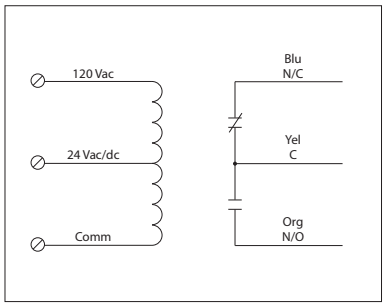
RIB Building Automation

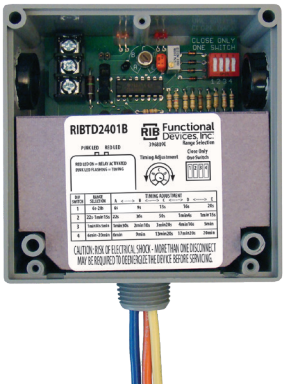
**Functional Devices, Inc.** | 101 Commerce Drive, Sharpsville, IN 46068
**Email:** sales@functionaldevices.com | **Website:** www.functionaldevices.com
**Toll Free:** (800) 888-5538 | **Office:** (765) 883-5538 | **Fax:** (765) 883-7505

## 20 AMP TIME DELAY RELAY

# RIBTD2401B

Time Delay Power Relay, 20 Amp SPDT, 24 Vac/dc/120 Vac Coil, NEMA 1 Housing



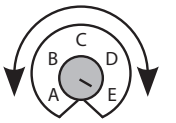

## SPECIFICATIONS

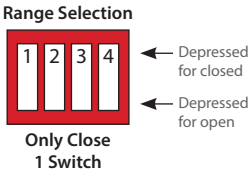
**# Relays & Contact Type:** One (1) SPDT Continuous Duty Coil
**Expected Relay Life:** 10 million cycles minimum mechanical
**Operating Temperature:** -30 to 140° F
**Humidity Range:** 5 to 95% (noncondensing)
**Operate Time:** 6ms after time delay
**Relay Status:** RED LED On = Activated
**Time Delay 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:** 4.000˝H x 4.000˝W x 1.810˝D with .50˝ NPT nipple
**Housing Detail:** See **Housing C** in housing guide for dimensions
**Origin:** Made of US and non-US parts
**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

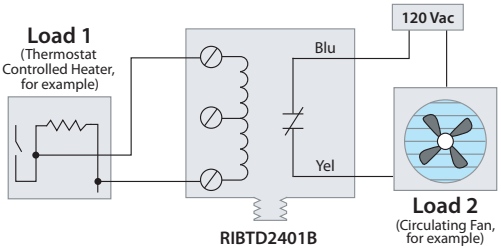



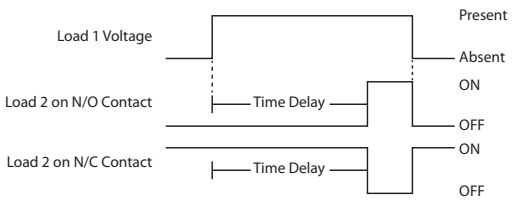

## TIMING TABLE

| 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)