


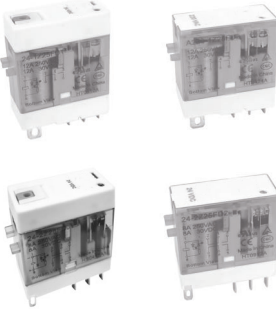




HLR-157F-13

Small medium power relay



Features

- High load current: 1Z(16A),2Z(10A)
- LED, continuous current diode, RC, indicator panel, button
- Voltage between coil contacts 5kV
- It has one or two groups of conversion contact forms
- Electrical outlets available

Contact parameters

Contact form	1Z,2Z
Contact resistance ⁽¹⁾	100mΩ (1A 6VDC)
Contact material	Silver tin oxide alloy
Rated load (resistance)	1Z:12A 250VAC/30VDC 2Z:8A 250VAC/30VDC
Maximum switching voltage	250VAC/30VDC
Maximum switching current	1Z: 16A 2Z: 10A
Maximum switching power	1Z:4000VA/480W 2Z:2500VA/300W
Mechanical durability	AC:3 x 10 ⁷ times DC:5 x 10 ⁷ times
Electrical durability	1 x 10 ⁵ times (1Z:12A 250VAC/30VDC, Resistive load, Room temperature, 1s on 9s off, NO end or NC end) (2Z:8A 250VAC/30VDC, Resistive load, Room temperature, 1s on 9s off, NO end or NC end)

Note: (1) The above values are initial values.

Performance parameters

Insulation resistance	1000MΩ (500VDC)	
Dielectric withstand voltage	Between coil and contact	5000VAC 1min
	Disconnect between contacts	1000VAC 1min
	Between contact groups	3000VAC 1min
Operating time	15ms	
Release time	20ms(AC type or built-in continuous diode type or RC circuit board type) DC type : 10ms	
strike	stability	98m/s ²
	intensity	980m/s ²
Vibration	10Hz ~ 55Hz 1.5mm Double amplitude	
Humidity	5% ~ 85% RH	
Temperature range	-40°C ~ 70°C	
Outlet form	plug-in	
Weight	The push-button model is 22g, and the push-button model is about 23.5g	
Encapsulation mode	Dust shield type	

Note: The above values are initial values.

Coil parameters

Rated coil power	Dc type: about 0.53W; Ac type: approx. 0.9VA
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Coil specification sheet 23°C

Rated voltage VDC	Operating voltage VDC ⁽¹⁾	Release voltage VDC ⁽¹⁾	Maximum voltage VDC ⁽²⁾	Coil resistance Ω
5	3.5	0.5	5.5	47.2 x (1±10%)
6	4.2	0.6	6.6	67.9 x (1±10%)
12	8.4	1.2	13.2	271 x (1±10%)
24	16.8	2.4	26.4	1080x (1±10%)
36	25.2	3.6	39.6	2445 x (1±15%)
48	33.6	4.8	52.8	4340 x (1±10%)
60	42	6.0	66	6792 x (1±10%)
100~110	77	11.0	110~121	18870 x (1±10%)

Rated voltage VDC	Operating voltage VDC ⁽¹⁾	Release voltage VDC ⁽¹⁾	Maximum voltage VDC ⁽²⁾	Coil resistance Ω
6	4.8	1.8	6.6	16 x (1±10%)
12	9.6	3.6	13.2	62.5 x (1±10%)
24	19.2	7.2	26.4	243 x (1±10%)
48	38.4	14.4	52.8	1085 x (1±15%)
60	48	18.0	66	1750 x (1±15%)
110	88	33.0	121	5270 x (1±15%)
115	92	34.5	126.5	6030 x (1±15%)
120	96	36.0	132	6400 x (1±15%)
220	176	66.0	242	21530 x (1±15%)
230	184	69.0	253	24100 x (1±15%)
240	192	72.0	264	25570 x (1±15%)

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



Safety certification

UL/CUL	1Z	12A 250VAC/30VDC Resistive load 70°C
		16A 250VAC/30VDC Resistive load 70°C
	2Z	8A 250VAC/30VDC Resistive load 70°C
		10A 250VAC/30VDC Resistive load 70°C
TÜV	1Z	12A 250VAC/30VDC Resistive load 70°C
		16A 250VAC/30VDC Resistive load 70°C
	2Z	8A 250VAC/30VDC Resistive load 70°C
		10A 250VAC/30VDC Resistive load 70°C

Note: The detailed test conditions of each load are different, so the number of electrical durability lives is different, if you need more information, please contact us.

