



RELAYS & CONTACTORS

RELAY IN A BOX

RIB, RIBT POWER SERIES

DESCRIPTION

The **Relay In A Box (RIB) Power Series** controls most BAS, HVAC, low-horsepower motor, and lighting applications. The relays come mounted and prewired in a housing, which saves the installer the time, trouble, and expense of buying separate components (relay, socket, mounting rail, and enclosure) and assembling them on the job or at the shop.

The **RIB Power Series** has a protruding 1/2" or 3/4" NPT nipple from which all wires exit (except **T Series**). To install, remove a conduit knockout in the equipment, insert the wires and nipple through the hole, tighten the locknut, and connect the wires.

RIB Power Series - 20, 30A Relays

The **RIB Power Series** has relay contacts rated for 20 and 30A. They require modest coil drive current and are used for direct switching and control of heavy electrical circuits, such as large resistive, motor, and lighting loads.

RIBT Series - High/Low Voltage Separation

The **RIBT Series** is designed to provide physically separate entrances for connections to the relay input coil and output contacts. Relay contact wires exit the housing through a 1/2" or 3/4" NPT nipple. The cover of the **RIBT Series** is removable and, with star bushings or 1/2" conduit, the coil drive wires can enter the housing through one of two convenient openings. The coil drive wires are secured to screw terminals within a separate wiring compartment in the **RIBT**. Most of the **RIBs** in the **Power Series** are also available in the **T Series**.

Functional
Devices, Inc.

RIB®



RIB2401SB

RIB2401B



FEATURES

- *Convenient and economical to use*
- *Relay status indicator via LED*
- *Coil uses low current and accepts a wide range of AC and DC voltages*
- *Closed/Open/Auto switch option available*
- *Nipple- or screw-mountable*
- *Compact, gray plastic enclosure*
- *Color-coded wires for eliminating errors*
- *UL listed for UL 916 Energy Management and UL 864 Fire*
- *Made in the USA*

SPECIFICATIONS - GENERAL

Enclosure size

A	2.3"H x 3.2"W x 1.8"D (5.84 x 8.13 x 4.57 cm)
B	4"H x 4"W x 1.8"D (10.16 x 10.16 x 4.57 cm)
G	2.3"H x 3.2"W x 1.8"D (5.84 x 8.13 x 4.57 cm)

Operating temperature -30° to 140°F (-34° to 60°C)

Humidity 5% to 95% non-condensing

Life rating (all relays) 10 million cycles min mechanical

Relay status LED, ON - relay activated

Housing Plenum rated, NEMA 1

Frequency All relays rated for 50/60 Hz

Coil pull-in/drop-out (nominal values)

COIL DRIVE	PULL-IN		DROP-OUT	
	DC	AC	DC	AC
24 VAC/VDC	22	18	3.8	3
120 VAC	—	85	—	35
208-277 VAC	—	160	—	60
480 VAC	—	340	—	140

Wire length 16" (40.6 cm)

Agency approvals UL listed, UL 916 Energy Management, UL 864 Fire, cUL listed, CSFM

Weight Approx. 1.0 lb (0.45 kg)

