

# Time Delay Relays – Delay on Operate

## R28 Series



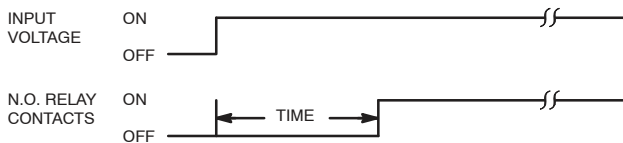
### Features

- $\pm 0.1\%$  Repeatability
- 8-Pin Octal Base
- Knob with Calibrated Scale
- 3-Timing Ranges
- Impact Proof Dust Cover
- IC Hybrid Circuitry for Timing



### OPERATION

**DELAY ON OPERATE**– The delay period begins when input voltage is applied. At the end of the delay period, the relay will operate and will not release until input voltage is removed. Reset occurs when input voltage is reapplied.



### AC OPERATED

| NTE Type No.   | Nom. Voltage | Contact Arr. | Input Cur. Nom. | Max. Contact Cur. @ 28VDC or 120VAC | Diag No. |
|----------------|--------------|--------------|-----------------|-------------------------------------|----------|
| R28-11A10-120K | 120VAC       | DPDT         | 20mA            | 10A                                 | D16      |
| R28-11A10-120L | 120VAC       | DPDT         | 20mA            | 10A                                 | D16      |
| R28-11A10-120M | 120VAC       | DPDT         | 20mA            | 10A                                 | D16      |

### DC OPERATED

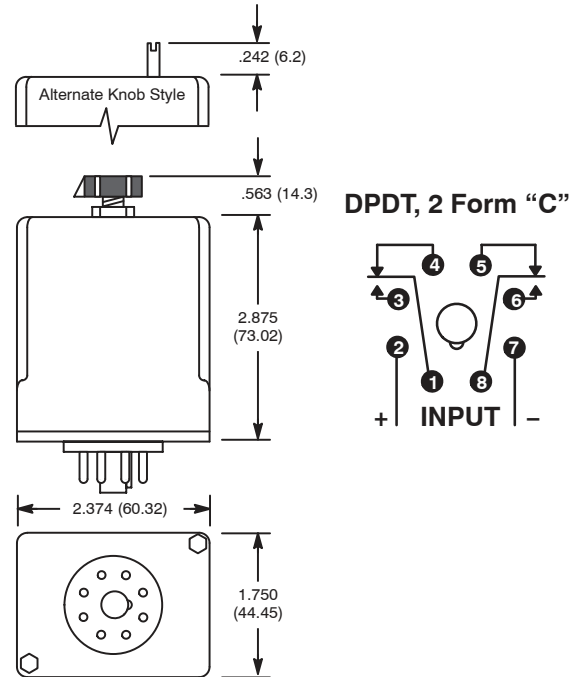
|               |       |      |      |     |     |
|---------------|-------|------|------|-----|-----|
| R28-11D10-24K | 24VDC | DPDT | 40mA | 10A | D16 |
| R28-11D10-24L | 24VDC | DPDT | 40mA | 10A | D16 |

### ACCESSORIES

| MOUNTING STYLES | DESCRIPTION | NTE TYPE NO. |
|-----------------|-------------|--------------|
| SURFACE MOUNT   | 8-PIN OCTAL | R95-101      |
| PANEL MOUNT     | 8-PIN OCTAL | R95-118      |
| DIN RAIL MOUNT  | 8-PIN OCTAL | R95-113      |
| DIN RAIL MOUNT  | 8-PIN OCTAL | R95-181      |

## DPDT, 10 Amp AC & DC Adjustable Delay On Operate Time Delay Relays.

### D16



## Electrical Specifications

### Contact

**Rating:** 10 Amps 120 VAC, 30 VDC–8 Amp, 1/2 HP @ 240 VAC, 1/3 HP @ 120 VAC  
**Life:** 500,000 ops @ 120 VAC, 10A resistive  
 1,000,000 ops @ 120 VAC, 5A resistive  
 2,000,000 ops @ 120 VAC, 2A resistive  
**Mechanical Life:** 50,000,000 operations

### Input

**Nominal Input voltage:** See Chart  
**Steady state input current:** See Chart

### Timing

**Timing adjustment modes available:**  
 0.1 to 10 sec (K-suffix)  
 1.8 to 180 sec (L-suffix)  
 3.0 to 300 sec (M-suffix)

### Repeat Accuracy

$\pm 0.1\%$  – constant voltage & temperature  
**Percent Timing change over temperature & voltage range:**  
 $\pm 10\%$

**Timing tolerance at high end of range:**  $-0, +40\%$   
**Timing tolerance at low end of range:**  $+0, -40\%$

**Reset Time:** 100 mS max  
**Release Time:** 100 mS max

### Protection

**Transient:** UL508 surge test 5000V for 50 mS  
**Dielectric Breakdown**

**Coil To Contact:** 1500 VAC  
**Across Open Contact:** 1000 VAC  
**Noise Immunity:** NEMA ICS 2-230  
 2500 VAC

### Environmental Characteristics

**Operating:**  $-10^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$   
**Storage:**  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

### Weight

**Std:** 4 oz (115 gram) approx.