Functional Devices, Inc.™

RIB®

2016

RELAYS

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 AC/DC	COIL VOLTAGE AC	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
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 [3]		7
RIBH1SC	•	10-30	208-277	1	SPDT	2 [3]		7
RIBL1C-DC	•	10-30 [1]		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 AC/DC	COIL VOLTAGE AC	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
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 [3]		13
RIBTH1SC	•	10-30	208-277	1	SPDT	2 [3]		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

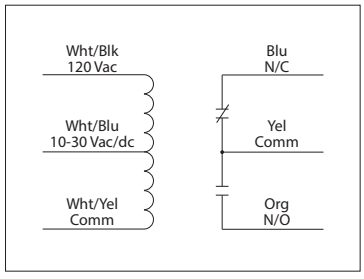
MODEL #	UL	COIL VOLTAGE AC/DC	COIL VOLTAGE AC	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBAN12C	• 1	12		1	SPDT			14
RIBAN24C	• 1	24		1	SPDT			14
RIBM12C	•	12		1	SPDT			15
RIBM12S	•	12		1	SPST	1		15
RIBM24C	•	24		1	SPDT			15
RIBM24S	•	24		1	SPST	1		15
RIBM2401D	•	24	120	1	DPDT			16
RIBM2402D	•	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 2		18
RIBMH1SC	•	10-30	208-277	1	SPDT	2 2		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
RIBMNU1SM-250	•	10-30	120	1	SPST	1+monitor		18
RIBMNH1SM-250	•	10-30	208-277	1	SPST	1+monitor		18

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

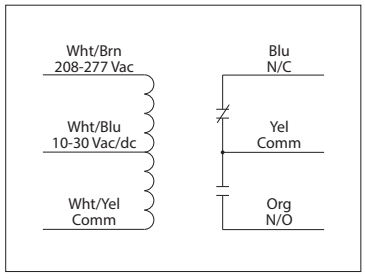
RIBU1C

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



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CE

RoHS

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of ARRA 2009

RIBU1C-RD
RIBH1C-RD
• Red housing

RIBU1C-N4
RIBH1C-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:

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

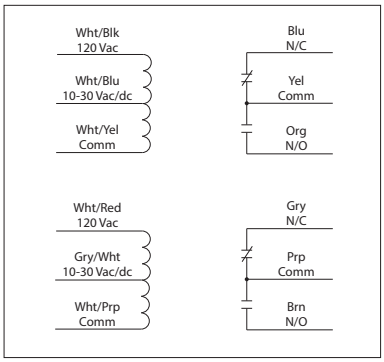
28 mA @ 120 Vac (RIBU1C)
39 mA @ 208-277 Vac (RIBH1C)

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

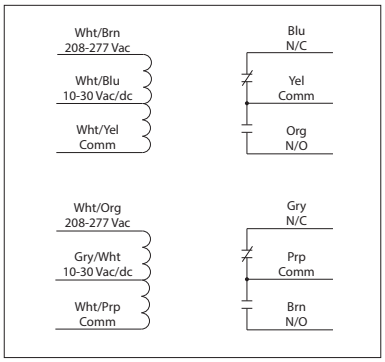
RIBU2C

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



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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

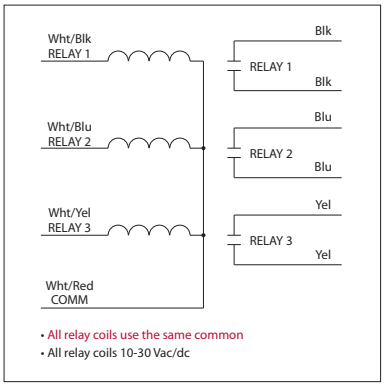
28 mA @ 120 Vac (RIBU2C)
39 mA @ 208-277 Vac (RIBH2C)

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

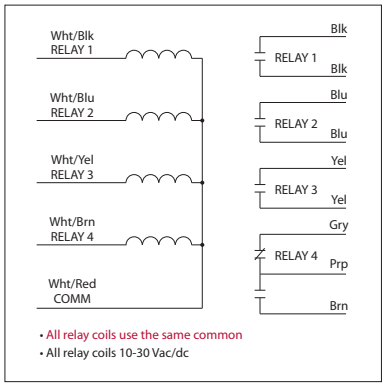
Enclosed Relays 10 Amp 3 SPST-N/O with 10-30 Vac/dc Coil



- All relay coils use the same common
- All relay coils 10-30 Vac/dc

RIBL4C

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



- All relay coils use the same common
- All relay coils 10-30 Vac/dc

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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

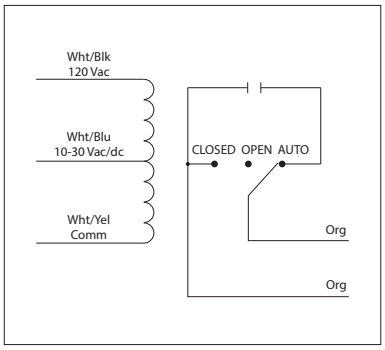
Coil Voltage Input:
10-30 Vac/dc ; 50-60 Hz
Drop Out = 2.1 Vac / 2.8 Vdc
Pull In = 9 Vac / 10 Vdc

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

10 AMP PILOT CONTROL RELAYS

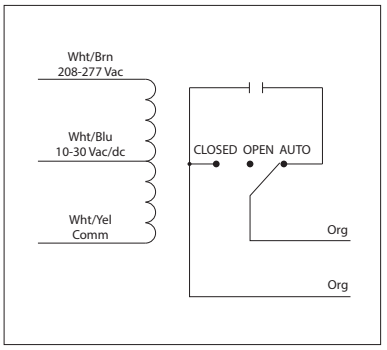
RIBU1S

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



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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

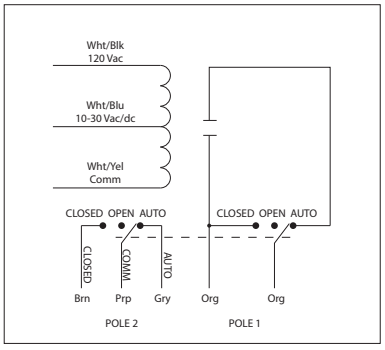
28 mA @ 120 Vac (RIBU1S)
39 mA @ 208-277 Vac (RIBH1S)

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

10 AMP PILOT CONTROL RELAYS

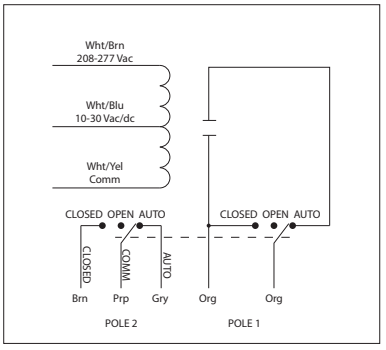
RIBU1SM-250

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



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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

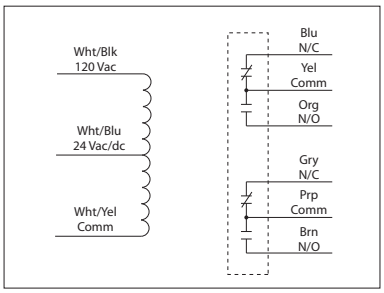
Coil Voltage Input:
10-30 Vac/dc ; 120 Vac ; 50-60 Hz (RIBU1SM-250)
10-30 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBH1SM-250)
Drop Out = 2.1 Vac / 2.8 Vdc
Pull In = 9 Vac / 10 Vdc

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

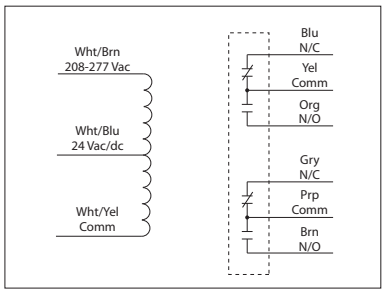
RIB2401D

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 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

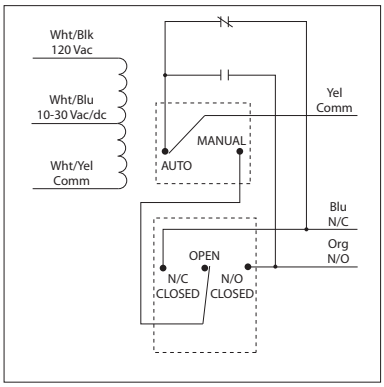
Coil Current:
24 mA @ 18 Vac 20 mA @ 20 Vdc
32 mA @ 24 Vac 24 mA @ 24 Vdc
40 mA @ 30 Vac 36 mA @ 30 Vdc
31 mA @ 120 Vac (RIB2401D)
36 mA @ 208-277 Vac (RIB2402D)

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

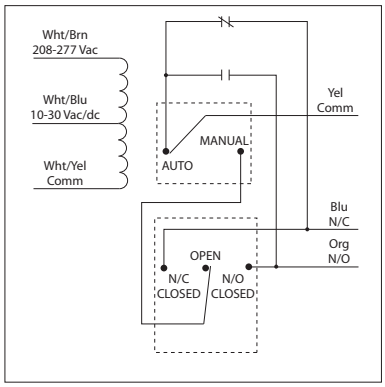
RIBU1SC

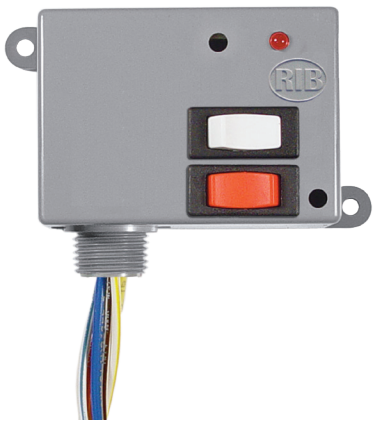
Enclosed Relay 10 Amp SPDT + Override with
10-30 Vac/dc/120 Vac Coil



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)

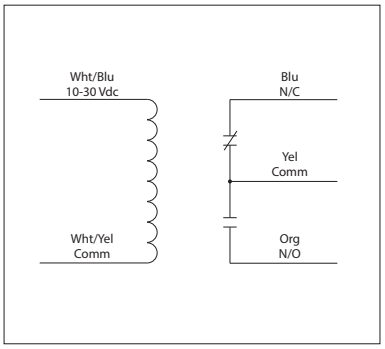
Coil Current:
33 mA @ 10 Vac 13 mA @ 10 Vdc
35 mA @ 12 Vac 15 mA @ 12 Vdc
46 mA @ 24 Vac 18 mA @ 24 Vdc
55 mA @ 30 Vac 20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBU1SC)
39 mA @ 208-277 Vac (RIBH1SC)

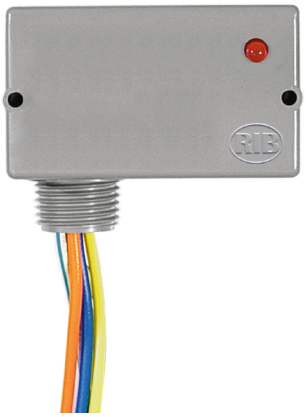
Coil Voltage Input:
10-30 Vac/dc ; 120 Vac ; 50-60 Hz (RIBU1SC)
10-30 Vac/dc ; 208-277 Vac ; 50-60 Hz (RIBH1SC)
Drop Out = 2.1 Vac / 2.8 Vdc
Pull In = 9 Vac / 10 Vdc

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

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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)

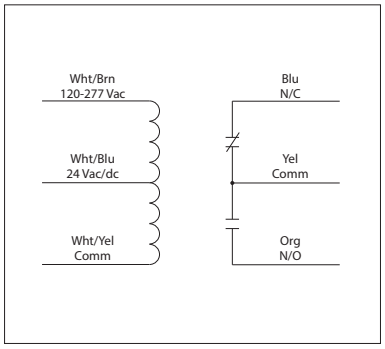
Coil Current:
13 mA @ 10 Vdc
15 mA @ 12 Vdc
18 mA @ 24 Vdc
20 mA @ 30 Vdc

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

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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

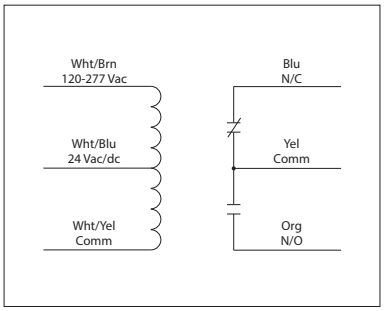
Contact Ratings:
10 Amp General Use @ 277 Vac
10 Amp Resistive @ 30 Vdc (N/O)
7 Amp Resistive @ 30 Vdc (N/C)
1/2 HP @ 125 Vac
1 HP @ 250 Vac
1/4 HP @ 277 Vac
C300 Pilot Duty

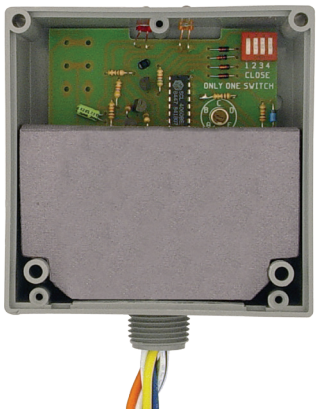
Coil Current:
66 mA @ 24 Vac
38 mA @ 24 Vdc
40 mA @ 120-277 Vac

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

RIBD2421C

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





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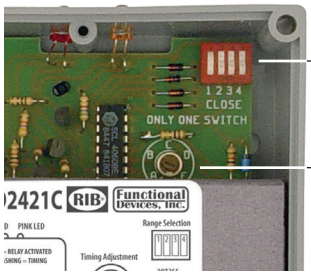
SPECIFICATIONS

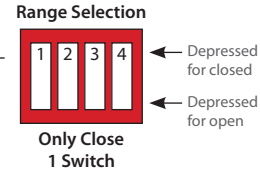
 # Relays & Contact Type: One (1) SPDT Continuous Duty Coil
Expected Relay Life: 10 million cycles minimum mechanical
Operating Temperature: -30 to 140° F
Humidity Range: 5 to 95% (noncondensing)
Operate Time: 6ms after time delay
Relay Status: RED LED On = Activated
Time Delay Status: PINK LED FLASHING = 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

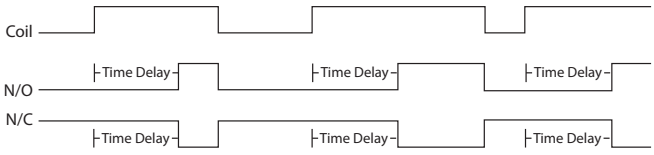




TIMING TABLE

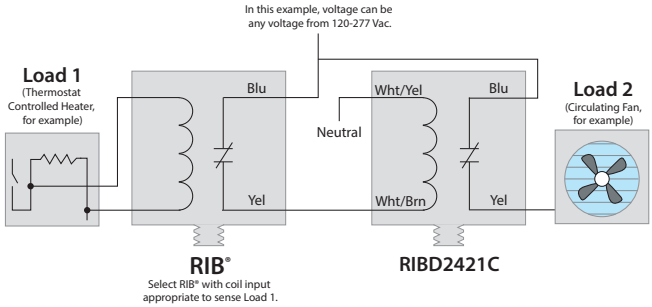
Switch Ranges	Close Dip Switch	Potentiometer Setting A	B	C	D	E
6s-20s	1	6s	9s	13s	16s	20s
22s-1min15s	2	22s	36s	50s	1min4s	1min15s
1min30s-5min	3	1min30s	2min10s	3min20s	4min16s	5min
6min-20min	4	6min	9min	13min20s	17min20s	20min

Timing Diagram



Time Delay Application

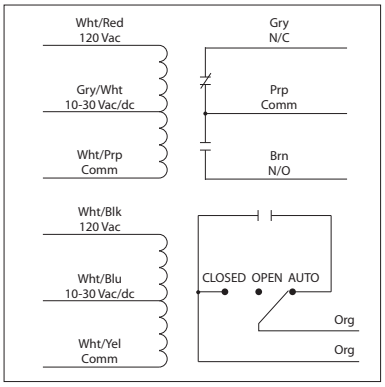
Load 2 stays on selected amount of time after Load 1 goes off.

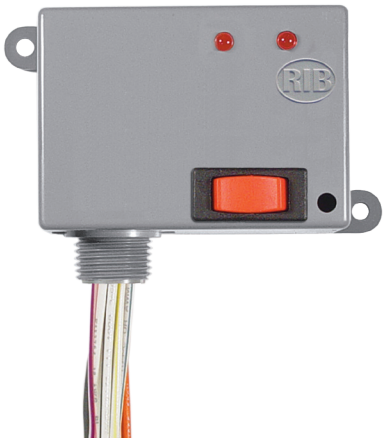


10 AMP PILOT CONTROL RELAY

RIBU2SC

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





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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

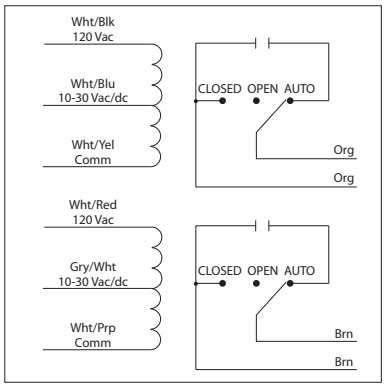
Coil Voltage Input:
10-30 Vac/dc ; 120 Vac ; 50-60 Hz
Drop Out = 2.1 Vac / 2.8 Vdc
Pull In = 9 Vac / 10 Vdc

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



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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

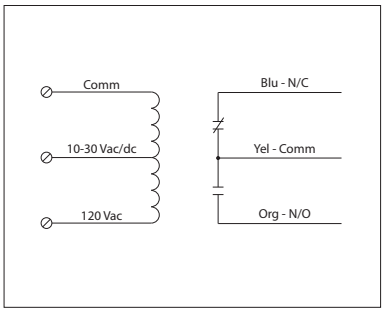
Coil Voltage Input:
10-30 Vac/dc ; 120 Vac ; 50-60 Hz
Drop Out = 2.1 Vac / 2.8 Vdc
Pull In = 9 Vac / 10 Vdc

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

10 AMP PILOT CONTROL RELAYS

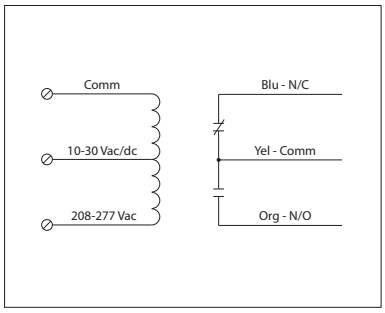
RIBTU1C

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



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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)

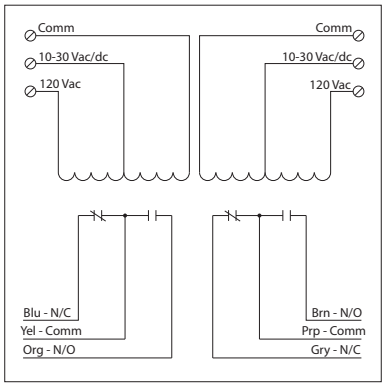
Coil Current:
33 mA @ 10 Vac 13 mA @ 10 Vdc
35 mA @ 12 Vac 15 mA @ 12 Vdc
46 mA @ 24 Vac 18 mA @ 24 Vdc
55 mA @ 30 Vac 20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBTU1C)
39 mA @ 208-277 Vac (RIBTH1C)

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

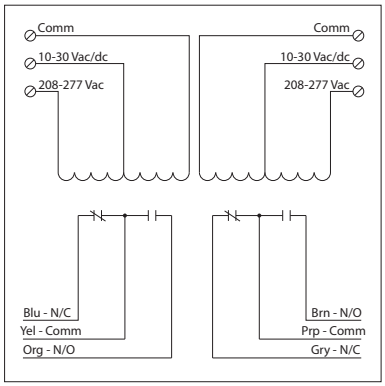
RIBTU2C

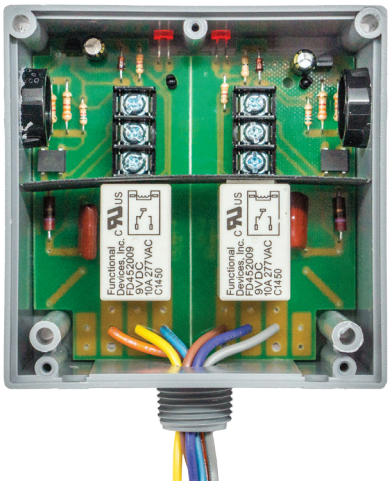
Enclosed Relays Hi/Low Separation 10 Amp
2 SPDT with 10-30 Vac/dc/120 Vac Coil



RIBTH2C

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





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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)

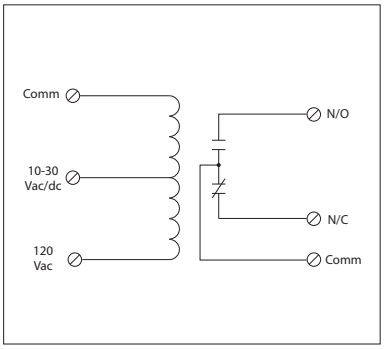
Coil Current:
33 mA @ 10 Vac 13 mA @ 10 Vdc
35 mA @ 12 Vac 15 mA @ 12 Vdc
46 mA @ 24 Vac 18 mA @ 24 Vdc
55 mA @ 30 Vac 20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBTU2C)
39 mA @ 208-277 Vac (RIBTH2C)

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

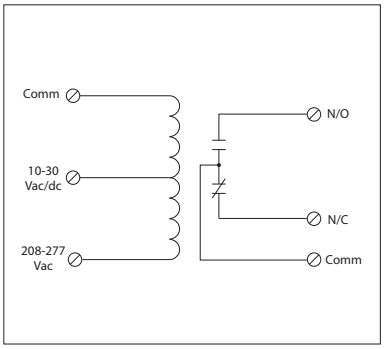
RIBU1CW

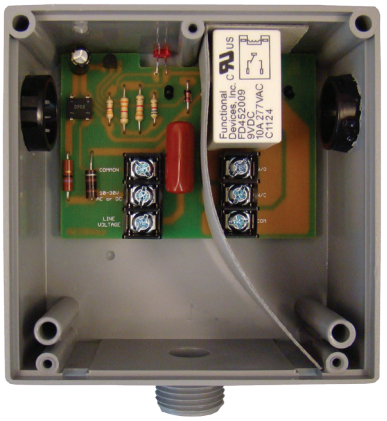
Enclosed Relay Hi/Low Separation 15 Amp SPDT with 10-30 Vac/dc/120 Vac Coil



RIBH1CW

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





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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

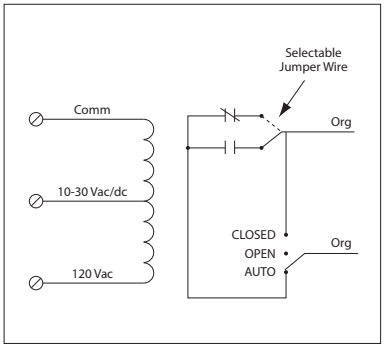
28 mA @ 120 Vac (RIBU1CW)
39 mA @ 208-277 Vac (RIBH1CW)

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

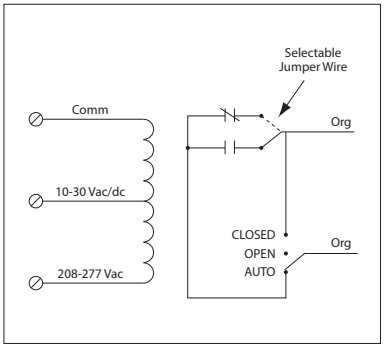
RIBTU1S

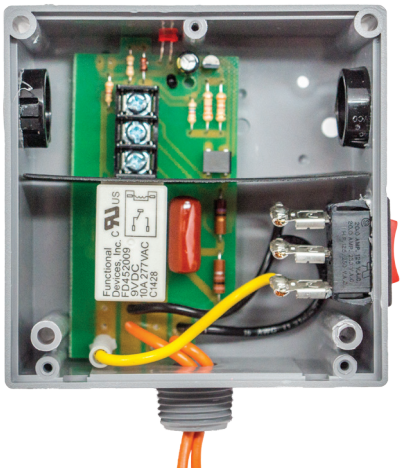
Enclosed Relay Hi/Low Separation 10 Amp SPST + Override with 10-30 Vac/dc/ 120 Vac Coil



RIBTH1S

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





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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

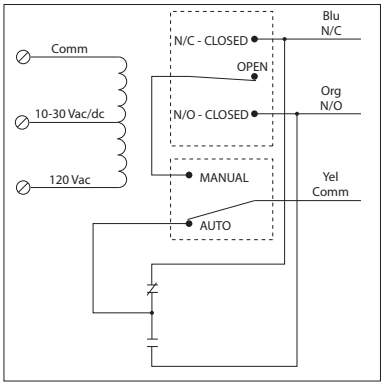
28 mA @ 120 Vac (RIBTU1S)
39 mA @ 208-277 Vac (RIBTH1S)

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

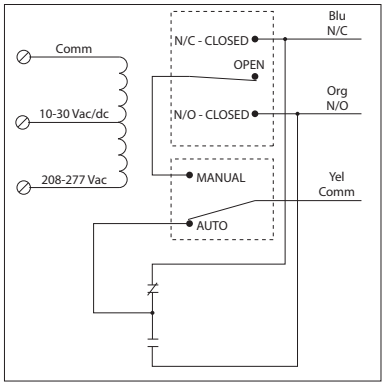
RIBTU1SC

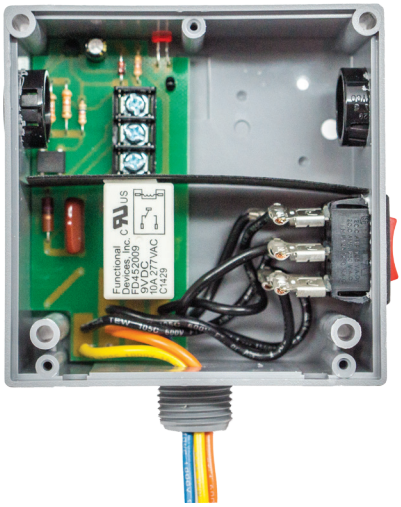
Enclosed Relay Hi/Low Separation 10 Amp
SPDT + Override with 10-30 Vac/dc/
120 Vac Coil



RIBTH1SC

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





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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)

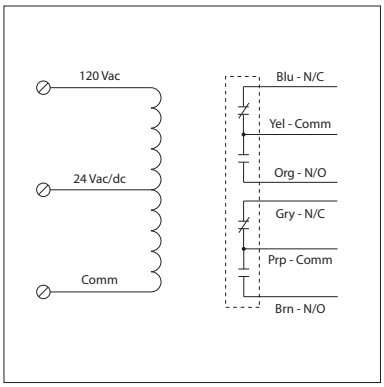
Coil Current:
33 mA @ 10 Vac
35 mA @ 12 Vac
46 mA @ 24 Vac
55 mA @ 30 Vac
28 mA @ 120 Vac (RIBTU1SC)
39 mA @ 208-277 Vac (RIBTH1SC)
13 mA @ 10 Vdc
15 mA @ 12 Vdc
18 mA @ 24 Vdc
20 mA @ 30 Vdc

Coil Voltage Input:
10-30 Vac/dc ; 120 Vac ; 50-60 Hz (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



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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

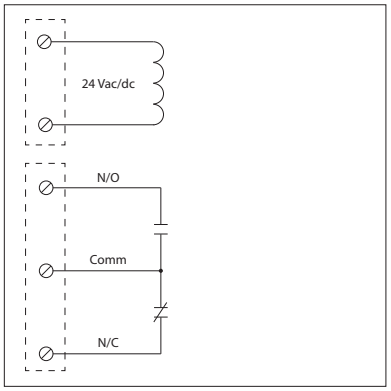
Contact Ratings:
10 Amp Resistive @ 30 Vdc
10 Amp General Use @ 277 Vac
1/2 HP @ 120/240 Vac (N/O)
1/3 HP @ 120/240 Vac (N/C)
B300 Pilot Duty
120 Vac 30A Make 3A Break (360 VA)
240 Vac 15 A Make 1.5A Break (360 VA)
208 Vac 17.3A Make 1.73A Break (360 VA)
277 Vac 13A Make 1.3A Break (360 VA)
24 Vac 30A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

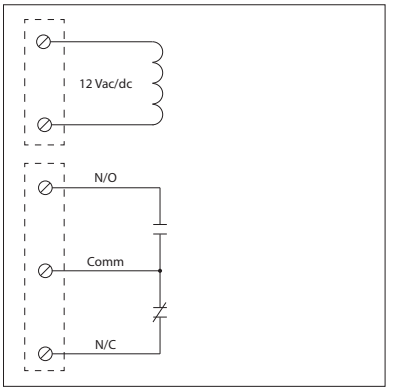
RIBAN24C

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



RIBAN12C

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



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CE

RoHS

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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

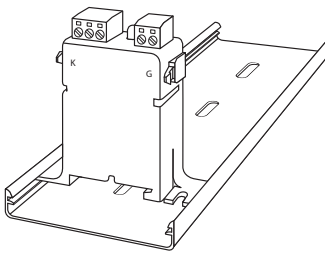
Coil Current (RIBAN24C):
26 mA @ 20 Vac
31 mA @ 24 Vac
14 mA @ 20 Vdc
18 mA @ 24 Vdc
28 mA @ 35 Vdc

Coil Current (RIBAN12C):
53 mA @ 10 Vac
62 mA @ 12 Vac
29 mA @ 11 Vdc
35 mA @ 12 Vdc

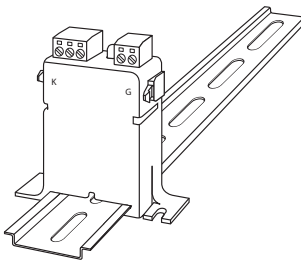
Notes:
• Set of replacement terminals available. Order model number: TS-AN

RELAY MOUNTING OPTIONS A & B

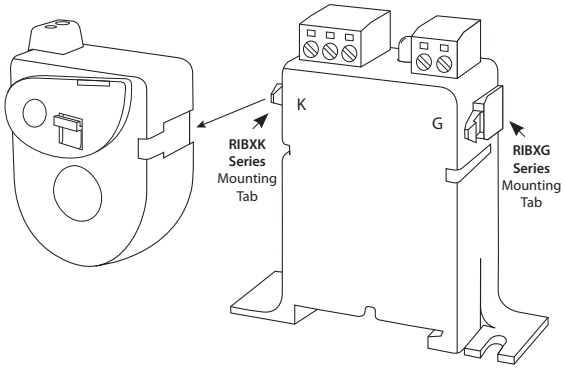
Mounting Option A:
2.75"Track Mount
MT212 Series



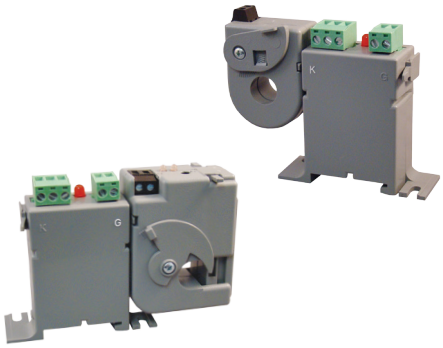
Mounting Option B:
35mm x 7.5mm symmetrical
DIN rail EN50022



CURRENT SENSOR MOUNTING OPTION D



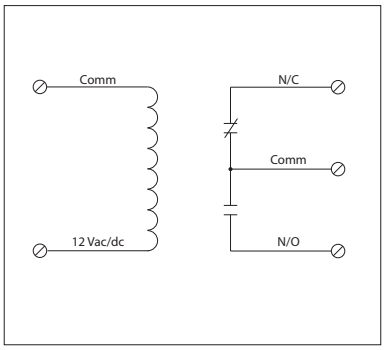
1. Slide current sensor onto corresponding mounting tab.
2. Snap into place.
3. Depress tab to remove current sensor.



