



Functional Devices RIBTD2401B Enclosed Time Delay Relay Owner's Manual

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Functional Devices RIBTD2401B Enclosed Time Delay Relay



Product Information

The RIBTD2401B is an enclosed time delay relay with a single pole double throw (SPDT) contact type and a 20 Amp continuous duty coil. It has a timing range of 6 seconds to 20 minutes and a timing adjustment of 4 position dip switch for range selection and a single-turn potentiometer for timing adjustment within range. The relay has a voltage timing variance of +1% and a temperature timing variance of +1%. It has a maximum recycle time of 750ms and dimensions of 4.00 x 4.00 x 1.80 with a .50 NPT nipple. The relay is UL Listed, UL916, C-UL, CE, RoHS approved, and is accepted for use in plenum and NEMA 1 housing.

Product Usage Instructions

The RIBTD2401B can be used for various applications that require a time delay. Below are the steps to use the relay:

1. Connect the required voltage input to the coil – 24 Vac/dc or 120 Vac, 50-60 Hz.
2. Select the required timing range by depressing the corresponding switch on the dip switch (1-4) as per the timing table provided.
3. Adjust the timing within the selected range using the potentiometer (A-D).
4. Connect the load that needs to be delayed to the relay contact as per the application example provided in the user manual.

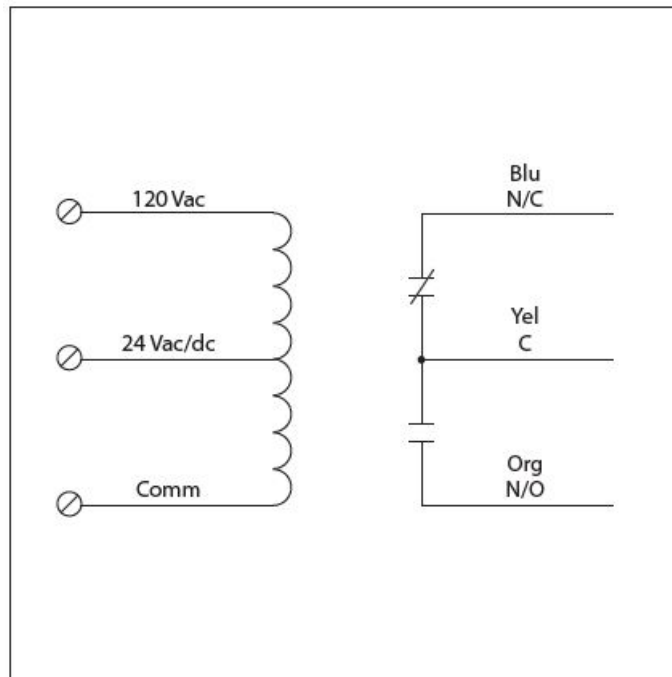
Note:

The relay can be used for various applications such as controlling thermostats, heaters, circulating fans, and electronic ballasts. It is important to refer to the user manual for specific application examples and wiring diagrams.

20 AMP TIME DELAY RELAY

RIBTD2401B

Enclosed Time Delay Relay 20 Amp SPDT with 24 Vac/dc/120 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:** 6ms after a 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

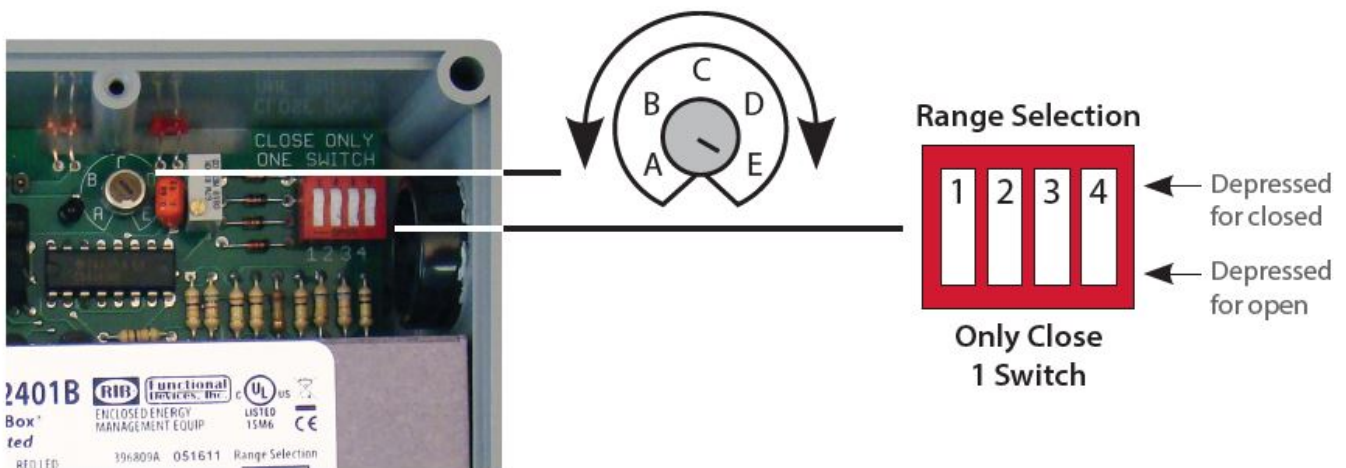
Input Current:

