB-BC_PICS.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

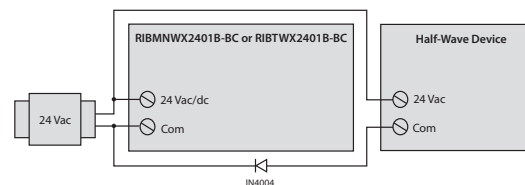
All other combinations=9600 baud

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).





# NETWORK COMPATIBLE RELAY / CURRENT SENSOR COMBOS

## RIBMNWX2402B-BC

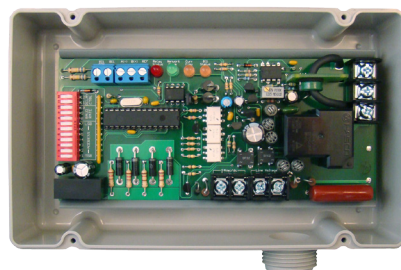
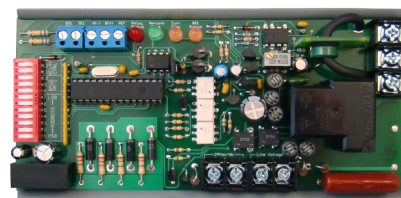
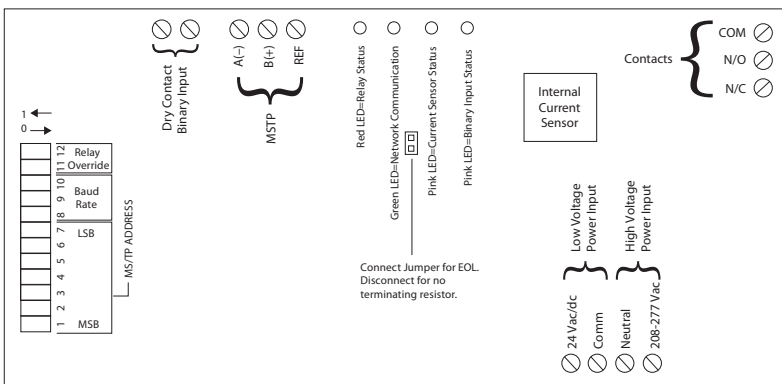
2.75" Track Mount BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); Two Binary Inputs (One Current Sensor 0.25 - 20 Amp, Relay Load Sensing & One Dry Contact Binary Input), 24 Vac/dc or 208-277 Vac Power Input, Optional End of Line Resistor (EOL) Included.

## RIBTWX2402B-BC

Enclosed 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.



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)
  - 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](http://www.functionaldevices.com/pdf/pics/RIBxWX240xB-BC_PICS.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

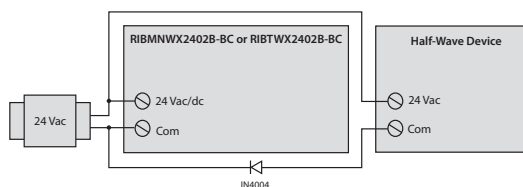
All other combinations=9600 baud

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.



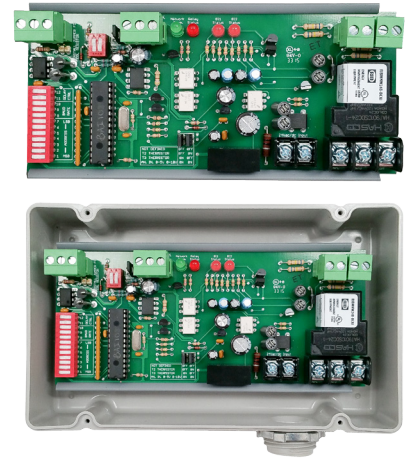
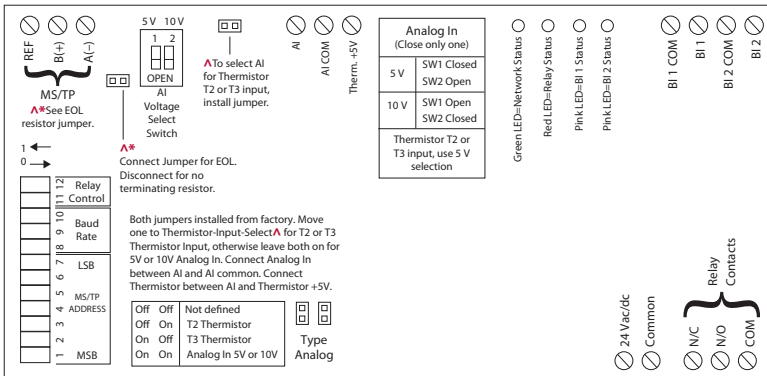
^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

### RIBMNW24B-BCAI

2.75" Track Mount BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); Two Binary Inputs (Dry Contact, Class 2); One Analog Input (T2/T3 Thermistor / 0-5 Vdc / 0-10 Vdc); 24 Vac/dc Power Input; **Optional End of Line Resistor (EOL) Included.**

### RIBTW24B-BCAI

Enclosed BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); Two Binary Inputs (Dry Contact, Class 2); One Analog Input (T2/T3 Thermistor / 0-5 Vdc / 0-10 Vdc); 24 Vac/dc Power Input; **Optional End of Line Resistor (EOL) Included.**



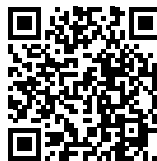
RELAYS

### 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
- 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:** 6.25" x 2.75" x 1.75" (RIBMNW24B-BCAI)  
4.28" x 7.00" x 2.00" with .75" NPT Nipple (RIBTW24B-BCAI)
- Track Mount:** MT12-6 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 Ratings:**
  - 81 mA @ 24 Vdc
  - 111 mA @ 24 Vac

• PIC Statement available on website.  
[http://www.functionaldevices.com/pdf/pics/BACnet-BCAI\\_PICS.pdf](http://www.functionaldevices.com/pdf/pics/BACnet-BCAI_PICS.pdf)  
 Or scan QR code with your smart phone.



- Notes:**
  - Order NEMA 4 housing by adding "-N4" to end of model number. (RIBTW24B-BCAI-N4)
  - Order with grey lid by adding "-GY" to end of model number. (RIBTW24B-BCAI-GY)
  - Order NEMA 4 housing with grey lid by adding "-N4-GY" to end of model number. (RIBTW24B-BCAI-N4-GY)
  - For all versions, raw analog default settings are 0 and 1023 (real), respectively. Units default to 95 (no units).
  - **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.

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 (Dry contact binary input), AI 1 (Analog input)
- Device Instance changed via Object Identifier Property of Device Object

- Thermistor Specifications:**
  - Thermistor Type 2 (T2) Precon 10 K @ 77°F (25°C) PN ST-R24, Model 24, (or equivalent.) Thermistor Type 3 (T3) Precon 10 K @ 77°F (25°C) Model 3, (or equivalent.) Thermistor not included.

- For both T2 and T3, MIN\_PRES\_VAL must be set to -36 (real value) and MAX\_PRES\_VAL must be set to 66.3 (real value) for Celcius. For Fahrenheit, MIN\_PRES\_VAL must be set to -32.8 (real value) and MAX\_PRES\_VAL must be set to 151.34 (real value).
- -35 to 10°C range in 1° steps / -31 to 50°F range in 1.8° steps  
 10 to 32°C range in 0.1° steps / 50 to 90°F range in 0.18° steps  
 32 to 100°C range in 1° steps / 90 to 212°F range in 1.8° steps

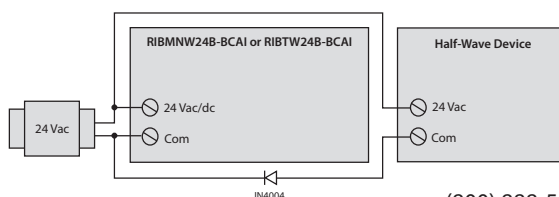
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

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).

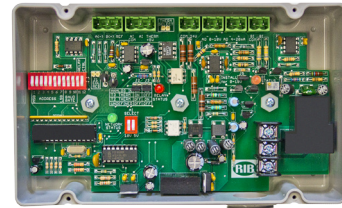
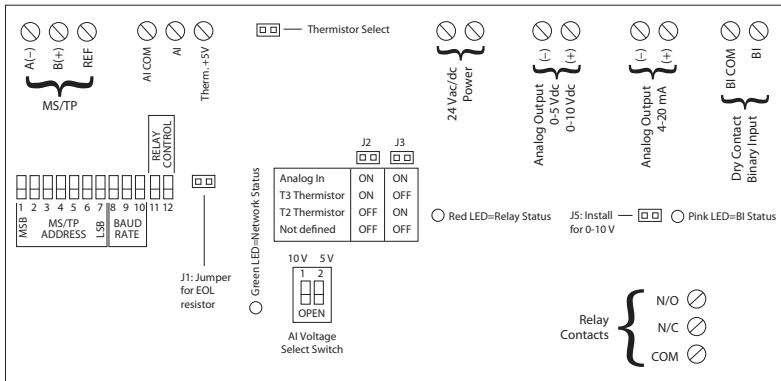
# NETWORK COMPATIBLE RELAY

## RIBTW24B-BCAO

Enclosed BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); One Binary Input (Dry Contact, Class 2); One Analog Output (0-5 Vdc, 0-10 Vdc, or 4-20 mA), One Analog Input (T2/T3 Thermistor / 0-5 Vdc / 0-10 Vdc); 24 Vac/dc 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
- Network Communication:** Green LED
- Relay Status:** Red LED On = Relay Activated
- Binary Input Status:** Pink LED On = Activated
- Dimensions:** 4.28" x 7.00" x 2.00" with .75" NPT Nipple
- Approvals:** CE, UL Listed, UL916, C-UL, RoHS
- Housing Rating:** UL Listed, NEMA 1, C-UL, CE Approved, UL Accepted for Use in Plenum,
- Gold Flash:** No
- Relay Override:** 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 Magnetic 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:**
  - 176 mA @ 24 Vac
  - 150 mA @ 24 Vdc

- Notes:**
  - Use a separate 24 Vac transformer, or an isolated 24 Vdc power supply to power-up this product.
  - Complete Installation Instructions: Bulletin B1756 available on website. [www.functionaldevices.com/pdf/bulletins/B1756\\_393218.pdf](http://www.functionaldevices.com/pdf/bulletins/B1756_393218.pdf)
  - 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. ^^