15 AMP TRACK MOUNT CONTROL RELAYS

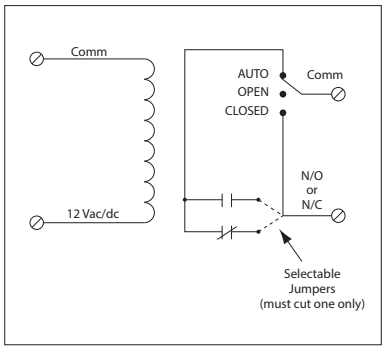
RIBM12C

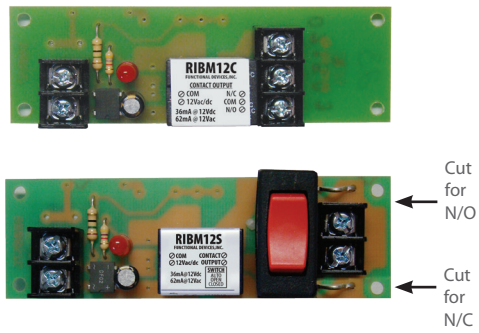
4.00″ Track Mount Relay 15 Amp SPDT with 12 Vac/dc Coil



RIBM12S

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





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

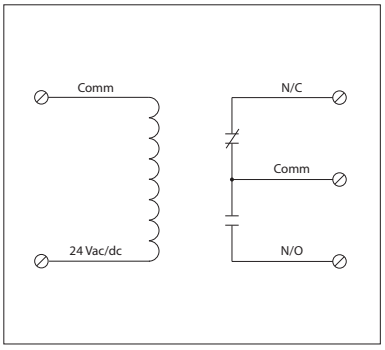
Coil Voltage Input:
12 Vac/dc ; 50-60 Hz
Drop Out = 2 Vac / 2.5 Vdc
Pull In = 9 Vac / 11 Vdc

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

15 AMP TRACK MOUNT CONTROL RELAYS

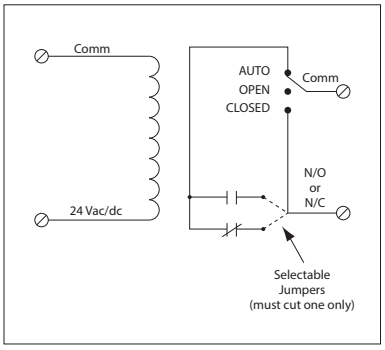
RIBM24C

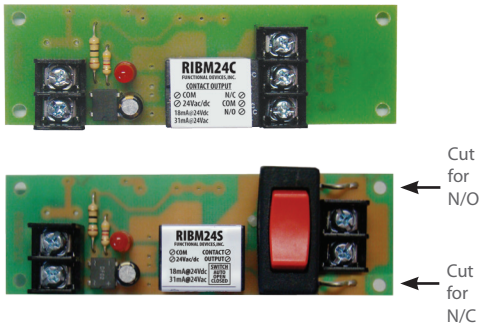
4.00″ Track Mount Relay 15 Amp SPDT with 24 Vac/dc Coil



RIBM24S

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





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

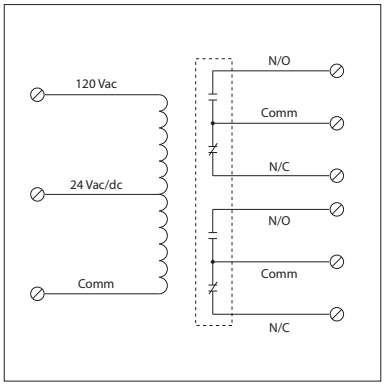
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 20 Vdc

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

10 AMP TRACK MOUNT CONTROL RELAYS

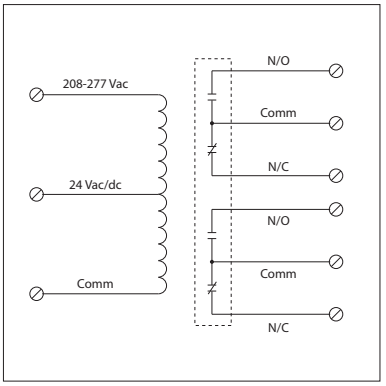
RIBM2401D

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



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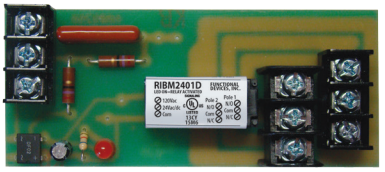
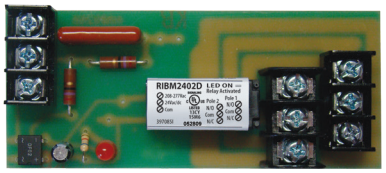




SPECIFICATIONS

 # 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
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:
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

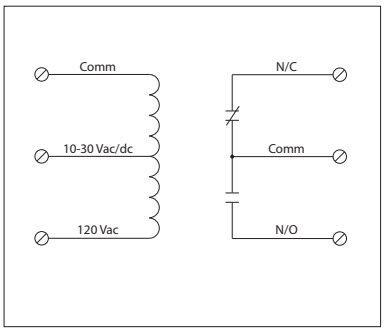
Coil Current:
24 mA @ 18 Vac 20 mA @ 20 Vdc
32 mA @ 24 Vac 24 mA @ 24 Vdc
40 mA @ 30 Vac 36 mA @ 30 Vdc
31 mA @ 120 Vac (RIBM2401D)
36 mA @ 208-277 Vac (RIBM2402D)

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

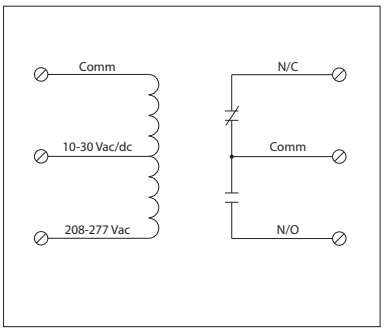
RIBMU1C

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



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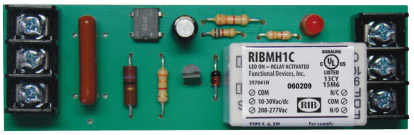


SPECIFICATIONS

 # 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
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)

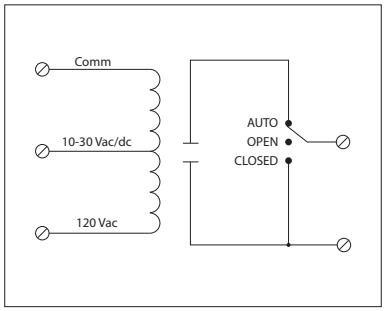
Coil Current:
33 mA @ 10 Vac 13 mA @ 10 Vdc
35 mA @ 12 Vac 15 mA @ 12 Vdc
46 mA @ 24 Vac 18 mA @ 24 Vdc
55 mA @ 30 Vac 20 mA @ 30 Vdc
28 mA @ 120 Vac (RIBMU1C)
39 mA @ 208-277 Vac (RIBMH1C)

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

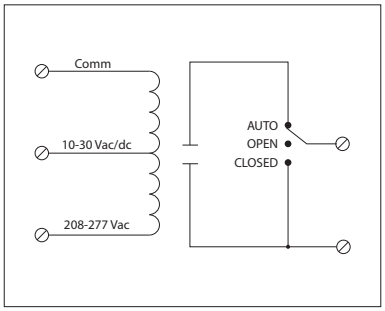
RIBMU1S

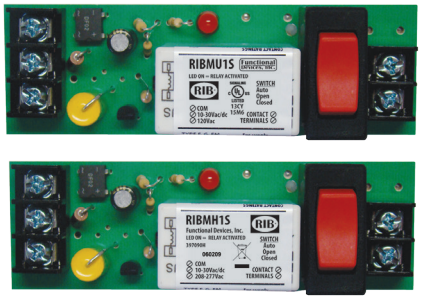
4.00˝ Track Mount Relay 15 Amp SPST-N/O + Override with 10-30 Vac/dc/120 Vac Coil



RIBMH1S

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





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

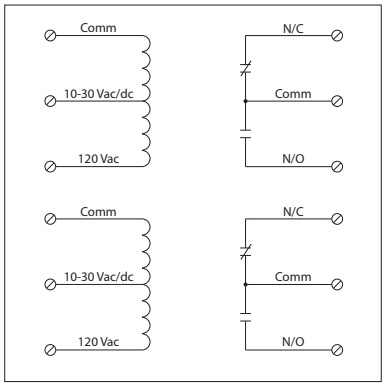
28 mA @ 120 Vac (RIBMU1S)
39 mA @ 208-277 Vac (RIBMH1S)

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

15 AMP TRACK MOUNT CONTROL RELAYS

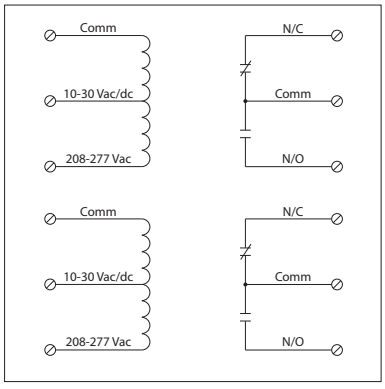
RIBMU2C

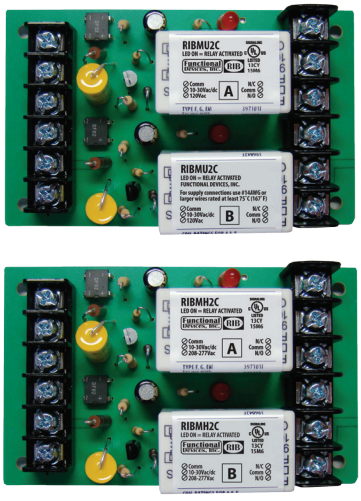
4.00˝ Track Mount Relays 15 Amp 2 SPDT with 10-30 Vac/dc/120 Vac Coil



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

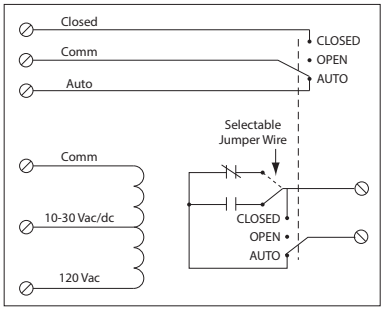
28 mA @ 120 Vac (RIBMU2C)
39 mA @ 208-277 Vac (RIBMH2C)

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

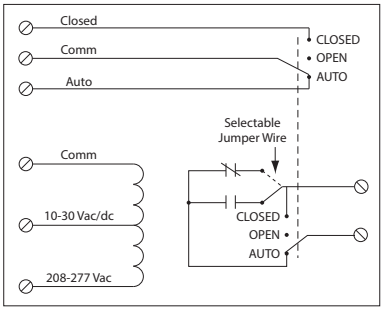
RIBMU1SM-250

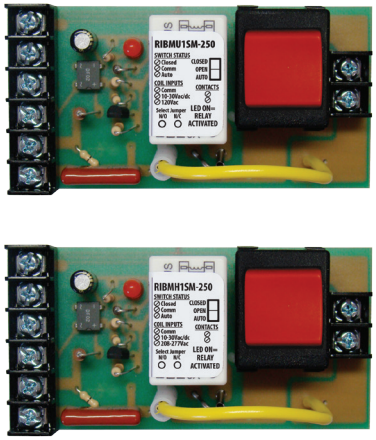
4.00˝ Track Mount Relay 15 Amp SPST + Override + Monitor with 10-30 Vac/dc/ 120 Vac Coil



RIBMH1SM-250

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





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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

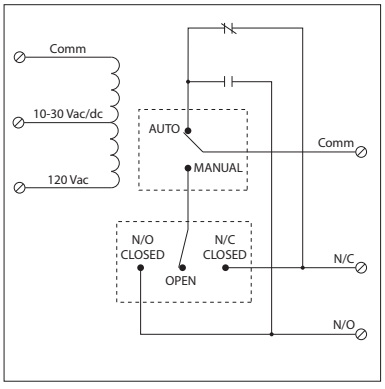
28 mA @ 120 Vac (RIBMU1SM-250)
39 mA @ 208-277 Vac (RIBMH1SM-250)

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

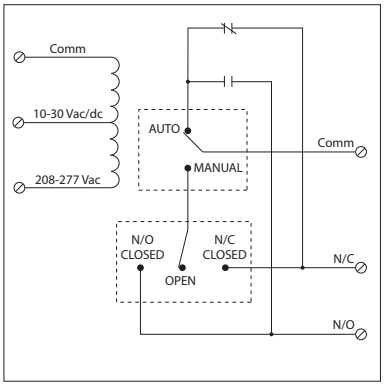
RIBMU1SC

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



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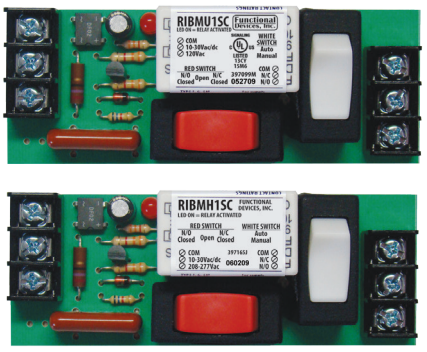


SPECIFICATIONS

 # 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

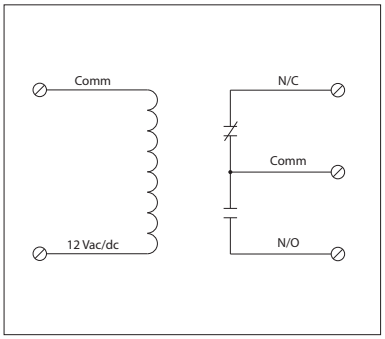
28 mA @ 120 Vac (RIBMU1SC)
39 mA @ 208-277 Vac (RIBMH1SC)

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

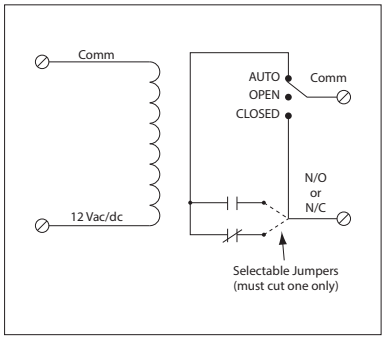
RIBMN12C

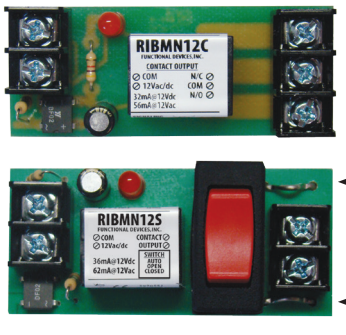
2.75˝ Track Mount Relay 15 Amp SPDT with 12 Vac/dc Coil



RIBMN12S

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





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

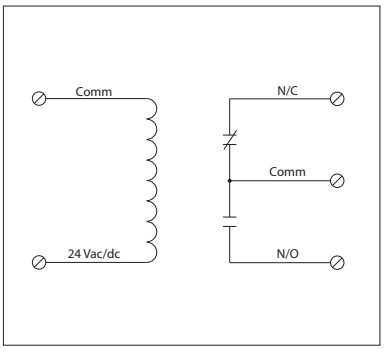
Coil Voltage Input:
12 Vac/dc ; 50-60 Hz
Drop Out = 2 Vac / 2.5 Vdc
Pull In = 9 Vac / 11 Vdc

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

15 AMP TRACK MOUNT CONTROL RELAYS

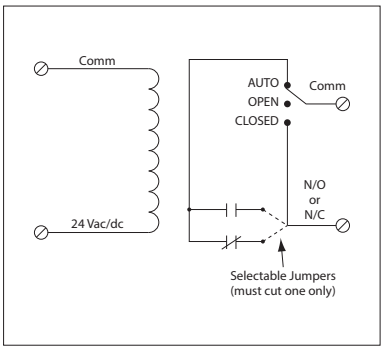
RIBMN24C

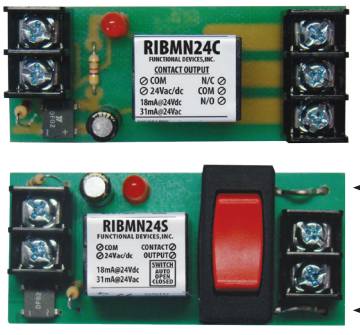
2.75˝ Track Mount Relay 15 Amp SPDT with 24 Vac/dc Coil



RIBMN24S

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





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: 1.100˝ x 2.750˝ x 1.750˝ (RIBMN24C)
1.250˝ x 2.750˝ x 1.750˝ (RIBMN24S)
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

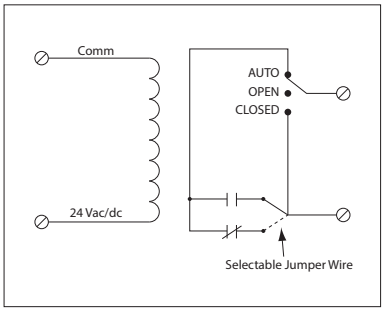
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 20 Vdc

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



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Meets "Buy American" of ARRA 2009

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

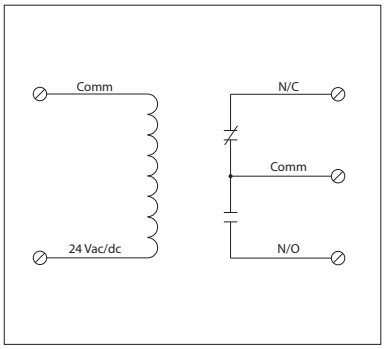
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 20 Vdc

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

15 AMP TRACK MOUNT CONTROL RELAYS

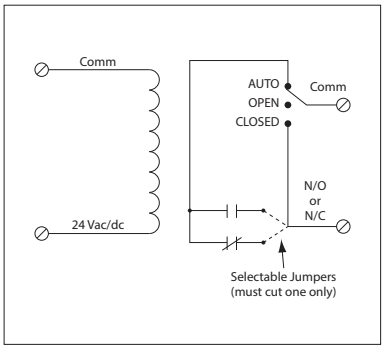
RIBMN24C-4T

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



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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

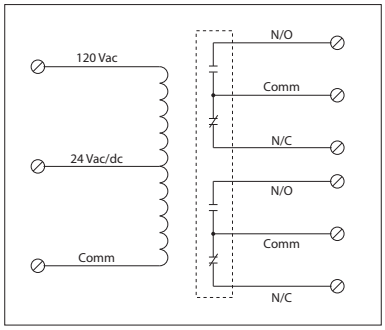
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 20 Vdc

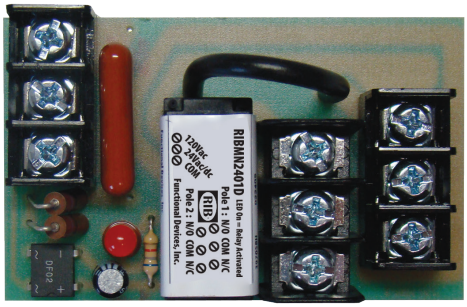
Notes:
- Must cut appropriate jumper to select Normally Open or Normally Closed (RIBMN24S-4T)

10 AMP TRACK MOUNT CONTROL RELAY

RIBMN2401D

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





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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
MT212 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:
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

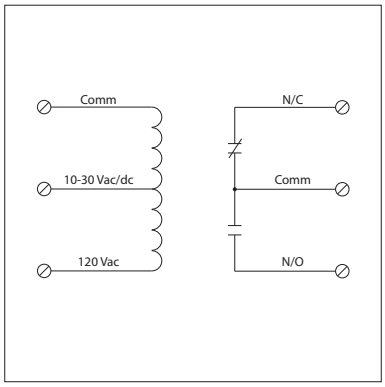
Coil Current:
36 mA @ 30Vdc
24 mA @ 18 Vac
32 mA @ 24 Vac
40 mA @ 30 Vac
31 mA @ 120 Vac

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

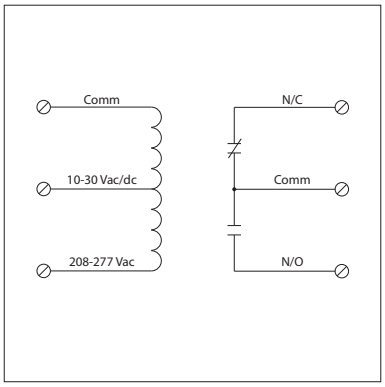
RIBMNU1C

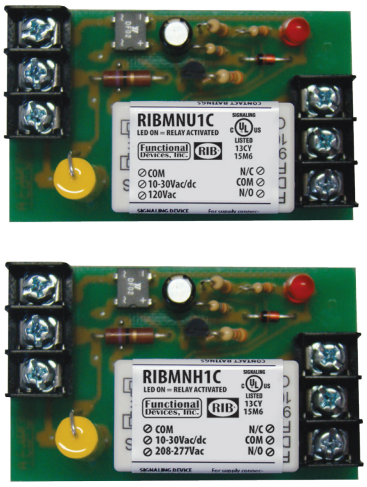
2.75˝ Track Mount Relay 15 Amp SPDT with
10-30 Vac/dc/120 Vac Coil



RIBMNH1C

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





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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
MT212 Mounting Track Sold Separately
Approvals: UL Listed, UL916, UL864, C-UL
California State Fire Marshal, CE, RoHS
Gold Flash: Yes
Override Switch: No

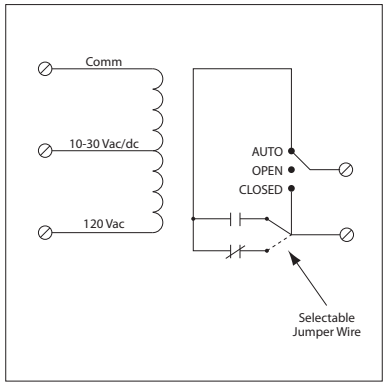
Contact Ratings:
15 Amp Resistive @ 150 Vac, 28Vdc
15 Amp Inductive @ 150 Vac
10 Amp Resistive @ 120-277 Vac, 28 Vdc
480 VA Pilot Duty @ 240-277 Vac
480 VA Ballast @ 277 Vac
Not rated for Electronic Ballast
600 Watt Tungsten @ 120 Vac (N/O)
240 Watt Tungsten @ 120 Vac (N/C)
1/3 HP @ 120-240 Vac (N/O)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

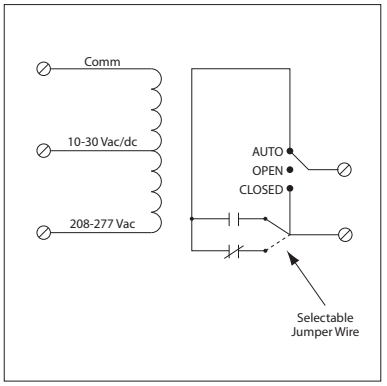
RIBMNU1S

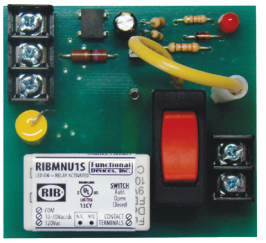
2.75˝ Track Mount Relay 15 Amp SPST
+ Override with 10-30 Vac/dc/120 Vac Coil

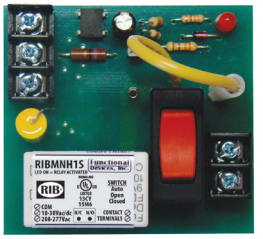


RIBMNH1S

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

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 @ 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 (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 AC/DC	COIL VOLTAGE AC	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
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 [1]		26
RIB2402SBC	•	24	208-277	1	SPDT	2 [1]		26
RIB243P	• [3]	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

T STYLE POWER RELAYS

MODEL #	UL	COIL VOLTAGE AC/DC	COIL VOLTAGE AC	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
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	• [3]	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 [1]		34
RIBT2402SBC	•	24	208-277	1	SPDT	2 [1]		34
RIBT24P	•	24		1	DPDT			36
RIBT24Z	•	24		1	1 SPST N/O, 1 SPST N/C			37
RIBT243P	• [3]	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

MODEL #	UL	COIL VOLTAGE AC/DC	COIL VOLTAGE AC	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
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 [1]		39
RIBM2402SBC	•	24	208-277	1	SPDT	2 [1]		39
RIBM24ZN		24		1	DPDT			39
RIBM24ZL	•	24		1	DPST			40
RIBMN24ZL	•	24		1	DPST			40
RIBM243PN		24		1	3PDT			41
RIBM013PN			120	1	3PDT			41
RIBM023PN			208-277	1	3PDT			42
RIBM043PN			480	1	3PDT			42
RIBM043PN-HD			480	1	3PDT			43

