

# HF9513

## 2/5 CUBIC INCH 4 FORM C HERMETICALLY SEALED RELAY WITH COIL TRANSIENT SUPPRESSION



### Features

- Force balanced type
- With coil transient suppression
- 5A contacts switching capability
- Failure rate can be level L
- High ambient applicability
- All metal welded construction
- Hermetically welded and marked by laser

### 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 2000 Hz	10 Hz to 3000 Hz
	Acceleration	147 m/s <sup>2</sup>	196 m/s <sup>2</sup>	294 m/s <sup>2</sup>
Shock resistance		490 m/s <sup>2</sup>	980 m/s <sup>2</sup>	1960 m/s <sup>2</sup>
Random vibration		—	20 (m/s <sup>2</sup> ) <sup>2</sup> /Hz	40 (m/s <sup>2</sup> ) <sup>2</sup> /Hz
Steady-state acceleration		147 m/s <sup>2</sup>	294 m/s <sup>2</sup>	490 m/s <sup>2</sup>

### CONTACT DATA

Ambient grade		I	II	III
Arrangement		4 C		
Contact resistance or voltage drop	Initial max.	0.1V		
	After life max.	0.125V		

### Contact and life ratings

Type	Contact load			Electrical life min.
	28Vd.c.	115Va.c. 400Hz Single phase	115/200Va.c. 400Hz Three phase	
Resistive	5A	5A	5A	1 x 10 <sup>5</sup> OPS
Inductive	3A	5A	5A	2 x 10 <sup>4</sup> OPS
Motor	2A	—	—	1 x 10 <sup>5</sup> OPS
Lamp load	1A	—	—	1 x 10 <sup>5</sup> OPS

## SPECIFICATION

Ambient grade		I	II	III
Insulation resistance min.	Initial	100 MΩ (@ 500 Vd.c.)	100 MΩ (@ 500 Vd.c.)	100 MΩ (@ 500 Vd.c.)
	After life or after testing	50 MΩ (@ 500 Vd.c.)	50 MΩ (@ 500 Vd.c.)	50 MΩ (@ 500 Vd.c.)
Dielectric strength min. (Normal condition)	Between coil & cover(initial)	1000 Vr.m.s.	1000 Vr.m.s.	1000 Vr.m.s.
	Between coil & cover(after life testing)	750 Vr.m.s.	750 Vr.m.s.	750 Vr.m.s.
	Between other insulation parts(initial)	1000 Vr.m.s.	1000 Vr.m.s.	1000 Vr.m.s.
	Between other insulation parts(after life testing)	750 Vr.m.s.	750 Vr.m.s.	750 Vr.m.s.
Dielectric strength min.(Low air pressure condition)		250 Vr.m.s.	250 Vr.m.s.	250 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.		7 ms		
Release time max.		7 ms		
Mounting style		See the mounting dimension		
Terminals		See the terminal styles		
Work position		Random		
Weight max.		28.2 g		

## COIL DATA

Normal coil power	Approx.2.4W
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### Coil Version

Order Number	Coil voltage		at 25 °C				-65°C to 125°C			Pick-up voltage max.	
	Nominal voltage	Value max.	Coil resistance (Ω) min.	Pick-up voltage max.	Hold voltage max.	Drop-out voltage min.	Pick-up voltage max.	Hold voltage max.	Drop-out voltage min.	High temp. test	Continuous electric test
006	6	7.3	15	3.3	1.6	0.40	4.5	2.3	0.25	5.5	5.70
012	12	14.5	70	6.6	3.3	0.75	9.0	4.5	0.50	9.9	11.25
028	28	29.0	360	15.5	5.5	2.30	20.0	7.0	1.50	21.0	25.0

