

Features

- Low height PCB relay based on Micro ISO
- Height: MAX 17mm
- Environment-friendly by light weight and space saving
- Low heat generation and high capacity switching
- Fully sealed construction
- SPST contacts
- All terminals pre-soldered
- ISO9001/QS9000 series approval



Available Types

Part Number	Contact Form
G8HL-1A4P 12VDC	Standard

Contact Data

Max Switching Current	Inrush 100A Steady 20A
Rated Current	20A
Max Switching Voltage	16VDC
Contact Material	Silver tin alloy (Cadmium Free)

Characteristics

Type	G8HL-1A4P	
Rated coil resistance at 20°C	135ohm ± 10%	
Rated coil current at 20°C	88.9mA	
Pull-in voltage at 20°C	7.0V MAX.	
Drop-out voltage at 20°C	0.7 to 4.0V	
Operating time	10ms max.	
Releasing time	10ms max.	
Insulation resistance	10MΩ min (at 500 VDC)	
Dielectric strength	500VAC, 50 / 60 Hz for 1 minute between coil and contacts 500VAC, 50 / 60 Hz for 1 minute between contacts of different polarity 500VAC, 50 / 60 Hz for 1 minute between contacts of same polarity	
Vibration	Mechanical durability	20~500 Hz, 45m/s ² mm
	Malfunction durability	20~500 Hz, 45m/s ² mm
Shock	Mechanical durability	1000 m/s ² min
	Malfunction durability	100 m/s ² min
Ambient temp.	Operating/storage	-40 to 100°C
Humidity	5 to 85%RH	
Service life	Mechanical	1,000,000 operations
	Electrical	100,000 operations
Weight	Approx. 13.0g	

Application Examples

- Head light lamp
- Blower fan

- Defogger
- Electrical power steering assist system

■ LIFE TEST I (Head Lamp 240W)

Test item

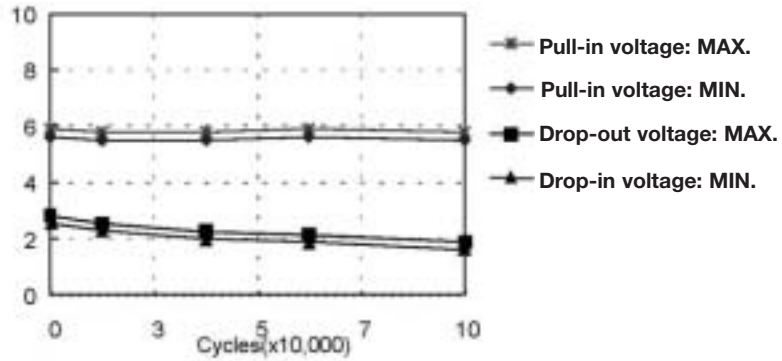
14VDC

In-rush current 120A, Rated current 20A

Frequency; 1sec ON/29s OFF

Cycle; 100,000

Shift of pull-in and drop-out voltage



Characteristics	Specification	Before the test	After the test	
Voltage Drop (mV) at 20 A	200 Max.	MAX.	40	48
		MIN.	24	30
		AVE.	30.0	36
Insulation Resistance (Mega ohm)	10 Min.	More than 1000	More than 1000	
Structure	No abnormal condition	Good	Good	

■ LIFE TEST I (Head Lamp 240W)

