



## Miniature 10 Amps • 4PDT To MIL-PRF-83536 DC Suppressed Coils

## SPECIFICATIONS

### GENERAL

**Contact Arrangement** .....4PDT (4 Form C)  
**Weight**.....3.0 oz approx.  
 Designed to meet the requirements of MIL-PRF-83536

### PERFORMANCE

#### Contact Rating (Note 1):

Resistive .....10 Amps @ 28 VDC or  
 115/208V 400 Hz  
 (Case Grounded)  
 Inductive .....8 Amps @ 28 VDC or  
 115/208V 400 Hz  
 (Case Grounded)  
 2.5 Amps @ 115/208V 60 Hz  
 (Case Grounded)  
 Motor.....4 Amps @ 28 VDC or  
 115/208V 400 Hz  
 (Case Grounded)  
 2 Amps @ 115/208V 60 Hz  
 (Case Grounded)  
 Lamp .....2 Amps @ 28 VDC or  
 115/208V 400 Hz  
 (Case Grounded)  
 1.5 Amps @ 115/208V 60 Hz  
 (Case Grounded)

**Life** .....100,000 operations minimum @ rated  
 resistive load, 125°C

**Pull In Power** .....500 mw approx.

**Operate/Release Time:** **DC Coil**  
 15 ms max  
 Excluding bounce time at nominal coil voltage

**Contact Bounce Time**.....1 ms max  
 @ rated contact load, 28 VDC

**Contact Voltage Drop:**  
 Before Life .....150 mv max @ 10 Amps  
 and 6 VDC  
 After Life .....175 mv max @ 10 Amps  
 and 6 VDC

### ENVIRONMENTAL

**Temperature Range** .....-70°C to +125°C  
**Vibration** (Note 2).....0.12" DA 10 - 70 Hz  
 30 G's 70 - 3,000 Hz

**Shock (Operating)**(Note 2) .....200 G's 6 ms

### ELECTRICAL CHARACTERISTICS

**Duty Cycle**.....Continuous  
**Insulation Resistance** .....100 megohms  
 @ 500V 25°C

**Dielectric Strength:**  
 Sea Level:  
 Contact to Case .....1,250 VRMS  
 Contact to Coil .....1,250 VRMS  
 Coil to Case .....1,000 VRMS  
 Across Open Contacts .....1,250 VRMS  
 80,000 Feet:  
 All Points .....350 VRMS

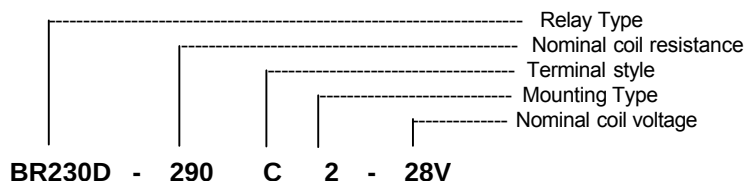
**MIL-PRF-83536/16 QUALIFIED to ER level M**

#### Notes

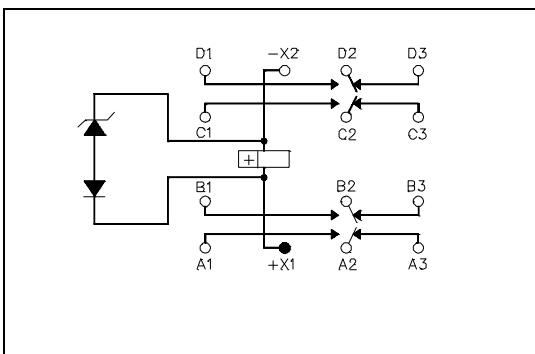
- For other ratings consult the factory.
- For applications requiring higher shock and vibration, consult the factory.
- AC coil line frequency 50 to 400 Hz.