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

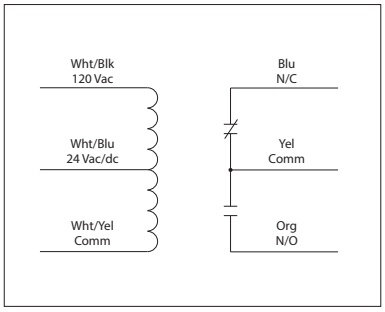
= UL Component Recognized : UL916 Energy Management; USA & Canada

1 = SPDT with override requires 2 switches

20 AMP POWER CONTROL RELAYS

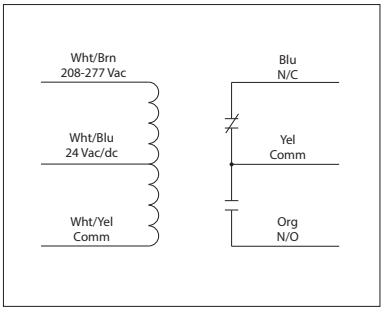
RIB2401B

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



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CE

RoHS

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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

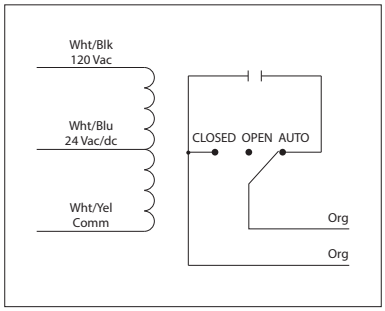
Coil Current:
50 mA @ 18 Vac
83 mA @ 24 Vac
47 mA @ 120 Vac (RIB2401B)
69 mA @ 208-277 Vac (RIB2402B)
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

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

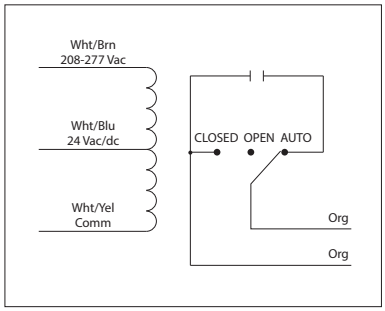
RIB2401SB

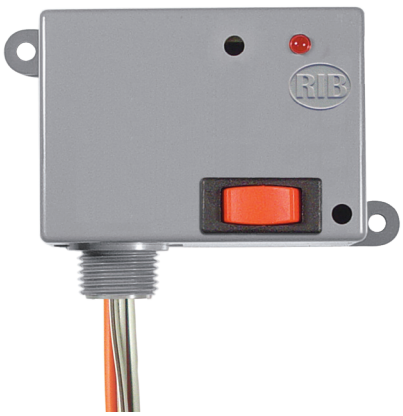
Enclosed Relay 20 Amp SPST-N/O + Override with 24 Vac/dc/120 Vac Coil



RIB2402SB

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





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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:

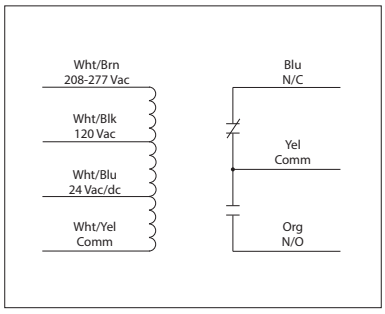
50 mA @ 18 Vac	33 mA @ 22 Vdc
83 mA @ 24 Vac	35 mA @ 24 Vdc
47 mA @ 120 Vac (RIB2401SB)	47 mA @ 30 Vdc
69 mA @ 208-277 Vac (RIB2402SB)	

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

20 AMP POWER CONTROL RELAYS

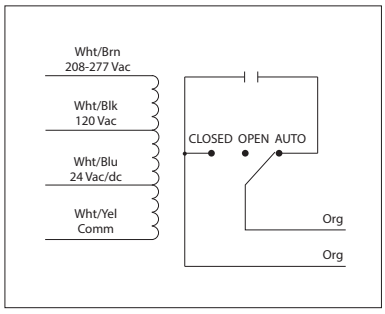
RIB2421B

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



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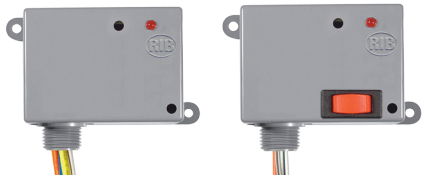


GREAT SERVICE TRUCK RELAY
ONE RELAY COVERS MOST APPLICATIONS

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

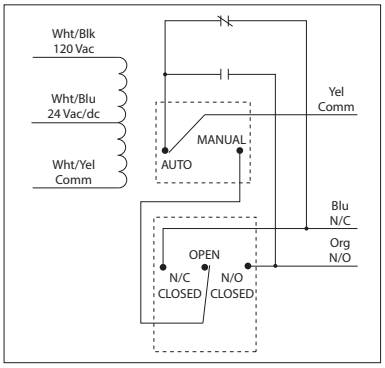
Contact Ratings (RIB2421SB):
20 Amp Resistive @ 277 Vac
20 Amp Ballast @ 277 Vac (N/O)
10 Amp Ballast @ 277 Vac (N/C)
Not rated for Electronic Ballast
10 Amp Tungsten @ 120 Vac (N/O)
770 VA Pilot Duty @ 120 Vac
1,110 VA Pilot Duty @ 277 Vac
2 HP @ 277 Vac
1 HP @ 120 Vac

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

20 AMP POWER CONTROL RELAYS

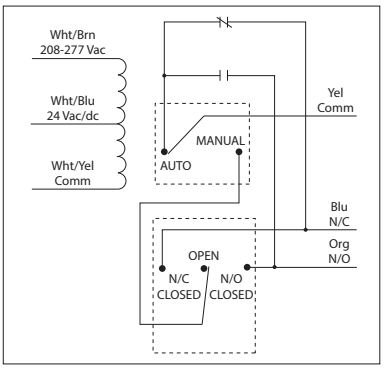
RIB2401SBC

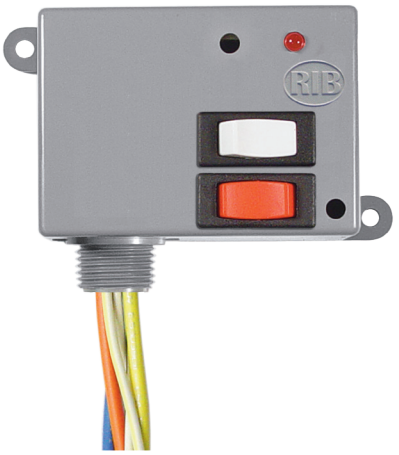
Enclosed Relay 20 Amp SPDT + Override with 24 Vac/dc/120 Vac Coil



RIB2402SBC

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





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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

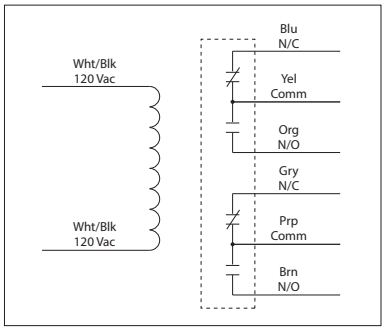
Coil Current:
50 mA @ 18 Vac
83 mA @ 24 Vac
47 mA @ 120 Vac (RIB2401SBC)
69 mA @ 208-277 Vac (RIB2402SBC)
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

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



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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: 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

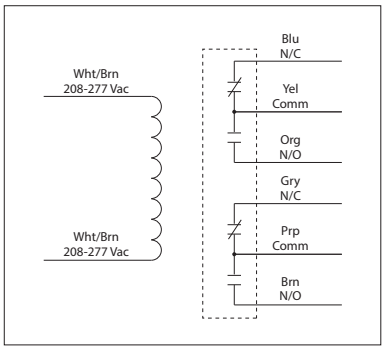
Coil Current:
105 mA @ 120 Vac

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



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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

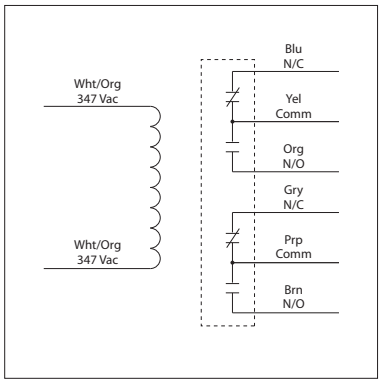
Coil Current:
105 mA @ 208-277 Vac

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

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: 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

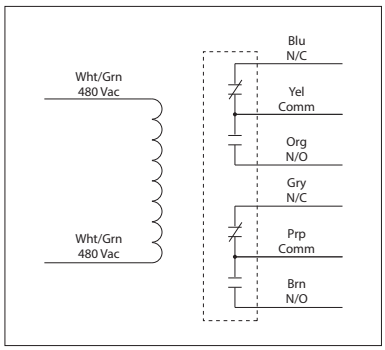
Coil Current:
105 mA @ 347 Vac

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



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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

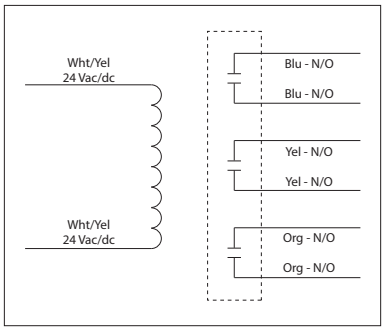
Coil Current:
105 mA @ 480 Vac

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



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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

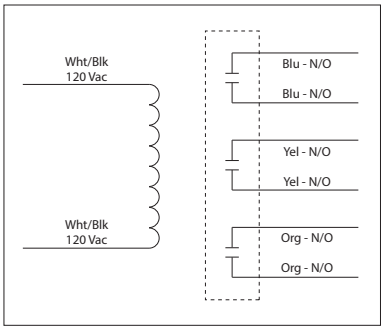
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 22 Vdc

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



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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

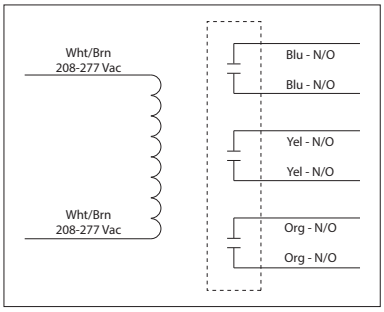
Coil Voltage Input:
120 Vac ; 50-60 Hz
Drop Out = 35 Vac
Pull In = 85 Vac

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



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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

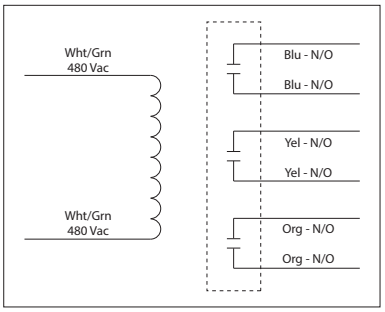
Coil Voltage Input:
208-277 Vac ; 50-60 Hz
Drop Out = 60 Vac
Pull In = 160 Vac

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



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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

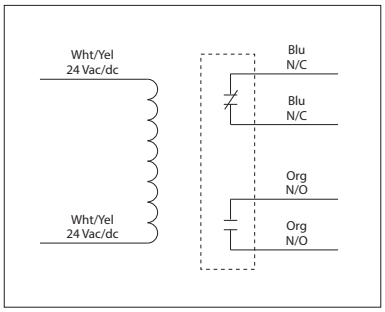
Coil Voltage Input:
480 Vac ; 50-60 Hz
Drop Out = 140 Vac
Pull In = 340 Vac

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



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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

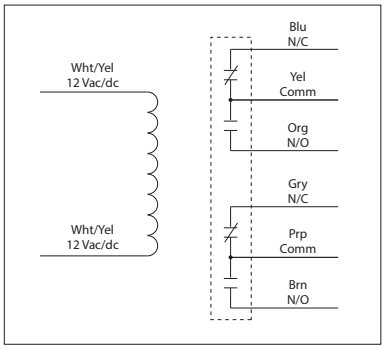
Coil Current:
110 mA @ 20 Vac
138 mA @ 24 Vac
55 mA @ 20 Vdc
55 mA @ 24 Vdc
77 mA @ 30 Vdc

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

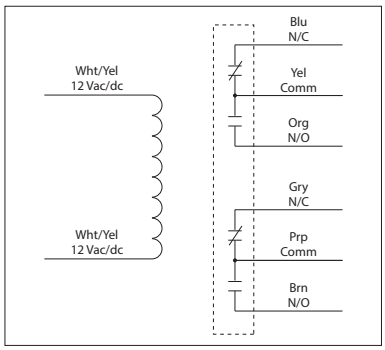
RIB12P

Enclosed Relay 20 Amp DPDT with 12 Vac/dc Coil



RIB12P30

Enclosed Relay 30 Amp DPDT with 12 Vac/dc Coil



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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

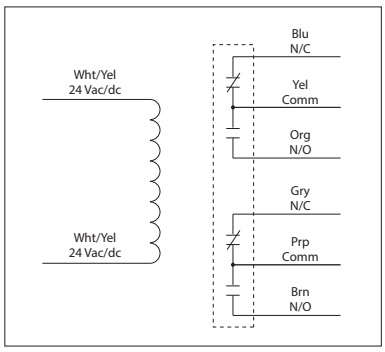
Coil Current:
115 mA @ 10 Vac
180 mA @ 12 Vac
79 mA @ 11 Vdc
90 mA @ 12 Vdc
115 mA @ 15 Vdc

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

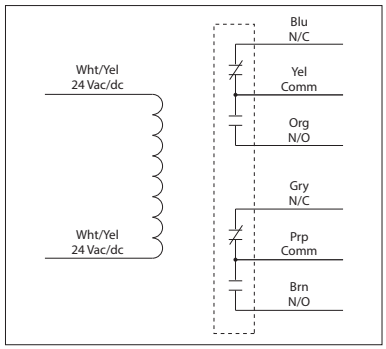
RIB24P

Enclosed Relay 20 Amp DPDT with 24 Vac/dc Coil



RIB24P30

Enclosed Relay 30 Amp DPDT with 24 Vac/dc Coil



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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

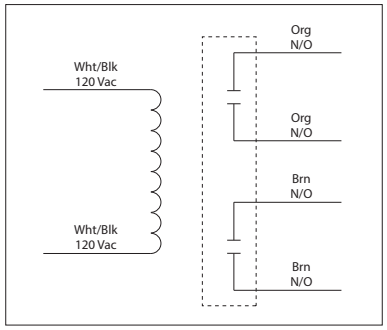
Coil Current:
110 mA @ 20 Vac
138 mA @ 24 Vac
55 mA @ 20 Vdc
55 mA @ 24 Vdc
77 mA @ 30 Vdc

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

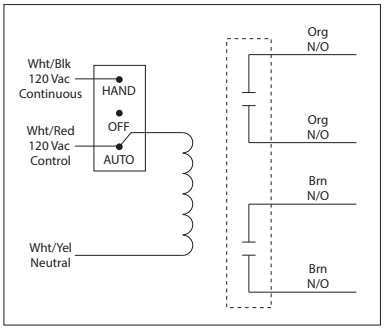
RIB01P30

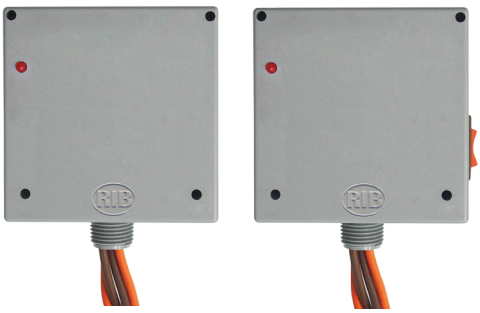
Enclosed Relay 30 Amp DPST-N/O with 120 Vac Coil



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

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

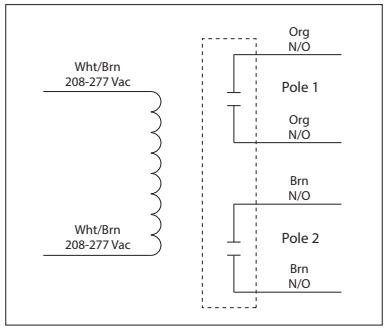
Coil Voltage Input:
120 Vac ; 50-60 Hz
Drop Out = 35 Vac
Pull In = 85 Vac

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

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

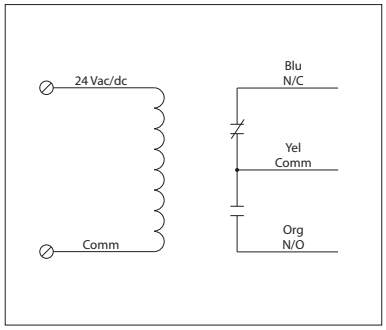
Coil Voltage Input:
208-277 Vac ; 50-60 Hz
Drop Out = 60 Vac
Pull In = 160 Vac

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

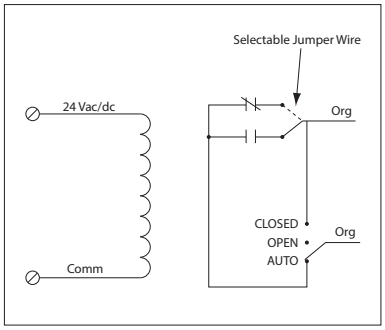
RIBT24B

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



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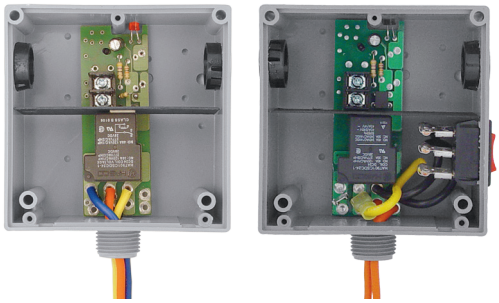


SPECIFICATIONS

 # 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

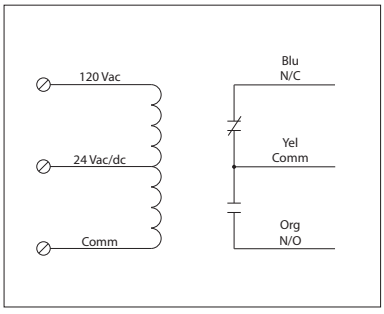
Contact Ratings (RIBT24SB):
20 Amp Resistive @ 277 Vac
20 Amp Ballast @ 277 Vac (N/O)
10 Amp Ballast @ 277 Vac (N/C)
Not rated for Electronic Ballast
10 Amp Tungsten @ 120 Vac (N/O)
770 VA Pilot Duty @ 120 Vac
1,110 VA Pilot Duty @ 277 Vac
2 HP @ 277 Vac
1 HP @ 120 Vac

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

20 AMP POWER CONTROL RELAYS

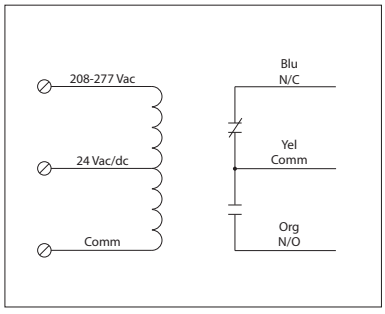
RIBT2401B

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



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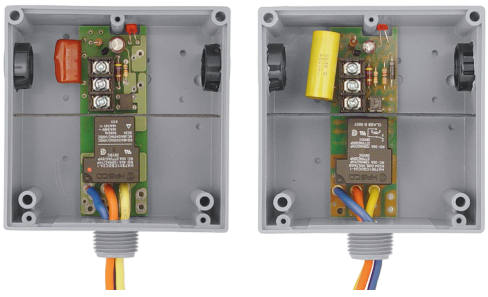


SPECIFICATIONS

 # 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

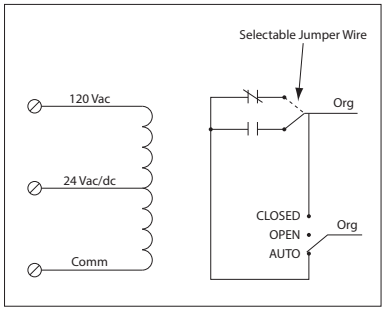
Coil Current:
50 mA @ 18 Vac
83 mA @ 24 Vac
47 mA @ 120 Vac (RIBT2401B)
69 mA @ 208-277 Vac (RIBT2402B)
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

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

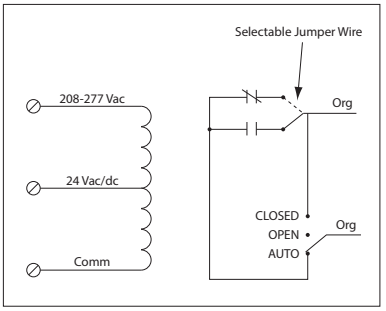
RIBT2401SB

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



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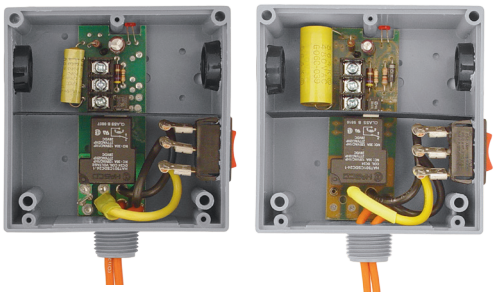


SPECIFICATIONS

 # 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

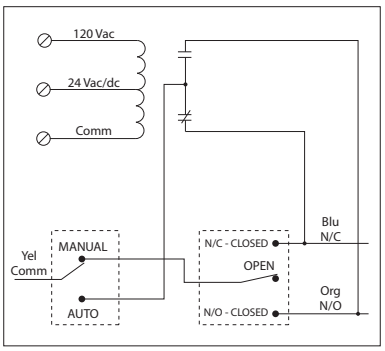
Coil Current:
50 mA @ 18 Vac
83 mA @ 24 Vac
47 mA @ 120 Vac (RIBT2401SB)
69 mA @ 208-277 Vac (RIBT2402SB)
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

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

20 AMP POWER CONTROL RELAYS

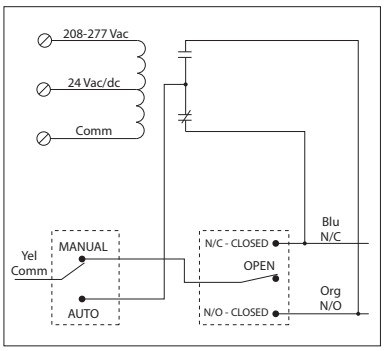
RIBT2401SBC

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



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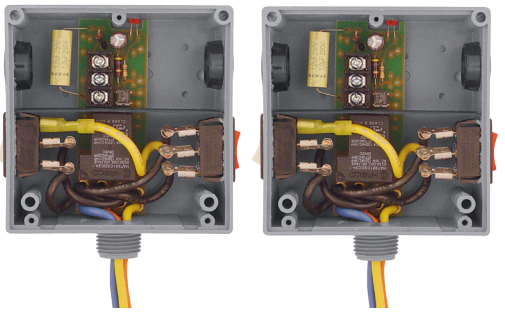


SPECIFICATIONS

 # 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)

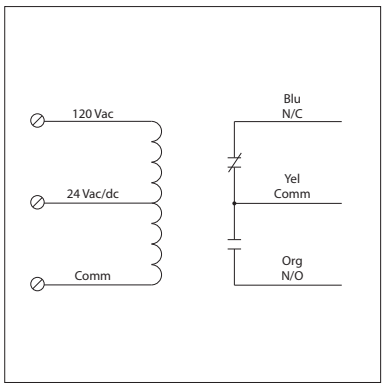
Contact Ratings:
20 Amp Resistive @ 277 Vac
20 Amp Ballast @ 277 Vac (N/O)
10 Amp Ballast @ 277 Vac (N/C)
Not rated for Electronic Ballast
10 Amp Tungsten @ 120 Vac (N/O)
1110 VA Pilot Duty @ 277 Vac
770 VA Pilot Duty @ 120 Vac
2 HP @ 277 Vac
1 HP @ 120 Vac

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

RIBTD2401B

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



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RELAYS

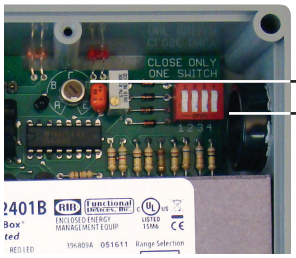
SPECIFICATIONS

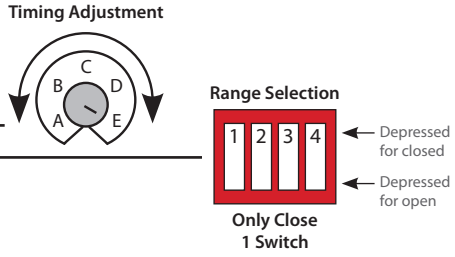
 # Relays & Contact Type: One (1) SPDT Continuous Duty Coil
Expected Relay Life: 10 million cycles minimum mechanical
Operating Temperature: -30 to 140° F
Humidity Range: 5 to 95% (noncondensing)
Operate Time: 6ms after time delay
Relay Status: RED LED On = Activated
Time Delay Status: PINK LED FLASHING = 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



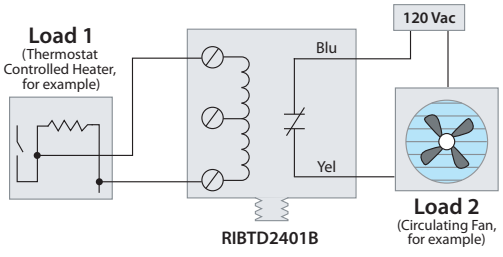


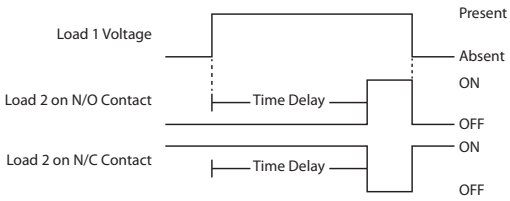
TIMING TABLE

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

Time Delay Application Example #1

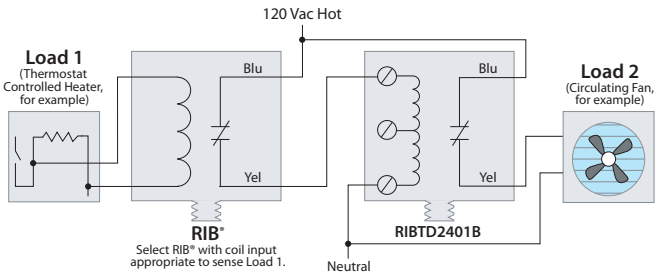
Load 2 stays ON selected amount of time after Load 1 turns ON (N/C)
Load 2 stays OFF selected amount of time after Load 1 turns ON (N/O)

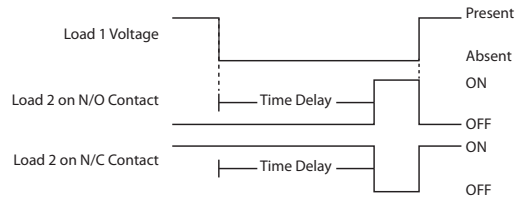




Time Delay Application Example #2 (Requires an Inverting Relay)

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)

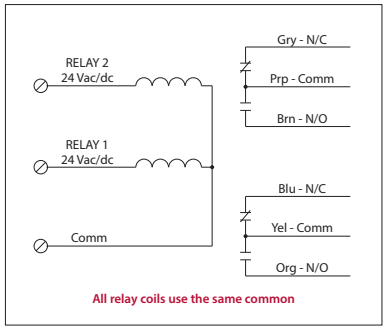




20 AMP POWER CONTROL RELAYS

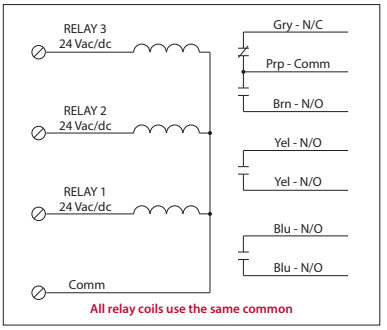
RIBT242B

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



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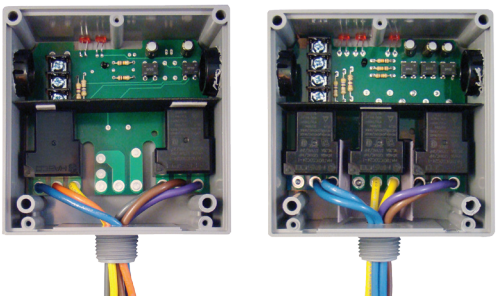


SPECIFICATIONS

 # 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

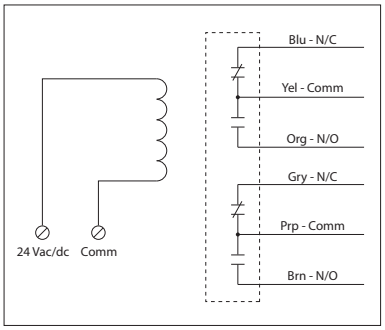
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 2.1 Vac / 3.8 Vdc
Pull In = 18 Vac / 22 Vdc

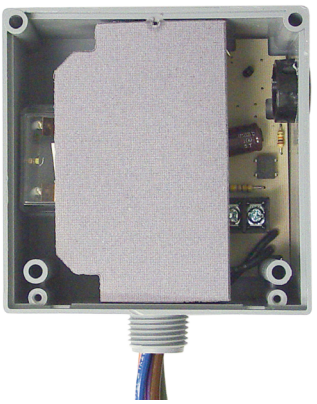
Notes:
• RIBT243B not rated for UL864.