### Thermistor Specifications:

- Thermistor Type 2 (T2) Precon 10 K @ 77°F (25°C) PN ST-R24, Model 24, (or equivalent), Thermistor Type 3 (T3) Precon 10 K @ 77°F (25°C) Model 3, (or equivalent.) Thermistor not included.
- 35 to 10°C range in 1° steps / -31 to 50°F range in 1.8° steps
- 10 to 32°C range in 0.1° steps / 50 to 90°F range in 0.18° steps
- 32 to 100°C range in 1° steps / 90 to 212°F range in 1.8° steps

### BACnet® Details:

- This model utilizes: BO 1 (Relay output), BI 1 (Dry contact binary input), AI 1 (Analog input), AO 1 (Analog output)
- PIC Statement available on website. [http://www.functionaldevices.com/pdf/pics/RIBTW24B-BCAO\\_PICS.pdf](http://www.functionaldevices.com/pdf/pics/RIBTW24B-BCAO_PICS.pdf)
- Or scan QR code with your smart phone.
- Addressing Specifications: Bulletin B2028 available on website. [www.functionaldevices.com/pdf/bulletins/B2028\\_393243.pdf](http://www.functionaldevices.com/pdf/bulletins/B2028_393243.pdf)

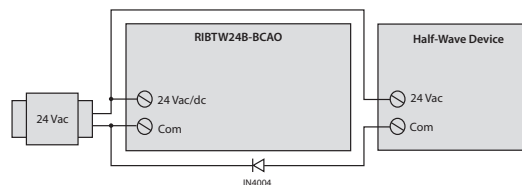
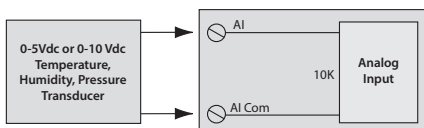


### ANALOG OUTPUT ACCURACY AS A FUNCTION OF OUTPUT SPAN (USING STANDARD CONDITIONS \*)

	Span 20% - 100%	Span 10% - 100%	Span 0% - 100%
Analog Output Voltage (0-5 Vdc; 0-10 Vdc)	+/- 2% error	+/- 5% error	+/- 11% error
Analog Output Current (4-20 mA)	+/- 2% error	+/- 3% error	+/- 12% error

### \* Standard Conditions:

Power Supply Input: 22 Vac/dc to 28 Vac/dc ; Loop Resistance (Analog Output 4-20 mA Loop): 530 Ohms max. Load Resistance [Analog Output Voltage (0-5 Vdc, 0-10 Vdc)]: 10 K Ohms min. ; Ambient Temperature: -30 to 140° F

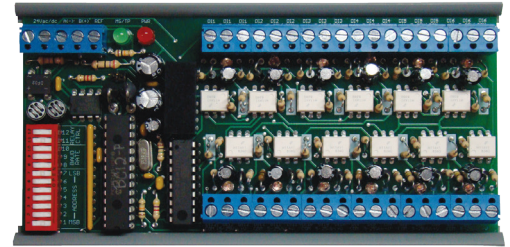
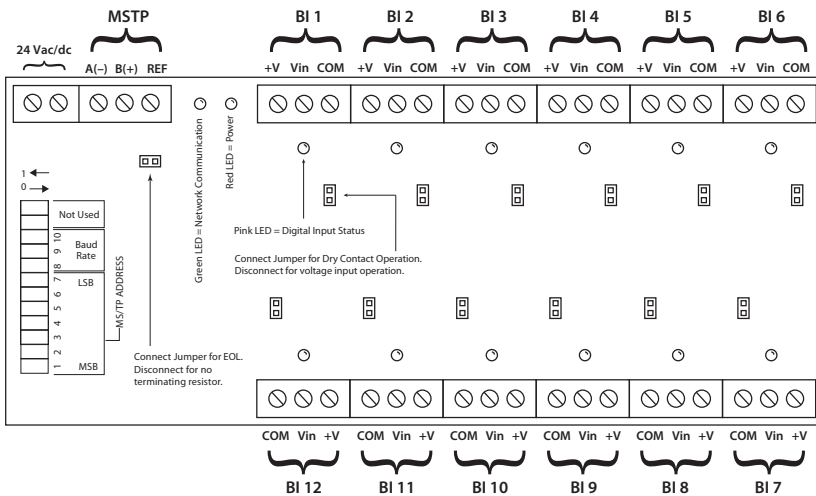


^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

# NETWORK COMPATIBLE DEVICE

## RIBMNWD12-BCDI

2.75" Track Mount BACnet® MS/TP Network 12 Binary Input Device; **Optional End of Line Resistor (EOL) Included.**



RELAYS

## SPECIFICATIONS

**Operating Temperature:** -30 to 140° F

**Humidity Range:** 5 to 95% (noncondensing)

**Green LED:** Network Communication

**Red LED:** ON = Power Present

**Dimensions:** 5.85" x 2.75" x 1.75"

**Track Mount:** MT212-6 Mounting Track Provided

**Approvals:** CE, RoHS

**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

**Band Rate:** 9600, 19200, 38400, 57600, 76800, 115200 (DIP Switch Selectable)

### Power Input Ratings:

41 mA @ 24 Vdc

53 mA @ 24 Vac

### 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.)
- Device Instance changed via Object Identifier Property of Device Object
- Full wave rectified

### Binary Input Ratings:

Dry Contact: 3 mA @ 30 Vdc max.

Voltage Input: 12 mA @ 25 Vac/dc max.

- Objects included in device are:

- BI 1 (Binary input)
- BI 2 (Binary input)
- BI 3 (Binary input)
- BI 4 (Binary input)
- BI 5 (Binary input)
- BI 6 (Binary input)
- BI 7 (Binary input)
- BI 8 (Binary input)
- BI 9 (Binary input)
- BI 10 (Binary input)
- BI 11 (Binary input)
- BI 12 (Binary input)

- PIC Statement available on website.

[http://www.functionaldevices.com/pdf/pics/RIBMNWD12-BCDI\\_PICS.pdf](http://www.functionaldevices.com/pdf/pics/RIBMNWD12-BCDI_PICS.pdf)

Or scan QR code with your smart phone.

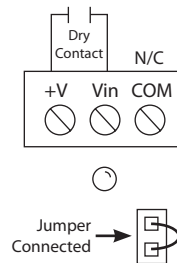


DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

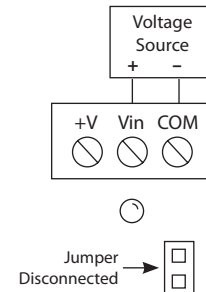
\* 0 = Open ; 1 = Closed

All other combinations=9600 baud

### Example of Dry Contact Input Operation



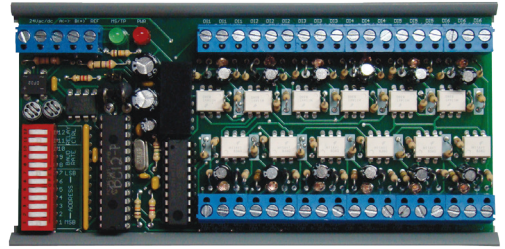
### Example of Voltage Input Operation



# NETWORK COMPATIBLE DEVICE

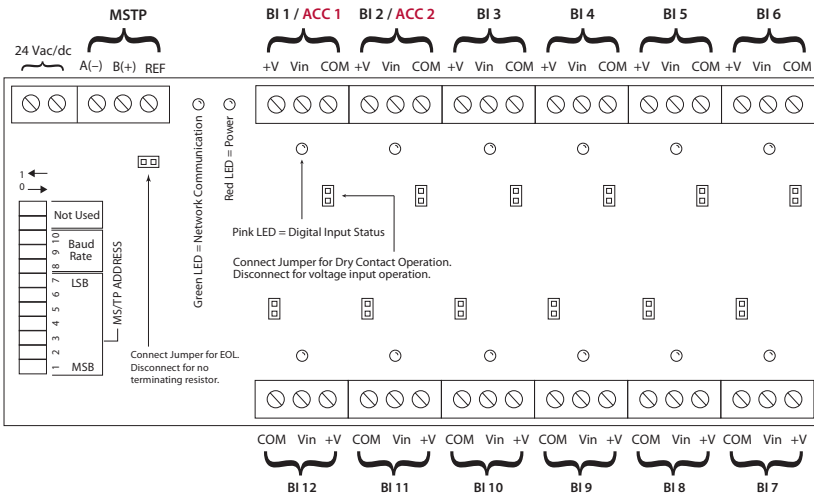
## RIBMWD12-BC

2.75" Track Mount BACnet® MS/TP Network 12 Binary Input Device (With Accumulators); Optional End of Line Resistor (EOL) Included.



**TWO (ACCUMULATOR) INPUTS CAN BE USED FOR POWER MONITORING OR OTHER PULSE COUNTING APPLICATION.**

RELAYS



### SPECIFICATIONS

**Operating Temperature:** -30 to 140° F

**Humidity Range:** 5 to 95% (noncondensing)

**Green LED:** Network Communication

**Red LED:** ON = Power Present

**Dimensions:** 5.85" x 2.75" x 1.75"

**Track Mount:** MT212-6 Mounting Track Provided

**Approvals:** CE, RoHS

**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)

**Power Input Ratings:**

41 mA @ 24 Vdc

53 mA @ 24 Vac

**Max. Accumulator Frequency:**

50 Hz

**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.)
- Device Instance changed via Object Identifier Property of Device Object

**Binary Input Ratings:**

Dry Contact: 3 mA @ 30 Vdc max.

Voltage Input: 12 mA @ 25 Vac/dc max.

- Objects included in device are:
  - BI 1 (Binary input) } Use Same
  - ACC 1 (Accumulator) } Physical Input
  - BI 2 (Binary input) } Use Same
  - ACC 2 (Accumulator) } Physical Input
  - BI 3 (Binary input)
  - BI 4 (Binary input)
  - BI 5 (Binary input)
  - BI 6 (Binary input)
  - BI 7 (Binary input)
  - BI 8 (Binary input)
  - BI 9 (Binary input)
  - BI 10 (Binary input)
  - BI 11 (Binary input)
  - BI 12 (Binary input)

• PIC Statement available on website.  
[http://www.functionaldevices.com/pdf/pics/RIBMWD12-BC\\_PICS.pdf](http://www.functionaldevices.com/pdf/pics/RIBMWD12-BC_PICS.pdf)  
 Or scan QR code with your smart phone.