Warranty 1 year

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SPECIFICATIONS - POWER SERIES							
MODEL	TYPE	COIL DRIVE	SIZE-HUB	OVR SW	RELAY CONTACT RATINGS	RELAY CONTACT WIRING	RELAY COIL DRIVE DATA
RIB2401B*	1-SPDT	24 VAC/VDC 120 VAC	G-1/2	—	20A resistive 277 VAC 1 hp 120 VAC 2 hp 277 VAC 20A ballast N.O. 120/277 VAC 10A ballast N.C. 120/277 VAC 10A tungsten N.O. 120 VAC 770 VA pilot duty 120 VAC 1110 VA pilot duty 277 VAC	(blue) N.C. (yellow) Common (orange) N.O.	Wiring Common - White/Yellow wire 24 VAC/VDC - White/Blue wire 120 VAC - White/Black wire 208-277 VAC - White/Brown wire
RIB2402B*	1-SPDT	24 VAC/VDC 208 - 277 VAC	G-1/2	—	20A resistive 277 VAC 1 hp 120 VAC 2 hp 277 VAC 20A ballast N.O. 120/277 VAC 10A ballast N.C. 120/277 VAC 10A tungsten N.O. 120 VAC 770 VA pilot duty 120 VAC 1110 VA pilot duty 277 VAC	(orange) Closed (orange) Open Auto	Input Current 75 mA @ 24 VAC 32 mA @ 24 VDC 42 mA @ 120 VAC 62 ma @ 208/277 VAC
RIB2401SB*	1-SPST-NO	24 VAC/VDC 120 VAC	G-1/2	Yes	20A resistive 277 VAC 1 hp 120 VAC 2 hp 277 VAC 20A ballast N.O. 120/277 VAC 10A ballast N.C. 120/277 VAC 10A tungsten N.O. 120 VAC 770 VA pilot duty 120 VAC 1110 VA pilot duty 277 VAC	For normally closed, add -NC after model number when ordering.	
RIB2402SB*	1-SPST-NO	24 VAC/VDC 208 - 277 VAC	G-1/2	Yes	20A resistive 277 VAC 1 hp 120 VAC 2 hp 277 VAC 20A ballast N.O. 120/277 VAC 10A ballast N.C. 120/277 VAC 10A tungsten N.O. 120 VAC 770 VA pilot duty 120 VAC 1110 VA pilot duty 277 VAC		
RIB01P	1-DPDT	120 VAC	B-1/2	—	20A resistive 300 VAC 20A resistive 28 VDC, 15 VDC 15A resistive 600 VAC 1 hp 120 VAC 2 hp 240-277 VAC 3 hp 480-600 VAC 20A ballast 277-480 VAC 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	(blue) N.C. (yellow) Common (orange) N.O. (gray) N.C. (purple) Common (brown) N.O.	Wiring 120 VAC - White/Black wires 208-277 VAC - White/Brown wires 480 VAC - White/Green wires Input Current 100 mA @ 120-480 VAC
RIB04P	1-DPDT	480 VAC	B-1/2	—	20A resistive 300 VAC 20A resistive 28 VDC, 15 VDC 15A resistive 600 VAC 1 hp 120 VAC 2 hp 240-277 VAC 3 hp 480-600 VAC 20A ballast 277-480 VAC 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		Wiring 24 VAC White/Yellow wires Input Current 125 mA @ 24 VAC 50 mA @ 24 VDC
RIB24P*	1-DPDT	24 VAC/VDC	G-1/2	—	20A resistive 277 VAC 1 hp 120 VAC 2 hp 277 VAC 20A ballast N.O. 120/277 VAC 10A ballast N.C. 120/277 VAC 10A tungsten N.O. 120 VAC 770 VA pilot duty 120 VAC 1110 VA pilot duty 277 VAC	Auto Manual N.C. - Closed Open N.O. - Closed	Wiring Common - White/Yellow wire 24 VAC/VDC - White/Blue wire 120 VAC - White/Black wire 208-277 VAC - White/Brown wire Input Current 75 mA @ 24 VAC 32 mA @ 24 VDC 42 mA @ 120 VAC
RIB2401SBC*	1-SPDT	24 VAC/VDC 120 VAC	G-1/2	Yes-2	20A resistive 277 VAC 1 hp 120 VAC 2 hp 277 VAC 20A ballast N.O. 120/277 VAC 10A ballast N.C. 120/277 VAC 10A tungsten N.O. 120 VAC 770 VA pilot duty 120 VAC 1110 VA pilot duty 277 VAC	(yellow) Common (blue) Common (orange) N.C. (orange) N.O.	Wiring Common - White/Yellow wire 24 VAC/VDC - White/Blue wire 120 VAC - White/Black wire 208-277 VAC - White/Brown wire Input Current 75 mA @ 24 VAC 32 mA @ 24 VDC 42 mA @ 120 VAC
RIB2402SBC*	1-SPDT	24 VAC/VDC 208 - 277 VAC	G-1/2	Yes-2	20A resistive 277 VAC 1 hp 120 VAC 2 hp 277 VAC 20A ballast N.O. 120/277 VAC 10A ballast N.C. 120/277 VAC 10A tungsten N.O. 120 VAC 770 VA pilot duty 120 VAC 1110 VA pilot duty 277 VAC		
RIB24S2*	1-DPST-NO	24 VAC/VDC	B-1/2	Yes Double Pole	20A resistive 277 VAC 1 hp 120 VAC 2 hp 240-277 VAC 10A tungsten 120 VAC 20A ballast 277-480 VAC 770 VA pilot duty 120 VAC 1,110 VA pilot duty 277 VAC	Double Pole Switch Relay Pole #1 Relay Pole #2 (orange) Closed (brown) (orange)- Open (brown) Auto	Wiring 24 VAC/VDC White/Yellow wires 120 VAC White/Black wires 208-277 VAC White/Brown wires 480 VAC White/Green wires Input Current 125 mA @ 24 VAC 50 mA @ 24 VDC 75 mA @ 120 VAC 95 mA @ 208-277 VAC 95 mA @ 480 VAC
RIB01S2		120 VAC					
RIB02S2		208-277 VAC					
RIB04S2		480 VAC					
RIB243P*	1-3PST-NO	24 VAC/VDC	B-1/2	—	20A resistive 300 VAC 20A resistive 28 VDC 15A resistive 600 VAC 1 hp 120 VAC, 1 PH 2 hp 240-277 VAC, 1 PH 3 hp 480-600 VAC 1 PH 5 hp 240 VAC, 3 PH 7.5 hp 480 VAC 3 PH 20A ballast 277-480 VAC 1466 VA 240 VAC, 3 PH 2112 VA 480 VAC, 3 PH	(blue) N.O. (blue) N.O. (yellow) N.O. (yellow) N.O. (orange) N.O. (orange) N.O.	Wiring 24 VAC/VDC - White/Yellow wires 120 VAC - White/Black wires 208-277 VAC - White/Brown wires 480 VAC - White/Green wires Input Current 190 mA @ 24 VAC 140 mA @ 30 VDC 140 mA @ 120 VAC 170 mA @ 208-277 VAC 120 mA @ 480 VAC
RIB013P	1-3PST-NO	120 VAC	B-1/2	—			
RIB023P	1-3PST-NO	208-277 VAC	B-1/2	—			
RIB043P	1-3PST-NO	480 VAC	B-1/2	—			
RIB24P30	1-DPDT	24 VAC/VDC	A-3/4	—	30A resistive 300 VAC 25A resistive 28 VDC 15A resistive 600 VAC 1 hp 120 VAC 2 hp 240-277 VAC 3 hp 480-600 VAC 20A ballast 277-480 VAC 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	(blue) N.C. (yellow) Common (orange) N.O. (gray) N.C. (purple) Common (brown) N.O.	Wiring 24 VAC/VDC - White/Yellow wires Input Current 125 mA @ 24 VAC 50 mA @ 24 VDC

ORDERING INFORMATION

Order by model number

* Models may be ordered in RIBT Series with high/low voltage separation. Contact Kele.