20 AMP POWER CONTROL RELAY

RIBT24P

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





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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

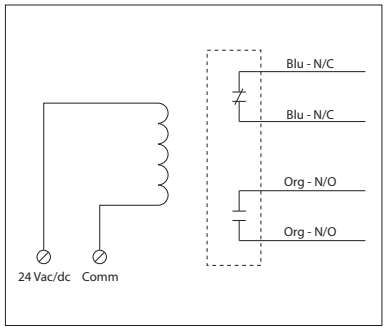
Coil Current:
110 mA @ 20 Vac
138 mA @ 24 Vac
55 mA @ 20 Vdc
55 mA @ 24 Vdc
77 mA @ 30 Vdc

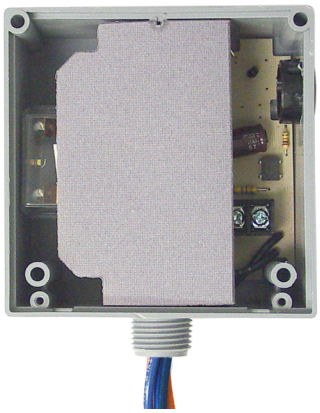
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 20 Vdc

30 AMP POWER CONTROL RELAY

RIBT24Z

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





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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

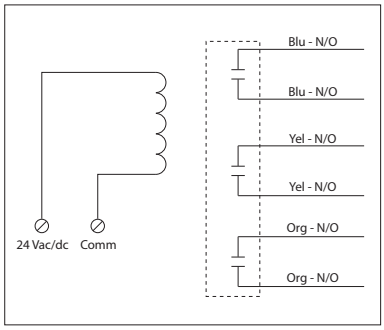
Coil Current:
110 mA @ 20 Vac
138 mA @ 24 Vac
55 mA @ 20 Vdc
55 mA @ 24 Vdc
77 mA @ 30 Vdc

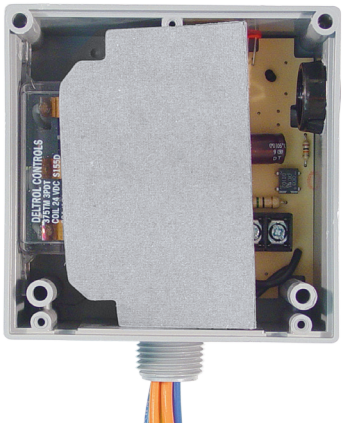
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 20 Vdc

20 AMP POWER CONTROL RELAY

RIBT243P

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





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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

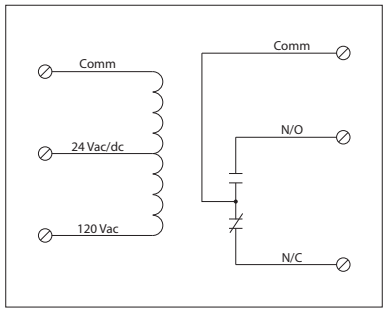
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 22 Vdc

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

20 AMP TRACK MOUNT CONTROL RELAYS

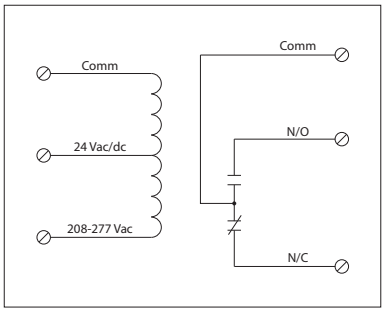
RIBM2401B

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



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
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:

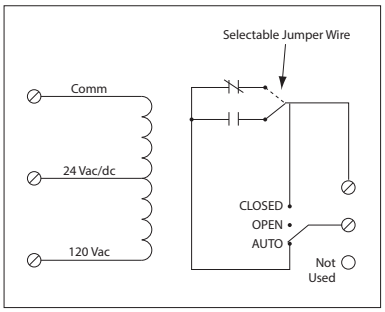
50 mA @ 18 Vac	33 mA @ 22 Vdc
83 mA @ 24 Vac	35 mA @ 24 Vdc
47 mA @ 120 Vac (RIBM2401B)	47 mA @ 30 Vdc
69 mA @ 208-277 Vac (RIBM2402B)	

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

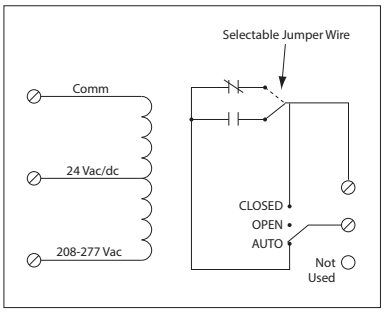
RIBM2401SB

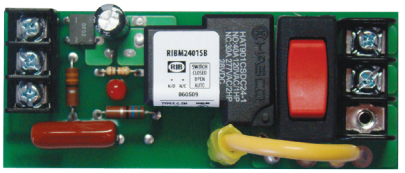
4.00˝ Track Mount Relay 20 Amp SPST + Override with 24 Vac/dc/120 Vac Coil

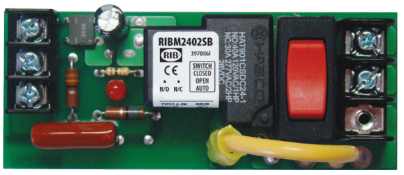


RIBM2402SB

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







Made in USA
Meets "Buy American" of ARRA 2009

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:

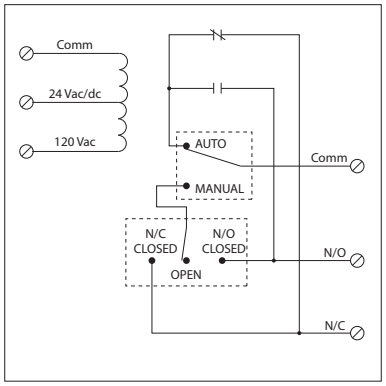
50 mA @ 18 Vac	33 mA @ 22 Vdc
83 mA @ 24 Vac	35 mA @ 24 Vdc
47 mA @ 120 Vac (RIBM2401SB)	47 mA @ 30 Vdc
69 mA @ 208-277 Vac (RIBM2402SB)	

Notes:
- Normally Open or Normally Closed selected by yellow jumper wire

20 AMP TRACK MOUNT CONTROL RELAYS

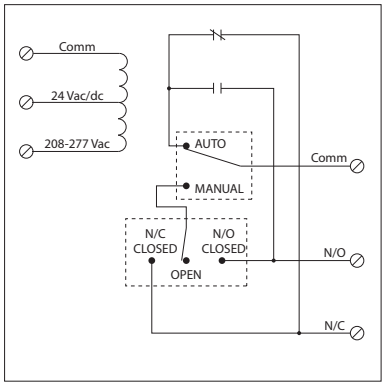
RIBM2401SBC

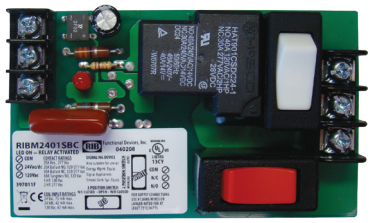
4.00˝ Track Mount Relay 20 Amp SPDT + Override with 24 Vac/dc/120 Vac Coil

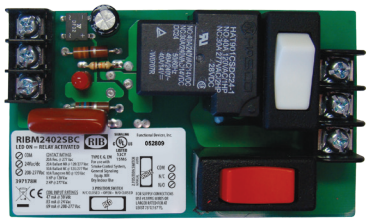


RIBM2402SBC

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







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
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
MT4 Mounting Track Sold Separately
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

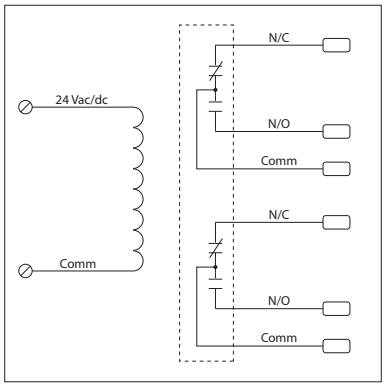
Coil Current:
50 mA @ 18 Vac
83 mA @ 24 Vac
47 mA @ 120 Vac (RIBM2401SBC)
69 mA @ 208-277 Vac (RIBM2402SBC)
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

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



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: 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 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

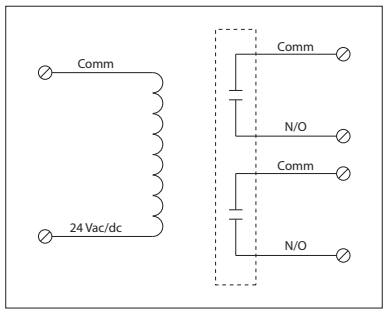
Coil Current:
110 mA @ 20 Vac
125 mA @ 24 Vac
55 mA @ 20 Vdc
55 mA @ 24 Vdc
70 mA @ 30 Vdc

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



Made in USA
Meets
"Buy American"
of ARRA 2009

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

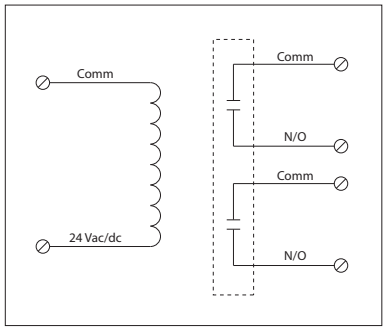
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 2.1 Vac / 3.8 Vdc
Pull In = 18 Vac / 22 Vdc

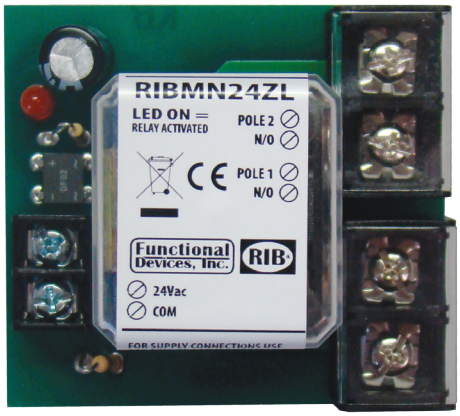
Notes:
• Order Normally Closed by adding "-NC" to end of model number

30 AMP TRACK MOUNT CONTROL RELAY

RIBMN24ZL

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





Made in USA
Meets
"Buy American"
of ARRA 2009

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

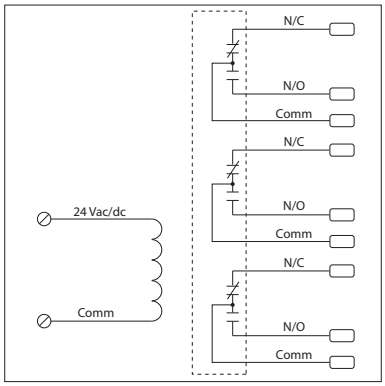
Notes:
• Order Normally Closed by adding "-NC" to end of model number

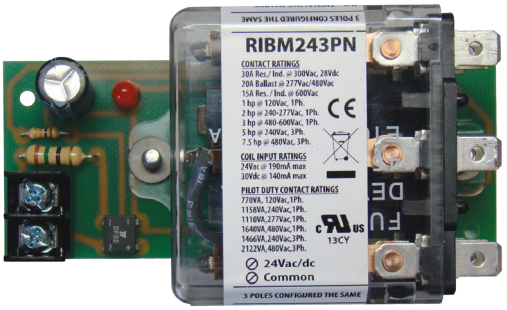
30 AMP TRACK MOUNT CONTROL RELAY

RIBM243PN

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

Made in USA
Meets "Buy American" of ARRA 2009





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

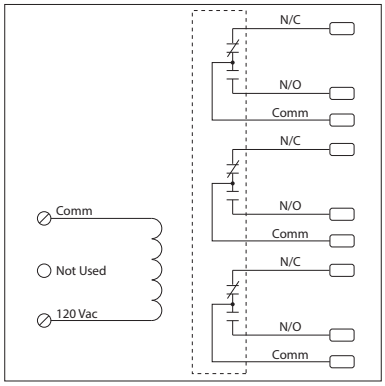
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 22 Vdc

30 AMP TRACK MOUNT CONTROL RELAY

RIBM013PN

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

Made in USA
Meets "Buy American" of ARRA 2009



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

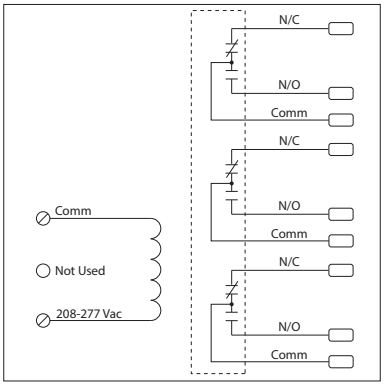
Coil Current:
140 mA @ 120 Vac

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



Made in USA
Meets
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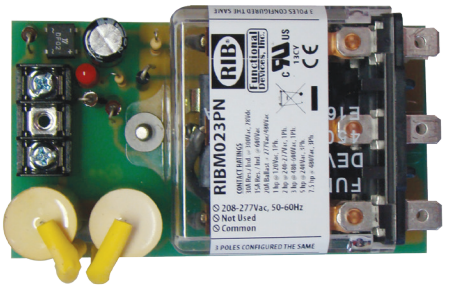
of ARRA 2009



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

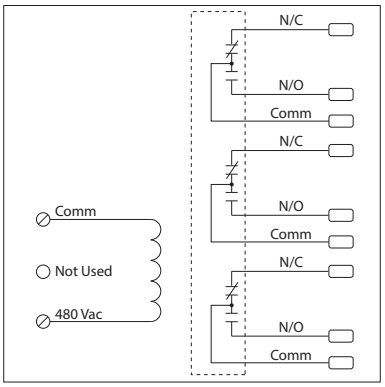
Coil Current:
170 mA @ 208-277 Vac

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

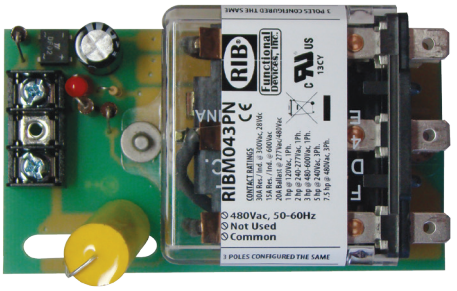
30 AMP TRACK MOUNT CONTROL RELAY

RIBM043PN

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



Made in USA
Meets
"Buy American"
of ARRA 2009



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

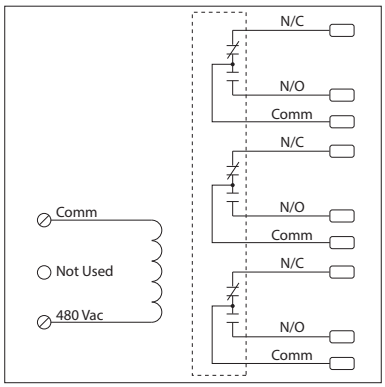
Coil Current:
140 mA @ 480 Vac

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

RIBM043PN-HD

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



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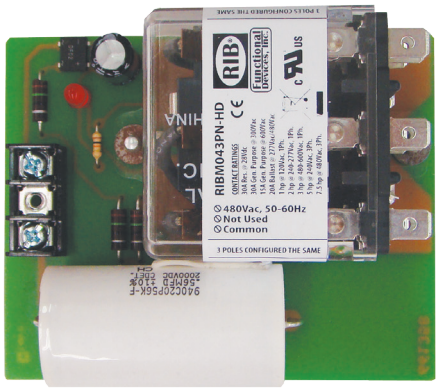


RELAYS

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
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

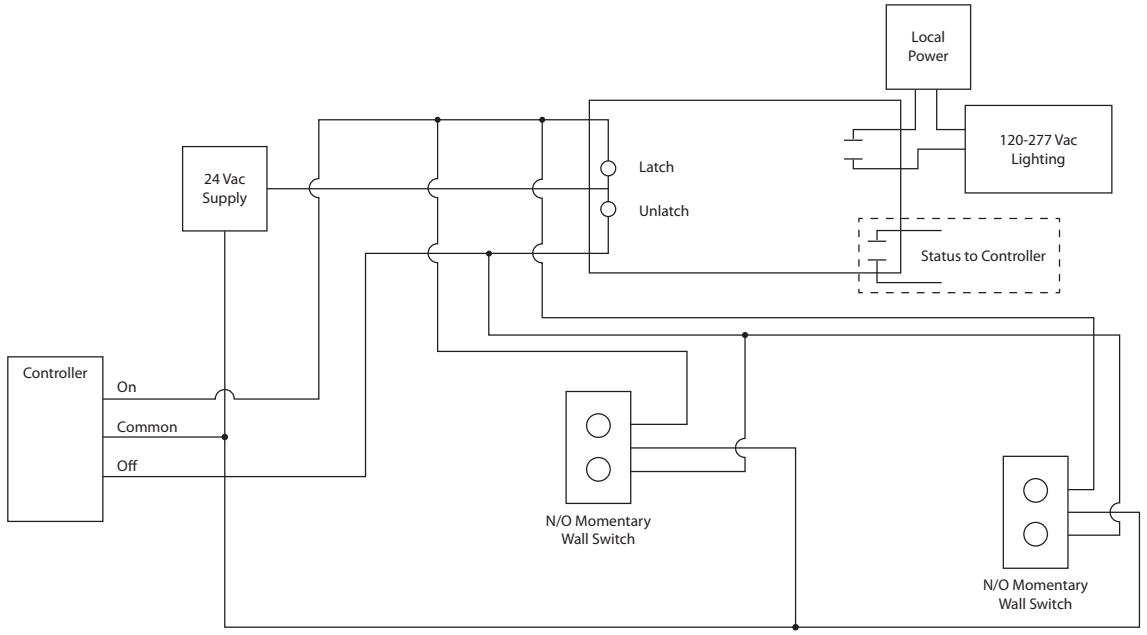
LATCHING RELAYS

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



ENCLOSED LATCHING RELAYS

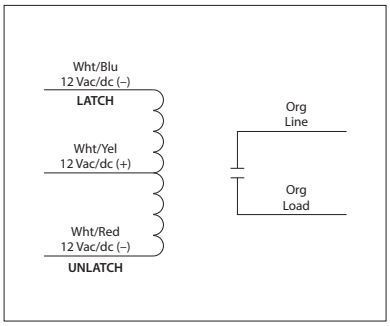
MODEL #	UL	COIL VOLTAGE AC/DC	RELAYS	CONTACTS	OVERRIDE SWITCH	AUXILIARY OUTPUT	NOTES	SPEC PAGE
RIBL12B	•	12	1	SPST				45
RIBL12BM	•	12	1	SPST		•		45
RIBL12SB	•	12	1	SPST	•			45
RIBL12SBM	•	12	1	SPST	•	•		45
RIBL24B	•	24	1	SPST				46
RIBL24BM	•	24	1	SPST		•		46
RIBL24SB	•	24	1	SPST	•			46
RIBL24SBM	•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

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

LATCHING RELAYS

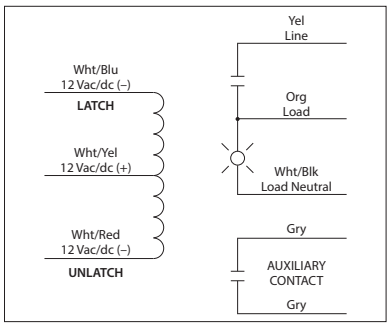
RIBL12B

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



c UL us LISTED

CE

RoHS

Made in USA
Meets
"Buy American"
of ARRA 2009

RIBL12B-RD
• Red housing

RIBL12B-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 (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
20 Amp 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

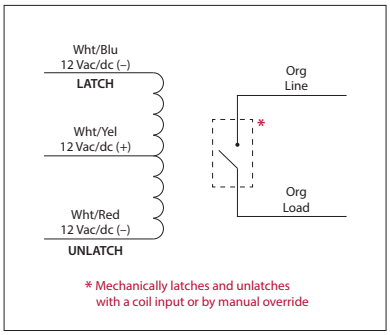
Auxiliary Contact:
3 Amp @ 30 Vac/dc max.

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

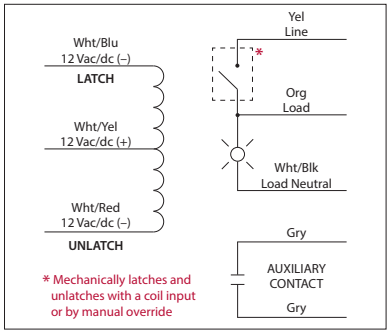
RIBL12SB

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

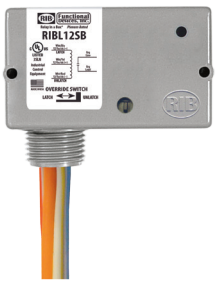


c UL us LISTED

CE

RoHS

Made in USA
Meets
"Buy American"
of ARRA 2009



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
20 Amp 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

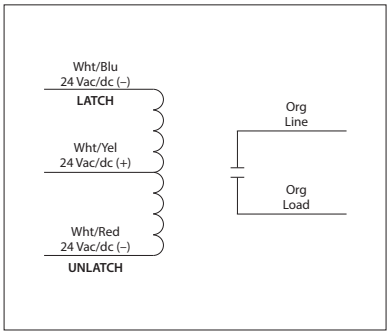
Auxiliary Contact:
3 Amp @ 30 Vac/dc max.

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

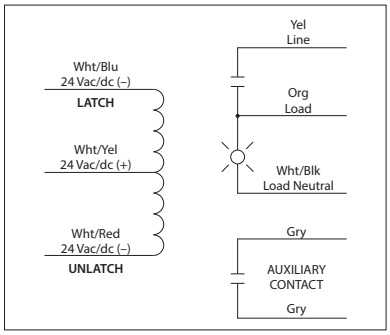
RIBL24B

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



Made in USA
Meets "Buy American" of ARRA 2009

RIBL24B-RD
- Red housing

RIBL24B-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
20 Amp 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

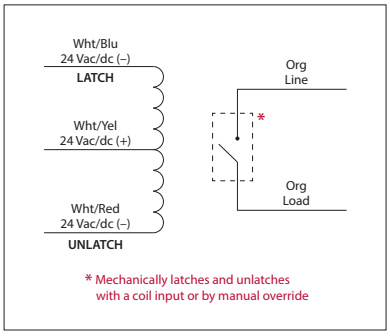
Auxiliary Contact:
3 Amp @ 30 Vac/dc max.

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

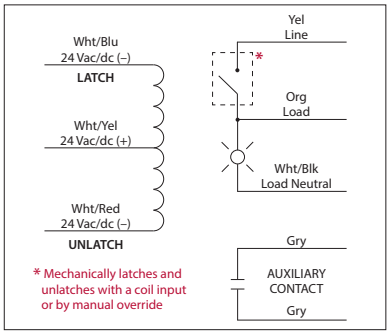
RIBL24SB

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

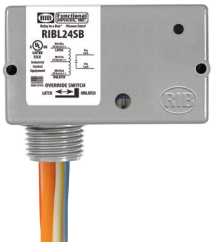


RIBL24SBM

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



Made in USA
Meets "Buy American" of ARRA 2009



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
20 Amp 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

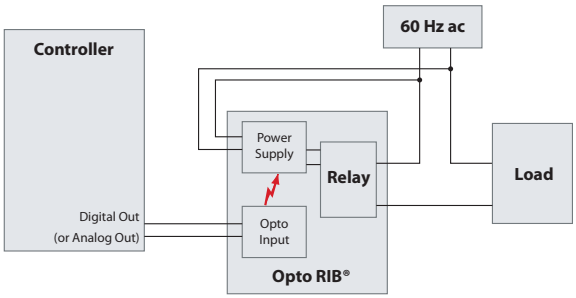
Enclosed | Track Mount

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

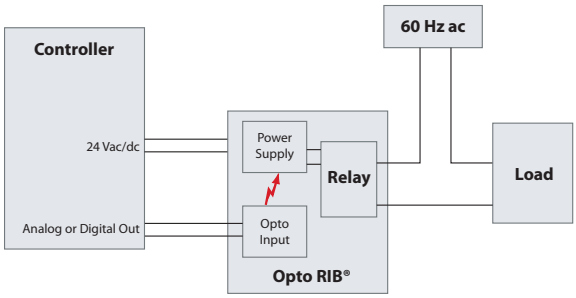
Prepackaged Like the Original RIB® with Special Features

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

High Voltage



Low Voltage



- 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

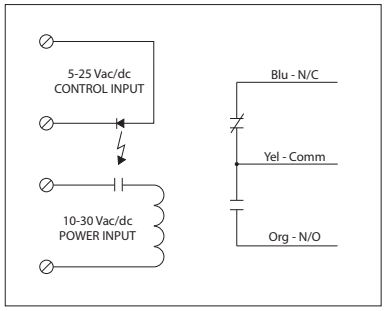
MODEL #	UL	CONTROL INPUT	POWER INPUT	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBME2401B	•	5-25 Vac/dc	24 Vac/dc/120 Vac	1	SPDT			53
RIBME2402B	•	5-25 Vac/dc	24 Vac/dc/208-277 Vac	1	SPDT			53
RIBME2401SB	•	5-25 Vac/dc	24 Vac/dc/120 Vac	1	SPST	1		54
RIBME2402SB	•	5-25 Vac/dc	24 Vac/dc/208-277 Vac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

LOW COIL INPUT RELAYS

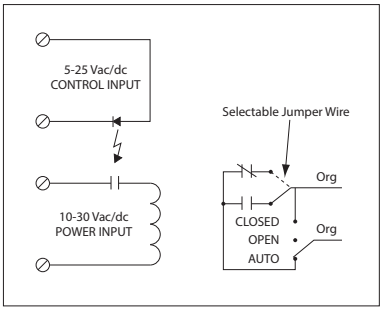
RIBTELC

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

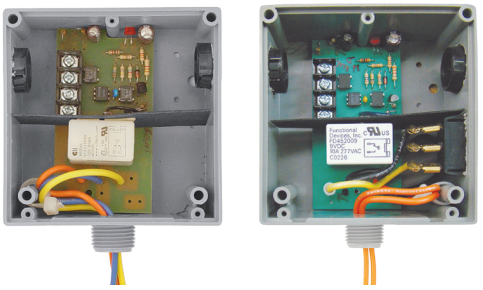


RIBTELS

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



Made in USA
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

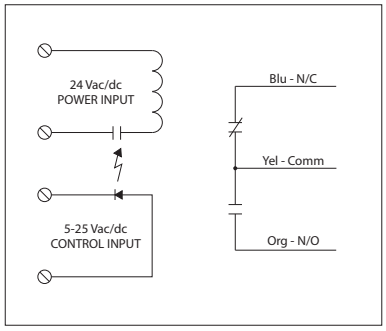
Control Input Ratings:
.4 mA @ 5 Vdc
.9 mA @ 10 Vdc
1 mA @ 12 Vdc
2 mA @ 24 Vdc
3 mA @ 24 Vac
(Non Polarized)