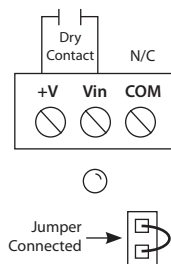


DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

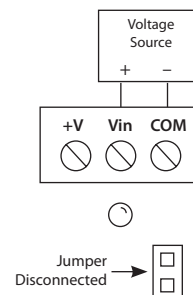
\* 0 = Open ; 1 = Closed

All other combinations=9600 baud

**Example of Dry Contact Input Operation**



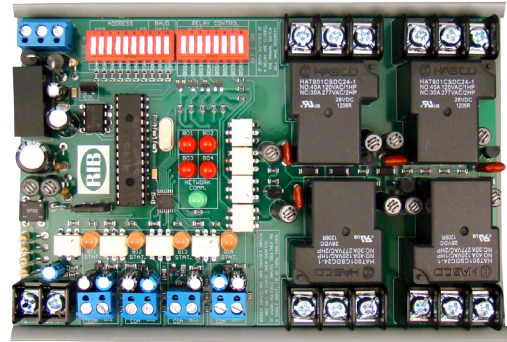
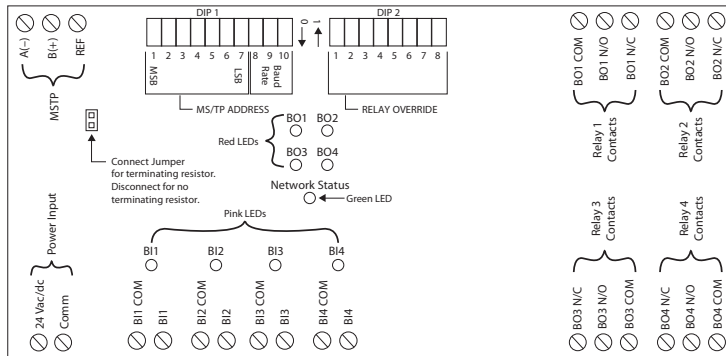
**Example of Voltage Input Operation**



# NETWORK COMPATIBLE RELAY

## RIBMW24B-44-BC

4.00" Track Mount BACnet® MS/TP Network Relay Device; Four Binary Outputs (20 Amp Relay SPDT + Override); Four Binary Inputs (Dry Contact Binary Inputs), 24 Vac/dc Power Input, Optional End of Line Resistor (EOL) Included.



RELAYS

### SPECIFICATIONS

- # Relays & Contact Type:** Four (4) 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
- Binary Input Status:** Pink LED On = Activated
- Dimensions:** 6.00" L x 4.27" W x 1.34" H
- Track Mount:** MT4-6 Mounting Track Provided
- Approvals:** CE, UL Listed, UL916, C-UL, RoHS
- 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 @ 120/277 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:**
- 24 Vac : 400 mA
- 24 Vdc : 190 mA

- 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: BO1, BO2, BO3, BO4, (Relay outputs), BI1, BI2, BI3, BI4 (Dry contact inputs)
  - Device Instance changed via Object Identifier Property of Device Object
  - Each unit is 1/8 unit load
  - PIC Statement available on website.  
[http://www.functionaldevices.com/pdf/pics/RIBMW24B-44-BC\\_PICS.pdf](http://www.functionaldevices.com/pdf/pics/RIBMW24B-44-BC_PICS.pdf)
  - Or scan QR code with your smart phone.

**NEED AN ENCLOSURE?**  
 ORDER MODEL MH1210 (PAGE 142)

**NEED A POWER SUPPLY AND AN ENCLOSURE?**  
 ORDER MODEL CTRL-PS (PAGE 113) & AT4-8 (PAGE 152)



		DIP 1			Baud Rate
		DIP Switches			
		1-7	8	9	10
See Bulletin B1082 for full MS/TP Addressing	0	0	0	0	9600
	0	0	0	1	19200
	0	1	0	0	38400
	0	1	1	1	57600
	1	0	0	0	76800
	1	0	1	1	115200

All other combinations=9600 baud

• Dry contact digital 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.

		DIP 2							
		DIP Switches*							
Relay	Relay State**	1	2	3	4	5	6	7	8
BO1	Auto	1	X	X	X	0	X	X	X
	ON	X	X	X	X	1	X	X	X
	OFF	0	X	X	X	0	X	X	X
BO2	Auto	X	1	X	X	X	0	X	X
	ON	X	X	X	X	X	1	X	X
	OFF	X	0	X	X	X	0	X	X
BO3	Auto	X	X	1	X	X	X	0	X
	ON	X	X	X	X	X	X	1	X
	OFF	X	X	0	X	X	X	0	X
BO4	Auto	X	X	X	1	X	X	X	0
	ON	X	X	X	X	X	X	X	1
	OFF	X	X	X	0	X	X	X	0

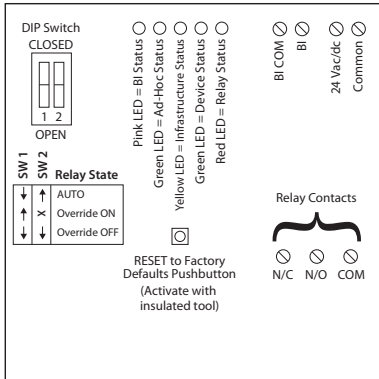
\* 0 = Open ; 1 = Closed

\*\* Device must be powered for override

## NETWORK COMPATIBLE RELAY

### RIBTW24B-WI-N4

Enclosed Wifi IEEE 802.11 b/g Network  
Enclosed I/O Device: One Discrete Output  
(20 Amp Relay SPDT + Override), One  
Discrete Input (Dry Contact, Class 2); 24 Vac/dc



Shown  
With  
Cover

Code Version 4.0.1



Made in USA  
Meets  
"Buy American"  
of ARRA 2009



## SPECIFICATIONS

**# Relays & Contact Type:** One (1) SPDT Continuous Duty Coil  
**Expected Relay Life:** 10 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Operate Time:** 18ms  
**Pink LED:** Digital Input Status  
**Green LED:** Wifi Ad-Hoc Status  
**Yellow LED:** Wifi Infrastructure Status  
**Green LED:** Device Status  
**Red LED:** Relay Status  
**Dimensions:** 4.28" x 7.00" x 2.00" with .75" NPT Nipple  
**Approvals:** UL Listed, UL916, C-UL  
 FCC, CE, RoHS, Wifi Certified ASD Device  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 4  
**Gold Flash:** No  
**Relay Override Switch:** DIP Switch Control  
**Wifi:** IEEE 802.11 b/g/n Compatible, (G)  
 54 Mbps Data Rate  
 -95 dBm Min. Sensitivity  
 +16 dBm Max Output Power  
 Currently Unsecured Connection in Ad-Hoc  
 (WPA-PSK or WPA-2-PSK Available)  
 Supports PING and ARP  
 DSSS Modulation

**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)  
 2 HP @ 277 Vac  
 1 HP @ 120 Vac

**Power Input Ratings:**  
 200 mA Max @ 24 Vac  
 200 mA Max @ 24 Vdc

**Available TCP/IP Settings:**

- IP Address (Static)
- Port Number
- Subnet Mask
- Gateway Address
- Ad-Hoc mode
- Infrastructure mode
- Scan for wireless networks

**Device Settings:**

- Local Override
- Reset to Network Defaults Pushbutton

**Power Input:**  
 24 Vac = Terminal Strip (20 Vac min. ; 28 Vac max.)  
 24 Vdc = Terminal Strip (24 Vdc min. ; 28 Vdc max.)

**Device Settings by Network:**

- Power up default relay state
- Host name and location labels
- Relay bound to digital input

• **Setup instructions available on website.**

[http://www.functionaldevices.com/pdf/bulletins/B1802\\_393224.pdf](http://www.functionaldevices.com/pdf/bulletins/B1802_393224.pdf)

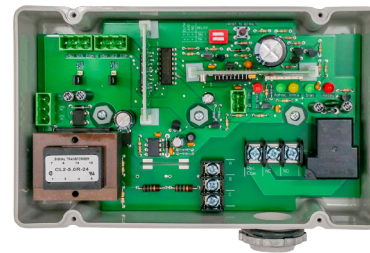
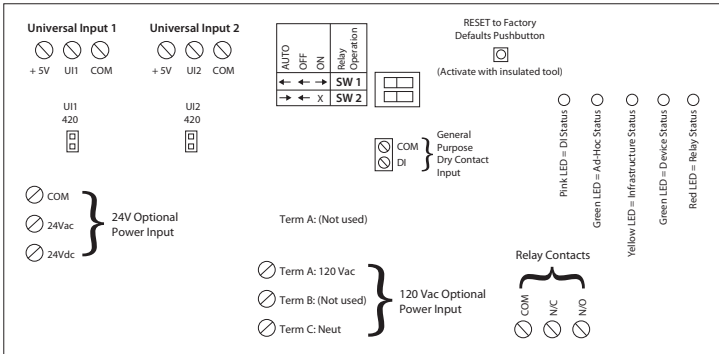


Or scan QR code with your smart phone.

## NETWORK COMPATIBLE RELAY

### RIBTW2401B-WIUI-N4

Wifi IEEE 802.11 b/g Network Enclosed I/O Device; One Discrete Output (20 Amp Relay SPDT + Override), One Discrete Input (Dry Contact, Class 2); Two Universal Inputs; 24 Vac/dc, 120 Vac Power



Shown  
With  
Cover



Code Version 4.7.1.1.0



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  
**Operate Time:** 18ms  
**Pink LED:** Digital Input Status  
**Green LED:** Wifi Ad-Hoc Status  
**Yellow LED:** Wifi Infrastructure Status  
**Green LED:** Device Status  
**Red LED:** Relay Status  
**Dimensions:** 4.28" x 7.00" x 2.00" with .75" NPT Nipple  
**Approvals:** UL Listed, UL916, C-UL FCC, CE, RoHS, Wifi Certified ASD Device  
**Housing Rating:** UL Accepted for Use in Plenum, NEMA 4X  
**Gold Flash:** No  
**Relay Override Switch:** DIP Switch Control  
**Wifi:** IEEE 802.11 b/g/n Compatible, (G) 54 Mbps Data Rate -95 dBm Sensitivity +16 dBm Output Power (WPA-PSK or WPA-2-PSK Available) Supports PING and ARP DSSS Modulation  
**Security:** Customer can choose to have Webpage and Controller Commands authentication-secured with Username and Password.