- 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

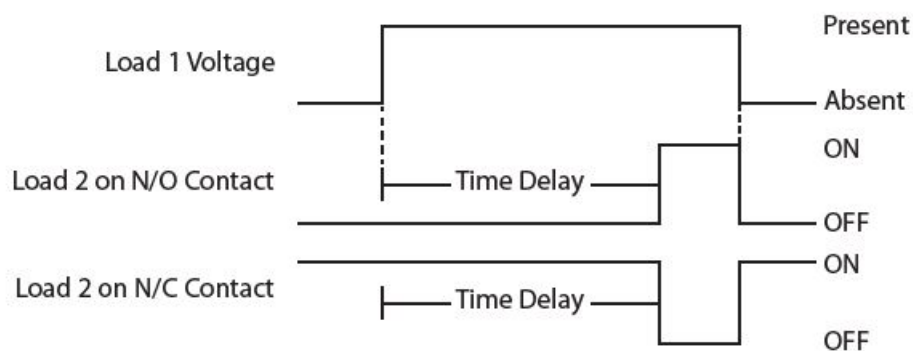
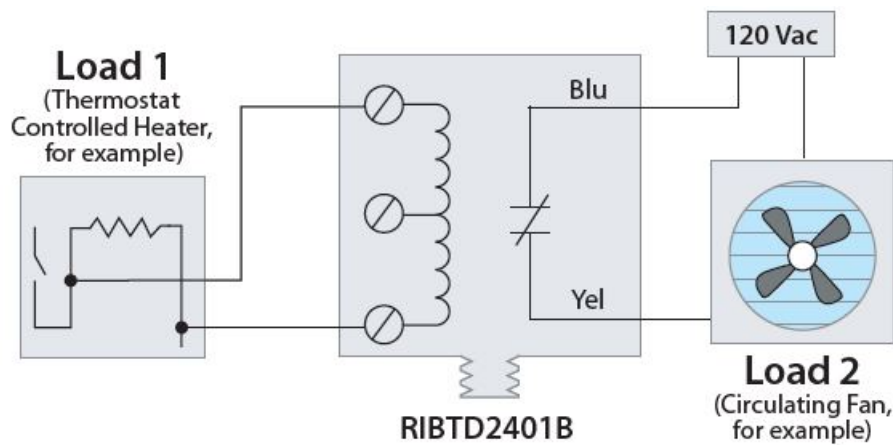
Timing Adjustment



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

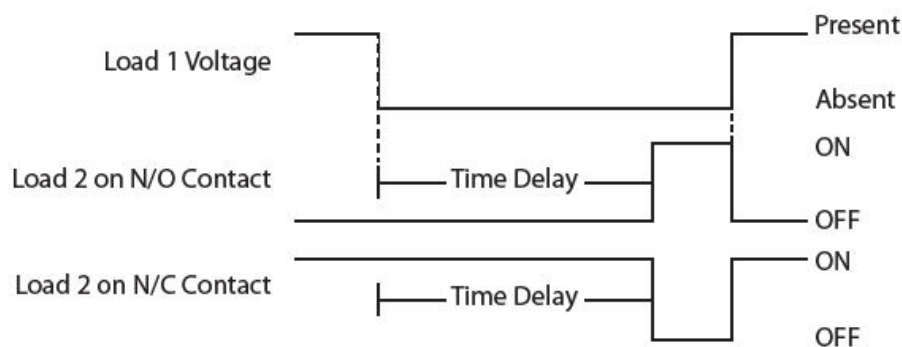
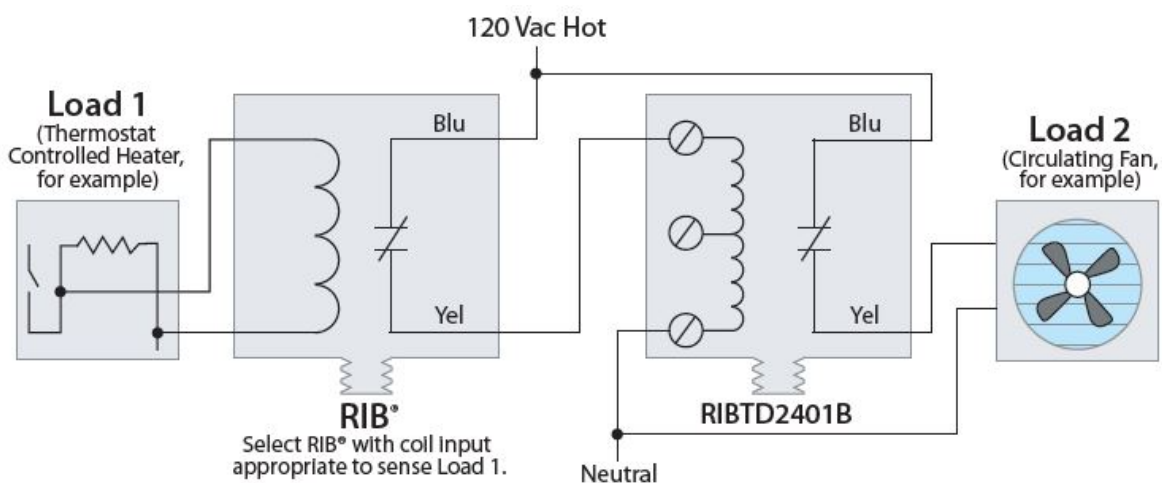
Time Delay Application Example #1