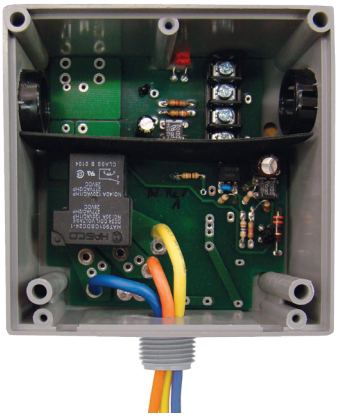
Notes:
- Normally Open or Normally Closed selected by yellow jumper wire (RIBTELS)

LOW COIL INPUT RELAY

RIBTE24B

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





Made in USA
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

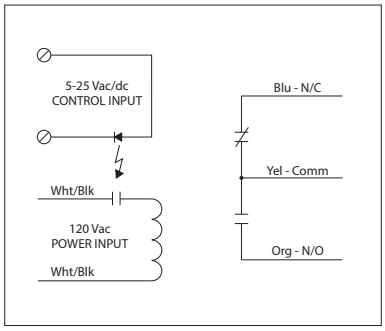
Power Input Ratings:
50 mA @ 18 Vac
83 mA @ 24 Vac
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

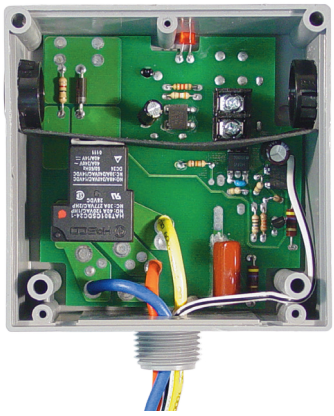
Control Input Ratings:
.4 mA @ 5 Vdc
.9 mA @ 10 Vdc
1 mA @ 12 Vdc
2 mA @ 24 Vdc
3 mA @ 24 Vac
(Non Polarized)

LOW COIL INPUT RELAY

RIBTE01B

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





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"Buy American"
of ARRA 2009

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

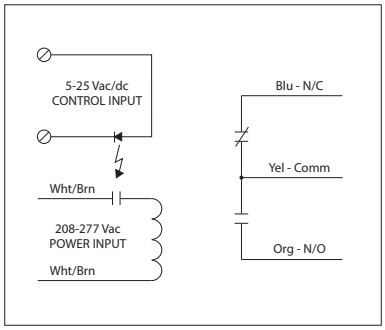
Power Input Ratings:
47 mA @ 120 Vac

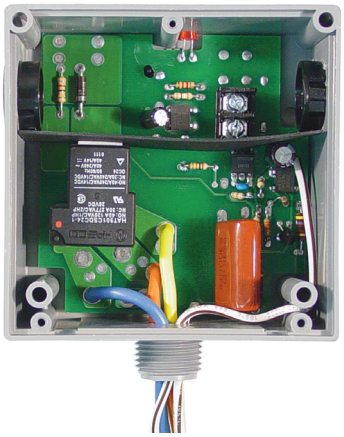
Control Input Ratings:
.4 mA @ 5 Vdc
.9 mA @ 10 Vdc
1 mA @ 12 Vdc
2 mA @ 24 Vdc
3 mA @ 24 Vac
(Non Polarized)

LOW COIL INPUT RELAY

RIBTE02B

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





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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

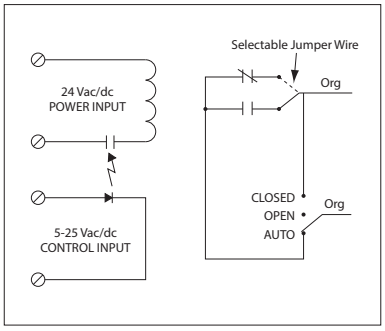
Power Input Ratings:
69 mA @ 208-277 Vac

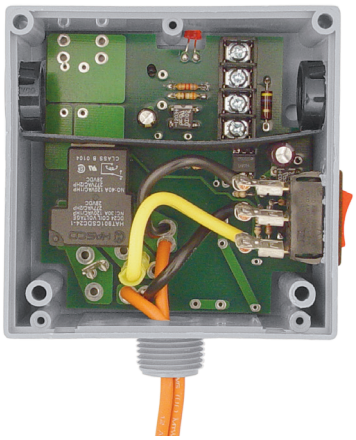
Control Input Ratings:
.4 mA @ 5 Vdc
.9 mA @ 10 Vdc
1 mA @ 12 Vdc
2 mA @ 24 Vdc
3 mA @ 24 Vac
(Non Polarized)

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





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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

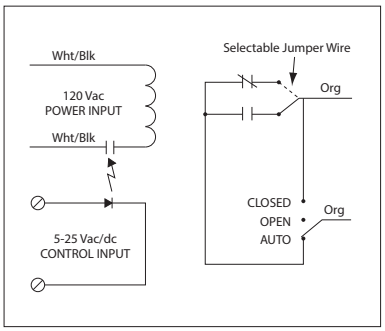
Control Input Ratings:
.4 mA @ 5 Vdc
.9 mA @ 10 Vdc
1 mA @ 12 Vdc
2 mA @ 24 Vdc
3 mA @ 24 Vac
(Non Polarized)

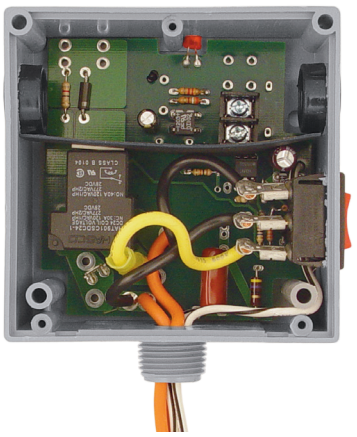
Notes:
- Normally Open or Normally Closed selected by yellow jumper wire

LOW COIL INPUT RELAY

RIBTE01SB

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





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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)

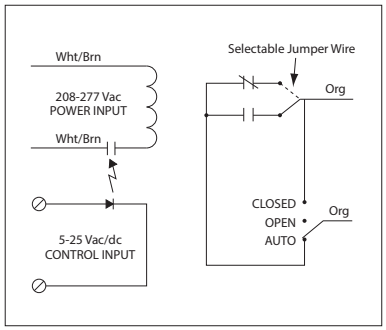
Power Input Ratings:
47 mA @ 120 Vac

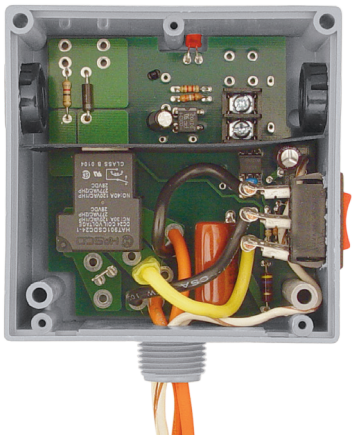
Notes:
- Normally Open or Normally Closed selected by yellow jumper wire

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





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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

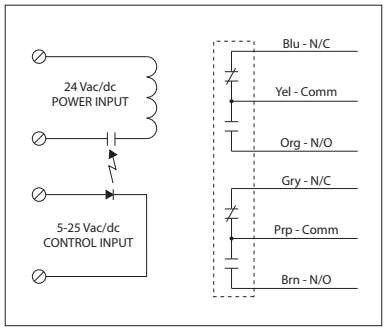
Control Input Ratings:
.4 mA @ 5 Vdc
.9 mA @ 10 Vdc
1 mA @ 12 Vdc
2 mA @ 24 Vdc
3 mA @ 24 Vac
(Non Polarized)

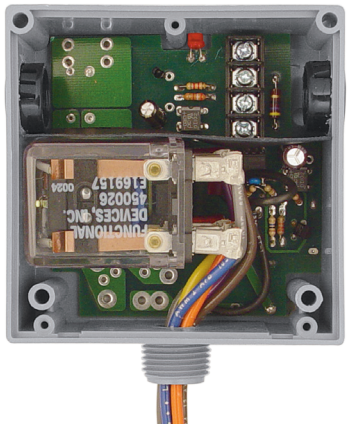
Notes:
- Normally Open or Normally Closed selected by yellow jumper wire

LOW COIL INPUT RELAY

RIBTE24P

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





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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

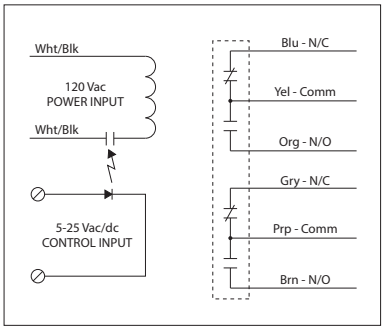
Power Input Ratings:
110 mA @ 20 Vac
138 mA @ 24 Vac
55 mA @ 20 Vdc
55 mA @ 24 Vdc
77 mA @ 30 Vdc

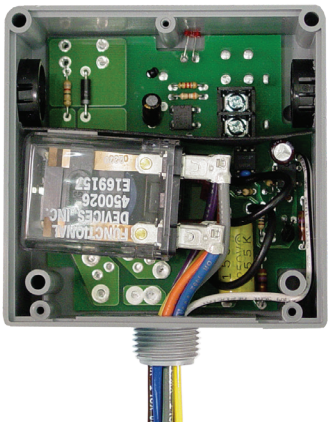
Control Input Ratings:
.4 mA @ 5 Vdc
.9 mA @ 10 Vdc
1 mA @ 12 Vdc
2 mA @ 24 Vdc
3 mA @ 24 Vac
(Non Polarized)

LOW COIL INPUT RELAY

RIBTE01P

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





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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

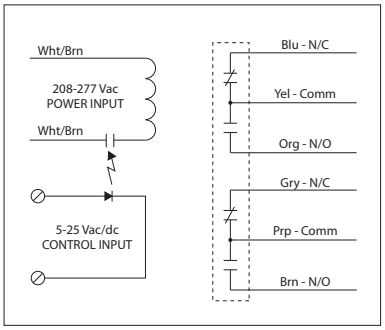
Power Input Ratings:
105 mA @ 120 Vac

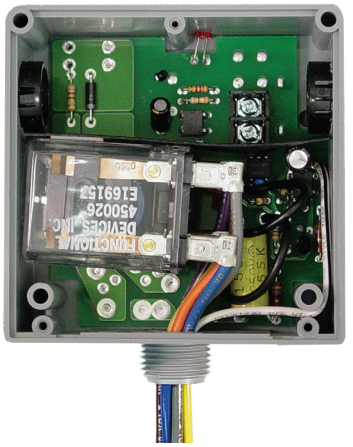
Control Input Ratings:
.4 mA @ 5 Vdc
.9 mA @ 10 Vdc
1 mA @ 12 Vdc
2 mA @ 24 Vdc
3 mA @ 24 Vac
(Non Polarized)

LOW COIL INPUT RELAY

RIBTE02P

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





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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

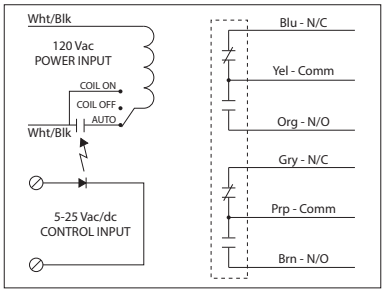
Power Input Ratings:
105 mA @ 208-277 Vac

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

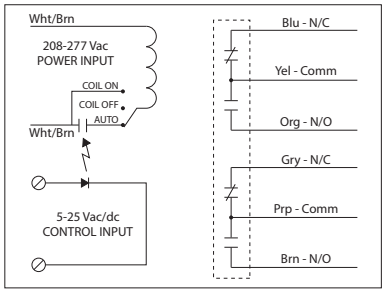
RIBTE01P-S

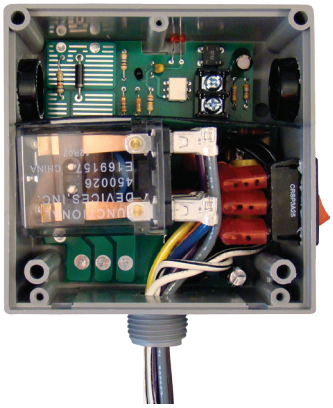
Enclosed Relay Hi/Low Separation 20 Amp DPDT +Override, 120 Vac Power Input + 5-25 Vac/dc Control Input



RIBTE02P-S

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





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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)

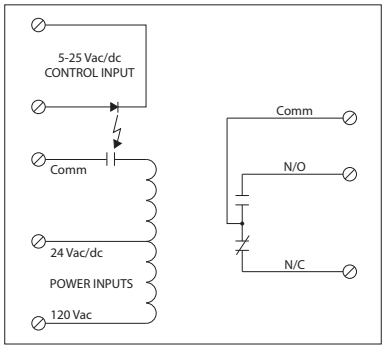
Power Input Ratings:
105 mA @ 120 Vac (RIBTE01P-S)
105 mA @ 208-277 Vac (RIBTE02P-S)

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

LOW COIL INPUT TRACK MOUNT RELAYS

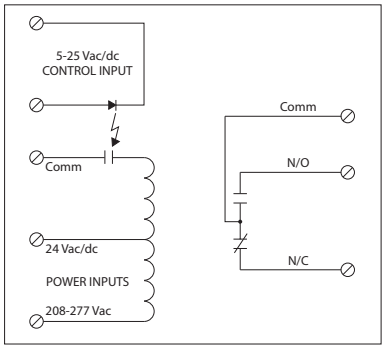
RIBME2401B

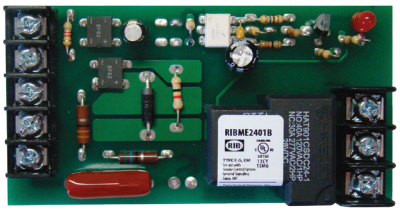
4.00˝ Track Mount Relay 20 Amp SPDT, 24 Vac/dc/120 Vac Power Input + 5-25 Vac/dc Control Input

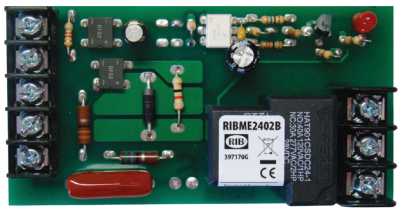


RIBME2402B

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







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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

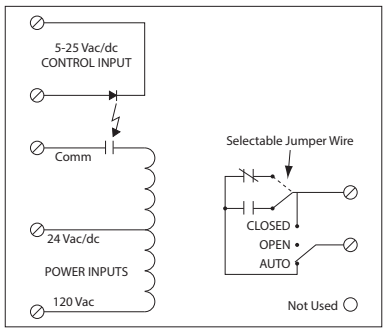
Power Input Ratings:
50 mA @ 18 Vac
83 mA @ 24 Vac
47 mA @ 120 Vac (RIBME2401B)
69 mA @ 208-277 Vac (RIBME2402B)
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

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)

LOW COIL INPUT TRACK MOUNT RELAYS

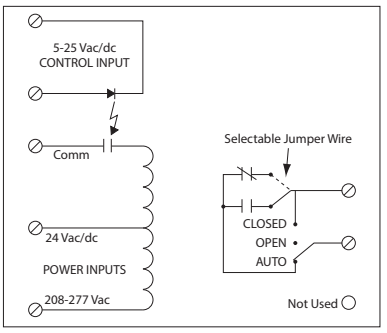
RIBME2401SB

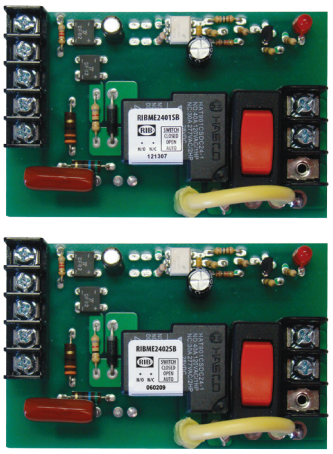
4.00˝ Track Mount Relay 20 Amp SPST + Override,
24 Vac/dc/120 Vac Power Input +
5-25 Vac/dc Control Input



RIBME2402SB

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





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

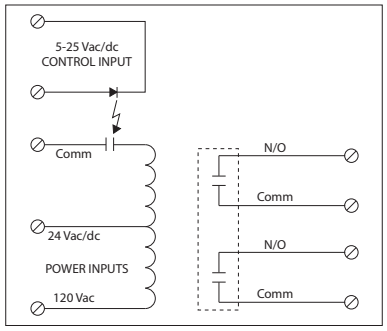
Power Input Ratings:
50 mA @ 18 Vac
83 mA @ 24 Vac
47 mA @ 120 Vac (RIBME2401SB)
69 mA @ 208-277 Vac (RIBME2402SB)
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

Notes:
- Normally Open or Normally Closed selected by yellow jumper wire

LOW COIL INPUT TRACK MOUNT RELAYS

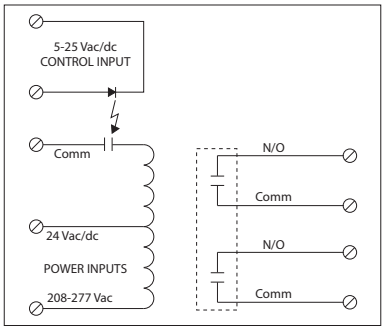
RIBME2401P

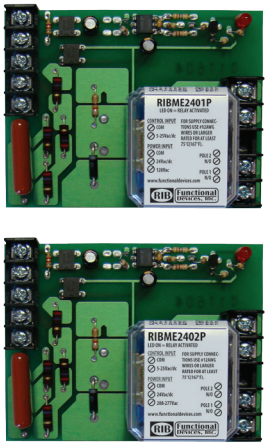
4.00˝ Track Mount Relay 20 Amp DPST,
24 Vac/dc/120 Vac Power Input +
5-25 Vac/dc Control Input



RIBME2402P

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





Made in USA
Meets
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of ARRA 2009

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

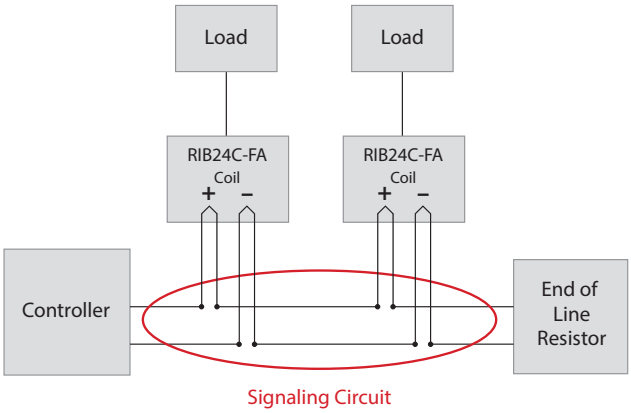
Made in the U.S.A.
Meets the "Buy American" provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).

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®



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

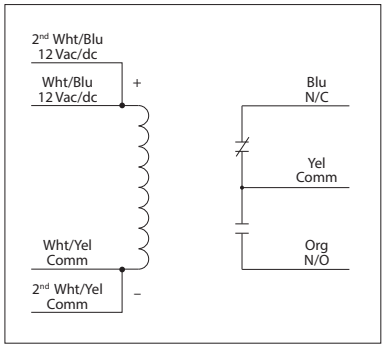
MODEL #	UL	COIL VOLTAGE	RELAYS	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBMN12C-FA	•	12 Vac/dc	1	SPDT			58
RIBMN24C-FA	•	24 Vac/dc	1	SPDT			58
RIBMN12S-FA	•	12 Vac/dc	1	SPST	1		58
RIBMN24S-FA	•	24 Vac/dc	1	SPST	1		58

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

FIRE ALARM RELAYS

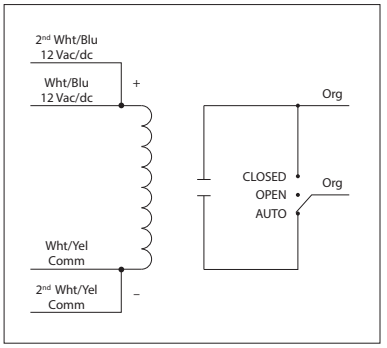
RIB12C-FA

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



RIB12S-FA

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



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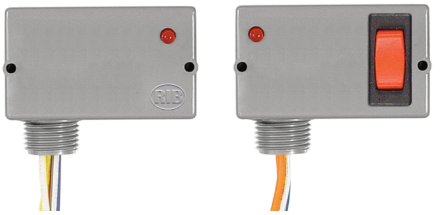


RIB12C-FA-RD
RIB12S-FA-RD
• Red housing

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

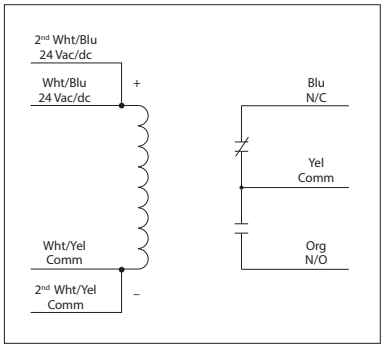
Coil Voltage Input:
12 Vac/dc ; 50-60 Hz
Drop Out = 2 Vac / 2.5 Vdc
Pull In = 9 Vac / 11 Vdc

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

FIRE ALARM RELAYS

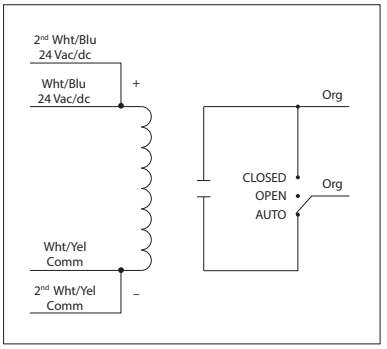
RIB24C-FA

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



RIB24S-FA

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



Made in USA
Meets "Buy American" of ARRA 2009

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

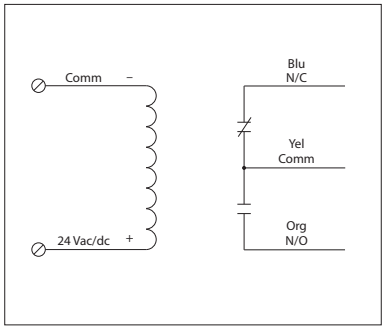
Coil Voltage Input:
24 Vac/dc ; 50-60 Hz
Drop Out = 3 Vac / 3.8 Vdc
Pull In = 20 Vac / 20 Vdc

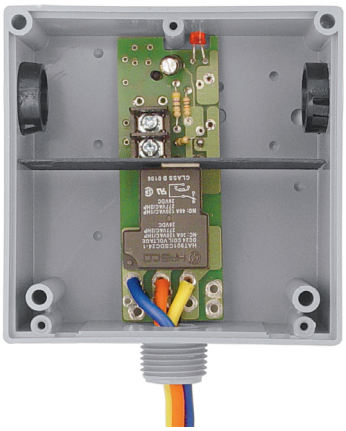
Notes:
• Order Normally Closed by adding "-NC" to end of model number (RIB24S-FA)

FIRE ALARM RELAY

RIBT24B-FA

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





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RoHS

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
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

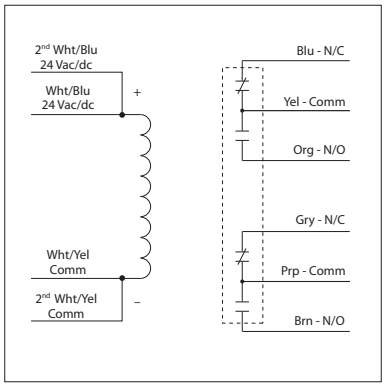
Coil Current:
47 mA @ 18 Vac
83 mA @ 24 Vac
33 mA @ 22 Vdc
35 mA @ 24 Vdc
47 mA @ 30 Vdc

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



c UL us LISTED

RoHS

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
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

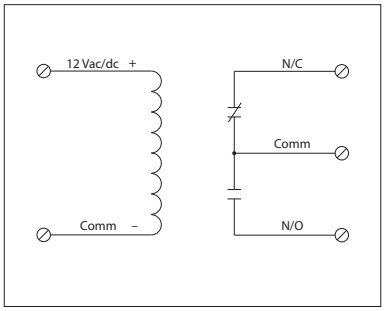
Coil Current:
110 mA @ 20 Vac
138 mA @ 24 Vac
55 mA @ 20 Vdc
55 mA @ 24 Vdc
77 mA @ 30 Vdc

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

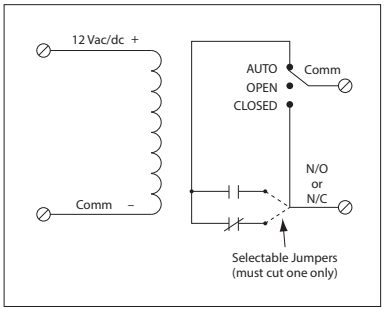
RIBMN12C-FA

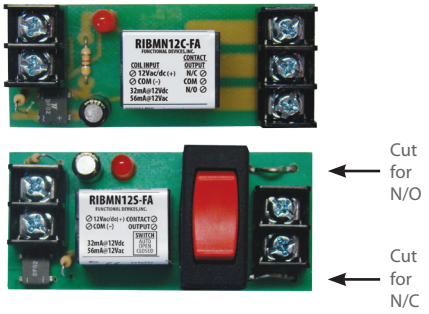
2.75˝ Track Mount Relay 15 Amp, Polarized with 12 Vac/dc Coil



RIBMN12S-FA

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





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

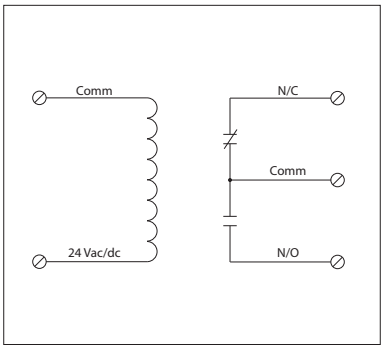
Coil Voltage Input:
12 Vac/dc ; 50-60 Hz
Drop Out = 2 Vac / 2.5 Vdc
Pull In = 9 Vac / 11 Vdc

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

FIRE ALARM TRACK MOUNT RELAYS

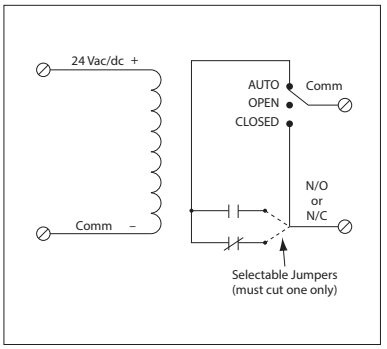
RIBMN24C-FA

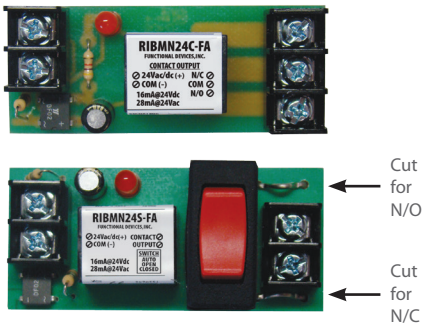
2.75˝ Track Mount Relay 15 Amp, Polarized with 24 Vac/dc Coil



RIBMN24S-FA

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





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

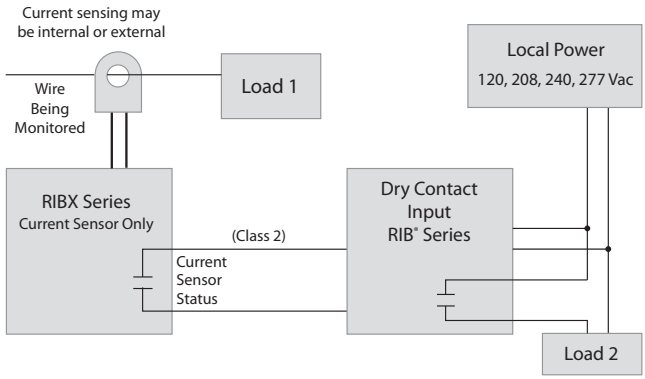
Enclosed | Track Mount

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 #		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

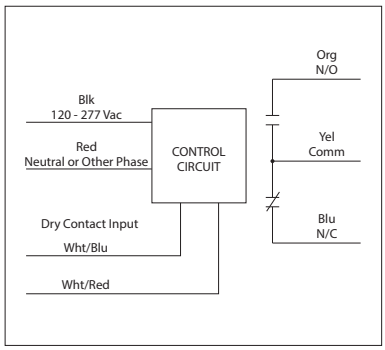
= Time Delay

= UL 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

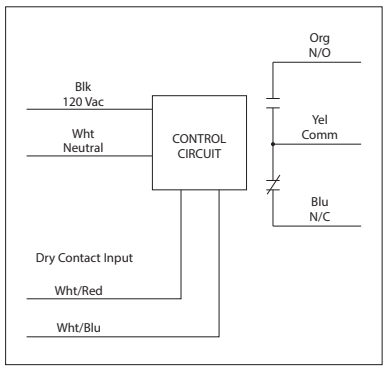
Power Input:
50 mA @ 240 Vac Max.