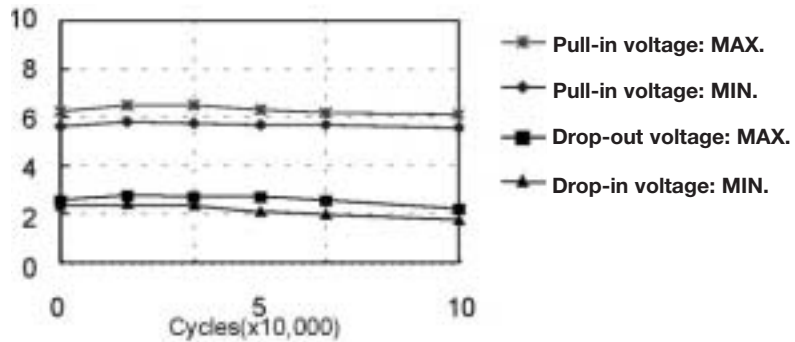
Test item

14VDC

Frequency; 1sec ON/5s OFF

Cycle; 100,000

Shift of pull-in and drop-out voltage



Characteristics	Specification	Before the test	After the test	
Voltage Drop (mV) at 20 A	200 Max.	MAX.	24	44
		MIN.	18	29
		AVE.	20.0	38
Insulation Resistance (Mega ohm)	10 Min.	More than 1000	More than 1000	
Structure	No abnormal condition	Good	Good	

Engineering Data

Malfunctioning vibration

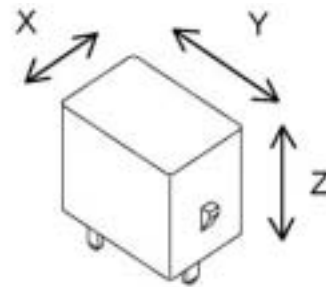
Test condition

Frequency: 10Hz-500Hz-10Hz

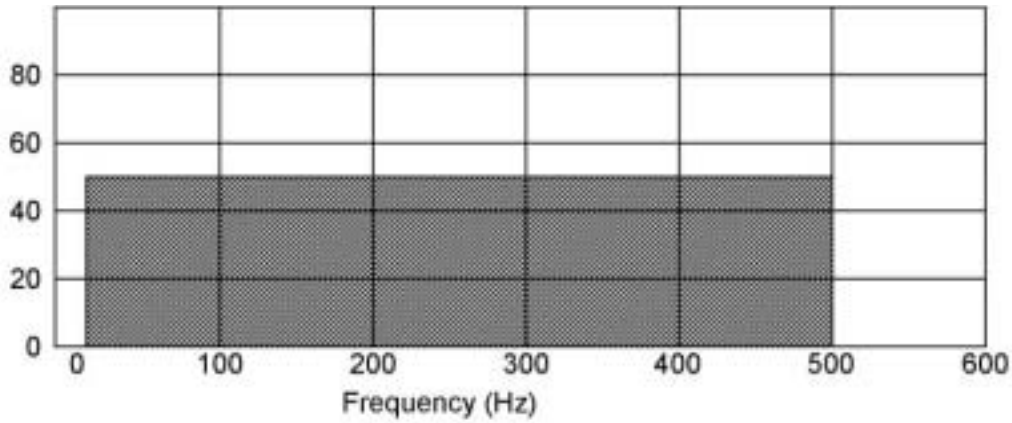
Acceleration: 43.1m/s²

Direction of vibration: see right diagram

Detection level: Contacts must not open 1ms or longer



MALFUNCTIONING VIBRATION



Malfunctioning Shock

Test condition

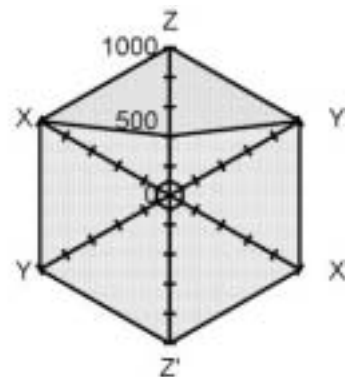
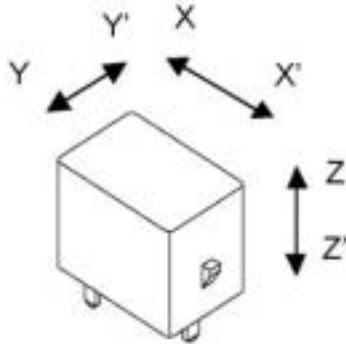
Shock acceleration: 100m/s² to 1000 m/s²