## COIL DATA

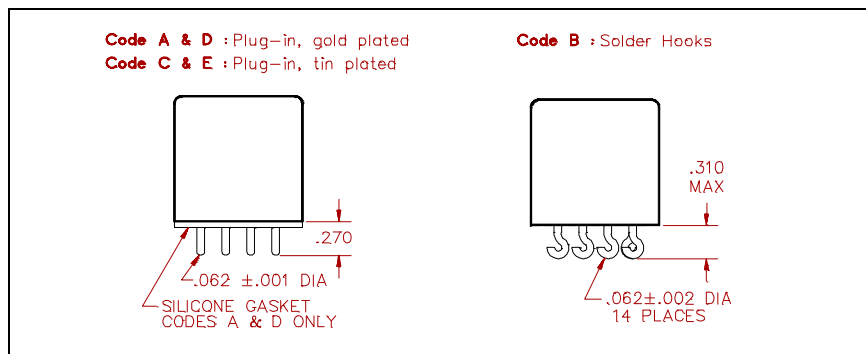
| MODEL BR230D PART NUMBER          | BR230D-20(0)-6V | BR230D-78(0)-12V | BR230D-290(0)-28V | BR230D-890(0)-48V |
|-----------------------------------|-----------------|------------------|-------------------|-------------------|
| NOMINAL COIL VOLTAGE              | 6 VDC           | 12 VDC           | 28 VDC            | 48 VDC            |
| MAXIMUM COIL VOLTAGE              | 8 VDC           | 15 VDC           | 29 VDC            | 59 VDC            |
| PULL IN VOLTAGE (MAX @ +125°C)    | 4.5 VDC         | 9 VDC            | 18 VDC            | 36 VDC            |
| DROP OUT VOLTAGE (MAX)            | 1.8 VDC         | 3.5 VDC          | 5.1 VDC           | 11 VDC            |
| MAXIMUM BACK EMF                  | 9 VDC           | 18 VDC           | 42 VDC            | 72 VDC            |
| COIL RESISTANCE $\pm 10\%$ @ 25°C | 20 OHMS         | 78 OHMS          | 290 OHMS          | 890 OHMS          |



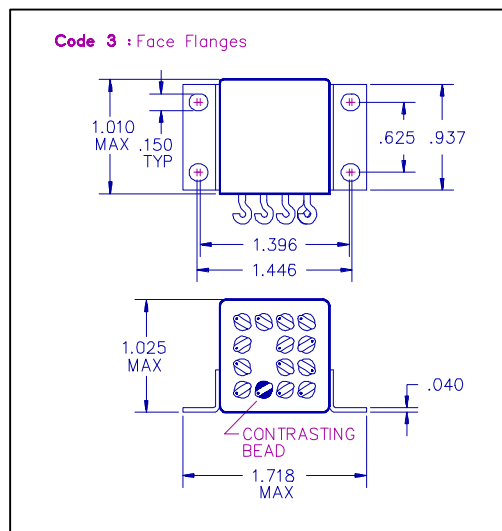
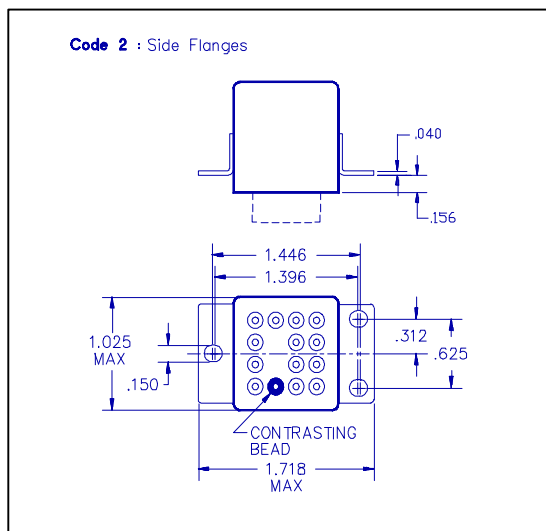
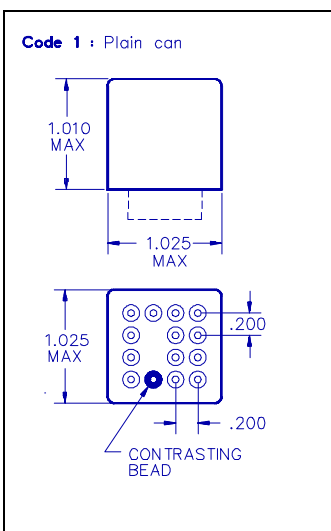
## SCHEMATIC TERMINAL VIEWS



## TERMINAL STYLES



## MOUNTING CODES



## GENERAL NOTES

- Unless otherwise specified, all tests made at nominal coil voltages, @ 25°C.
- For special coil variations, switching configurations, terminals styles and mounting types, consult the factory.
- Unless otherwise specified, tolerances on decimal dimensions are  $\pm .010$ ".
- Specifications contained herein are subject to change without notice.



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