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

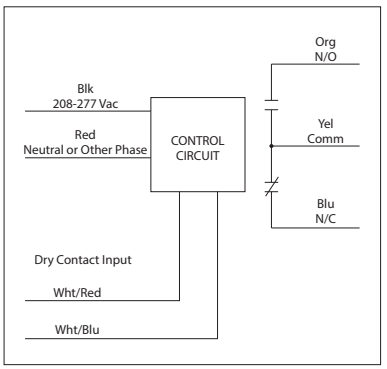
RIB01BDC

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

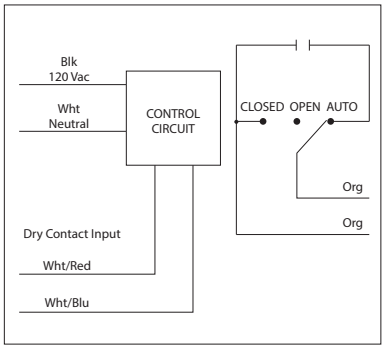
Power Input:
42 mA @ 120 Vac (RIB01BDC)
62 mA @ 208-277 Vac (RIB02BDC)

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

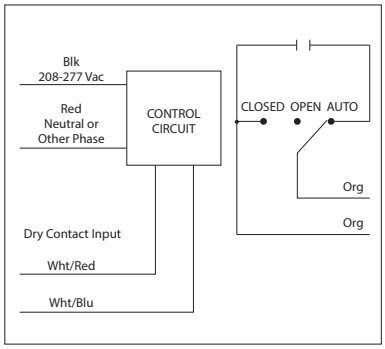
RIB01SBDC

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



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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

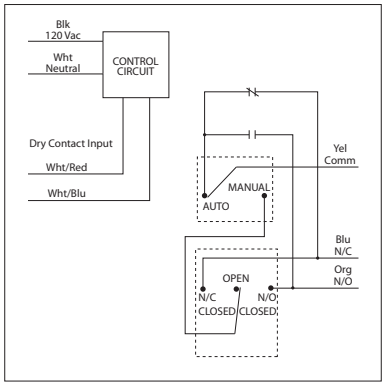
Power Input:
42 mA @ 120 Vac (RIB01SBDC)
62 mA @ 208-277 Vac (RIB02SBDC)

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

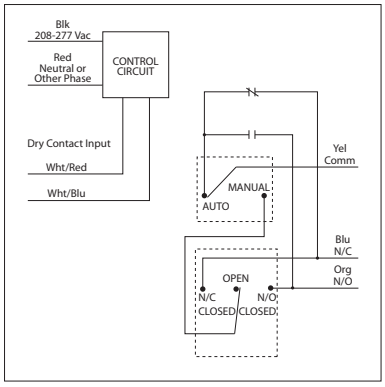
RIB01SBCDC

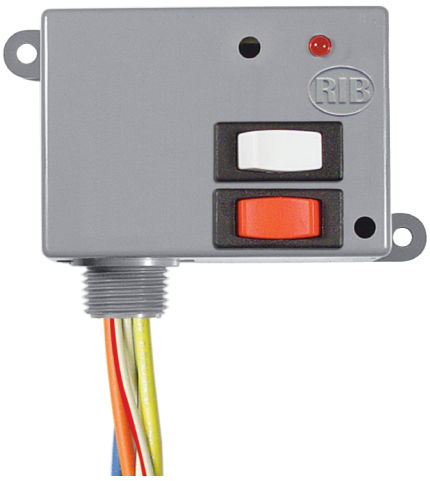
Enclosed Relay 20 Amp SPDT + Override, Class 2 Dry Contact Input, 120 Vac Power Input



RIB02SBCDC

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





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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)

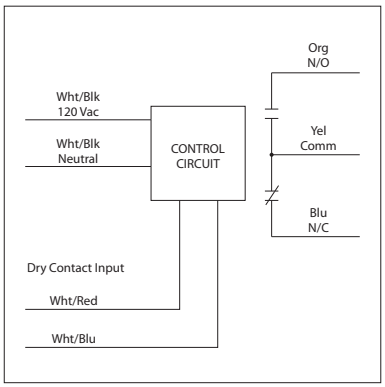
Contact Ratings:
20 Amp Resistive @ 277 Vac
20 Amp Ballast @ 277 Vac
Not rated for Electronic Ballast
10 Amp Tungsten @ 120 Vac
770 VA Pilot Duty @ 120 Vac
1,110 VA Pilot Duty @ 277 Vac
2 HP @ 277 Vac
1 HP @ 120 Vac

Power Input:
42 mA @ 120 Vac (RIB01SBCDC)
62 mA @ 208-277 Vac (RIB02SBCDC)

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.

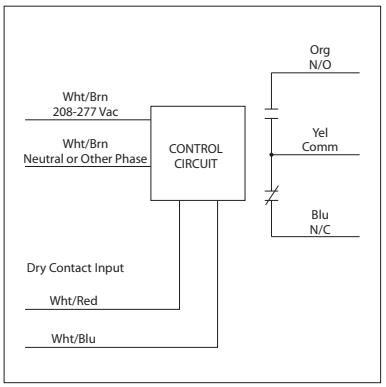
RIBD01BDC

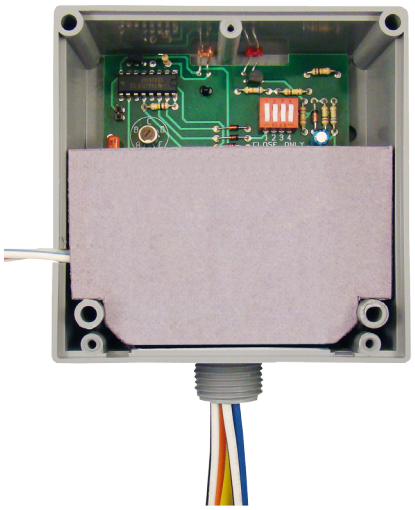
Enclosed Delay on Make Relay 20 Amp
SPDT, Class 2 Dry Contact Input, 120 Vac
Power Input



RIBD02BDC

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





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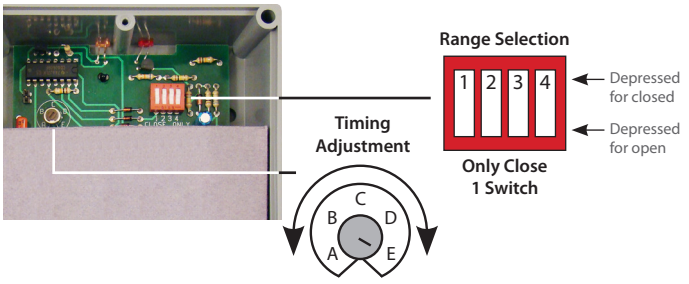
SPECIFICATIONS

 # 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

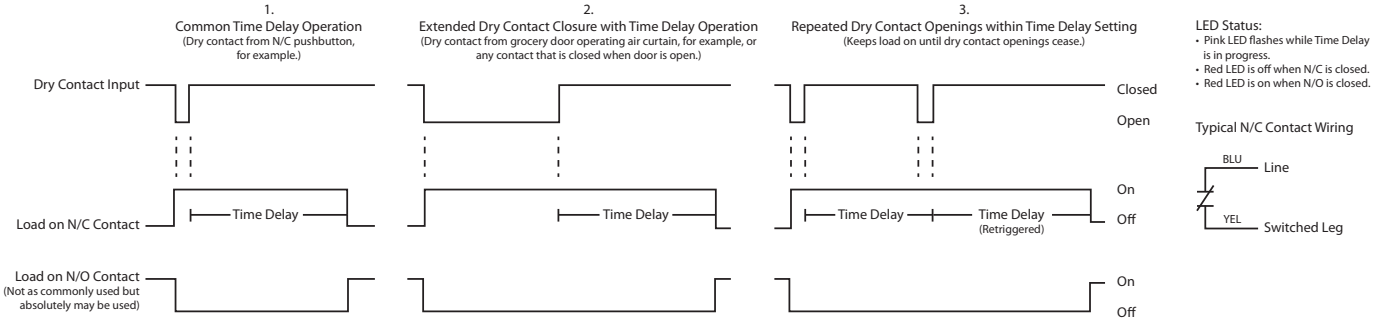
Power Input:
42 mA @ 120 Vac (RIBD01BDC)
62 mA @ 208-277 Vac (RIBD02BDC)

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

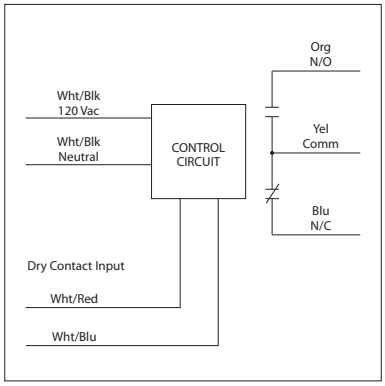


LED Status:
- Pink LED flashes while Time Delay is in progress.
- Red LED is off when N/C is closed.
- Red LED is on when N/O is closed.

Typical N/C Contact Wiring

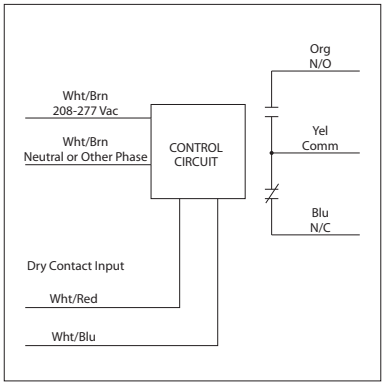
RIBD01BDC-DOB

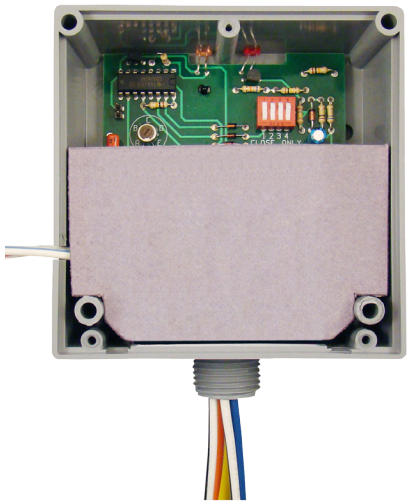
Enclosed Delay on Break Relay 20 Amp SPDT, Class 2 Dry Contact Input, 120 Vac Power Input



RIBD02BDC-DOB

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





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RELAYS

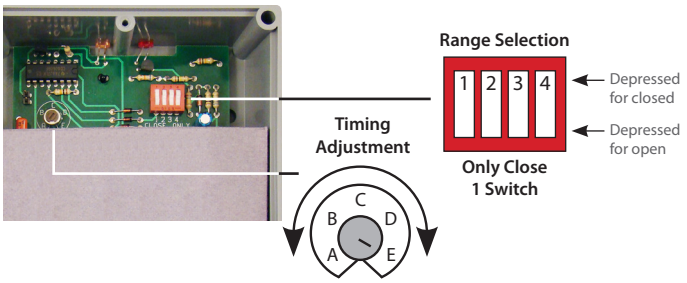
SPECIFICATIONS

 # 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

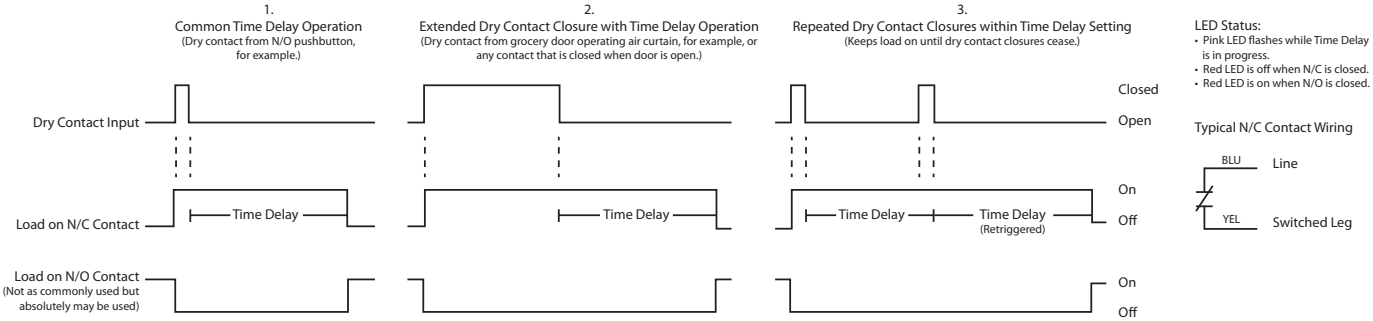
Power Input:
42 mA @ 120 Vac (RIBD01BDC-DOB)
62 mA @ 208-277 Vac (RIBD02BDC-DOB)

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.



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



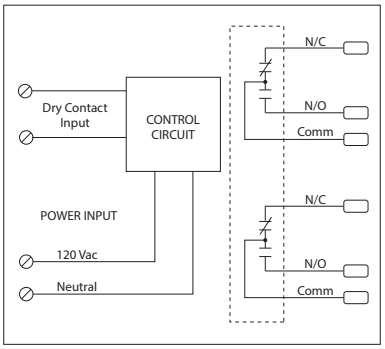
LED Status:
- Pink LED flashes while Time Delay is in progress.
- Red LED is off when N/C is closed.
- Red LED is on when N/O is closed.

Typical N/C Contact Wiring

DRY CONTACT INPUT TRACK MOUNT RELAYS

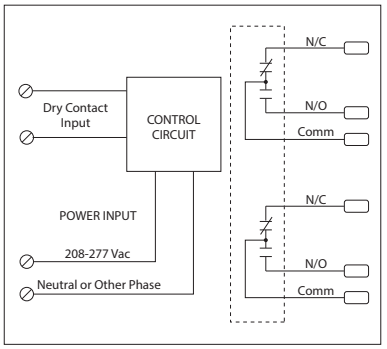
RIBM01ZNDC

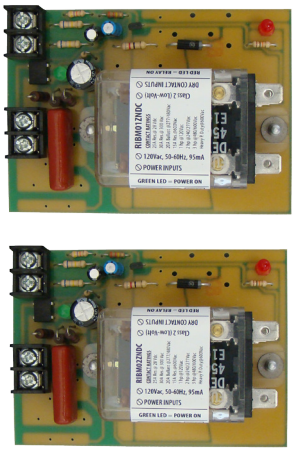
4.00˝ Track Mount Relay 30 Amp DPDT, Class 2
Dry Contact Input, 120 Vac Power Input



RIBM02ZNDC

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





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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
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 @ 120 Vac
1158 VA @ 240 Vac
1109 VA @ 277 Vac
1640 VA @ 480 Vac
NEMA B600 Pilot Duty

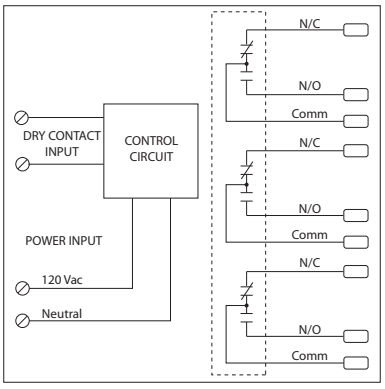
Power Input:
95 mA @ 120 Vac (RIBM01ZNDC)
95 mA @ 208-277 Vac (RIBM02ZNDC)

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

DRY CONTACT INPUT TRACK MOUNT RELAYS

RIBM013PNDC

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



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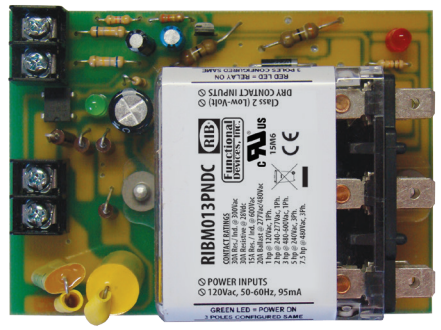


SPECIFICATIONS

 # 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
30 Amp Resistive @ 28 Vdc
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, 1Phase
20 Amp Ballast @ 277-480 Vac
Not rated for Electronic Ballast

Heavy Pilot Duty
770 VA @ 120 Vac, 1 Phase
1158 VA @ 240 Vac, 1 Phase
1109 VA @ 277 Vac, 1 Phase
1640 VA @ 480 Vac, 1 Phase
1466 VA @ 240 Vac, 3 Phase
2122 VA @ 480 Vac, 3 Phase

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
- 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 AC/DC	DEVICE POWER AC	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
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
RIBMW24SB-LNAI	•	1	1	1			24		SPST	1		70
RIBTW24SB-LNAI	•	1	1	1			24		SPST	1		70
RIBMW24SB-LNT2	•	1	1			10kΩ Type 2	24		SPST	1		71
RIBTW24SB-LNT2	•	1	1			10kΩ Type 2	24		SPST	1		71
RIBMW24SB-LNT3	•	1	1			10kΩ Type 3	24		SPST	1		71
RIBTW24SB-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 AC/DC	DEVICE POWER AC	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
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 AC/DC	DEVICE POWER AC	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBTW24B-WI-N4	•	1	1		24		SPDT	#	NEW	80
RIBTW2401B-WIUI-N4	•	1	1	2	24	120	SPDT	#	NEW	81

MODBUS® DEVICES

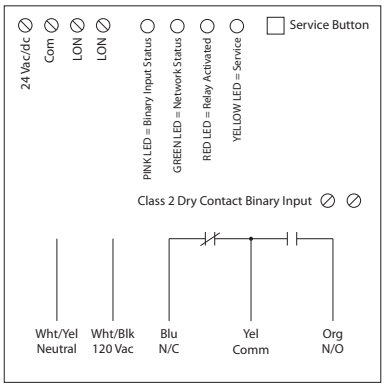
MODEL #	UL	RELAY OUTPUT	DRY CONTACT BINARY INPUT	ANALOG INPUT	INTERNAL CURRENT SENSOR FEEDBACK	PRECON® THERMISTOR INPUT	DEVICE POWER AC/DC	DEVICE POWER AC	CONTACTS	OVERRIDE SWITCH	NOTES	SPEC PAGE
RIBMNW24B-MBAI	•	1	2	1		10kΩ Type 2	24		SPDT	#		82
RIBTW24B-MBAI	•	1	2	1		10kΩ Type 2	24		SPDT	#		82

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

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

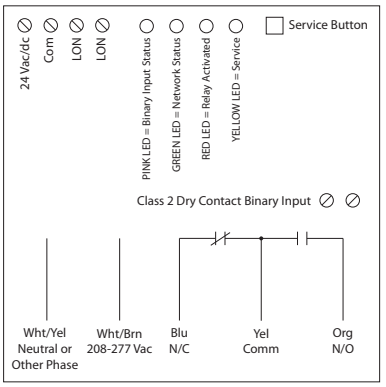
RIBTW2401B-LN

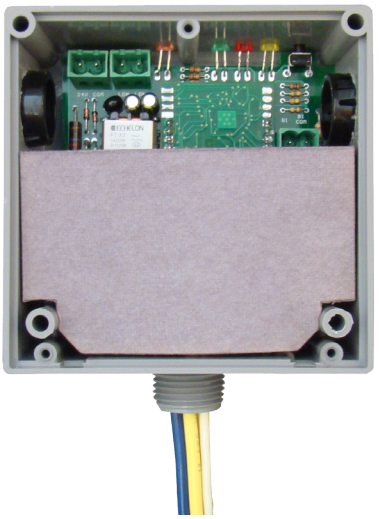
LonWorks® Twisted-Pair FT-10 Network Enclosed Dual I/O Device: One Binary Output (20 Amp Relay SPDT), One Binary Input (Dry Contact Class 2); 24 Vac/dc or 120 Vac Power Input



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





Made in USA
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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

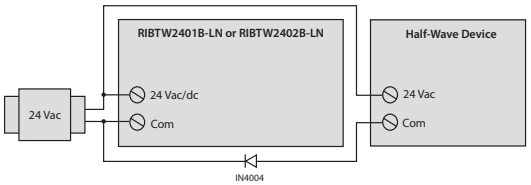
Channel: TP/FT-10
Transceiver Type: FT5000 Smart Transceiver
Transceiver Compatibility: FT3120 / FT3150, FTT-10 / FTT-10A, and LPT-10 / LPT-11 Tranceivers
Functional Blocks: 0000 Node Object
0004 Closed Loop Actuator Object
0001 Open Loop Sensor Object
Downloadable Files: PDF, XIF, APB, VSS and NXE available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

Contact Ratings:
20 Amp Resistive @ 277 Vac
20 Amp Ballast @ 120/277 Vac (N/O)
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. ^^

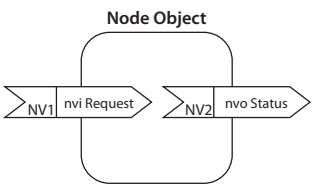


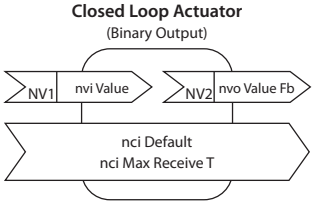
^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

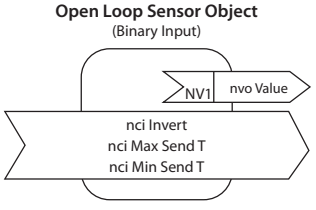
DESCRIPTION	SNVT NAME	SNVT TYPE
Command to open/close relay	nvi Value	SNVT_switch
Command status of relay	nvo Value Fb	SNVT_switch
Default state of relay on/off	nci Default	SNVT_switch
Communication timer	nci Max Receive T	SNVT_elapsed_tm
Status of Binary Input	nvo Value	SNVT_switch
Invert status of 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-sychronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)

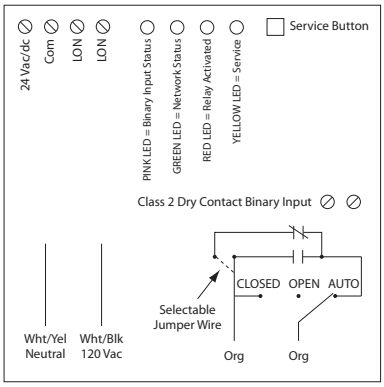






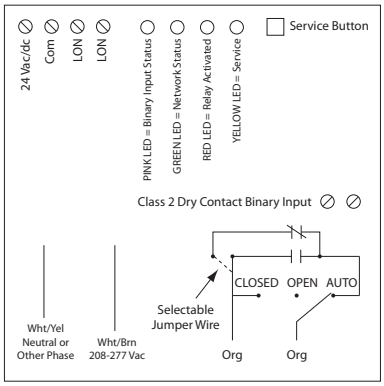
RIBTW2401SB-LN

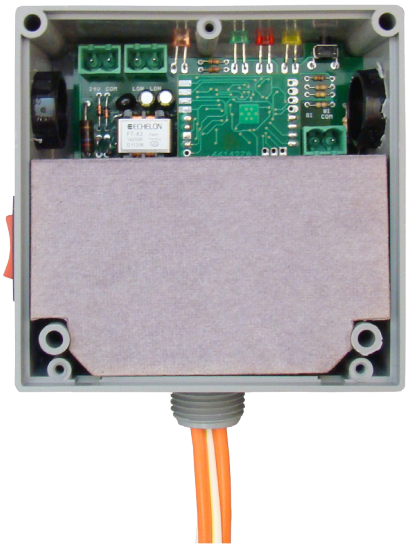
LonWorks® Twisted-Pair FT-10 Network Enclosed Dual I/O Device: One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); 24 Vac/dc or 120 Vac Power Input



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





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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

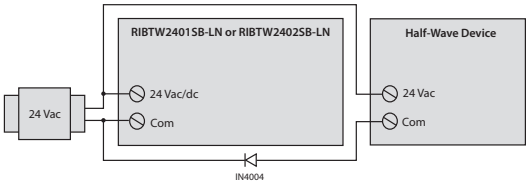
Channel: TP/FT-10
Transceiver Type: FT5000 Smart Transceiver
Transceiver Compatibility: FT3120 / FT3150, FTT-10 / FTT-10A, and LPT-10 / LPT-11 Tranceivers
Functional Blocks: 0000 Node Object
0004 Closed Loop Actuator Object
0001 Open Loop Sensor Object
Downloadable Files: PDF, XIF, APB, VSS and NXE available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



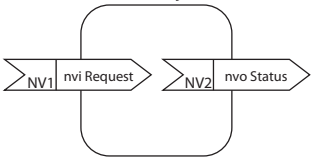
^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

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

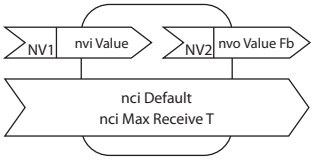
The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

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-sychronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)

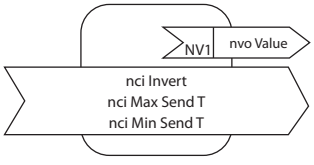
Node Object



Closed Loop Actuator
(Binary Output)



Open Loop Sensor Object
(Binary Input)

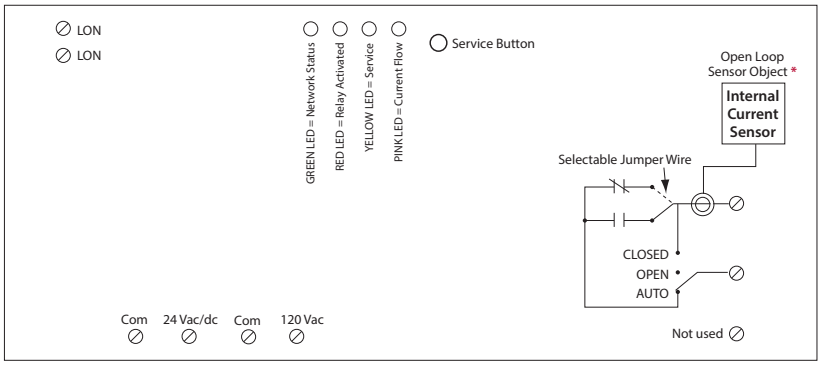


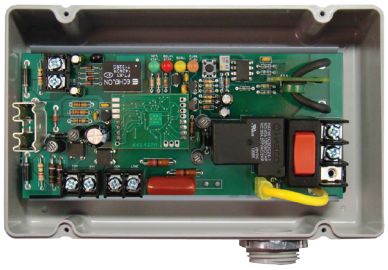
RIBMNWX2401SB-LN

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





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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

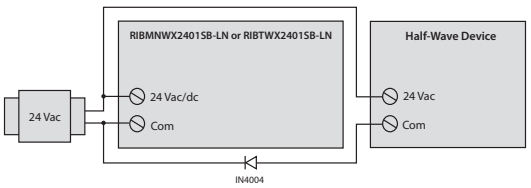
Channel: TP/FT-10
Transceiver Type: FT5000 Smart Transceiver
Functional Blocks: 0000 Node Object
0004 Closed Loop Actuator Object
0001 Open Loop Sensor Object
Downloadable Files: PDF, XIF, APB, VSS and NXE available on website.

