

MINIATURE BITE INDICATORS

LATCHING TYPE INDICATOR



Models BHG (Single Coil) and BHGD (Dual Coil)

For indicators qualified to MIL-PRF-83287/3, see page 29.

Our latching feature assures fast positive response to a fault signal. The display ball changes color only when the indicator coil is pulsed by a BITE (Built-In Test Equipment) system. Our magnetic indicators have no bearings, springs or filaments to wear out and offer excellent visibility in high ambient light.

FEATURES

- Magnetic latching
- High visibility
- Small, lightweight
- Ruggedized

OPERATION

When the indicator coil is energized with a 40 millisecond (or longer) pulse, the highly visible, two color display ball spins 180° and latches to the magnetic core. The displayed ball will remain magnetically latched to the core in the position last pulsed. Even if the fault signal is removed, the indicator will “remember” that a fault has occurred. Return to “No-fault” color is accomplished electrically. Model BHG (single coil) is reset by reversing polarity of input signal to the coil. Model BHGD (dual coil) is reset by pulsing a separate internal coil. Optional features include insulated lead wire termination, special lenses (radius dome, cylindrical, non-glare), O-ring panel seal, internally mounted diodes and RFI panel shield. Consult the factory for details. Care should be taken in the application of the device as it is subject to magnetic interference from other devices that may emit magnetic fields.

ELECTRICAL SPECIFICATIONS

Standard coil voltages and resistances			
Nominal Voltage DC	Operating Voltage Minimum	Operating Voltage Maximum	DC Coil Resistance in Ohms, ± 10% @ 25°C
1.5	1.25	1.75	3.45
3.0	2.5	3.5	13.8
5.0	4.5	5.5	38.0
6.0	5.5	6.5	55.0
12.0	9.0	15.0	220.0
24.0	17.0	27.0	880.0
28.0	20.0	30.0	1200.0

Nominal pulse power: 650 milliwatts

Operating pulse length: will operate at 40 milliseconds or greater

Dielectric withstanding voltage: 500 VAC RMS case to terminals; 500 VAC RMS coil to coil (BHGD style)

Insulation resistance: 100 megohms minimum at 500 VDC



MECHANICAL SPECIFICATIONS

Case: Aluminum, black anodized with sealed glass window

Mounting: Front panel threaded, rear panel threaded, and press fit sleeve

Weight:

Models BHG21, BHG21T, BHG27T 2.5 grams

Models BHGD21, BHGD21T, BHGD27T, BHG37T 3.0 grams

Model BHGD37T 4.0 grams

Display Colors: Any combination of: Red (R), White (W), Black (BLK), Green (G), Yellow (Y), or Orange (O)

Mounting Hardware: Lockwasher, internal tooth phosphor bronze, nylon mounting sleeve. Hex nuts are black anodized aluminum. Body diameter on all MIL qualified units is .275 in. (7.00 mm). See page 5 for indicator dimensions.

Display Area: All units measure .200 in. (5.08 mm) diameter

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range: -65°C to +125°C

Vibration*:

Sinusoidal: .06 in. D.A. or 20 Gs Peak, whichever is less, 10Hz to 2kHz, MIL STD 202, Method 204, Test Condition D

Random: 11.6 Gs per MIL STD 202, Method 214, Test Condition D, Curve I

Shock: 100 Gs MIL STD 202, Method 213, Test Condition I

Moisture Resistance: (Humidity): MIL STD 202, Method 106
Barometric Pressure: 100,000 ft., MIL STD 202, Method 105, Test Condition D, 350 VAC RMS

Thermal Shock: MIL STD 202, Method 107, Test Condition B

Salt Spray: MIL STD 202, Method 101, Test Condition B

Life: 1,000,000 cycles

* (During vibration testing caution should be taken to shield the indicator from the strong magnetic field.)

This page consists of basic marketing information that is not defined as technical data under EAR Part 772.

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BALL INDICATORS

ORDERING INFORMATION

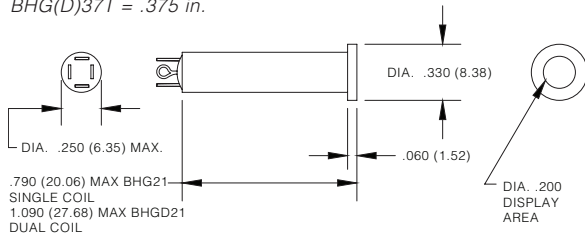
When ordering, show model number first, coil voltage and the color combination desired. If this is a special part, a factory assigned modification number will be added at the end of the ordering number. Consult the factory for special configurations.

