



# HLR-A4G-6

# Forced guide relay



### Features

- 6A contact switching capability;
- Multi-group contact combination: two groups of normally open + two groups of normally closed, three groups of normally open + one group of normally closed;
- Forced guide contact structure (according to IEC61810-3 standard);
- Strong insulation ability: input and output can withstand 6 kV surge impulse voltage;
- UL Insulation class: F class;
- Overall dimensions: (35×12.6×25.5)mm.

**RoHS compliant**

### Contact parameter

Contact form	2H2D
Contact resistance	≤100mΩ(1A 6VDC)
Contact material	AgSnO <sub>2</sub>
Rated load	6A 250VAC, 6A 24VDC
Maximum switching voltage	30VDC/400VAC
Maximum switching current	6A
Maximum switching power	180W/1500VA
Mechanical durability	1×10 <sup>7</sup> time
Electrical durability	1×10 <sup>5</sup> time (6A250VAC, resistive load, room temperature, 1s on 9s off)

Note: The preceding values are initial values.

### Performance parameter

Insulation resistance	1000MΩ(500VDC)	
Dielectric withstand voltage	Disconnect between contacts	1500VAC 1min
	Between contact groups	3000VAC 1min
	Between coil and contact	4000VAC 1min
Impulse voltage	Between coil and contact	6kV(1.2×50μs)
Operating time (at rated voltage)		≤20ms
	Release time (at rated voltage)	≤10ms
strike	stability	NO: 98m/s <sup>2</sup> NC: 49m/s <sup>2</sup>
	strength	980m/s <sup>2</sup>
Vibration	10Hz ~ 55Hz 1.5mm Double amplitude 55Hz~200Hz, NO: 10g, NC: 5g	
Humidity	5% ~ 85%RH-40	
Temperature range	°C ~ 85°C	
Outlet form	Printed plate	
Weight	About 25g	
Encapsulation mode	Plastic seal	

Note: The preceding values are initial values.

### Coil parameter

Rated coil power	About 1W
Holding voltage	50%~120%U <sub>N</sub> (Ambient temperature 25°C)
	60%~80%U <sub>N</sub> (Ambient temperature 85°C)

Note: (1) Coil holding voltage is the coil voltage applied after the rated voltage is applied 100ms;  
(2) The relay coil is not allowed to apply more than the upper limit value of the holding voltage for a long time to prevent the relay from overheating and burning.

### Coil specification sheet

23°C

Rated voltage VDC	Operating voltage VDC	Release voltage VDC	Maximum voltage <sup>(2)</sup> VDC	Coil resistance
6	≤4.20	≥0.6	8.4	36×(1±10%)
12	≤8.40	≥1.2	16.8	150×(1±10%)
20	≤14.0	≥2.0	28	400×(1±10%)
24	≤16.8	≥2.4	33	580×(1±10%)
48	≤33.6	≥4.8	667.2	2300×(1±10%)
60	≤42.0	≥6.0	64	3600×(1±10%)
110	≤77.0	≥11	154	12100×(1±10%)

Note: (1) The above values are initial values;  
(2) The maximum voltage refers to the maximum voltage value that the relay can withstand in a short time.

### Safety certification

UL	1NO	6A 250VAC Resistive load 85°C 6A 24VDC Resistive load 85°C B300/R300 85°C
	1NC	6A 250VAC Resistive load 85°C
TUV	1NO	6 A 250VAC Resistive load 85°C 6 A 24VDC Resistive load 85°C 3A 400VAC Resistive load 85°C AC-15 3A 250VAC 85°C DC-13 4A 24VDC 85°C
	1NC	6A 250VAC Resistive load 85°C AC-15 1A 250VDC 85°C DC-13 3A 24VDC 85°C

Note: The above only lists part of the load of the product certification, if you need more details, please contact us.

Order mark example

	<b>HLR-A4G-6/</b>	<b>12</b>	<b>-2H2D</b>	<b>1</b>	<b>S</b>	<b>T</b>	<b>F</b>	<b>G</b>	<b>(XXX)</b>
Relay type									
Coil voltage	6,12 ,20, 24, 48,60,110VDC								
Contact form	<b>2H2D:</b> Two groups normally open + two groups normally closed								
Structural form	<b>1:</b> 1 type								
Encapsulation mode	<b>S:</b> Plastic seal type								
Contact material	<b>T:</b> AgSnO <sub>2</sub>								
Insulation class	<b>F:</b> Grade F								
Contact coating	<b>G:</b> gild								
Special feature number <sup>(3)</sup>	<b>XXX:</b> Customer special requirements; <b>None:</b> Standard type								

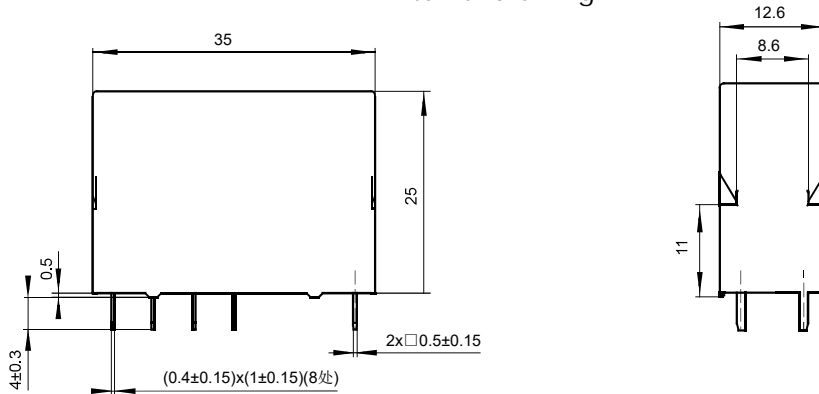
Note: (1) When the relay is loaded into the PCB board and welded, if the overall cleaning or surface treatment is needed, please contact our company to agree on appropriate welding conditions and appropriate product specifications;  
 (2) For gold-plated contacts, the minimum load is 10mA 5VDC, if the customer has a special load, please contact us for evaluation, provide suitable product specifications; (3) The special requirements of customers shall be identified by the form of feature number after review by our company.

Outline drawing, wiring diagram, mounting hole dimensions

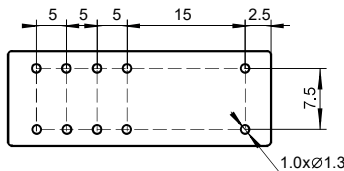
Unit: mm

HLR-A4G-6/XX-2H2D1TFG (XXX)

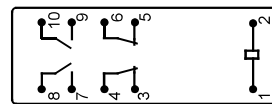
External drawing



Mounting hole dimensions (bottom view)



Wiring diagram (bottom view)



Note: (1) No dimensional tolerance is noted in the overall dimensions of the product part. When the overall dimensions are less than 1 mm, the tolerance is  $\pm 0.2$ mm; When the overall size is between (1 and 5)mm, the tolerance is  $\pm 0.3$ mm; When the overall size is  $> 5$ mm, the tolerance is  $\pm 0.4$ mm;

(2) The dimension tolerance of the mounting hole is  $\pm 0.1$ mm