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. ^^

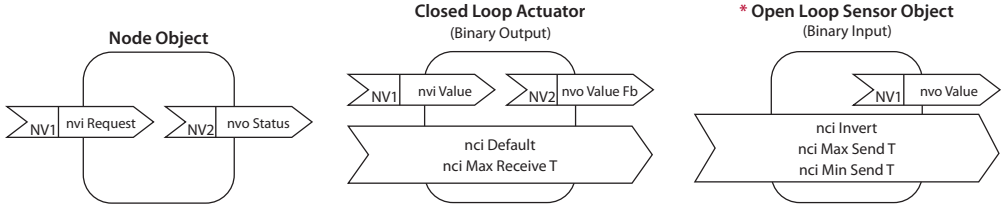


^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

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-sychronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)

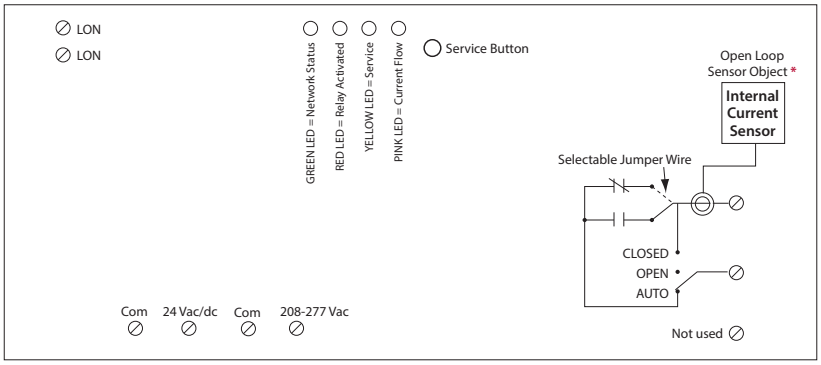


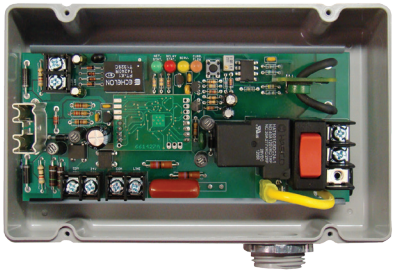
RIBMNWX2402SB-LN

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





c UL us LISTED

LonMark 3.4

CE

RoHS

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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: 18ms
Green LED: Network Status
Red LED: Relay Status
Yellow LED: Service Status
Dimensions: 6.00˝ x 2.75˝ x 1.75˝ (RIBMNWX2402SB-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

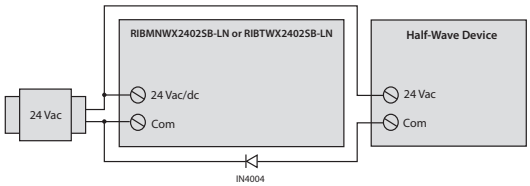
Channel: TP/FT-10
Transceiver Type: FT5000 Smart Transceiver
Functional Blocks: 0000 Node Object
0004 Closed Loop Actuator Object
0001 Open Loop Sensor Object
Downloadable Files: PDF, XIF, APB, VSS and NXE available on website.

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
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. ^^

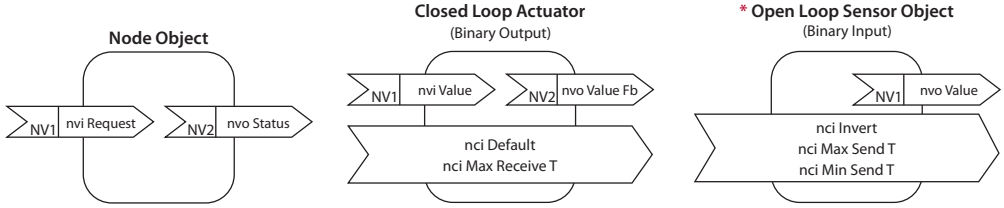


^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

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

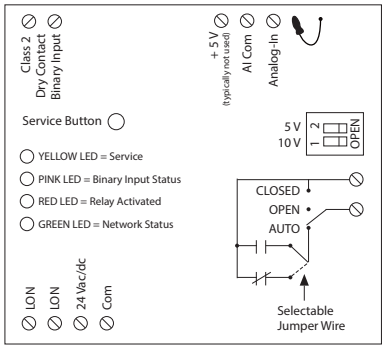
The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

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-sychronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)



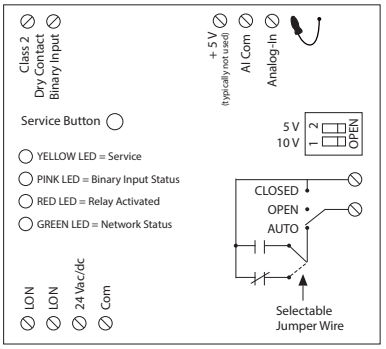
RIBMW24SB-LNAI

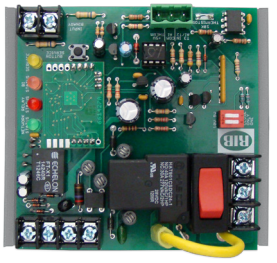
4.00˝ Track Mount LonWorks® Twisted-Pair FT-10 Network Three I/O Device; One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); One Analog Input (0-5Vdc / 0-10 Vdc); 24 Vac/dc Power Input



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.





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SPECIFICATIONS

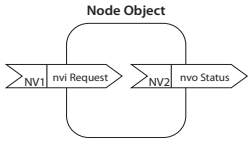
 # Relays & Contact Type: One (1) SPST Continuous Duty Coil
Expected Relay Life: 10 million cycles minimum mechanical
Operating Temperature: -30 to 140° F
Humidity Range: 5 to 95% (noncondensing)
Operate Time: 18ms
Green LED: Network Status
Red LED: Relay Status
Yellow LED: Service Status
Pink LED: Binary 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 Tranceivers
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.

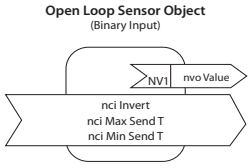
Contact Ratings:
20 Amp Resistive @ 277 Vac
20 Amp Ballast @ 120/277 Vac (N/O)
10 Amp Ballast @ 120/277 Vac (N/C)
Not rated for Electronic Ballast
10 Amp Tungsten @ 120 Vac (N/O)
1110 VA Pilot Duty @ 277 Vac
770 VA Pilot Duty @ 120 Vac
2 HP @ 277 Vac
1 HP @ 120 Vac

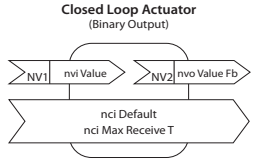
Power Input Ratings:
111 mA @ 24 Vac
81 mA @ 24 Vdc

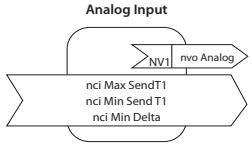
Power Input:
24 Vac/dc ; 50-60 Hz *

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.





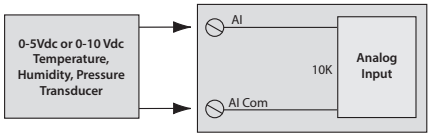


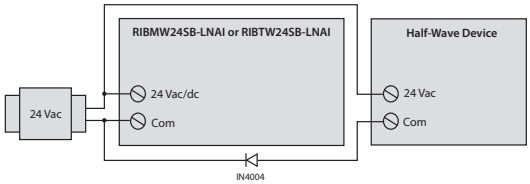


DESCRIPTION	SNVT NAME	SNVT TYPE
Command to open/close relay	nvi Value	SNVT_switch
Command status of relay	nvo Value Fb	SNVT_switch
Default state of relay on/off	nci Default	SNVT_switch
Communication timer	nci Max Receive T	SNVT_elapsed_tm
Status of Binary Input	nvo Value	SNVT_switch
Invert status of 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-sychronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)

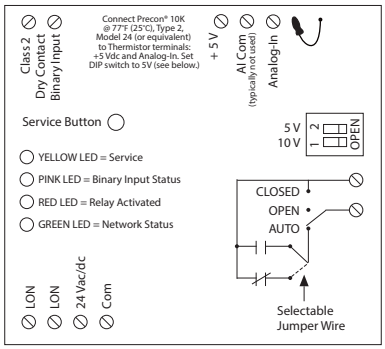




^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

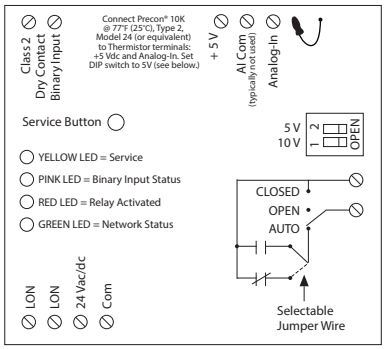
RIBMW24SB-LNT2

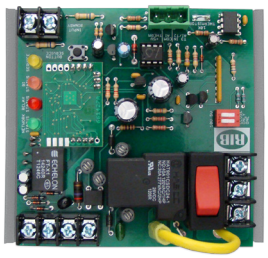
4.00˝ Track Mount LonWorks® Twisted-Pair FT-10 Network Three I/O Device; One Binary Output (20 Amp Relay SPST + Override), One Binary Input (Dry Contact, Class 2); Precon® Type 2 Thermistor Input; 24 Vac/dc Power Input



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





c UL us LISTED

LonMark 3.4

CE

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THERMISTOR INPUT

RELAYS

SPECIFICATIONS

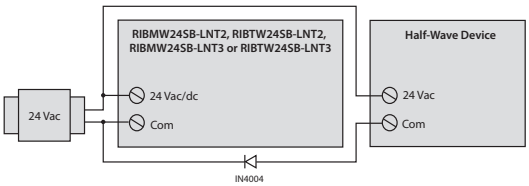
 # Relays & Contact Type: One (1) SPST Continuous Duty Coil
Expected Relay Life: 10 million cycles minimum mechanical
Operating Temperature: -30 to 140° F
Humidity Range: 5 to 95% (noncondensing)
Operate Time: 18ms
Green LED: Network Status
Red LED: Relay Status
Yellow LED: Service Status
Pink LED: Binary 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 Tranceivers
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.

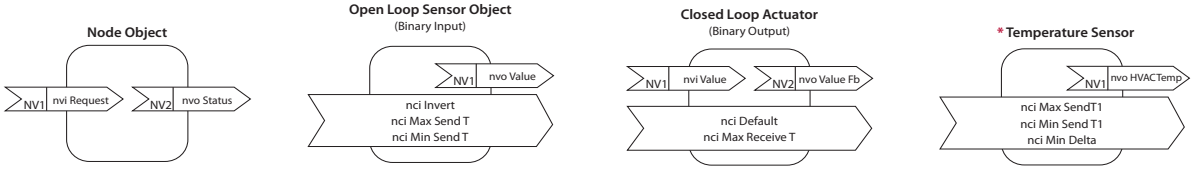


^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

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

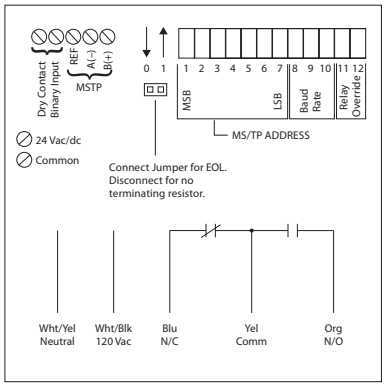
The relay will go to the default state when the communication timer times out. Setting the timer value to zero will cause the communication to never time out.

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-sychronization; Low Value = Many updates but may cause many traffic collisions; High value = Few updates but many less collisions.)



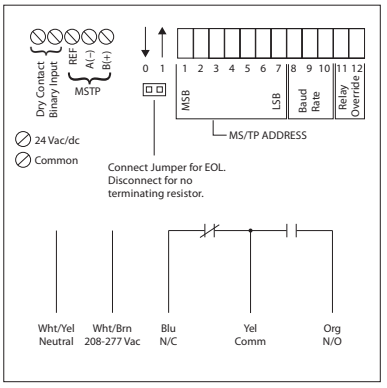
RIBTW2401B-BC

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.



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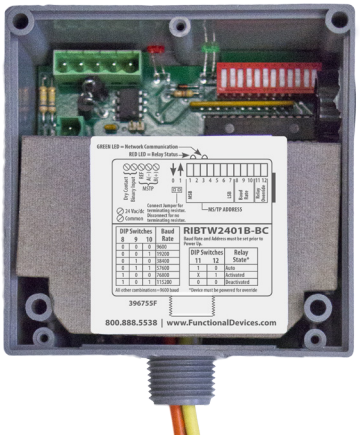


SPECIFICATIONS

 # 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/RIBTW240xB-BC_PICS.pdf
  Or scan QR code with your smart phone.

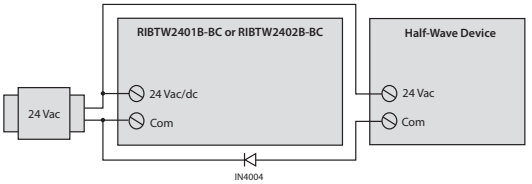
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

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).

RIBMNWX2401B-BC

2.75″Track Mount BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); Two Binary Inputs (One Current Sensor 0.25 - 20 Amp, Relay Load Sensing & One Dry Contact Binary Input), 24 Vac/dc or 120 Vac Power Input, Optional End of Line Resistor (EOL) Included.

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.

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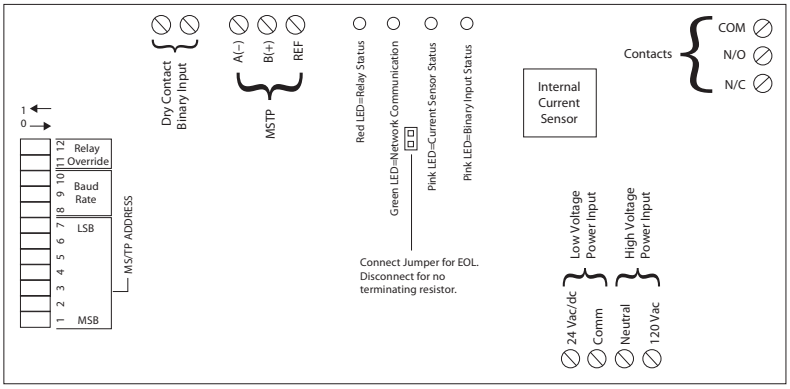
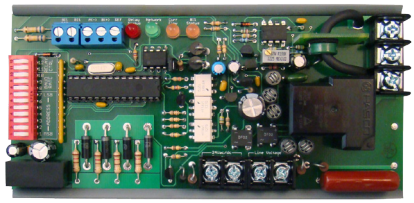
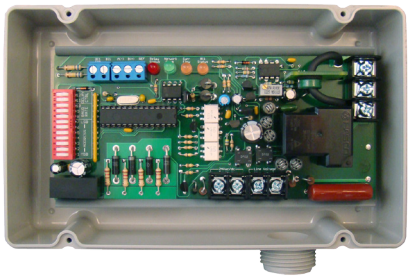






SPECIFICATIONS

 # Relays & Contact Type: One (1) SPDT Continuous Duty Coil
Expected Relay Life: 10 million cycles minimum mechanical
Operating Temperature: -30 to 140° F
Humidity Range: 5 to 95% (noncondensing)
Operate Time: 18ms
Network Communication: Green LED
Relay Status: Red LED On = Activated
Current Sensor Status: Pink LED On = Activated
Binary Input Status: Pink LED On = Activated
Dimensions: 6.00″ x 2.75″ x 1.75″ (RIBMNWX2401B-BC)
4.28″ x 7.00″ x 2.00″
with .75″ NPT Nipple (RIBTWX2401B-BC)
Track Mount: MT212-6 Mounting Track Provided
Approvals: 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
  Or scan QR code with your smart phone.

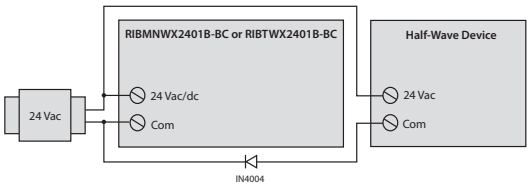
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

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).

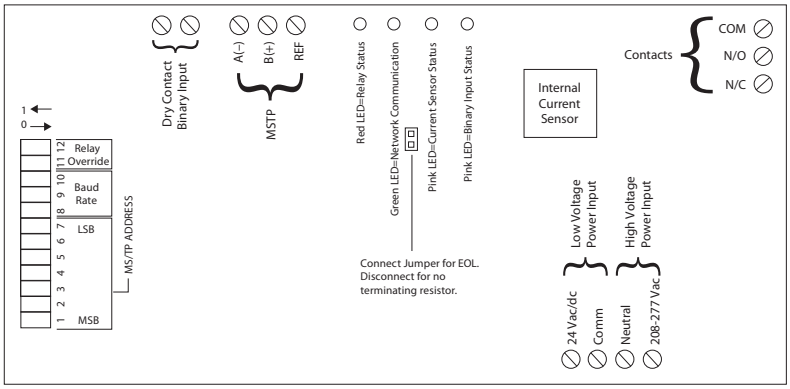
RIBMNWX2402B-BC

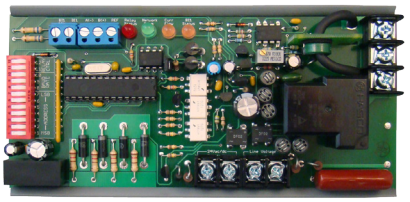
2.75˝ Track Mount BACnet® MS/TP Network Relay Device; One Binary Output (20 Amp Relay SPDT + Override); Two Binary Inputs (One Current Sensor 0.25 - 20 Amp, Relay Load Sensing & One Dry Contact Binary Input), 24 Vac/dc or 208-277 Vac Power Input, Optional End of Line Resistor (EOL) Included.

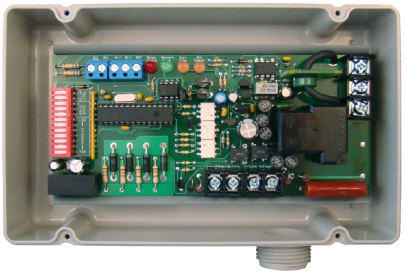
RIBTWX2402B-BC

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.

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
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

Or scan QR code with your smart phone.

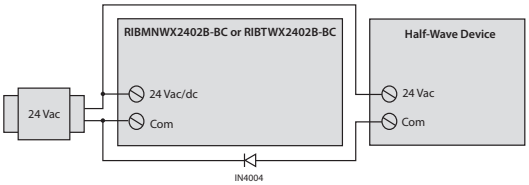
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

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).

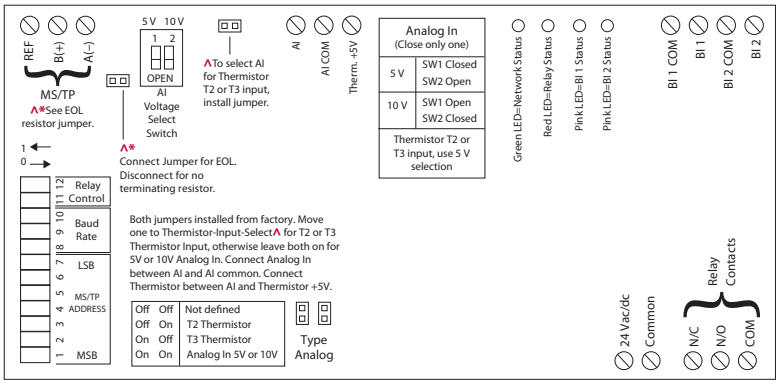
RIBMNW24B-BCAI

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.

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
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: 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 Ratings:
81 mA @ 24 Vdc
111 mA @ 24 Vac

- PIC Statement available on website.
  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.
  Examples:

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

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

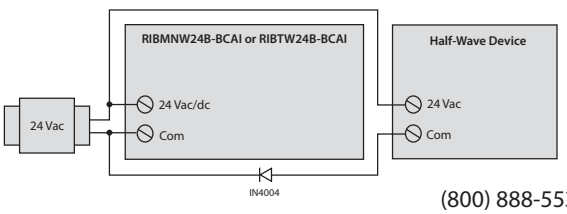
All other combinations=9600 baud

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.

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

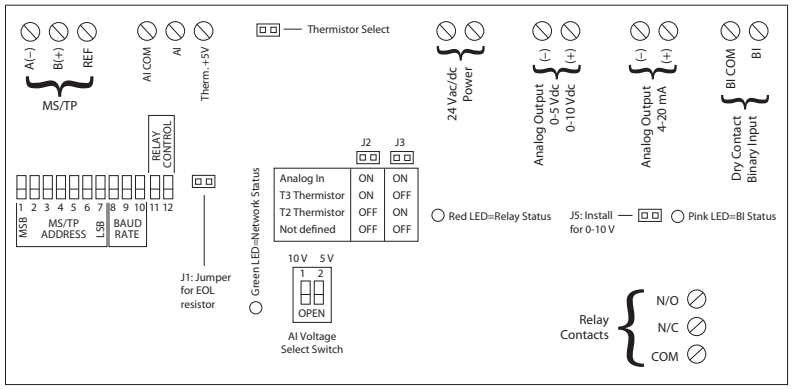


^^ Option 2:
Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

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.

Made in USA
Meets "Buy American" of ARRA 2009



Shown With Cover

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

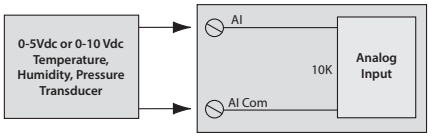
Notes:
- Use a separate 24 Vac transformer, or an isolated 24 Vdc power supply to power-up this product.
- Complete Installation Instructions: Bulletin B1756 available on website.
  www.functionaldevices.com/pdf/bulletins/B1756_393218.pdf
- When connecting 24 Vac to both the RIB(s) and a half-wave device, damage to device can occur. Option 1: Use separate transformers for each device. Option 2: Add diode between devices, see Option 2 note below. ^^

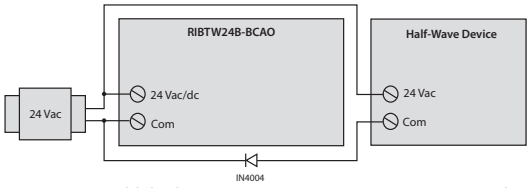
Thermistor Specifications:
- Thermistor Type 2 (T2) Precon 10 K @ 77°F (25°C) PN ST-R24, Model 24, (or equivalent.) Thermistor Type 3 (T3) Precon 10 K @ 77°F (25°C) Model 3, (or equivalent.) Thermistor not included.
- -35 to 10°C range in 1° steps / -31 to 50°F range in 1.8° steps
  10 to 32°C range 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
  Or scan QR code with your smart phone.
- Addressing Specifications: Bulletin B2028 available on website.
  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



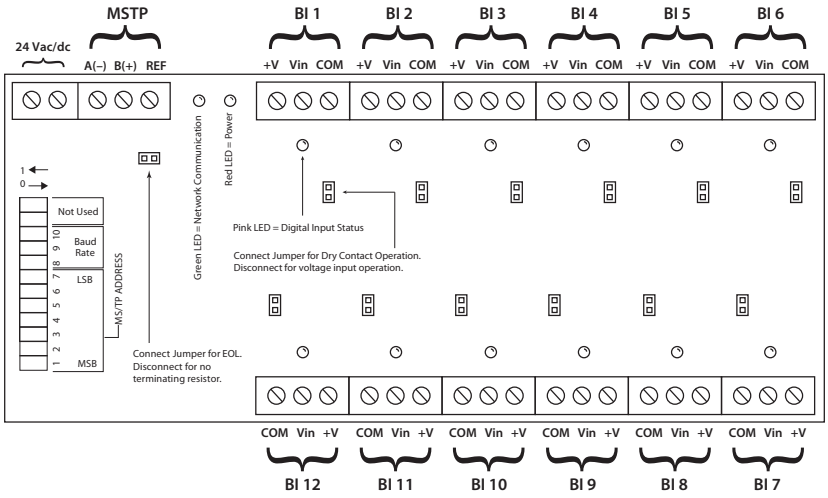


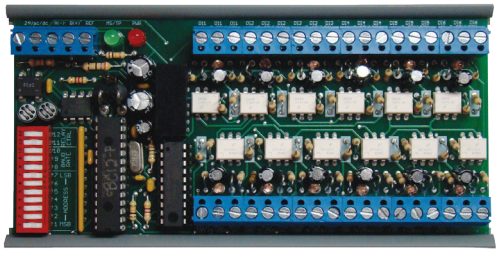
^^ Option 2: Add diode on 24 Vac power (Com) interconnection between devices. Band on diode faces towards RIB(s).

RIBMNWD12-BCDI

2.75˝ Track Mount BACnet® MS/TP Network 12 Binary Input Device; Optional End of Line Resistor (EOL) Included.

Made in USA
Meets "Buy American" of ARRA 2009





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

Binary Input Ratings:
Dry Contact: 3 mA @ 30 Vdc max.
Voltage Input: 12 mA @ 25 Vac/dc max.

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	MS/TP Address - 121
Device ID - 277004	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

- Objects included in device are:

BI 1 (Binary input)	BI 7 (Binary input)
BI 2 (Binary input)	BI 8 (Binary input)
BI 3 (Binary input)	BI 9 (Binary input)
BI 4 (Binary input)	BI 10 (Binary input)
BI 5 (Binary input)	BI 11 (Binary input)
BI 6 (Binary input)	BI 12 (Binary input)

- PIC Statement available on website.

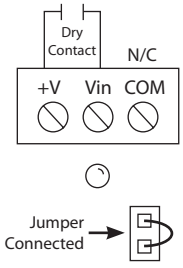
http://www.functionaldevices.com/pdf/pics/RIBMNWD12-BCDI_PICS.pdf

Or scan QR code with your smart phone.

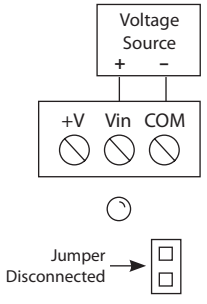
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

* 0 = Open ; 1 = Closed
All other combinations=9600 baud

Example of Dry Contact Input Operation

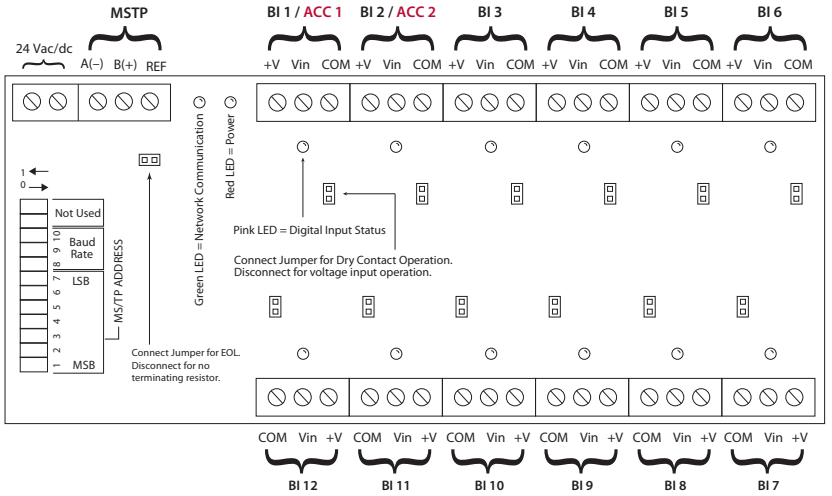


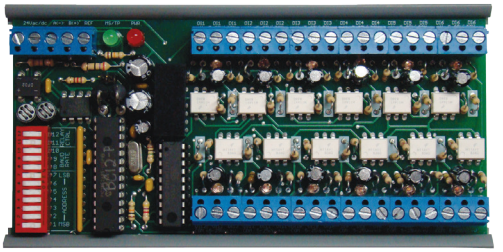
Example of Voltage Input Operation



RIBMNWD12-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.

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	MS/TP Address - 121
Device ID - 277004	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

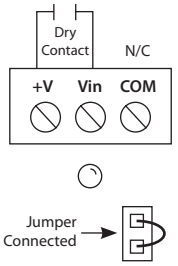
Binary Input Ratings:
Dry Contact: 3 mA @ 30 Vdc max.
Voltage Input: 12 mA @ 25 Vac/dc max.

- 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/RIBMNWD12-BC_PICS.pdf
  Or scan QR code with your smart phone.

