# **HF9110**

### **TO-5 HERMETICALLY SEALED RELAY** WITH ESTABLISHED RELIABILITY



### Features

- Failure rate can be Level M
- High pure nitrogen protection
- High ambient applicability
- All metal welded construction
- Hermetically welded and marked by laser

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

<b>AMBIEN</b>	IT ADAPTABIL	ITY				
Ambient Grade		I	II	III		
Ambient Temperature		−55°C to 85°C	−65°C to 125°C	-65°C to 125°C		
Humidity			98%, 40°C			
Low Air Pres	ssure			4.4KPa		
Vibration	Frequency	10Hz to 2000Hz	10Hz to 2000Hz	10Hz to 3000Hz		
Resistance	Acceleration	196m/s²	196m/s²	294m/s²		
Shock Resistance		735m/s²	735m/s²	735m/s²		
Random Vibration			40(m/s²)²/Hz	40(m/s²)²/Hz		
Acceleration	1			490m/s <sup>2</sup>		
Implementation Standard				GJB65B-99 (MIL-R-39016)		

CONTACT DATA						
Ambient Grade		I	II	III		
Arrangement		2 Form C				
Contact Material		Gold/Platinum/Palladium/Silver alloy	Gold/Platinum/Palladium/Silver alloy(Gold plated)			
Contact Resistance (max.)	Initial	125mΩ	100mΩ	100mΩ		
	After Life	250mΩ	200mΩ	200mΩ		
Failure Rate				Level L and M available		

## **Contact Ratings**

Ambient Grade	Contact Load	Туре	Electrical Life (min.)	
I	1.0A 28Vd.c.	Resistive	1 x 10 <sup>5</sup> ops	
	1.0A 28Vd.c.	Resistive	1 x 10 <sup>5</sup> ops	
II	0.2A 28Vd.c. 320mH	Inductive	1 x 10 <sup>5</sup> ops	
	0.1A 28Vd.c.	Lamp	1 x 10 <sup>5</sup> ops	
	1.0A 28Vd.c.	Resistive	1 x 10 <sup>5</sup> ops	
III	0.2A 28Vd.c. 320mH	Inductive	1 x 10 <sup>5</sup> ops	
Ш	0.1A 28Vd.c.	Lamp	1 x 10 <sup>5</sup> ops	
	50μA 50mVd.c.	Low Level	1 x 10 <sup>5</sup> OPS	



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	<b>SPECIFICATI</b>	ON				
	Ambient Grade Insulation Resistance (min.)		I	II	III 10000ΜΩ (at 500Vd.c.)	
			1000MΩ (at 500Vd.c.)	10000MΩ (at 500Vd.c.)		
Dielectric		Between open contacts	500Vr.m.s.	500Vr.m.s.	500Vr.m.s.	
	Dielectric Strength min. (Normal condition)	Between contacts & coil	500Vr.m.s.	500Vr.m.s.	500Vr.m.s.	
		Between contacts & cover	500Vr.m.s.	500Vr.m.s.	500Vr.m.s. 500Vr.m.s.	
		Between contacts sets	500Vr.m.s.	500Vr.m.s.		
		Between coil & cover	500Vr.m.s.	500Vr.m.s.	500Vr.m.s.	
	Dielectric Strength min. (Low air pressure condition)		125Vr.m.s.	125Vr.m.s.	125Vr.m.s.	
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	Operate Time (max.)		2ms			
	Release Time (max.)		1.5ms			
	Mounting Style		In-line package			
	Terminals		PCB			
	Work Position		Any position			
	Weight		2.55g			

COIL DATA	
Norminal Coil Power	Approx. 0.5W

**Coil Version** Vd.c. 25°C -65°C to 125°C Coi Voltage Drop-out Voltage Pick-up Hold Drop-out Coil Pick-up Hold Nominal Max . Voltage Voltage Voltage Resistance Voltage Voltage max max min  $(1\pm10\%)\,\Omega$ max max min 005 5.8 2.7 0.22 1.4 50 3.5 2.3 0.15 006 8 3.5 2.0 0.28 98 3.2 0.18 4.5 009 12 5.3 3.0 0.54 220 6.8 4.9 0.35 7.0 6.5 012 16 4.0 0.63 390 9.0 0.40 018 24 10.5 6.0 0.91 880 13.5 10.0 0.58 027 32 14.2 8.0 1.37 1560 18.0 13.0 0.89

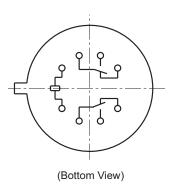
Notes: We can offer many kinds of of coil voltage under the requirement of users.

ORDERING INFORMATION						
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Туре						
Coil Voltage	<b>Coil Voltage</b> 5, 6, 9, 12, 18, 27Vd.c.					
L: Failure rate level L (level III products available)  Failure Rate M: Failure rate level M (level III products available)  Nil: Without failure rate requirement(level I, II products available)						
<b>Terminals Length 01:</b> 5mm <b>02:</b> 12.5mm <b>03:</b> 38mm						
Ambient Grade I: level II II: level II Nil: level III						

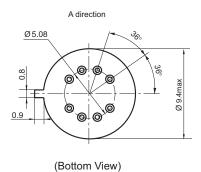
### **Outline Dimensions**

# Three types of terminal (L): L1=5.0mm, L2=12.5mm, L3=38.0mm. You can choose the type you need.

# Wiring Diagram



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### Disclaimer

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

We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.

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