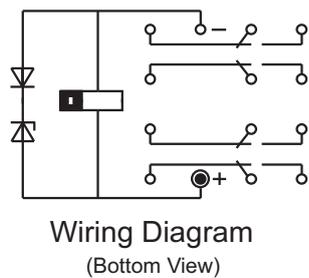
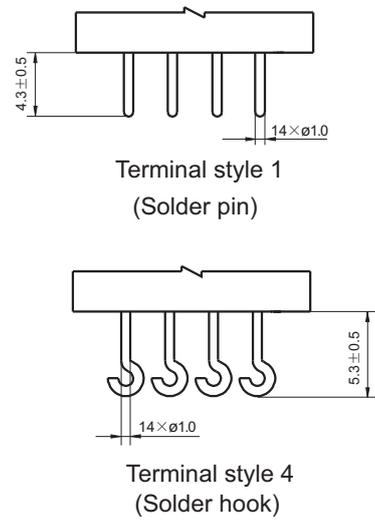
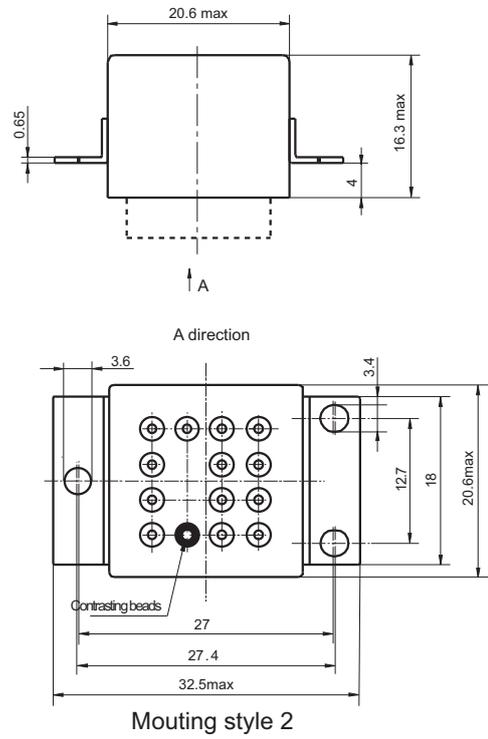
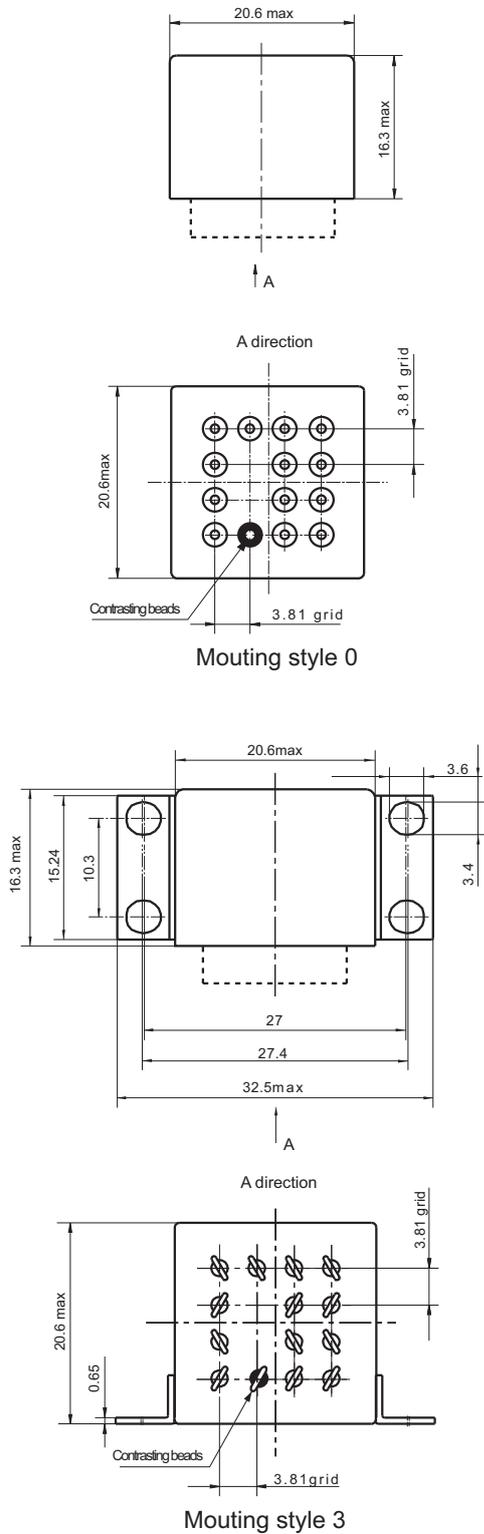
Notes: We can offer many kinds of of coil voltage under the requirement of users.

## ORDERING INFORMATION

Type	HF9513	-012	L	-0	1	- II
Order Number	006、012、028					
Failure Rate	L: Failure rate level L (level III products available) <sup>1)</sup> Nil: Without failure rate requirement(level I ,II ,IIIproducts available)					
Mounting Style	0, 2, 3 (See the mounting dimension)					
Terminals Style	1, 4 (See " Terminal styles " below)					
Ambient Grade	I : level I II : level II III: level III					

Notes: 1) For the failure rate of L ,the letter "III" of ambient grade level will not appear on relay cover.

**Outline Dimension**



**Disclaimer**

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

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