

# HF9311

## HALF-SIZE CRYSTAL CAN HIGH DIELECTRIC STRENGTH HERMETICALLY SEALED RELAY



### Features

- Dielectric strength can be 1200 Vr.m.s
- Load can be 5A 28Vd.c.
- High ambient applicability
- All metal welded construction
- Hermetically welded and marked by laser

Conform to GJB65B-99 (Equivalent to MIL-PRF-39016)

### AMBIENT ADAPTABILITY

Ambient grade	I	II	III
Ambient temperature	-55 °C to 85 °C	-55 °C to 85 °C	-65 °C to 125 °C
Humidity	98 %, 40 °C		
Low air pressure	58.53 kPa	4.39 kPa	4.39 kPa
Sine vibration	Frequency	10 Hz to 1000 Hz	10 Hz to 3000 Hz
	Acceleration	147 m/s <sup>2</sup>	196 m/s <sup>2</sup>
Shock resistance	490 m/s <sup>2</sup>	735 m/s <sup>2</sup>	980 m/s <sup>2</sup>
Random vibration	—	20 (m/s <sup>2</sup> )/Hz	40 (m/s <sup>2</sup> )/Hz
Steady-state acceleration	490 m/s <sup>2</sup>		

### CONTACT DATA

Ambient grade	I	II	III
Arrangement	2 C		
Contact resistance	Initial max.	50 mΩ	
	After life max.	100 mΩ	

### Contact ratings

Ambient grade	Contact load	Type	Electrical life min.
I	5 A 28 Vd.c.	Resistive	2 x 10 <sup>4</sup> OPS
II	5 A 28 Vd.c.	Resistive	5 x 10 <sup>4</sup> OPS
	2 A 115Vd.c.	Resistive	1 x 10 <sup>5</sup> OPS
III	5 A 28 Vd.c.	Resistive	1 x 10 <sup>5</sup> OPS
	50 μA 50 mVd.c.	Low level	1 x 10 <sup>5</sup> OPS

## SPECIFICATION

Ambient grade	I	II	III
Insulation resistance min.	1000 MΩ (@ 500 Vd.c.)	10000 MΩ (@ 500 Vd.c.)	10000 MΩ (@ 500 Vd.c.)
Dielectric strength min. (Normal condition)	Between open contacts	500 Vr.m.s.	500 Vr.m.s.
	Between contact & coil	1200 Vr.m.s.	1200 Vr.m.s.
	Between contact & cover	1200 Vr.m.s.	1200 Vr.m.s.
	Between contact group	1200 Vr.m.s.	1200 Vr.m.s.
	Between coil & cover	500 Vr.m.s.	500 Vr.m.s.
Dielectric strength min. (Low air pressure condition)	300 Vr.m.s.	350 Vr.m.s.	350 Vr.m.s.
Leakage rate max.	1 Pa·cm <sup>3</sup> /s	1 x 10 <sup>-1</sup> Pa·cm <sup>3</sup> /s	1 x 10 <sup>-3</sup> Pa·cm <sup>3</sup> /s
Operate time max.	6 ms		
Release time max.	4 ms		
Mounting style	See the mounting dimension		
Terminals	See the terminal styles		
Work position	Random		
Weight max.	13 g		

## COIL DATA

Normal coil power	Approx. 1.2W
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### Coil Version

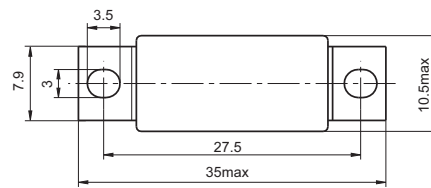
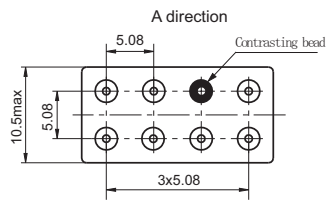
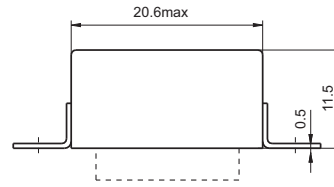
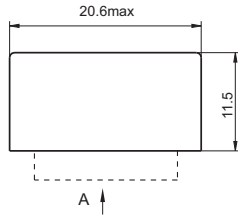
Order Number	Coil voltage		at 25 °C				-65°C to 125°C		
	Nominal voltage	Value max.	Coil resistance (1±10%) Ω	Pick-up voltage max.	Hold voltage max.	Drop-out voltage min.	Pick-up voltage max.	Hold voltage max.	Drop-out voltage min.
005	5	6.0	21	3.0	1.65	0.29	4.2	2.4	0.21
006	6	7.5	30	3.6	2.00	0.35	5.1	2.9	0.25
009	9	11.8	68	5.4	3.00	0.52	7.7	4.3	0.38
012	12	15.0	125	7.3	4.00	0.70	10.5	5.8	0.50
024	24	28.8	480	14.8	7.50	1.20	20.8	11.6	0.90
027	27	32.0	600	16.0	8.50	1.50	22.5	14.0	1.00

Notes: We can offer many kinds of coil voltage under the requirement of users.

## ORDERING INFORMATION

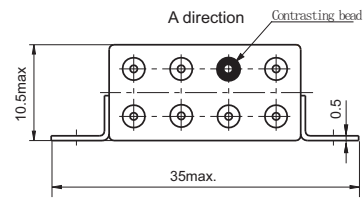
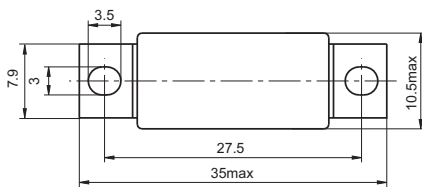
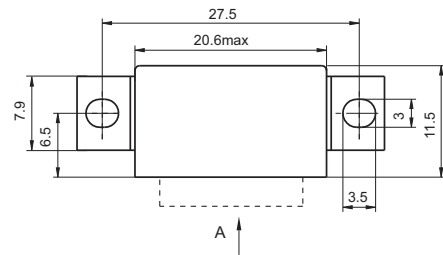
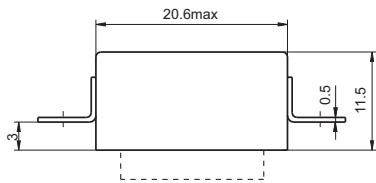
Type	HF9311	-012	-0	1	- I
Order Number	005、006、009、012、018、027				
Mounting Style	0, 1, 2, 3 (See the mounting dimension)				
Terminals Style	1, 4 (See " Terminal styles " below)				
Ambient Grade	I、II、III				

Outline Dimension



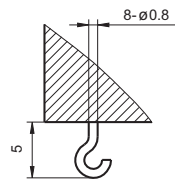
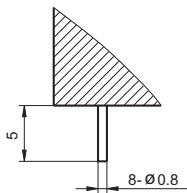
Mouting style 0

Mouting style 1



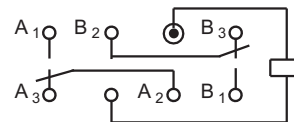
Mouting style 2

Mouting style 3



Terminal style 1  
(Solder pin)

Terminal style 4  
(Solder hook)



Wiring Diagram  
(Bottom View)

**Disclaimer**

This datasheet is for the customers' reference. All the specifications are subject to change without notice.

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