- 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)



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The warranty does not apply to (a) Damage caused by accident, abuse, mishandling, or dropping; (b) Products that have been subjected to unauthorized repair, opened, or taken apart; (c) Products not used in accordance with directions; (d) Damages exceeding the cost of such Product; and (e) Damages caused by lightning, water, or condensation. If warranty service is required during the Warranty Period, and if examination shall disclose to Seller's satisfaction that such Product was originally defective, then Seller will at its option repair or replace the product without charge upon prepaid delivery of such Product to Seller's facility with proof of date of purchase. Corrections of such defects by repair to or supplying of replacements for defective parts shall constitute fulfillment of all obligations of Seller. Seller shall not be liable for loss, damage, or expense directly or indirectly caused by the failure of Products to perform as expected.

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7. **LIMITATION OF LIABILITY:** SELLER WILL NOT BE LIABLE FOR ANY LOSS OF PROFIT, INTERRUPTION OF BUSINESS, OR ANY OTHER SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES SUFFERED OR SUSTAINED BY BUYER FOR ANY REASON. EXCEPT FOR CLAIMS OF DEATH OR PERSONAL INJURY, IN

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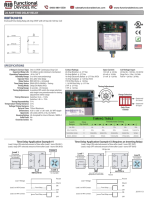
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10. **EXPORTS.** Buyer agrees that it will comply with any and all U.S. Export Controls and will not pay for, resell, transfer or knowingly sell Products in violation of U.S. Export Controls. If Buyer resells Products within or exports Products to a country or region which imposes upon Seller and/or Buyer an obligation to fund or undertake reuse, recycling, composting, recovery of Products, or any similar obligation (e.g., the European Union's Waste Electrical and Electronic Equipment Directive, EC 2002/96/EC) (the "Obligations"), Buyer shall wholly under-take the Obligations or duties and shall be entirely responsible for all associated costs therewith. Seller shall have no obligation to reimburse Buyer for the execution of the Obligations. In the event that Seller is named in a proceeding based upon the Obligations, Buyer shall indemnify, defend and hold Seller harmless from all actions related thereto, including all civil and governmental actions.
11. **MISCELLANEOUS.** This Agreement is governed by the laws of the State of Indiana, without giving effect to its conflict of laws principles. Buyer hereby irrevocably consents and submits to the exclusive jurisdiction and venue of the state and federal courts in Marion County, Indiana. The United Nations Convention for Contracts for the International Sale of Goods is explicitly excluded. Each provision contained in this Agreement constitutes a separate and distinct provision severable from all other provisions. If any provision (or any part thereof) is unenforceable under or prohibited by any present or future law, then such provision (or part thereof) will be amended and is hereby amended, so as to be in compliance with such law, while preserving the maximum extent possible the intent of the original provision. Any provision (or part thereof) that cannot be so amended will be severed from this Agreement; and, all the remaining provisions of this Agreement will remain unimpaired. No modification, addition or deletion, or waiver of any rights under this Agreement is binding on a party unless made in a non-preprinted agreement clearly understood by the parties to be a modification or waiver, and signed by a duly authorized representative of each party.

Contact Information

Functional Devices, Inc.

- **Address:** 101 Commerce Drive Sharpsville, IN 46068
- **Toll-free:** (800) 888-5538
- **Office:** (765) 883-5538
- **Fax:** (765) 883-7505
- **Email:** sales@functionaldevices.com.
- **Website:** www.functionaldevices.com.

Documents / Resources

	<p>Functional Devices RIBTD2401B Enclosed Time Delay Relay [pdf] Owner's Manual RIBTD2401B Enclosed Time Delay Relay, RIBTD2401B, Enclosed Time Delay Relay, Time Delay Relay, Delay Relay</p>
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