**Contact Ratings:**  
 20 Amp Resistive @ 277 Vac  
 5 Amp Resistive @ 480 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  
 1 HP @ 120 Vac  
 2 HP @ 277 Vac

**Power Input Ratings:**  
 158 mA Max @ 24 Vac  
 110 mA Max @ 24 Vdc  
 55 mA Max @ 120 Vac

**Available TCP/IP Settings:**  
 • IP Address (Static)  
 • Port Number  
 • Subnet Mask  
 • Gateway Address  
 • Ad-Hoc mode (Default)  
 • Infrastructure mode  
 • Scan for wireless networks

**Device Settings:**  
 • Local Override  
 • Reset to Network Defaults Pushbutton

**Power Input (Use one):**  
 24 Vac = Terminal Strip (20 Vac min.; 28 Vac max.)  
 24 Vdc = Terminal Strip (24 Vdc min.; 28 Vdc max.)  
 120 Vac = Terminal Strip

**Device Settings by Network:**  
 • Power up default relay state  
 • Host name and location labels  
 • Relay bound to digital input  
 • Username and Password security:  
 Note: There will be no security if password field is left blank. A password may be entered that will secure the webpage as well as Controller Commands. Eight alpha-numerical characters case-sensitive.

• **Setup instructions available on website.**

[http://www.functionaldevices.com/pdf/bulletins/B1783\\_393223.pdf](http://www.functionaldevices.com/pdf/bulletins/B1783_393223.pdf)



Or scan QR code with your smart phone.

**CAUTION: Remove all connections to UI 1 and UI 2 when setting input.**

**Universal Input: Configurable by internal device web page, accessible in either Ad-Hoc or Infrastructure.**

- Analog value returned, user configurable min. and max. scale, and label, 0-5 Vdc, 0-10 Vdc, or 4-20 mA\*, connect between UI and Com.
- Direct temperature reading from Type T2 Thermistor. Connect between +5 Vdc and UI input.
- Digital Input, connect between +5 Vdc and UI input.

\* 4-20 mA, when used, requires jumper to be installed on UI set for 4-20 mA input. Jumper MUST be removed when UI input used as anything other than 4-20 mA.

For application manual, please visit: [www.functionaldevices.com](http://www.functionaldevices.com)



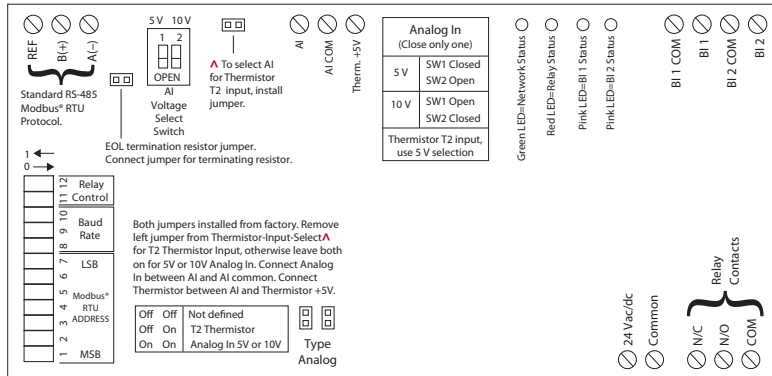
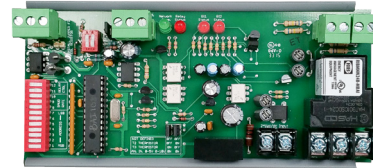
# NETWORK COMPATIBLE RELAYS

## RIBMNW24B-MBAI

2.75" Track Mount Modbus® RTU Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); Two Binary Inputs (Dry Contact, Class 2); One Analog Input (T2 Thermistor / 0-5 Vdc / 0-10 Vdc); 24 Vac/dc Power Input; **Optional End of Line Resistor (EOL) Included.**

## RIBTW24B-MBAI

Enclosed Modbus® RTU Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); Two Binary Inputs (Dry Contact, Class 2); One Analog Input (T2 Thermistor / 0-5 Vdc / 0-10 Vdc); 24 Vac/dc Power Input; **Optional End of Line Resistor (EOL) Included.**



## 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:** 6.25" x 2.75" x 1.75" (RIBMNW24B-MBAI)  
4.28" x 7.00" x 2.00" with .75" NPT Nipple (RIBTW24B-MBAI)
- 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

- 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 @ 24 Vdc
  - 111 mA @ 24 Vac

### Notes:

- Modbus® Address & Baud Rate must be set prior to power up via DIP switches.
- Order NEMA 4 housing by adding "-N4" to end of model number. (RIBTW24B-MBAI-N4)
- Order with grey lid by adding "-GY" to end of model number. (RIBTW24B-MBAI-GY)
- Order NEMA 4 housing with grey lid by adding "-N4-GY" to end of model number. (RIBTW24B-MBAI-N4-GY)
- This model utilizes:
  - Physical coil 1 (Relay output)
  - Physical binary input 1 (Dry contact binary input)
  - Physical binary input 2 (Dry contact binary input)
  - Physical input register AI 1 (Analog input)
- Thermistor Type 2 (T2) Precon 10 K @ 77°F (25°C) PN ST-R24, Model 24, (or equivalent.) Thermistor not included. (Range -39 to 187°F)
- For all versions, raw analog default settings are 0 and 1023 (real), respectively.
- **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.^^
- Address and Baud Rate Settings on Bulletin B1676 available on website.  
[http://functionaldevices.com/pdf/bulletins/B1676\\_393208.pdf](http://functionaldevices.com/pdf/bulletins/B1676_393208.pdf)  
Or scan QR code with your smart phone.



Modbus® is a registered trademark of Schneider Electric licensed to the Modbus Organization, Inc.

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

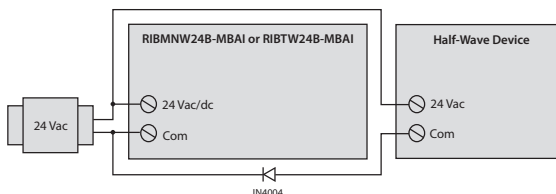
DIP SWITCHES*		RELAY STATE**
11	12	
1	0	Auto
X	1	Override on
0	0	Override off

\* 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 feed back to the network.



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



## Fan Safety Alarm Circuits

## I/O Expanders

## Manual Analog Override Switch

If we do not already build a device with specifications or packaging configurations you require, we will be happy to quote and design one for you. Functional Devices, Inc. is actively involved in the development, manufacturing, and production of special peripheral devices. They are either

variations of existing Functional Devices products or entirely unique devices. We will help provide you with a product to fit your specific needs. Please contact us so we may review your project and special requirements.

RELAYS

### FAN SAFETY ALARM CIRCUITS

MODEL #	UL	POWER INPUT	ALARM CIRCUITS	CONTACTS	SWITCH	ENCLOSED	NOTES	SPEC PAGE
RIBMNLB	•	24 Vac	4					84
RIBLB	•	24 Vac	4			•		84
RIBMNLB-6	•	24 Vac	6					85
RIBMNLB-4	•	24 Vac	4					85
RIBMNLB-2	•	24 Vac	2					85
RIBMNLB-1	•	24 Vac	2				NEW	87
RIBLB-6	•	24 Vac	6			•		85
RIBLB-4	•	24 Vac	4			•		85
RIBLB-2	•	24 Vac	2			•		85
RIBMNLB-6NO	•	24 Vac	6				NEW	86
RIBMNLB-4NO	•	24 Vac	4				NEW	86
RIBMNLB-2NO	•	24 Vac	2				NEW	86

### I/O EXPANDERS

(Quick reference only. See individual spec page for more information.)

MODEL #	UL <sup>1</sup>	POWER INPUT	RELAYS	CONTACTS	SWITCH	ENCLOSED	NOTES	SPEC PAGE
RIBMN24Q2C	•	24 Vac/dc	2	2 SPDT				88
RIBMN24Q3C	•	24 Vac/dc	3	3 SPDT				88
RIBMN24Q4C	•	24 Vac/dc	4	4 SPDT				89
RIBMN24Q4C-PX	•	24 Vac/dc	4	4 SPDT				89

### MANUAL ANALOG OVERRIDE SWITCH

MODEL #	POWER INPUT	RELAYS	SWITCH	ENCLOSED	NOTES	SPEC PAGE
RIBMNA1D0	24 Vac/dc		Manual / Auto	•		90

UL = UL Listed : UL916 Energy Management, UL864 Fire ; USA & Canada

UL<sup>1</sup> = UL Listed : UL916 Energy Management ; USA & Canada

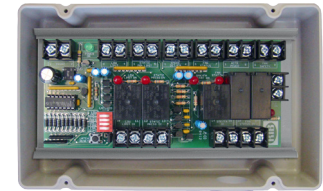
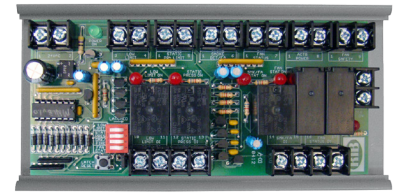
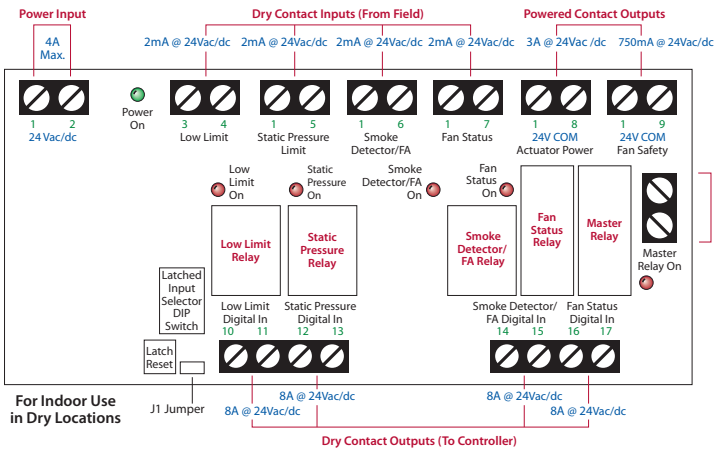
# FAN SAFETY ALARM CIRCUITS

## RIBMNLB

2.75" Track Mount AHU Fan Safety Alarm Circuit,  
24 Vac Power Input

## RIBLB

Enclosed AHU Fan Safety Alarm Circuit,  
24 Vac Power Input



CODE VER. 1.0

**CAN BE USED TO ISOLATE FIELD DEVICES FROM EACH OTHER AND FROM CONTROLLER, NOT ONLY FAN CIRCUITS**

## SPECIFICATIONS

- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Operate Time:** 250ms
- Power Input:** 4 Amp @ 24 Vac/dc ; 50-60 Hz
- Alarm Status:** LED On = Activated
- Dimensions:** 6.000" x 2.750" x 1.200" (RIBMNLB)  
4.28" x 7.00" x 2.00" with .75" NPT Nipple (RIBLB)
- Track Mount:** MT212-6 Mounting Track Provided
- Approvals:** UL Listed, UL864, C-UL, CE, RoHS
- Housing Rating:** UL Listed, NEMA 1, C-UL, CE Approved
- Gold Flash:** No
- Override Switch:** No

### Notes:

- RIBMNLB and RIBLB have four Alarm Inputs and one Master Alarm.

