



## Crystal Can Welded • DPDT Magnetic Latching Dry Circuit to 10 Amps

### SPECIFICATIONS

#### GENERAL

**Contact Arrangement** ..... 2PDT (2 Form C)  
Magnetic Latching

**Weight** ..... 1.6 oz approx.  
Designed to meet the requirements of MIL-PRF-39016.

#### PERFORMANCE

**Contact Rating** (Note 1):  
Resistive ..... 10 Amps @ 28 VDC or 115V 400 Hz  
(Case Ungrounded)

Inductive ..... 3.5 Amps @ 28 VDC

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

**Latch/Reset Power:**  
BR20AX ..... 250 mw approx.  
BR20BX ..... 130 mw approx.

**Latch/Reset Time** ..... 10 ms max, excluding  
bounce time at nominal coil voltage

**Contact Bounce Time** ..... 2 ms max @ 10 Amps  
28 VDC

**Contact Voltage Drop:**  
Before Life ..... 100 mv max @ rated current  
6 or 28 VDC

After Life ..... 200 mv max @ rated current  
6 or 28 VDC

#### ENVIRONMENTAL

**Temperature Range** ..... -65°C to +125°C

**Vibration** (Note 2) ..... 0.4" DA 10 - 38 Hz,  
20 G's 38 - 2,000 Hz

**Shock (Operating)** (Note 2) ..... 50 G's 11 ms

#### ELECTRICAL CHARACTERISTICS

**Duty Cycle** ..... Continuous

**Insulation Resistance**  
10,000 megohms @ 500V 25°C  
1,000 megohms @ 500V 125°C

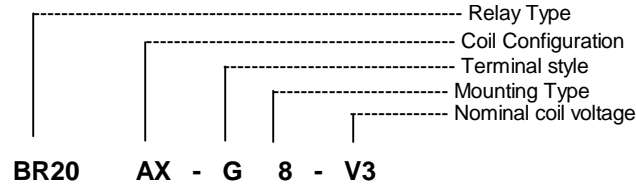
**Dielectric Strength:**  
Sea Level:  
Between Coils (BR20AX) ..... 500 VRMS  
Contact to Case ..... 1,250 VRMS  
Contact to Coil ..... 1,250 VRMS  
Coil to Case ..... 1,000 VRMS  
Across Open Contacts ..... 1,250 VRMS  
70,000 Feet  
All points ..... 500 VRMS

#### Notes

- For case grounded loads and other ratings, consult the factory.
- For applications requiring other shock and vibration levels, consult the factory.
- For other ratings consult the factory.
- Relay contacts which have switched high level currents are no longer suitable for switching low level loads.
- Contacts were placed in the position shown by placing voltage with the polarity shown on the indicated coil (reset). To switch contacts, a voltage of indicated polarity must be applied to the other coil (Latch).
- Contacts were placed in position shown by placing voltage with the polarity indicated on the coil. To switch contacts a voltage of the reverse polarity must be applied to the coil.

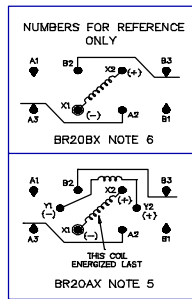
## COIL DATA

PART NUMBER MODEL BR20AX — 10 Amps (Dual Coil, 250 MW) MODEL BR20BX — 10 Amps (Single Coil, 130 MW)		BR20AX-(0)-V1 BR20BX-(0)-V1	BR20AX-(0)-V2 BR20BX-(0)-V2	BR20AX-(0)-V3 BR20BX-(0)-V3	BR20AX-(0)-V4 BR20BX-(0)-V4	BR20AX-(0)-V5 BR20BX-(0)-V5
NOMINAL COIL VOLTAGE		6 VDC	12 VDC	26 VDC	48 VDC	115 VDC
MAXIMUM COIL VOLTAGE		7.3 VDC	14.8 VDC	32 VDC	59 VDC	127 VDC
LATCH/RESET VOLTAGE (MAX at +125°C)		4.4 VDC	8.4 VDC	18 VDC	33 VDC	79 VDC
LATCH/RESET VOLTAGE (MAX)		3 VDC	6 VDC	13 VDC	24 VDC	57.5 VDC
COIL RESISTANCE ± 10% at 25°C	BR20AX	30 OHMS	120 OHMS	600 OHMS	2200 OHMS	10,000 OHMS
	BR20BX	65 OHMS	250 OHMS	1200 OHMS	4500 OHMS	20,000 OHMS

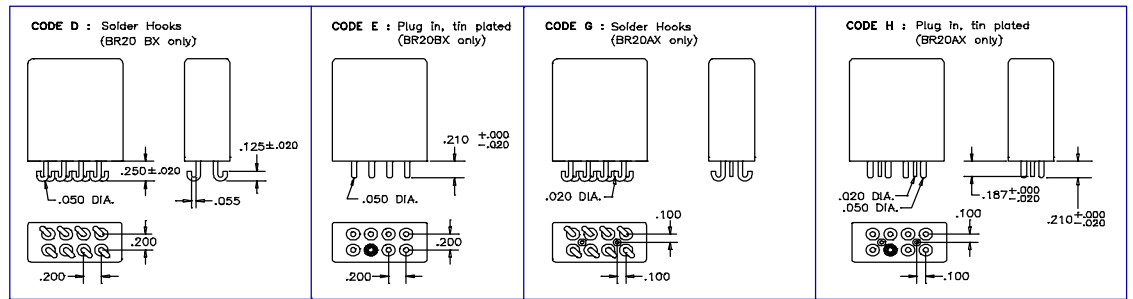


## SCHEMATIC

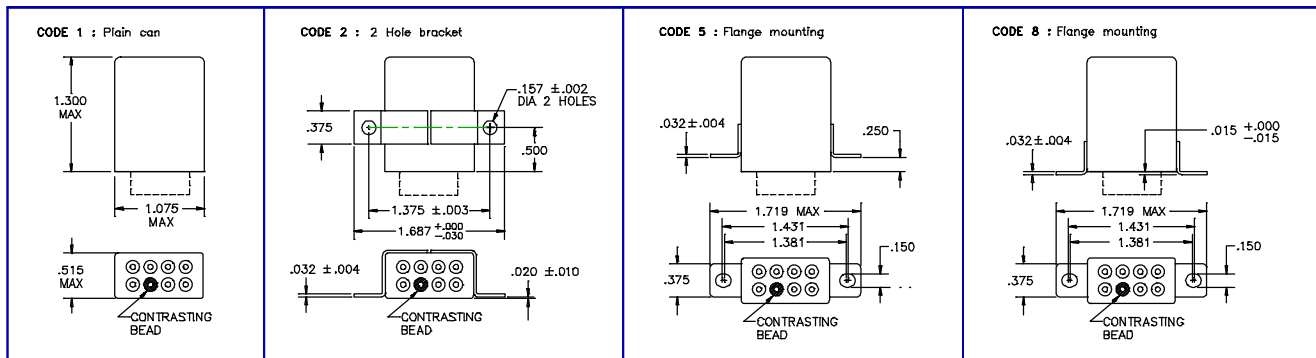
### TERMINAL VIEW



### 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 ± .010".
- Specifications contained herein are subject to change without notice.



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