Detection level: Contact must not open 1ms or more with 100m/s²

N.O. Contact – must not open with rated coil voltage

N.C. Contact – must not open without energizing

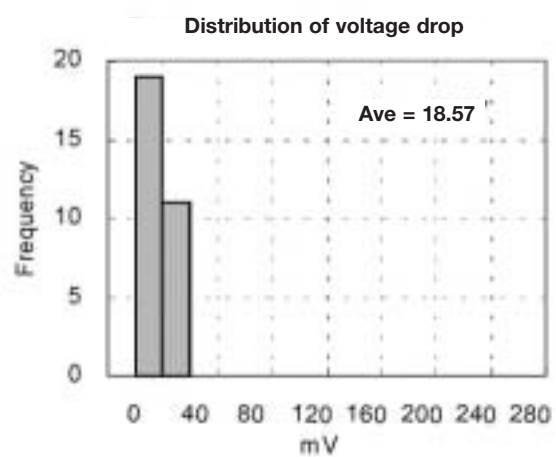
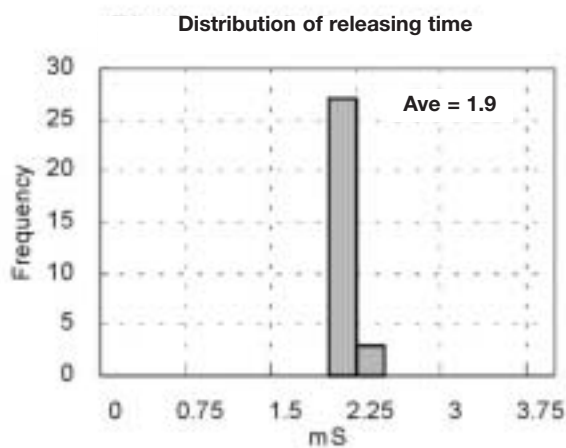
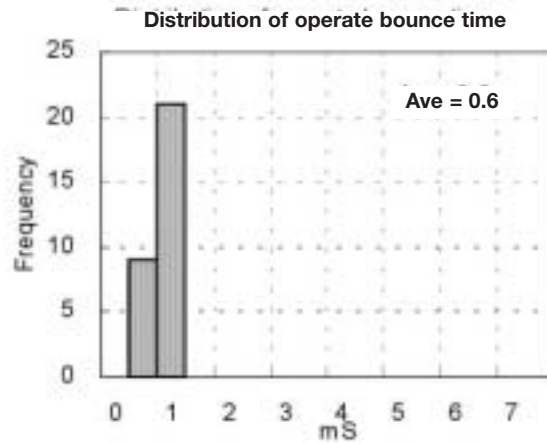
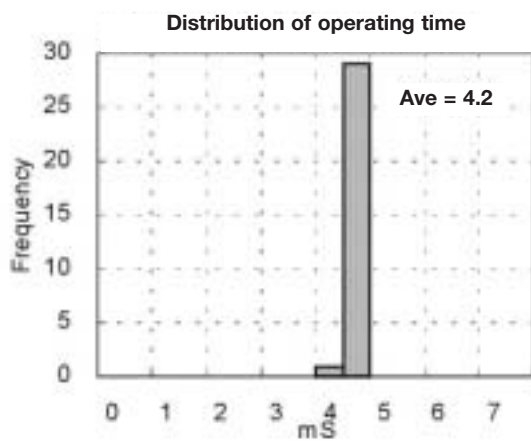
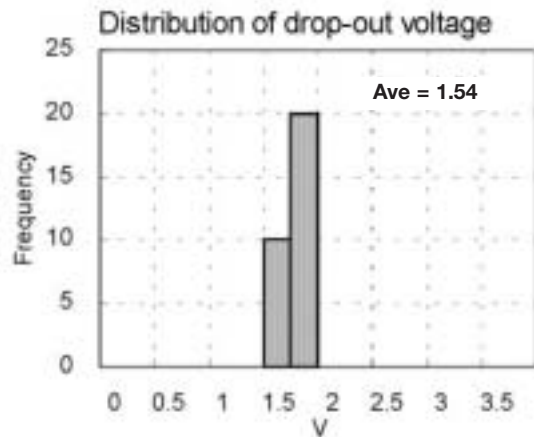
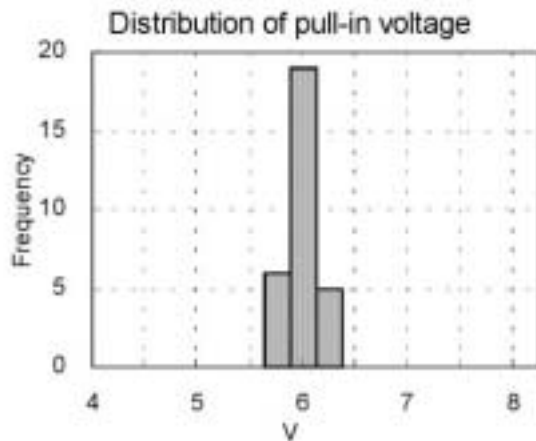
MALFUNCTIONING SHOCK