A master relay will open if any one of the normally-closed (N/C) inputs open. LED status of all outputs and the master relay is provided. The RIBMNLB is provided with mounting track for mounting in user-provided electrical enclosures. The RIBLB is enclosed in a NEMA 1, 4" x 7" enclosure with a clear lid to allow viewing of the status LEDs. The master relay has two general-purpose outputs: one 24 V output terminal and one dry contact output rated up to 10 Amp @ 277 Vac. Fan status contact controls actuator power. The most common application is an Air Handling Unit (AHU) fan-safety-shutdown where the master relay is used to shutdown the fan. Contact closure outputs are provided so that a DDC controller can determine the cause of a shutdown.

Model RIBMNLB combines all the relay logic to facilitate fan status, fan safety control, and damper actuator control. It is intended for use in a circuit that will control fan start/stop and fan safety shut-down circuit monitors three critical inputs:

- Low-limit freeze protection (to stop fan and remove power from damper actuator)
- Static pressure (to monitor for hi/low pressure condition)
- Smoke detector / fire alarm

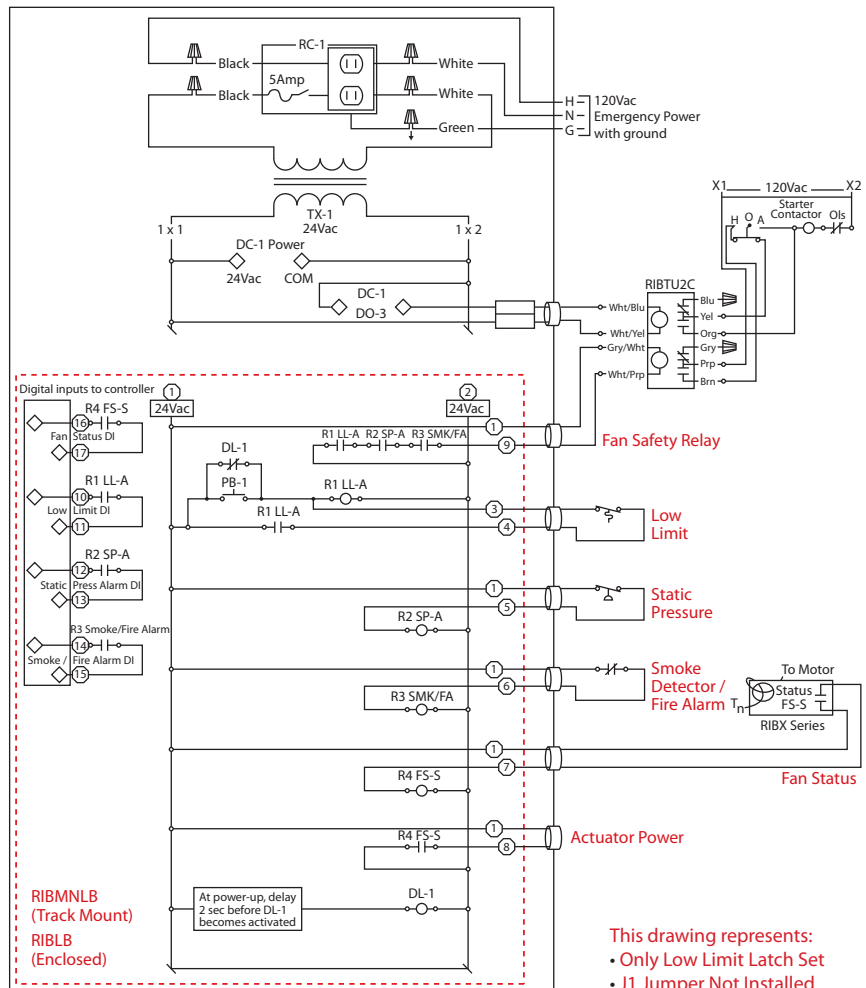
### Master relay opens to shut down AHU when any Normally Closed input opens.

Integral DIP switch allows any input to be latched. Input can be reset with push button or by cycling unit power.

Installing J1 jumper allows Fan Status input to control Master Relay, like the other 3 inputs.

### Panel

### Field



This drawing represents:  
• Only Low Limit Latch Set  
• J1 Jumper Not Installed

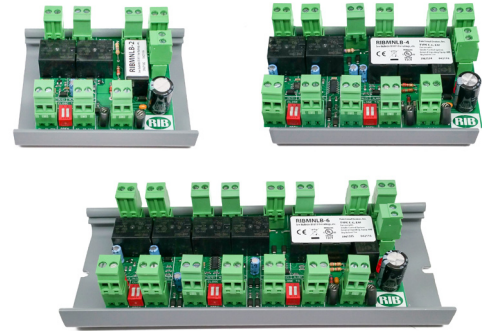
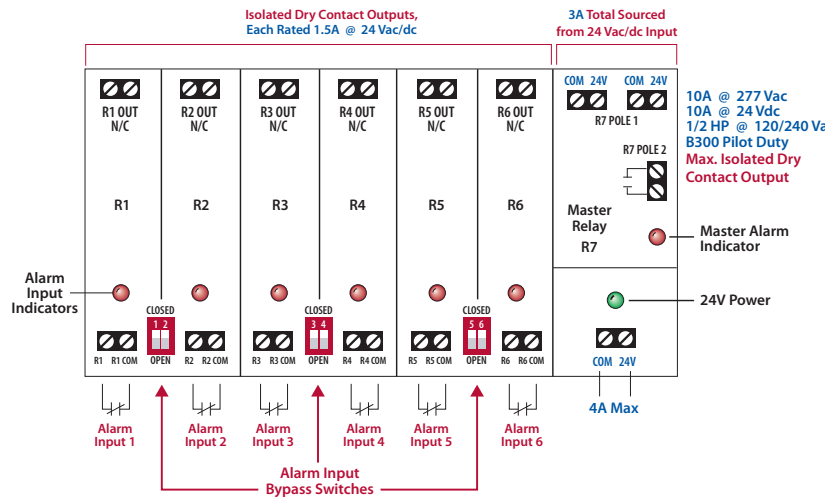
# FAN SAFETY ALARM CIRCUITS

## RIBMNLB-6/-4/-2

2.75" Track Mount AHU Fan Safety Alarm and General Purpose Logic Circuit, 24 Vac/dc Power Input, 2/4/6 Outputs

## RIBLB-6/-4/-2

Enclosed AHU Fan Safety Alarm and General Purpose Logic Circuit, 24 Vac/dc Power Input, 2/4/6 Outputs



RELAYS

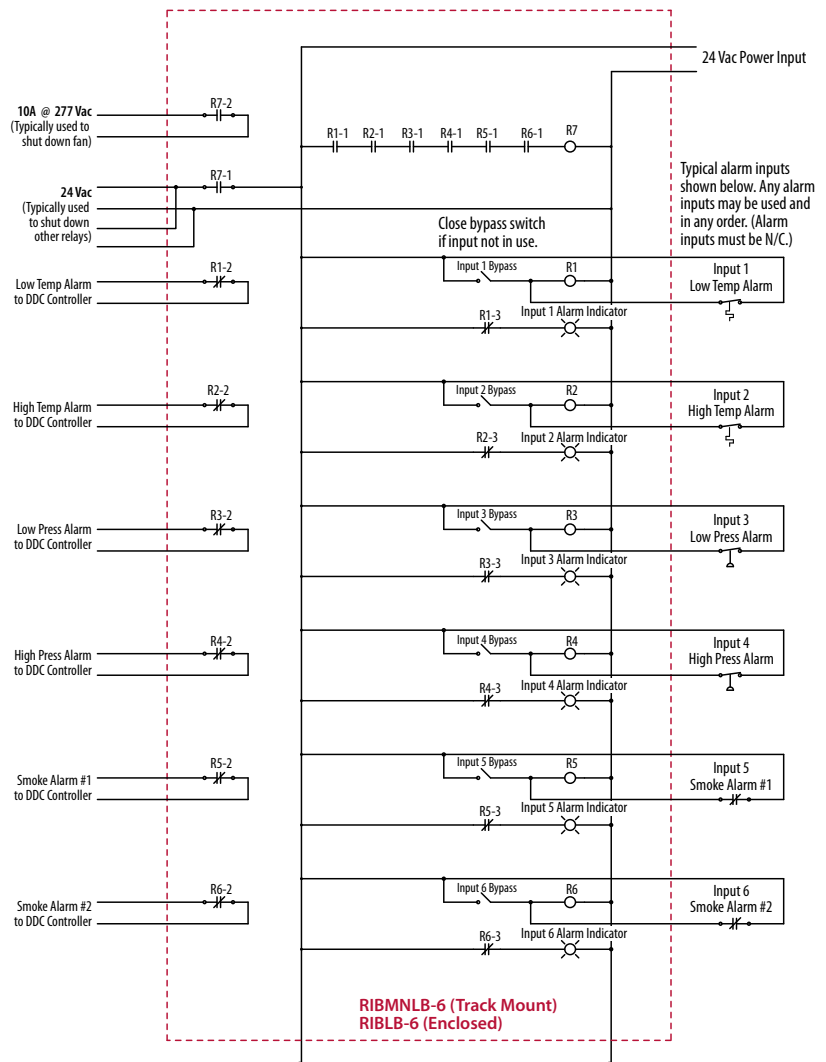
## SPECIFICATIONS

- 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:** 4 Amp max. @ 24 Vac/dc ; 50-60 Hz
- Alarm Status:** LED On = Activated
- Dimensions:** 6.200" x 2.750" x 1.750" (RIBMNLB-6)  
4.600" x 2.750" x 1.750" (RIBMNLB-4)  
3.000" x 2.750" x 1.750" (RIBMNLB-2)  
4.28" x 7.00" x 2.00" with .75" NPT Nipple (RIBLB-6/-4/-2)
- Track Mount:** MT212-6 Mounting Track Provided (RIBMNLB-6)  
MT212-4 Mounting Track Provided (RIBMNLB-4, RIBMNLB-2)
- Approvals:** UL Listed, UL916, UL864, C-UL, CE, RoHS
- Housing Rating:** UL Listed, NEMA 1, C-UL, CE Approved, UL Accepted for Use in Plenum
- Gold Flash:** No
- Override Switch:** No

- Notes:**
- Track mount models shown above.
  - RIBMNLB-6 and RIBLB-6 have six Alarm Inputs and one Master Alarm. RIBMNLB-4 and RIBLB-4 have four Alarm Inputs and one Master Alarm. RIBMNLB-2 and RIBLB-2 have two Alarm Inputs and one Master Alarm.

