

**MH Series****High voltage Mercury Reed Relay****1 Feature**

- ◆ High power mercury reed relay with dielectric strength up to 10KVDC
- ◆ High carry current
- ◆ High Insulation resistance, up to  $10^{12}\Omega$
- ◆ Low contact resistance, excellent lifetime characteristics
- ◆ External magnetic and electrostatic shield
- ◆ Custom Design, conforming to Rohs directive

**2 Performance Data**

Paramenter		Units	Value	
Relay Model		/	MH□-1A8K	MH□-1A10K
Contact Rating		W	100	
Max.Switching Voltage (Max DC/Peak AC)		V	5000	
Max.Switching Current (Max DC/Peak AC)		A	5.0	
Max.Carry Current		A	10.0	
Contact Resistance		mΩ	100	
Dielectric Strength (static)	Between contact	V	8000	10000
	Contact/shield to coil	V	8000	10000
	Contacts to shield	V	8000	10000
Insulation Resistance		Ω	$10^{12}$	
Operate Time		ms	7.0	
Release Time		ms	5.0	
Vibration(0~2000Hz)		G	20	
Shock(11ms, 1/2 sine)		G	50	
Operating Temp		℃	-20~+70	
Storage Temp		℃	-35~+105	
Life Expectancy		Ops	$5 \times 10^7$ (at 500VDC-100mA)	
Outline Dimensions		/	Reference outline drawing	

**3 Coil Parameters**

Model	Nominal Voltage (VDC)	Pickup Voltage Max.(VDC)	Dropout Voltage Min.(VDC)	Operate Voltage Max.(VDC)	Coil Resistance ( $\pm 10\%\Omega$ at 20℃)
MH□-1A□	5	4	0.8	6.5	50
	12	9	1.2	16	200
	24	18	2.4	29	800

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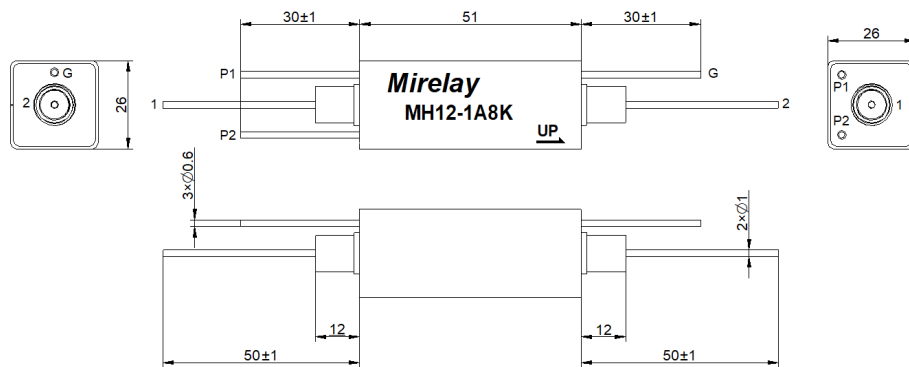
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#### 4 Example of order marking

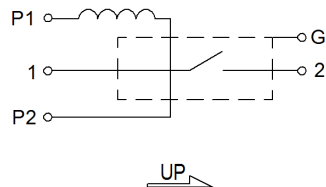
MH □ - □ □ - (XXX)  
① ② ③ ④ ⑤

- ① Product model: MH
- ② Nominal coil voltage: 05: 5VDC、12: 12VDC、24: 24VDC
- ③ Contact form: 1A: 1 Form A
- ④ Breakdown voltage: 8K: 8000V、10K: 10000V
- ⑤ Special code: Customer special requirement

#### 5 Outline drawing



#### 6 Wiring diagram



#### 7 Precautions for use

- ※ Avoid installing relays where rain falls, or where there is a strong magnetic field, or near an object with thermal radiation.
- ※ Switching inductive or capacitive load systems will produce peak voltage or current, it is recommended to use protective circuit, otherwise, may cause relay damage.
- ※ Avoid excessive packing density in use which may affect the electrical characteristics of the relay.
- ※ Mechanical impact strength is too large, will cause the relay to use the fault.
- ※ When the relay is used for wave soldering, the maximum temperature is 260℃ and the time does not exceed 5s.
- ※ Hg wet contacts must be mounted within 30° of vertical plane.

#### ⚠Statement:

The document is for customer reference only. Specifications and parameters may be changed due to product improvement. For the specific parameters and performance of each product, please refer to the specifications and samples provided by Mirelay without further notice.

Relay performance parameters in different application areas are different, so customers should choose the appropriate products according to the specific conditions of use, if in doubt, please contact Shanghai MiRelay Electronics Co.,Ltd. for more technical support.

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