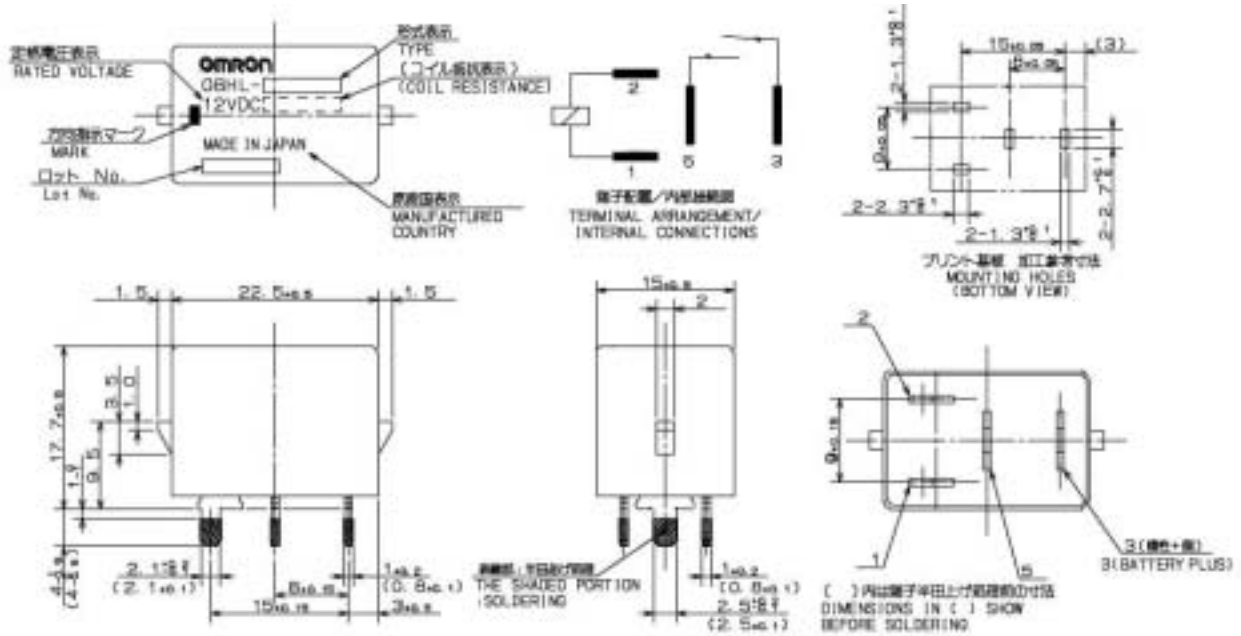
<input type="checkbox"/> N.O. side contact	<input type="checkbox"/> N.C. side contact	<input type="checkbox"/> Standard
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General Characteristic Data

Sample: G8HL-1A4P 50pcs.



Dimensions



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
 To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. G8HL In the interest of product improvement, specifications are subject to change without notice.



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