



# FULL SIZE CRYSTAL CAN RELAY 5 AMPERE SENSITIVE

Series  
BCN

## Product Description

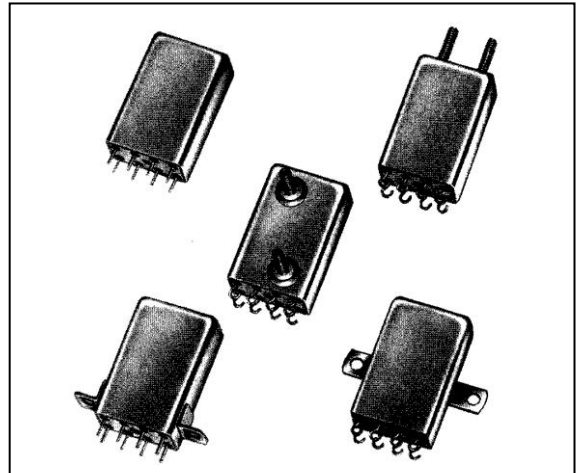
An innovation in design with emphasis on material technology developments have allowed Hi-G to manufacture this high sensitivity 5 amperes crystal can relay. The selection of contacts and all current carrying parts, have resulted in this highly reliable, sensitive, full hermetically sealed workhouse.

This relay meets all the switching and environmental conditions of demanding military environments:

- All welded relay construction
- Cleaning and sealing techniques ensure maximum internal cleanliness
- 5 amperes switching
- 1 or 2 form C, SPDT or DPDT contacts, special metal alloy with gold plating.

## Series Types

- **1BCN** 1 form C, SPDT
- **2BCN** 2 form C, DPDT



## Environmental and Physical Specifications

<b>Temperature (Ambient)</b>	- 65°C to + 125°C
<b>Shock</b>	100 g, 6 ms.
<b>Vibration (sinusoidal)</b>	20 g, 10 to 2000 Hz
<b>Acceleration</b>	50 g
<b>Sealing</b>	All welded, Hermetic
<b>Weight</b>	1,0 oz. (28,35 grams) max.

## Electrical Characteristics (over the Temperature range. Unless otherwise noted)

Coil Data	See Typical Characteristics chart		
Contact Rating	Type Load	Contact Load	Cycles min.
(Note: All ratings with grounded case)	Resistive	5 A / 28 Vdc	100.000
		3 A / 115Vac, 400 Hz	100.000
		2 A / 115 Vac, 60 Hz	100.000
	Overload	10 A / 28 Vdc	100
	Inductive	1 A / 28 Vdc (200 mH)	100.000
<b>Contact Resistance</b>	0,02 Ω max. initial		
<b>Operate Time</b>	15,0 ms. max. at 25°C		
<b>Release Time</b>	4,0 ms. max. at 25°C		
<b>Contact Bounce</b>	2,0 msc. max. at 25°C		
<b>Dielectric Strength</b>	1.000 Vrms min., 60 Hz, between contact to case, 500 Vrms min., 60 Hz, between contacts and coil to case, at sea level		
<b>Insulation Resistance</b>	1.000 MΩ min. all points at 500 Vdc		
<b>Intercontact Capacitance</b>	2,5 pF between contacts		
<b>Sensitivity</b>	80 mW at pick-up, 320 mW typical at nominal rated coil voltage, at 25 °C		



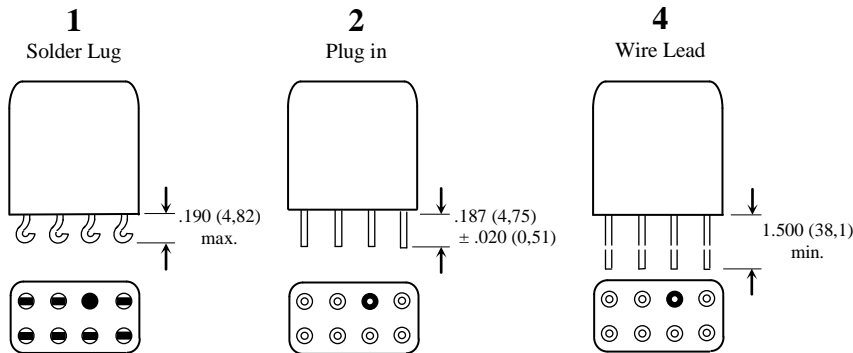
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## Typical Characteristics