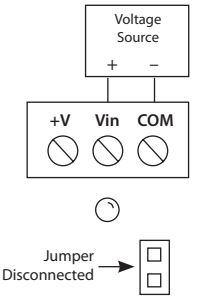
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600
1	0	0	76800
1	0	1	115200

* 0 = Open ; 1 = Closed
All other combinations=9600 baud

Example of Dry Contact Input Operation

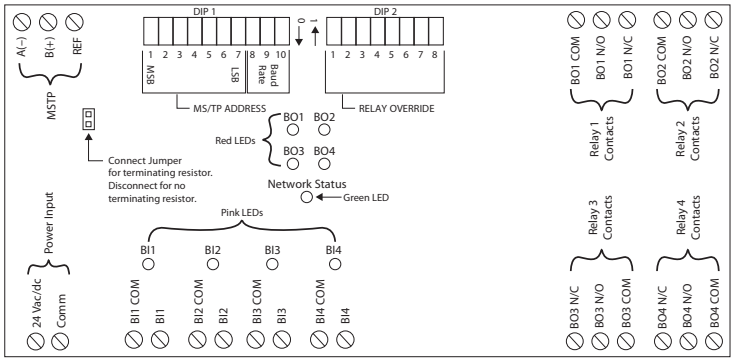


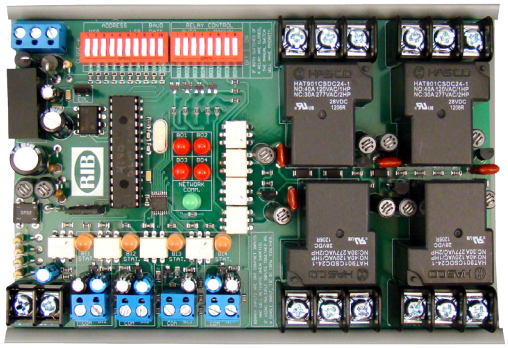
Example of Voltage Input Operation



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.





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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

  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

DIP Switches				Baud Rate
1-7	8	9	10	
See Bulletin B1082 for full MS/TP Addressing	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

- 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.

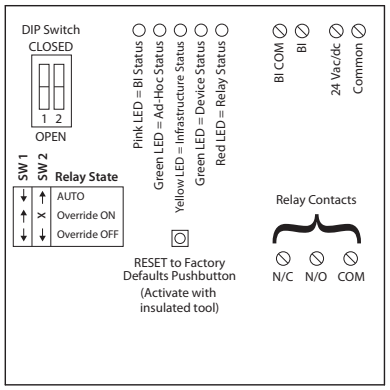
DIP 2

Relay	Relay State**	DIP Switches* 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

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



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Code Version 4.0.1

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Wi-Fi RIB™

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

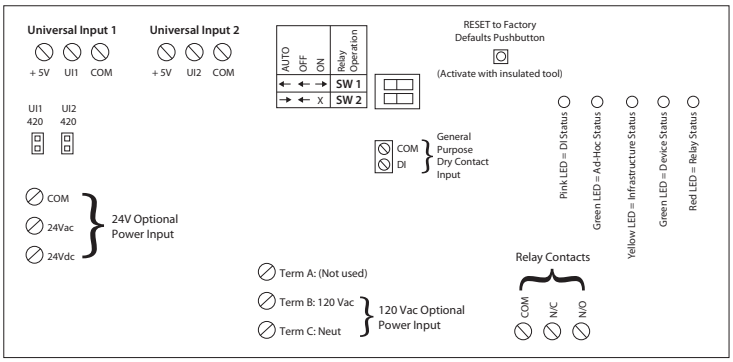
- **Setup instructions available on website.**

http://www.functionaldevices.com/pdf/bulletins/B1802_393224.pdf

Or scan QR code with your smart phone.

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 4.0.9.1.0

c UL us LISTED

CE

RoHS

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RIB™
Wi-Fi RIB™

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
Wires: 16˝, 600V Rated
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:
24 Vac = Terminal Strip (20 Vac min. ; 28 Vac max.)
24 Vdc = Terminal Strip (24 Vdc min. ; 28 Vdc max.)
120 Vac = Wht/Blk Wire
Neutral = Wht/Yel Wire

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

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*
- 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

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.

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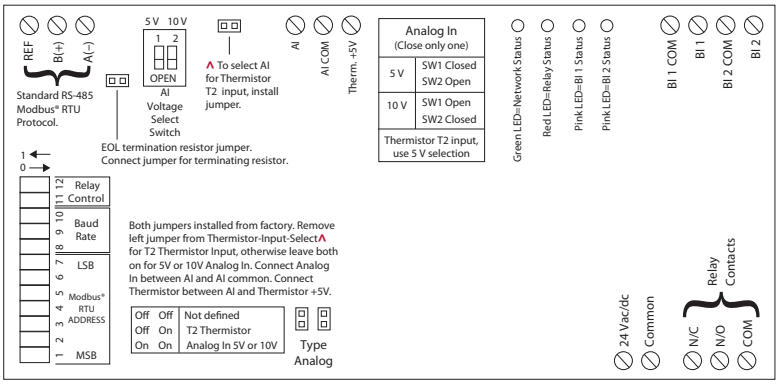
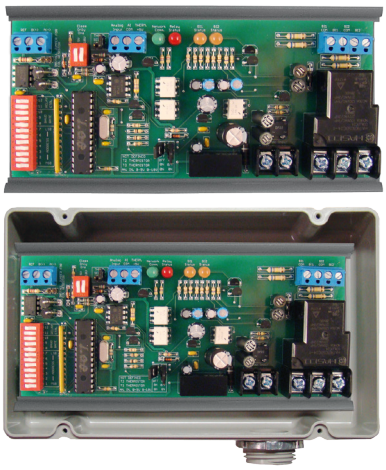




SPECIFICATIONS

 # 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

Network Media: Twisted Pair 22-24AWG, shielded recommended, EIA/TIA-485 (standard RS485)
Terminations: Functional Devices product installed at both ends of the standard RS485 Modbus® RTU network – Use 120 Ω end of line resistors. All other cases – Follow instructions from the device installed at the end of the Modbus® network.
Polarity: Network is polarity sensitive
Baud Rate: 9600, 19200, 38400, 57600 (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

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
  Or scan QR code with your smart phone.

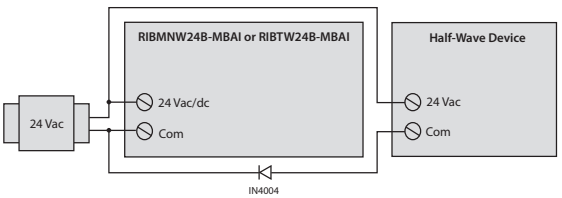
DIP SWITCHES*			BAUD RATE
8	9	10	
0	0	0	9600
0	0	1	19200
0	1	0	38400
0	1	1	57600

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 feed back to the network.



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

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SPECIALTY PERIPHERAL CONTROLS

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

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.

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
RIBLB-6NO	•	24 Vac	6			•	NEW	86
RIBLB-4NO	•	24 Vac	4			•	NEW	86
RIBLB-2NO	•	24 Vac	2			•	NEW	86

I/O EXPANDERS

(Quick reference only. See individual spec page for more information.)

MODEL #	UL[1]	POWER INPUT	RELAYS	CONTACTS	SWITCH	ENCLOSED	NOTES	SPEC PAGE
RIBMN24Q2C	•	24 Vac/dc	2	2 SPDT				87
RIBMN24Q3C	•	24 Vac/dc	3	3 SPDT				88
RIBMN24Q4C	•	24 Vac/dc	4	4 SPDT				88
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	•		89

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

UL[1] = UL Listed : UL916 Energy Management ; USA & Canada

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

c UL us LISTED

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RoHS

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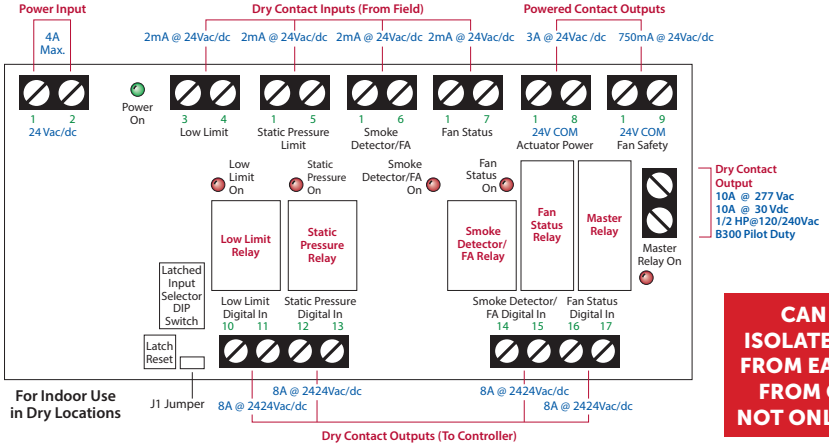
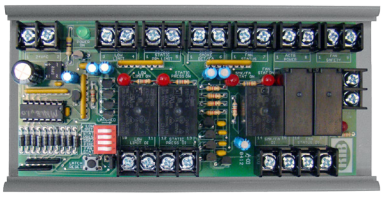
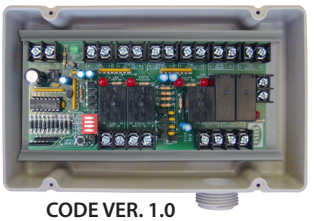






CODE VER. 1.0

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.

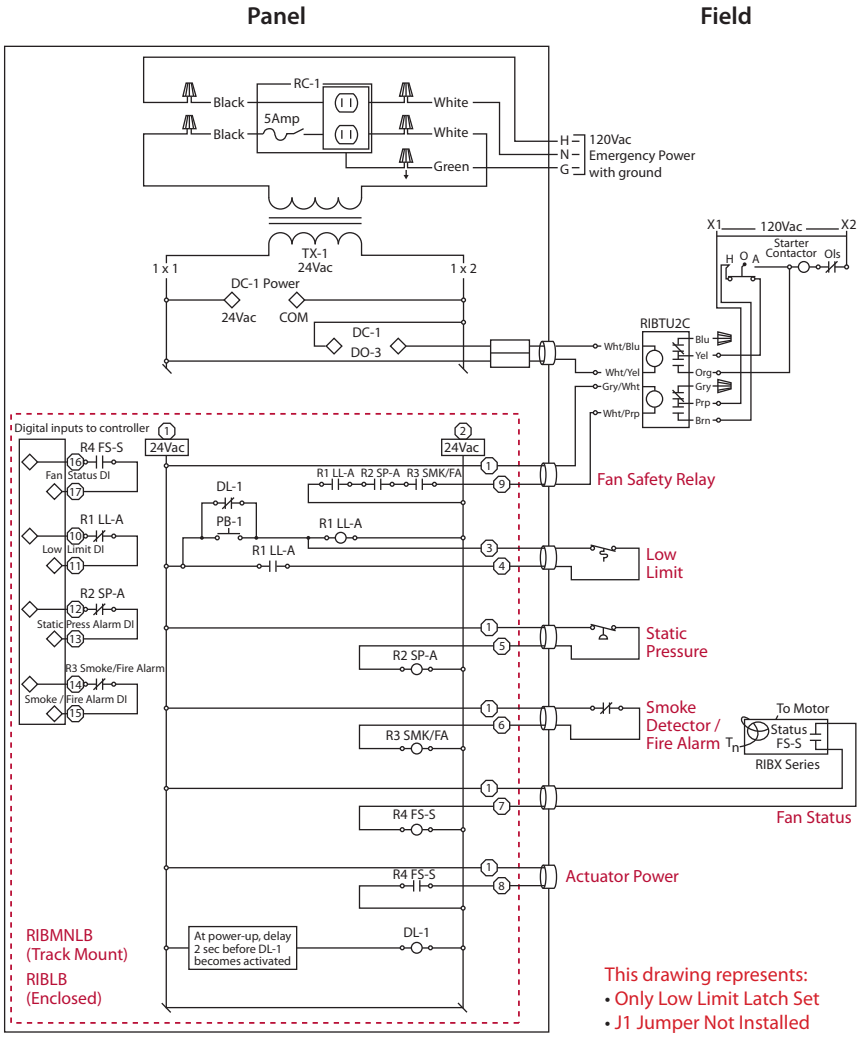
Model RIBMNLB combines all the relay logic to facilitate fan status, fan safety control, and damper actuator control. It is intended for use in a circuit that will control fan start/stop and fan safety shut-down circuit monitors three critical inputs:

- 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.



This drawing represents:
- Only Low Limit Latch Set
- J1 Jumper Not Installed

RIBMNLB-6/-4/-2

2.75˝ Track Mount AHU Fan Safety Alarm and General Purpose Logic Circuit, 24 Vac/dc Power Input

RIBLB-6/-4/-2

Enclosed AHU Fan Safety Alarm and General Purpose Logic Circuit, 24 Vac/dc Power Input

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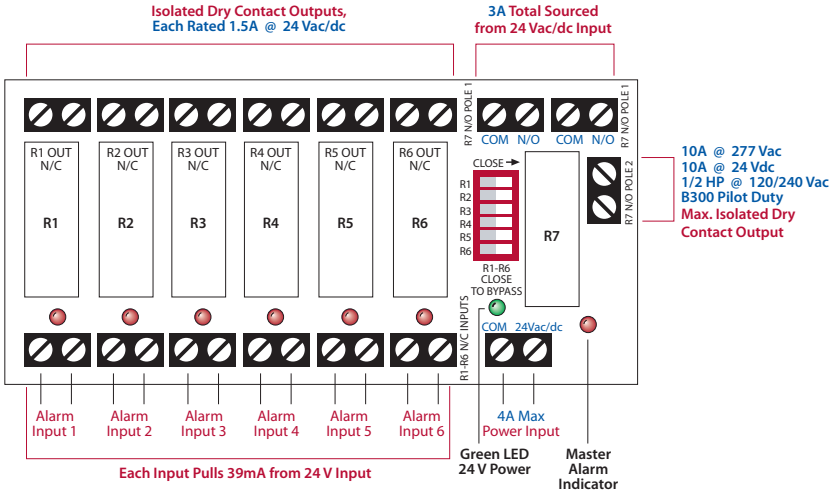
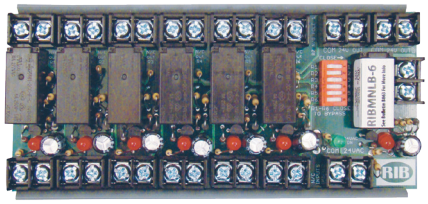
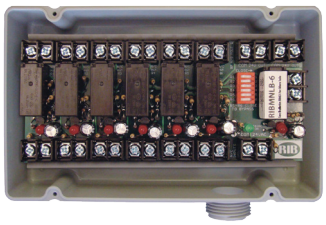






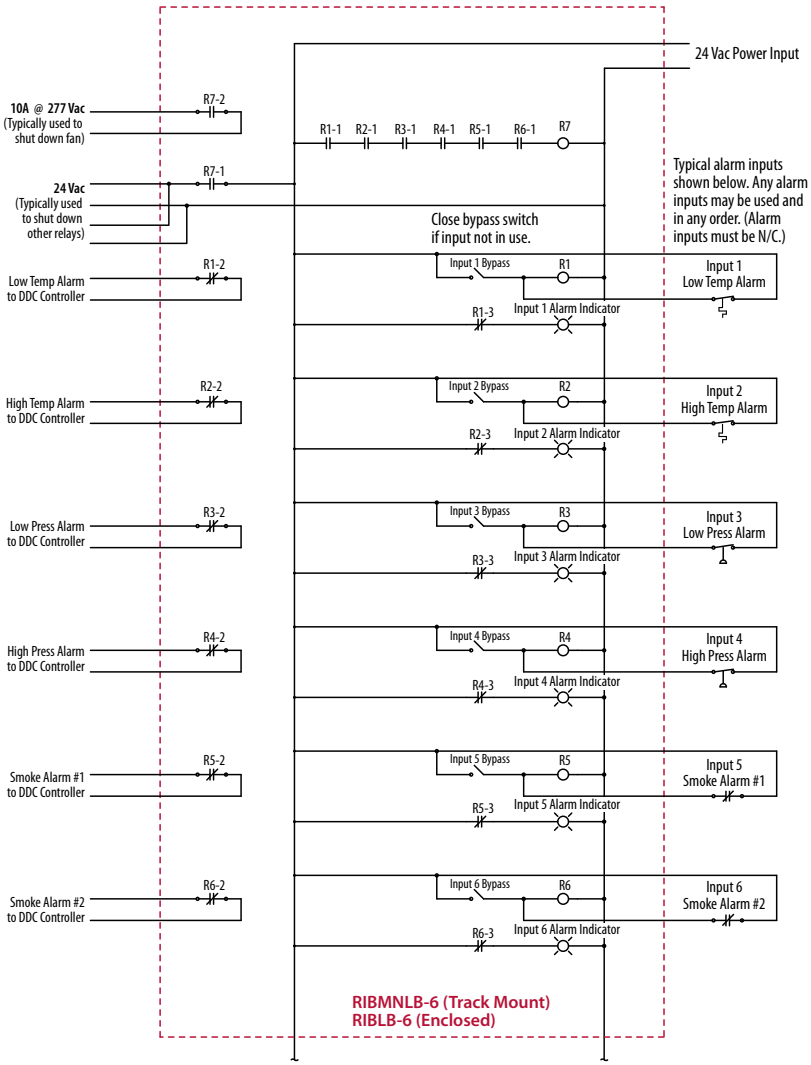
SPECIFICATIONS

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 @ 24 Vac/dc ; 50-60 Hz
Alarm Status: LED On = Activated
Dimensions: 6.000˝ x 2.750˝ x 1.750˝ (RIBMNLB-6)
4.740˝ x 2.750˝ x 1.750˝ (RIBMNLB-4)
3.200˝ 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
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:
- RIBMNLB-6 and RIBLB-6 shown above.
- 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

RIBMNLB-6NO/-4NO/-2NO

2.75˝ Track Mount AHU Fan Safety Alarm and General Purpose Logic Circuit, 24 Vac/dc Power Input

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CE

RoHS

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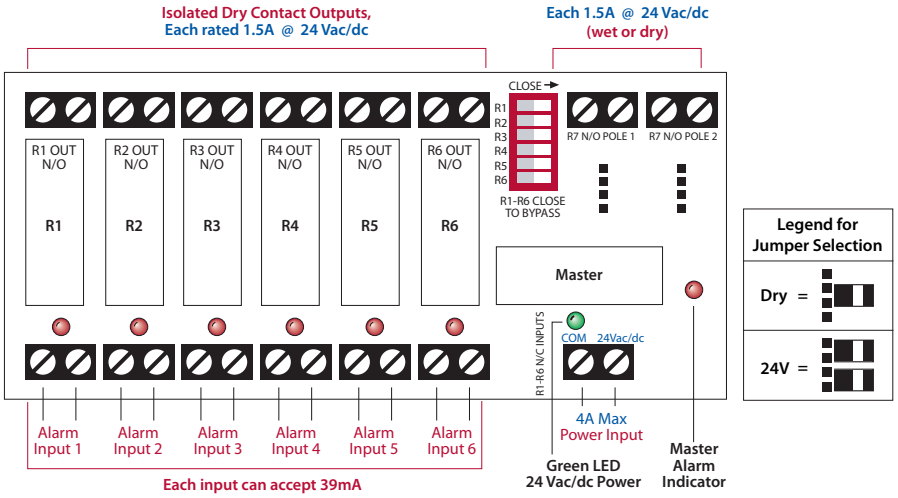


SPECIFICATIONS

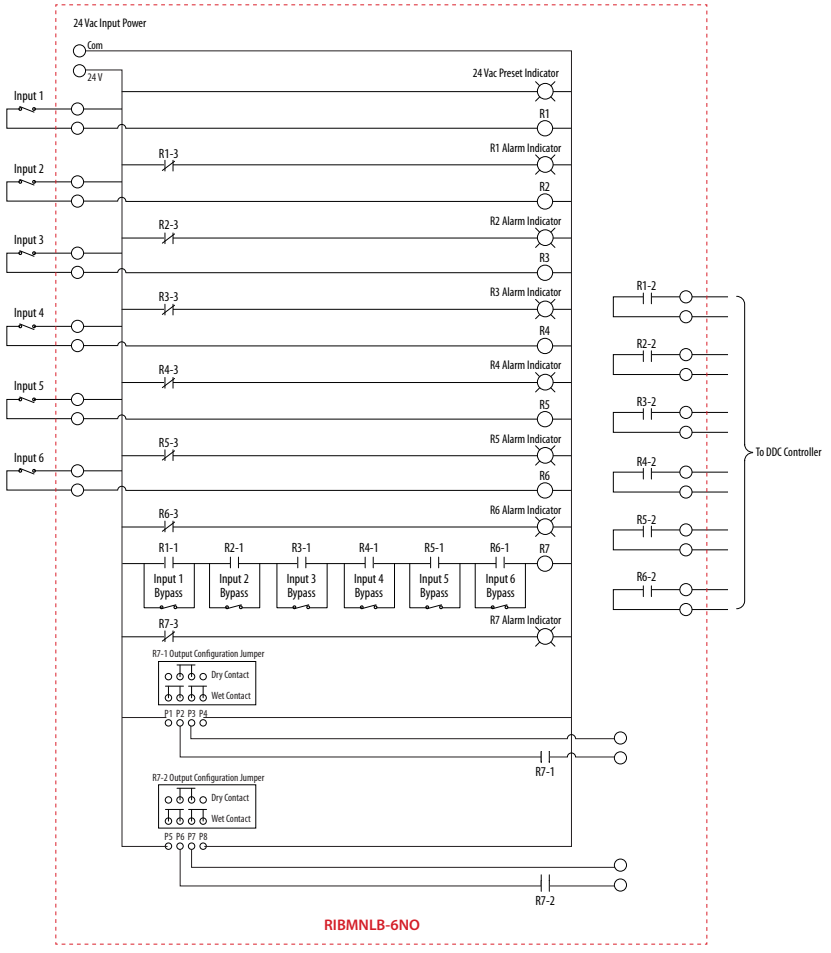
Expected Relay Life: 10 million cycles minimum mechanical
Operating Temperature: -30 to 140° F
Humidity Range: 5 to 95% (noncondensing)
Operate Time: 8ms
Power Input: 4 Amp @ 24 Vac/dc ; 50-60 Hz
Alarm Status: LED On = Activated
Dimensions: 5.120˝ x 2.750˝ x 1.750˝ (RIBMNLB-6NO)
4.020˝ x 2.750˝ x 1.750˝ (RIBMNLB-4NO)
3.910˝ x 2.750˝ x 1.750˝ (RIBMNLB-2NO)
Track Mount: MT212-6 Mounting Track Provided
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 shown.
- 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.



RIBMNLB-6NO

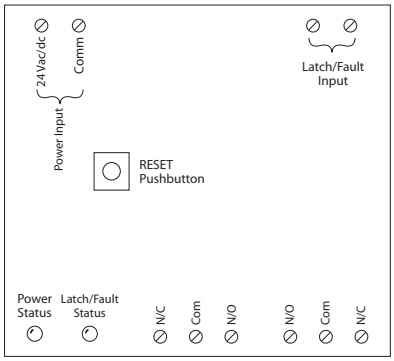
SELECTION GUIDE

Model#	Inputs	
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

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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

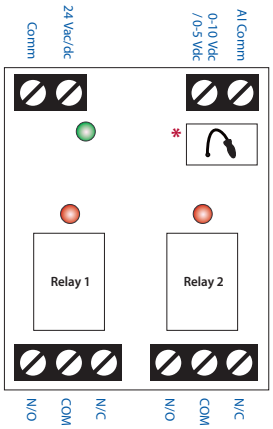
Alarm Fault Application:
When the Latch/Fault Input is Closed (Normal state), the Relay is activated, and Red LED is Off. When Latch/Fault Input Opens (Alarm state), the Relay deactivates, and Red LED turns On. Until the Latch/Fault Input is Closed AND either power is cycled or the RESET button is pressed, 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.

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

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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

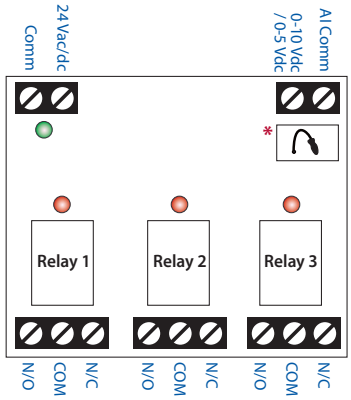
Power Input:
24 Vac/dc ; 50-60 Hz
100mA max.

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

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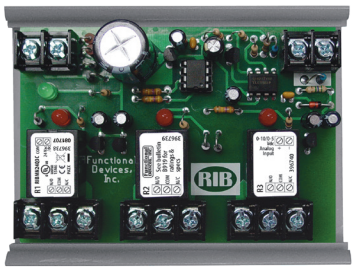


GREAT FOR STAGING LOADS SUCH AS CHILLERS, PUMPS, ACTUATORS, OR MULTI-STAGE HEATING

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

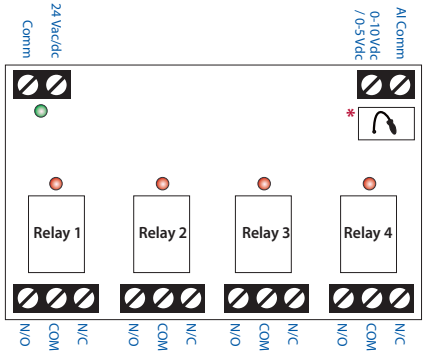
Power Input:
24 Vac/dc ; 50-60 Hz
150mA max.

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

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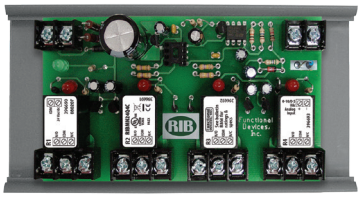


GREAT FOR STAGING LOADS SUCH AS CHILLERS, PUMPS, ACTUATORS, OR MULTI-STAGE HEATING

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

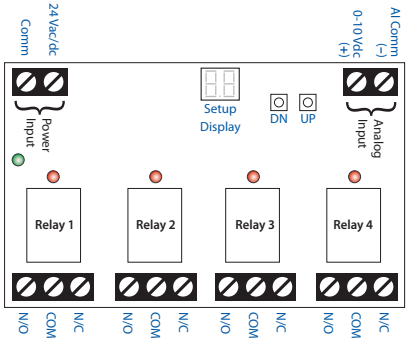
Power Input:
24 Vac/dc ; 50-60 Hz
200mA max.

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**

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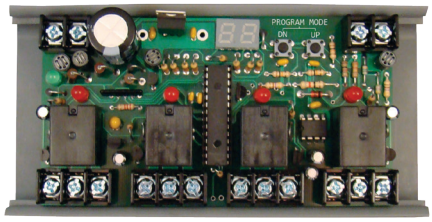


SPECIFICATIONS

 # 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

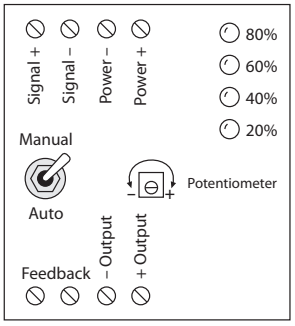
Power Input:
24 Vac/dc ; 50-60 Hz
200mA max.

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 / 8.8 V
- 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

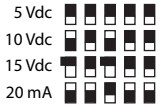
RIBMNA1D0

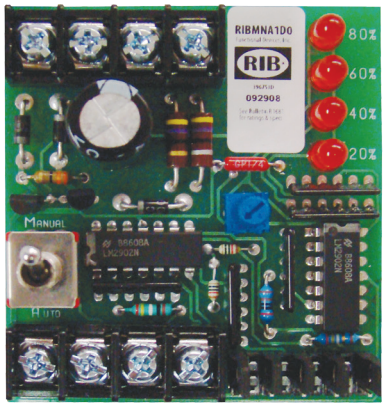
2.75˝ Track Mount Manual Analog Override Switch + Monitor with 24 Vac/dc Power Input



Legend for Selecting Output for Jumpers

- Top 2 pins covered by jumper
- Bottom 2 pins covered by jumper
- Only 1 pin covered by jumper





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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**