Models RIBMNLB-6, RIBMNLB-4, and RIBMNLB-2; and RIBLB-6, RIBLB-4, and RIBLB-2 are simply devices that combine a common relay-logic function into a small, easy-to-install, and less expensive form.

A master relay will open if any one of the normally-closed (N/C) inputs open. There are six, four, or two inputs depending on the model chosen. LED status of all inputs, the master relay, and power input is provided. Bypass of un-used inputs is also provided. The RIBMNLB series is provided with mounting track for mounting in user-provided electrical enclosures. The RIBLB series is enclosed in a NEMA-1, 4" x 7" enclosure with a clear lid to allow viewing of the status LEDs. The master relay has three general-purpose outputs: two 24 V output terminals and one dry-contact output rated up to 10 Amp @ 277 Vac (terminals on RIBMNLB series, wires on RIBLB series.) The most common application is an Air Handling Unit (AHU) fan-safety-shutdown where the master relay is used to shutdown the fan. Contact closure outputs are provided so that a DDC controller can determine the cause of a shutdown.



SELECTION GUIDE		
Model#	Inputs	
RIBMNLB-6	6	MT212 Mounting Track
RIBMNLB-4	4	MT212 Mounting Track
RIBMNLB-2	2	MT212 Mounting Track
RIBLB-6	6	PE6020 Enclosure
RIBLB-4	4	PE6020 Enclosure
RIBLB-2	2	PE6020 Enclosure

# FAN SAFETY ALARM CIRCUITS

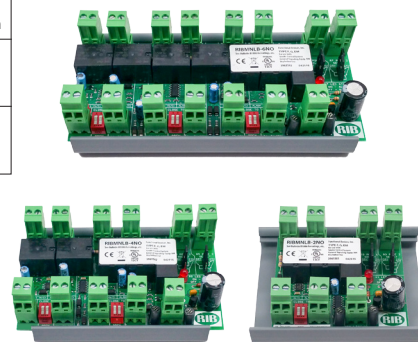
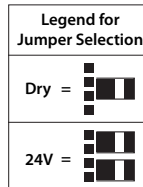
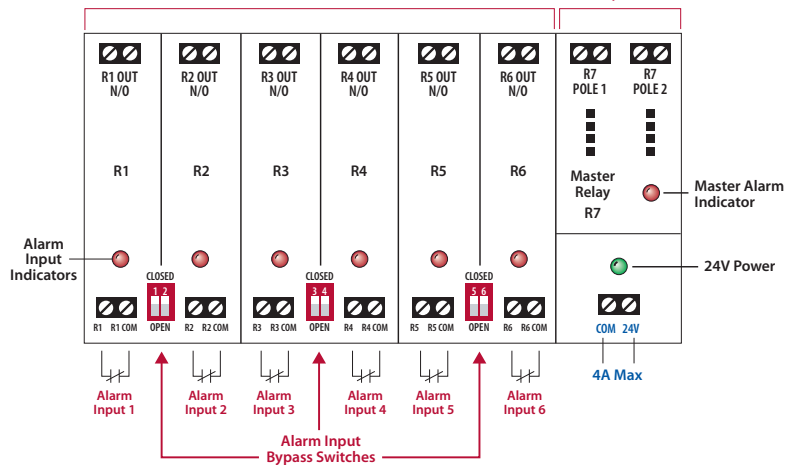
## RIBMNLB-6NO/-4NO/-2NO

2.75" Track Mount AHU Fan Safety Alarm and General Purpose Logic Circuit, 24 Vac Power Input, 2/4/6 Alarm Inputs all with N/O Outputs



3A Total Sourced from 24 Vac/dc Input or Dry Contact (Jumper Selectable)

Isolated Dry Contact Outputs, Each Rated 1.5A @ 24 Vac/dc



## 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:** 4 Amp max. @ 24 Vac/dc ; 50-60 Hz

**Alarm Status:** LED On = Activated

**Dimensions:** 6.200" x 2.750" x 1.750" (RIBMNLB-6NO)

4.600" x 2.750" x 1.750" (RIBMNLB-4NO)

3.000" x 2.750" x 1.750" (RIBMNLB-2NO)

**Track Mount:** MT212-6 Mounting Track Provided (RIBMNLB-6NO)

MT212-4 Mounting Track Provided

(RIBMNLB-4NO, RIBMNLB-2NO)

**Approvals:** UL Listed, UL916, UL864, C-UL, CE, RoHS

**Gold Flash:** No

**Override Switch:** No

Models RIBMNLB-6NO, RIBMNLB-4NO, and RIBMNLB-2NO are simply devices that combine a common relay-logic function into a small, easy-to-install, and less expensive form.

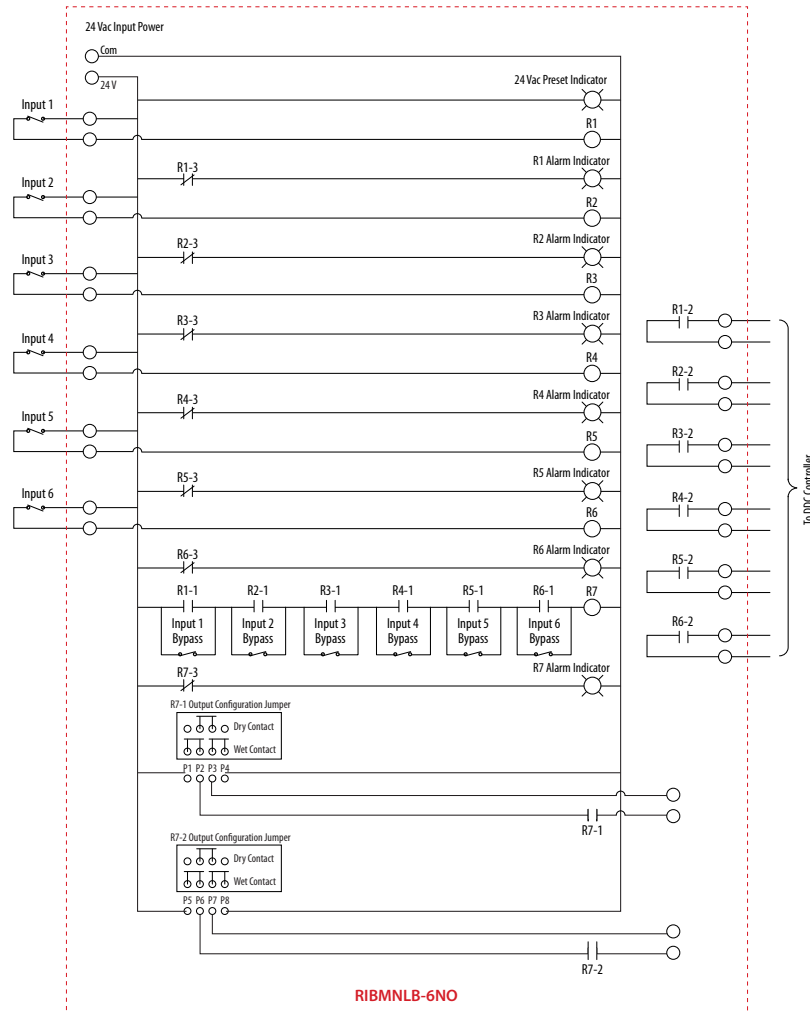
A master relay will open if any one of the normally-closed (N/C) inputs open. There are six, four, or two inputs depending on the model chosen. LED status of all inputs, the master relay, and power input is provided. Bypass of un-used inputs is also provided. The RIBMNLB series is provided with mounting track for mounting in user-provided electrical enclosures.

The master relay has two general-purpose outputs: both can be jumper selected at 24 V (sourced from input) or dry contact. The most common application is an Air Handling Unit (AHU) fan-safety-shutdown where the master relay is used to shutdown the fan. Contact closure outputs are provided so that a DDC controller can determine the cause of a shutdown.

### Notes:

- RIBMNLB-6NO has six Alarm Inputs and one Master Alarm.
- RIBMNLB-4NO has four Alarm Inputs and one Master Alarm.
- RIBMNLB-2NO has two Alarm Inputs and one Master Alarm.

• This is a half wave device. When connecting 24 Vac to both this device and a full-wave device, damage to device can occur.