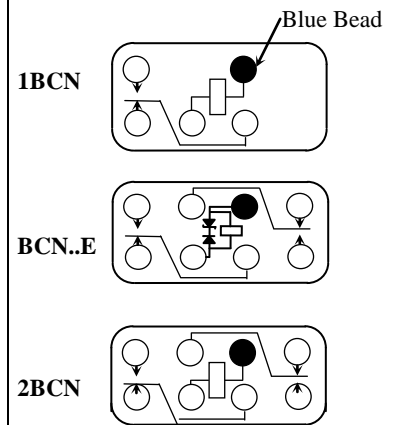
Coil Voltage Code	Nominal Coil Voltage [Vdc]	Nominal Coil Current [mA]	Coil Resistance [ $\Omega$ ] at 25°C $\pm$ 10%	Pick-up [mA] Max. at 25°C	Drop-out [mA] Min. at 25°C	Coil Suppression [Vdc]
106	6,0	54,5	110	27,3	3,0	47
112	12,0	26,7	450	13,4	1,4	47
128	28,0	11,2	2500	5,6	0,6	47
140	40,0	8,0	5000	4,0	0,4	109

## Terminal Styles



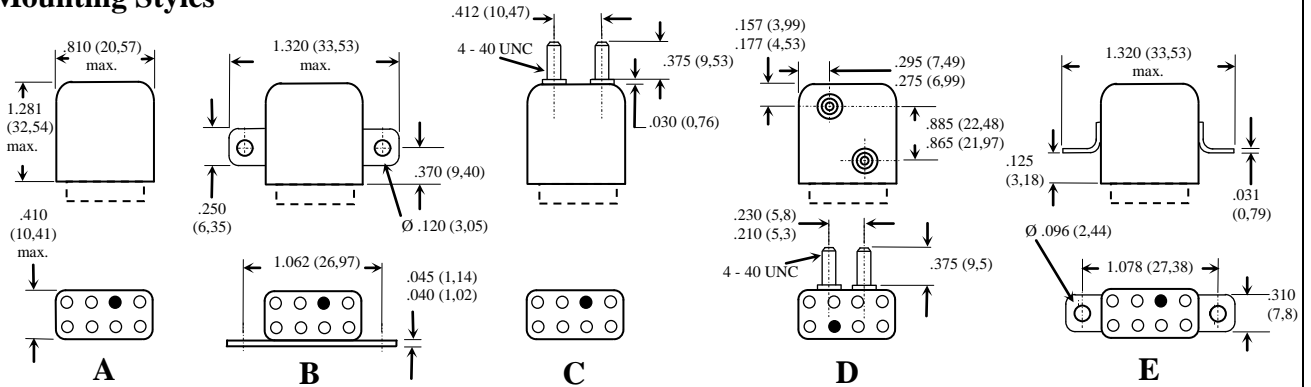
Note:  
- Dimensions are shown in inches (millimetres)  
- Terminal spacing is .200 (5,08). Terminal diameter is .030 (0,76) + .003 (0,08) - .002 (0,05)

## Schematic Diagrams



Note:  
- Schematics are viewed from terminals

## Mounting Styles



Note:  
- Dimensions are shown in inches (millimetres)

## How to Order (Part Numbering System)

Series	2BCN	- 2	A	- 128	P E	With internal voltage suppressor
Terminal Style						Insulating Pad (optional) see half crystal series
Mounting Style						Voltage Code