Example:

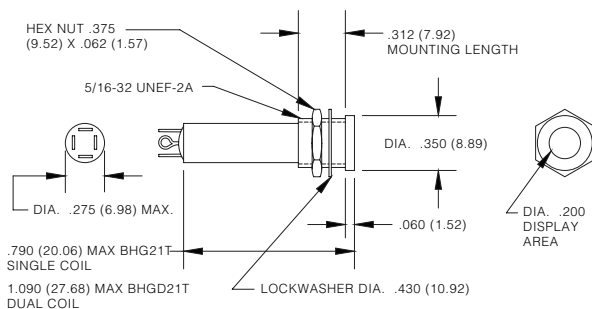
Single coil model with front panel threaded case for 12 volts with white as set color and black as reset color would be Model BHG21T-12-W/BLK.

Recommended cut-outs:

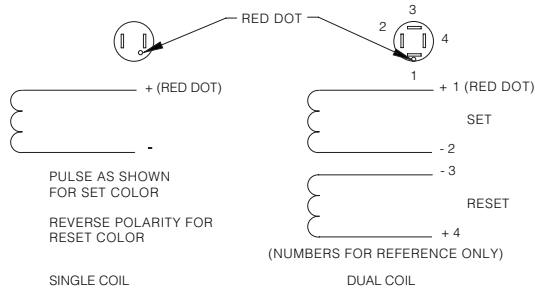
BHG(D)21 = .265 in., BHG(D)21T & BHG(D)27T = .315 in.,
BHG(D)37T = .375 in.



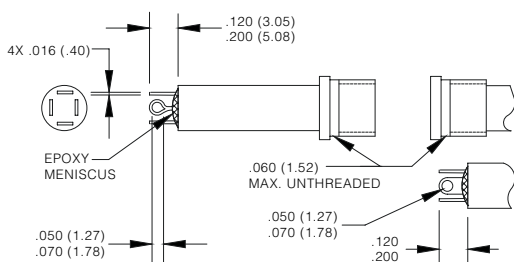
BHG21 and BHGD21



BHG21T and BHGD21T



ELECTRICAL DATA



MECHANICAL DATA

NOTE: Dimensions in () are mm. Tolerances: Decimals: ± .010 (0.25)
Fractions: ± 1/64—All mounting hardware is black anodized aluminum. Mounting Torque: 5-7 in. lbs.

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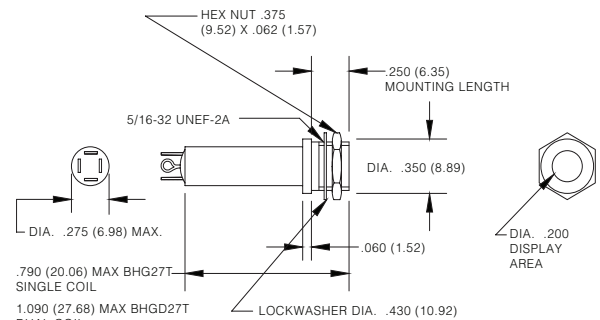
BHG21T - 12 - W / BLK - ()

Standard factory options are designated by "-Sxxx"

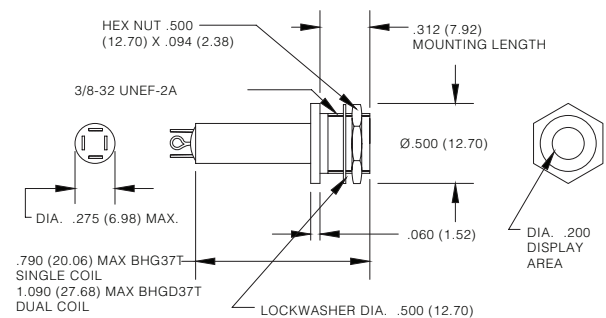
Basic Model Number	Coil Voltage	Fault or Set Color	No-fault or Reset Color
BHG21	1.5	R Red	R Red
BHG21T	3	W White	W White
BHG27T	5	BLK Black	BLK Black
BHG37T	6	G Green	G Green
BHGD21	12	Y Yellow	Y Yellow
BHGD21T	24	O Orange	O Orange
BHGD27T	28		

BHG.....TL = Domed lens

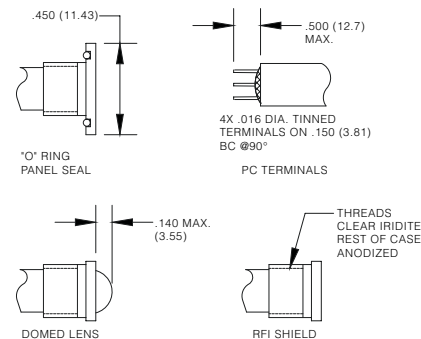
* MIL qualified indicators Set/Reset colors are White/Black



BHG27T and BHGD27T



BHG37T and BHGD37T



OPTIONS AVAILABLE (consult factory)