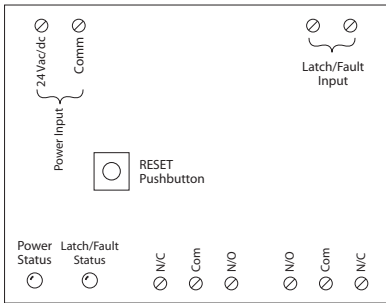
## SELECTION GUIDE

Model#	Inputs	Mounting Track
RIBMNLB-6NO	6	MT212 Mounting Track
RIBMNLB-4NO	4	MT212 Mounting Track
RIBMNLB-2NO	2	MT212 Mounting Track

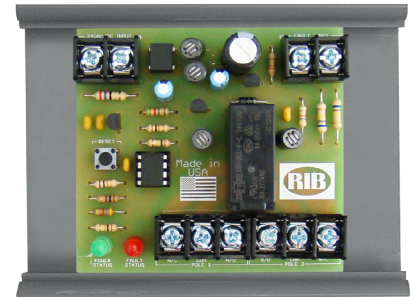
# FAN SAFETY ALARM CIRCUIT

## RIBMNLB-1

2.75" Track Mount General Purpose Latching Logic Circuit; One Latching/Fault Input (Dry Contact, Class 2); 24 Vac/dc Power Input



- MANUAL RESET
- ONE ALARM OUTPUT
- ONE RELAY OUTPUT



RELAYS

### SPECIFICATIONS

- # Relays & Contact Type: One (1) DPDT 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: 8ms
- Green LED: Power Status (ON: Power present)
- Red LED: Fault Status (ON: Latched/Fault State)
- Dimensions: 4.00" x 2.75" x 1.25"
- Track Mount: MT212-4 Mounting Track Provided
- Approvals: CE, UL Listed, UL864, C-UL, RoHS
- Gold Flash: No
- Relay Override Switch: No
- Fault Reset Switch: Yes

- Contact Ratings:
  - 10 Amp Resistive @ 30Vdc
  - 10 Amp General Use @ 277Vac
  - 1/2 HP @ 120/240Vac (N/O)
  - 1/3 HP @ 120/240Vac (N/C)

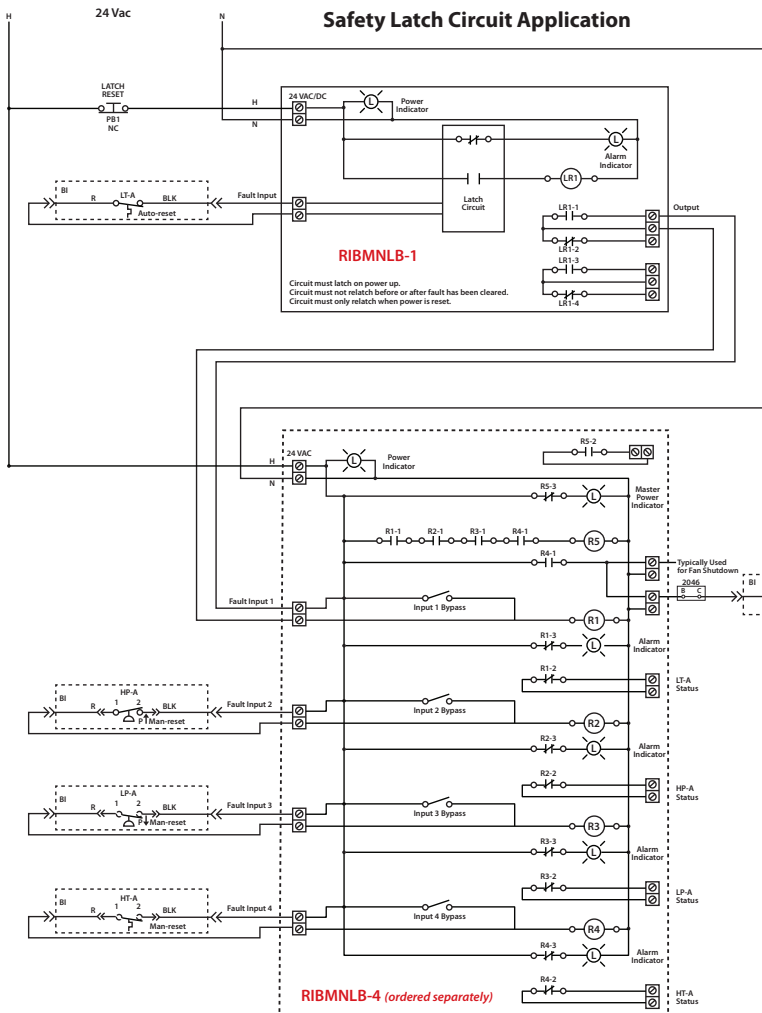
- Power Input Ratings:
  - 53 mA @ 24Vac
  - 25 mA @ 24Vdc
  - 50/60 Hz

### Alarm Fault Application:

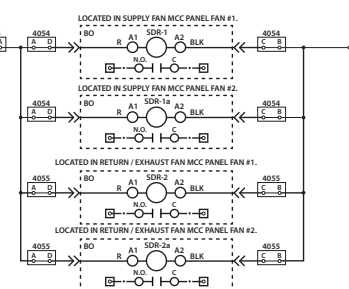
When the Latch/Fault Input is Closed (Normal state), the Relay is activated, and Red LED is Off. When Latch/Fault Input Opens (Alarm state), the Relay deactivates, and Red LED turns On. Until the Latch/Fault Input is Closed AND either power is cycled or the RESET button is pressed, relay will remain in the Alarm state.

### Notes:

- Fault conditions must last for at least 500 ms in order for the unit to go into Alarm state.
- Reset signal, whether via pushbutton or power cycling, must last for at least 30 ms in order to reset the device to go from Alarm state to Normal state.



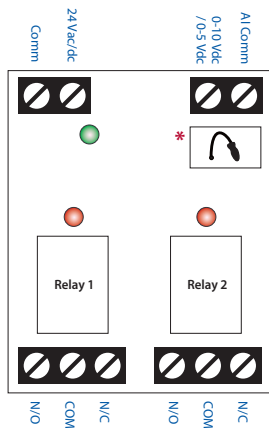
### Typical Field Interlock Wiring



## I/O EXPANDER

### RIBMN24Q2C

2.75" Track Mount 2 Output I/O Expander with 24 Vac/dc Power Input and 0-10 Vdc / 0-5 Vdc Control Input



0-10 VDC CONTROL VOLTAGE	0-5 VDC * CONTROL VOLTAGE	RELAY 1 STATUS	RELAY 2 STATUS
0-2.117Vdc	0-1.058Vdc	OFF	OFF
2.745-4.627Vdc	1.373-2.313Vdc	ON	OFF
5.255-7.137Vdc	2.628-3.568Vdc	OFF	ON
7.765-10.000Vdc	3.883-5.000Vdc	ON	ON



**GREAT FOR STAGING LOADS SUCH AS CHILLERS, PUMPS, ACTUATORS, OR MULTI-STAGE HEATING**

## SPECIFICATIONS

**# Relays & Contact Type:** Two (2) SPDT Continuous Duty Coil  
**Expected Relay Life:** 10 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Power Status:** Green LED On = Power On  
**Relay Status:** Red LED On = Relay Activated  
**Dimensions:** 3.100" x 2.750" x 1.750"  
**Track Mount:** MT212-4 Mounting Track Provided  
**Approvals:** UL Listed, UL916, C-UL, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 15 Amp General Use @ 125 Vac  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 470 VA Pilot Duty @ 125 Vac  
 770 VA Pilot Duty @ 250 Vac

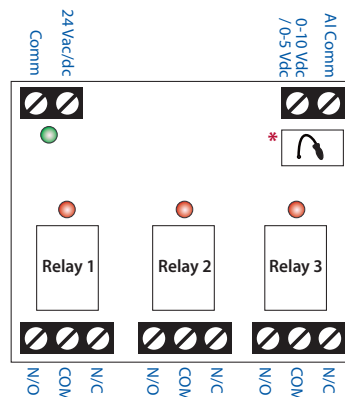
**Power Input:**  
 24 Vac/dc ; 50-60 Hz  
 100mA max.

**Notes:**  
 • Must clip resistor in white box for 0-5Vdc.\*  
 • Custom Programming Available for Large Orders.

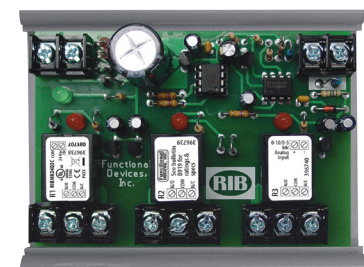
## I/O EXPANDER

### RIBMN24Q3C

2.75" Track Mount 3 Output I/O Expander with 24 Vac/dc Power Input and 0-10 Vdc / 0-5 Vdc Control Input



0-10 VDC CONTROL VOLTAGE	0-5 VDC * CONTROL VOLTAGE	RELAY 1 STATUS	RELAY 2 STATUS	RELAY 3 STATUS
0-0.988Vdc	0-0.494Vdc	OFF	OFF	OFF
1.366-2.242Vdc	0.683-1.121Vdc	ON	OFF	OFF
2.620-3.496Vdc	1.310-1.748Vdc	OFF	ON	OFF
3.876-4.752Vdc	1.938-2.376Vdc	ON	ON	OFF
5.130-6.006Vdc	2.565-3.003Vdc	OFF	OFF	ON
6.386-7.262Vdc	3.193-3.631Vdc	ON	OFF	ON
7.640-8.516Vdc	3.820-4.258Vdc	OFF	ON	ON
8.896-10.000Vdc	4.448-5.000Vdc	ON	ON	ON



**GREAT FOR STAGING LOADS SUCH AS CHILLERS, PUMPS, ACTUATORS, OR MULTI-STAGE HEATING**

## SPECIFICATIONS

**# Relays & Contact Type:** Three (3) SPDT Continuous Duty Coil  
**Expected Relay Life:** 10 million cycles minimum mechanical  
**Operating Temperature:** -30 to 140° F  
**Humidity Range:** 5 to 95% (noncondensing)  
**Power Status:** Green LED On = Power On  
**Relay Status:** Red LED On = Relay Activated  
**Dimensions:** 4.000" x 2.750" x 1.750"  
**Track Mount:** MT212-4 Mounting Track Provided  
**Approvals:** UL Listed, UL916, C-UL, CE, RoHS  
**Gold Flash:** No  
**Override Switch:** No

**Contact Ratings:**  
 15 Amp General Use @ 125 Vac  
 10 Amp General Use @ 277 Vac  
 10 Amp Resistive @ 30 Vdc (N/O)  
 7 Amp Resistive @ 30 Vdc (N/C)  
 1/2 HP @ 125 Vac  
 1 HP @ 250 Vac  
 1/4 HP @ 277 Vac  
 470 VA Pilot Duty @ 125 Vac  
 770 VA Pilot Duty @ 250 Vac

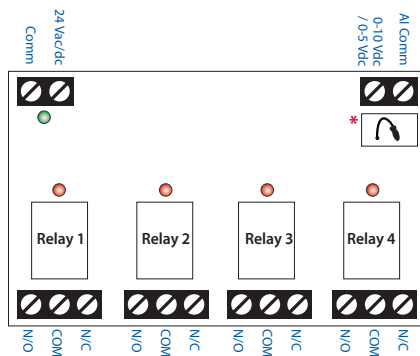
**Power Input:**  
 24 Vac/dc ; 50-60 Hz  
 150mA max.

