

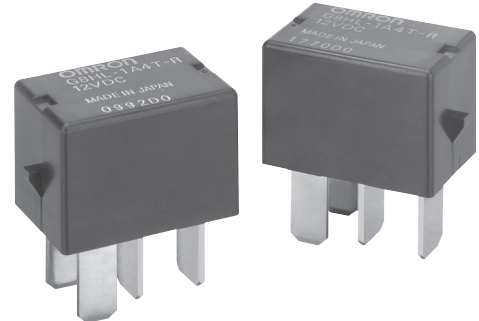
Low Profile Micro ISO relay

# G8HL

## Low profile relay

- The height is approximately half of a typical Micro ISO relay.
- Smaller, less heating and capable to carry high current.

RoHS Compliant



## Purpose

- Head lamp, Blower fan, Defogger, etc.

## Type standard

G8HL-□□□□-□  
1 2 3 4 5

**1. Number of contact poles**

1: 1-pole

**2. Contact structure**

A: 1a contact

**3. Protective structure**

4: Simple plastic seal

**4. Terminal form**

T: For Plug-in

**5. Surge suppressor function**

R: Built-in resistor

## Classification

Classification	Contact structure	Protective structure	Rated coil		Model
			Voltage (V)	Resistance (Ω)	
Micro ISO	SPST (1a)	Simple plastic seal	DC12	150	<b>G8HL-1A4T-R DC12</b>

## ■ Ratings

### ● Operation coil

Rated voltage (V)	Terminal form ( $\Omega$ )		Rated current (mA)	Operating voltage (V)	Release voltage (V)	Max. of applied voltage (20A conduct, 100°C) (V)	Service voltage range (V)	Rated power consumption (mW)
		(Surge suppression)						
DC12	150	(1.1k, 1/4 W)	80	8.0 or less	0.7 or more	DC16, continuous	DC10 to 16	960

### ● Switching area

Item	Performance	
Contact material	Silver alloy	
Rated voltage	DC12 V	
Rated load	Resistance load, 20 A	
Inrush current	100 A	
Continuous carry current *1	20 A *1	
Allowable carrying current	30 A at DC14 V (30 min.) *2	(Reference)
Min. Carry / Switching Current	DC12 V 1 A	

## ■ Performance

Item	Standard value	
	G8HL-1A4T-R DC12	
Voltage drop between terminals	200 mV or less, 20 A	
Operating time *3	10 ms or less	
Release time *3	15 ms or less	
Insulation resistance *4	Between coil and terminal	10 M $\Omega$ or more
	Between homopolar contacts	10 M $\Omega$ or more
Withstand voltage *5	Between coil and terminal	AC500 V for 1 min.
	Between homopolar contacts	AC500 V for 1 min.
Vibration tolerance	Durability	33 Hz 43.1 m/s <sup>2</sup>
	Malfunction (Detecting time: 1 ms)	20 to 500 Hz 43.1 m/s <sup>2</sup>
Shock resistance	Durability	1000 m/s <sup>2</sup> (Operating time: 6 ms)
	Malfunction (Detecting time: 1 ms)	100 m/s <sup>2</sup> (Operating time: 11 ms)
Mechanical endurance (Switching frequency: 18,000 times/h)	1,000,000 times	
Electrical endurance (Rated load)	100,000 times	
Ambient temperature	-40 to 100°C	
Ambient humidity	35 to 85% RH	
Weight	14 g	

## ■ Packing

Type	G8HL-T
Packing form	Tray
MOQ *6	For Japan 500 pcs (50 pcs x10 trays) For Other countries 1200 pcs (150 pcs x8 trays) or 800 pcs (100 pcs x8 trays) *7

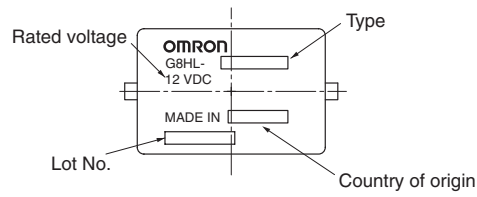
**Note.** All values above are measured in early time under an ambient temperature of +20°C and humidity of 65% unless stated.

- \*1. The value stated is at maximum temperature in a guaranteed ambient temperature.
- \*2. This is an acceptable current-carrying value in abnormal, and this is not a value which guarantee a repeat current-carrying. Please check under actual use condition before use.
- \*3. It changes depend on how the rated voltage is operated, but bounce-time is not included.
- \*4. Measured at DC500 V.
- \*5. Measured under 1 mA of leak current, 50/60 Hz for 1minute.
- \*6. Minimum Order Quantity is subject to change, please feel free to contact our sales representatives.
- \*7. Each factory has each Minimum Order Quantity. Please feel free to contact our sales representatives.

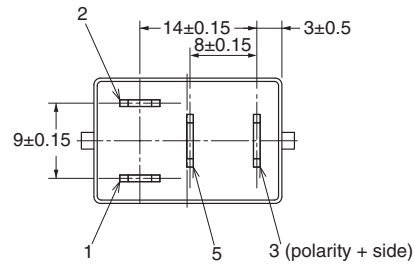
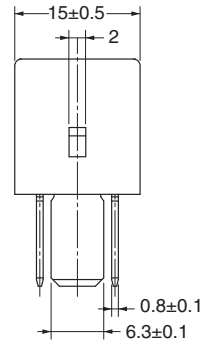
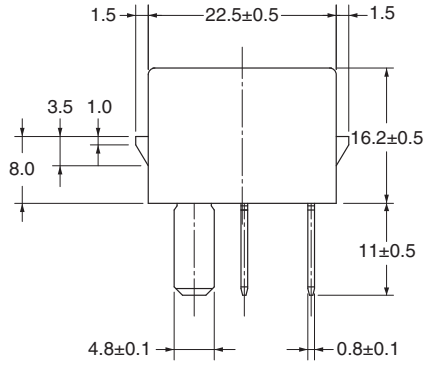
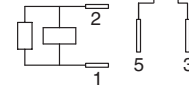
■ Dimensions

(Unit: mm)

G8HL



Terminal arrangement /  
Internal connections  
(BOTTOM VIEW)



TOLERANCE UNLESS OTHERWISE SPECIFIED  
 Less than 1 mm :±0.1 mm  
 1 to 3 mm :±0.2 mm  
 More than 3 mm :±0.3 mm  
 ( ) is reference dimension

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## ■Precautions

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- Please refer to “Safety Precautions for All Automotive Relays” for correct use.

Please check each region's Terms & Conditions by region website.

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### OMRON Corporation

Electronic and Mechanical Components Company

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