**Notes:**  
 • Must clip resistor in white box for 0-5Vdc.\*  
 • Custom Programming Available for Large Orders.

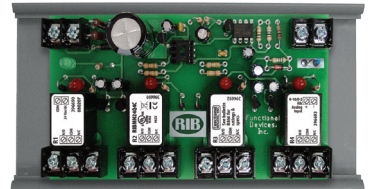
## I/O EXPANDER

### RIBMN24Q4C

2.75" Track Mount 4 Output I/O Expander with 24 Vac/dc Power Input and 0-10 Vdc / 0-5 Vdc Control Input



0-10 VDC CONTROL VOLTAGE	0-5 VDC * CONTROL VOLTAGE	RELAY 1 STATUS	RELAY 2 STATUS	RELAY 3 STATUS	RELAY 4 STATUS
0-0.372Vdc	0-0.186Vdc	OFF	OFF	OFF	OFF
0.726-1.000Vdc	0.363-0.500Vdc	ON	OFF	OFF	OFF
1.354-1.626Vdc	0.677-0.813Vdc	OFF	ON	OFF	OFF
1.982-2.254Vdc	0.991-1.127Vdc	ON	ON	OFF	OFF
2.608-2.882Vdc	1.304-1.441Vdc	OFF	OFF	ON	OFF
3.236-3.508Vdc	1.618-1.754Vdc	ON	OFF	ON	OFF
3.864-4.136Vdc	1.932-2.068Vdc	OFF	ON	ON	OFF
4.492-4.764Vdc	2.246-2.382Vdc	ON	ON	ON	OFF
5.118-5.392Vdc	2.559-2.696Vdc	OFF	OFF	OFF	ON
5.746-6.018Vdc	2.873-3.009Vdc	ON	OFF	OFF	ON
6.374-6.646Vdc	3.187-3.323Vdc	OFF	ON	OFF	ON
7.000-7.274Vdc	3.500-3.637Vdc	ON	ON	OFF	ON
7.628-7.902Vdc	3.814-3.951Vdc	OFF	OFF	ON	ON
8.256-8.528Vdc	4.128-4.264Vdc	ON	OFF	ON	ON
8.884-9.156Vdc	4.442-4.578Vdc	OFF	ON	ON	ON
9.510-10.000Vdc	4.755-5.000Vdc	ON	ON	ON	ON



**GREAT FOR STAGING LOADS SUCH AS CHILLERS, PUMPS, ACTUATORS, OR MULTI-STAGE HEATING**

RELAYS

## SPECIFICATIONS

- # Relays & Contact Type:** Four (4) SPDT Continuous Duty Coil
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Power Status:** Green LED On = Power On
- Relay Status:** Red LED On = Relay Activated
- Dimensions:** 4.950" x 2.750" x 1.750"
- Track Mount:** MT212-6 Mounting Track Provided
- Approvals:** UL Listed, UL916, C-UL, CE, RoHS
- Gold Flash:** No
- Override Switch:** No

- Contact Ratings:**
  - 15 Amp General Use @ 125 Vac
  - 10 Amp General Use @ 277 Vac
  - 10 Amp Resistive @ 30 Vdc (N/O)
  - 7 Amp Resistive @ 30 Vdc (N/C)
  - 1/2 HP @ 125 Vac
  - 1 HP @ 250 Vac
  - 1/4 HP @ 277 Vac
  - 470 VA Pilot Duty @ 125 Vac
  - 770 VA Pilot Duty @ 250 Vac

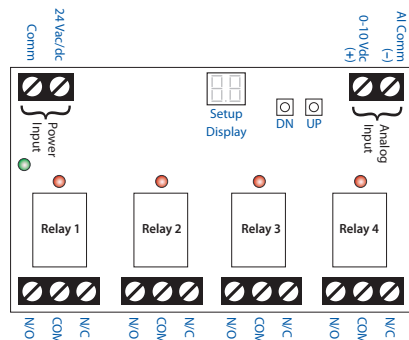
- Power Input:** 24 Vac/dc ; 50-60 Hz 200mA max.

- Notes:**
  - Must clip resistor in white box for 0-5Vdc.\*
  - Custom Programming Available for Large Orders.

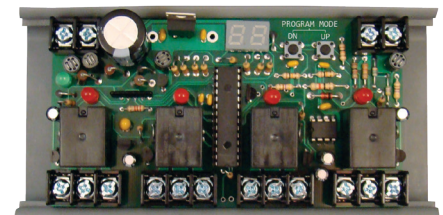
## I/O EXPANDER

### RIBMN24Q4C-PX

2.75" Track Mount 4 Output Field Adjustable Staging Threshold Relay Module with 24 Vac/dc Power and 0-10 Vdc Control Input



- CONTROL FOUR RELAY OUTPUTS WITH ONE (0-10 VDC) ANALOG SIGNAL FROM CONTROLLER OR THERMOSTAT
- CAPABILITY TO SET DESIRED ON AND OFF VOLTAGES FOR EACH RELAY
- NO POTS TO ADJUST
- NO NEED FOR VOLT METER FOR SETUP
- ON BOARD "FIELD SELECTABLE" DIGITAL DISPLAY



## SPECIFICATIONS

- # Relays & Contact Type:** Four (4) SPDT Continuous Duty Coil
- Expected Relay Life:** 10 million cycles minimum mechanical
- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Power Status:** Green LED On = Power On
- Relay Status:** Red LED On = Relay Activated
- Heartbeat Status:** Right-most decimal point
- Dimensions:** 4.950" x 2.750" x 1.750"
- Track Mount:** MT212-6 Mounting Track Provided
- Approvals:** UL Listed, UL916, C-UL, CE, RoHS
- Gold Flash:** No
- Override Switch:** No

- Contact Ratings:**
  - 15 Amp General Use @ 125 Vac
  - 10 Amp General Use @ 277 Vac
  - 10 Amp Resistive @ 30 Vdc (N/O)
  - 7 Amp Resistive @ 30 Vdc (N/C)
  - 1/2 HP @ 125 Vac
  - 1 HP @ 250 Vac
  - 1/4 HP @ 277 Vac
  - 470 VA Pilot Duty @ 125 Vac
  - 770 VA Pilot Duty @ 250 Vac

- Power Input:** 24 Vac/dc ; 50-60 Hz 200mA max.

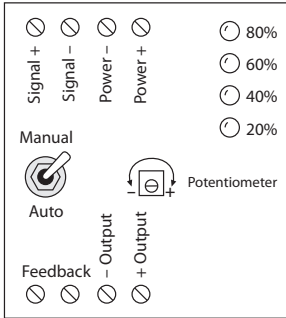
- Notes:**
  - For AC applications, an isolation transformer, to be used solely for the power input, is recommended.
  - Relay will activate when control signal voltage reaches or exceeds individual relay ON point. Relay will deactivate when control voltage reaches or drops below individual OFF point.
  - Factory relay ON / OFF voltages:
    - Relay 1: 3V / 2.8V
    - Relay 2: 5V / 4.8V
    - Relay 3: 7V / 6.8V
    - Relay 4: 9V / 8.8V
  - Minimum ON point: 0.5V
  - Maximum ON point: 9.9V
  - Minimum OFF point: 0.3V
  - Relay number will flash 3 times when voltage exceeds setpoint.
  - Pressing UP or DN button in normal run mode will display the voltage present on Analog Input.
  - ON/OFF points can be changed at any time, by the user, by entering "Program Mode"
  - User defined ON/OFF points will be maintained upon power loss.



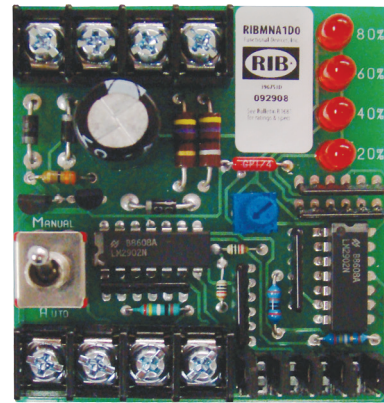
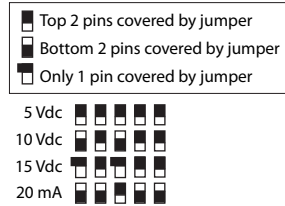
## MANUAL ANALOG OVERRIDE SWITCH

### RIBMNA1D0

2.75" Track Mount Manual Analog Override Switch + Monitor with 24 Vac/dc Power Input



#### Legend for Selecting Output for Jumpers



RELAYS

## SPECIFICATIONS

- Operating Temperature:** -30 to 140° F
- Humidity Range:** 5 to 95% (noncondensing)
- Dimensions:** 2.450" x 2.750" x 1.270"
- Track Mount:** 2.750"; See MT212 Series on page 142  
*MT212 Mounting Track Sold Separately*
- Input Voltage:** 24 Vac/dc
- Input Current:** 90mA Max.
- Range/Impedance Override:** 0-5 Vdc, 200 Ω Min.  
0-10 Vdc, 400 Ω Min.  
0-15 Vdc, 1 kΩ Min.  
0-20mA dc, 500 Ω Max.
- Feedback Contact:** 2A Max. @ 24 Vac/dc

#### Notes:

- Set the jumpers according to your input signal (Analog signal from the controller.) Example: When controlling a damper with 0-10 Vdc, the jumpers need to be in position for the 0-10 Vdc override range. If the LED range does not match your analog scale, ensure the jumpers are set for the proper range.
- Feedback contact closed when switch is in Manual position, open when switch is in Auto position.

- **PROVIDES MANUAL OVERRIDE IF CONTROLLER DOES NOT SUPPORT OVERRIDE CAPABILITY**
- **ALLOWS YOU TO MANUALLY MAKE ADJUSTMENTS TO YOUR END DEVICE REMOTELY INSTEAD OF AT YOUR CONTROL PANEL**
- **SENDS OVERRIDE STATUS BACK TO CONTROLLER VIA FEEDBACK**
- **MULTI-RANGE ANALOG OUTPUT**