Order mark example

HLR-157F-13/ A 24 -1Z 2 5 F D 2 (XXX)	
Relay type	
Coil power supply	A: Communication None: DC
Coil voltage	Dc:5 ~110VDC Ac:6 ~ 240VAC
Contact form	1Z: A set of transformations 2Z: Two sets of conversions
Outlet form	2: QC outlet
Contact material	5: Silver tin oxide alloy
Insulation class	F: Class F insulation
Assembly element code ⁽¹⁾	D: LED DJ: LED、Continuous current diode(1:"-") DJ1: LED、Continuous current diode(1:"+") DE: LED, RC circuit
Panel structure code	1: button type 2: No button
Customer characteristic number ⁽²⁾	XXX:Customer's special request None: Standard type

Note: (1) The combination component code with "J" continuous current diode for DC coil specifications, with "E" RC circuit board for AC coil specifications;

(2) The special requirements of customers shall be identified by the form of feature number after review by our company.

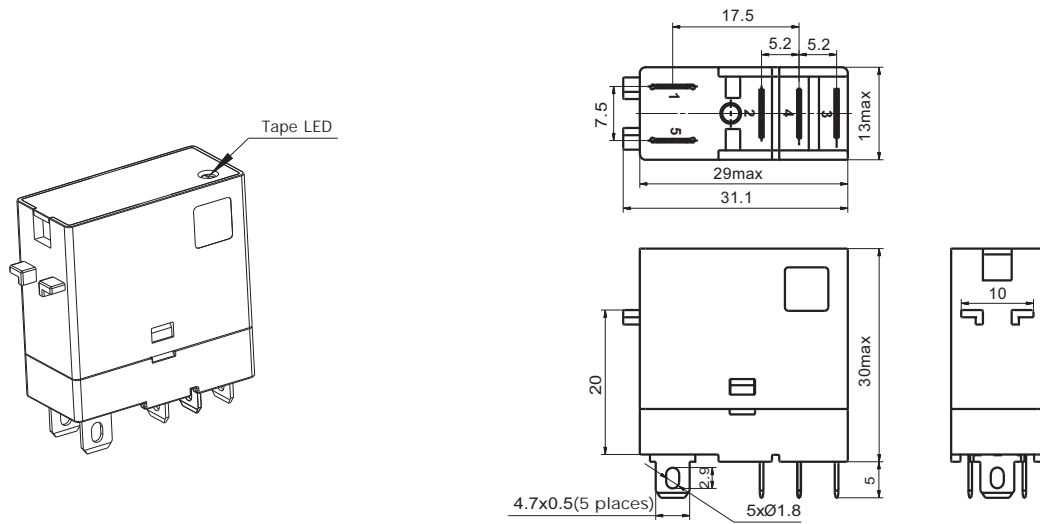


Outline drawing, wiring diagram

Unit: mm

External drawing

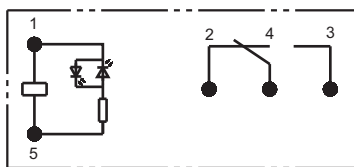
HLR-157F-13/□□□□-1Z25FD2(□□□)



Wiring diagram (bottom view)

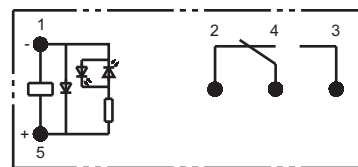
HLR-157F-13/□□□□-1Z25FD2(□□□)

Tape LED



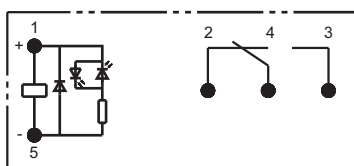
HLR-157F-13/□□□□-1Z25FDJ2(□□□)

With LED, with continuous current diode(1: “-”)



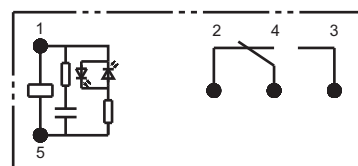
HLR-157F-13/□□□□-1Z25FDJ12(□□□)

With LED, with continuous current diode(1: “+”)



HLR-157F-13/□□□□-1Z25FDE2(□□□)

With LED, with RC circuit board



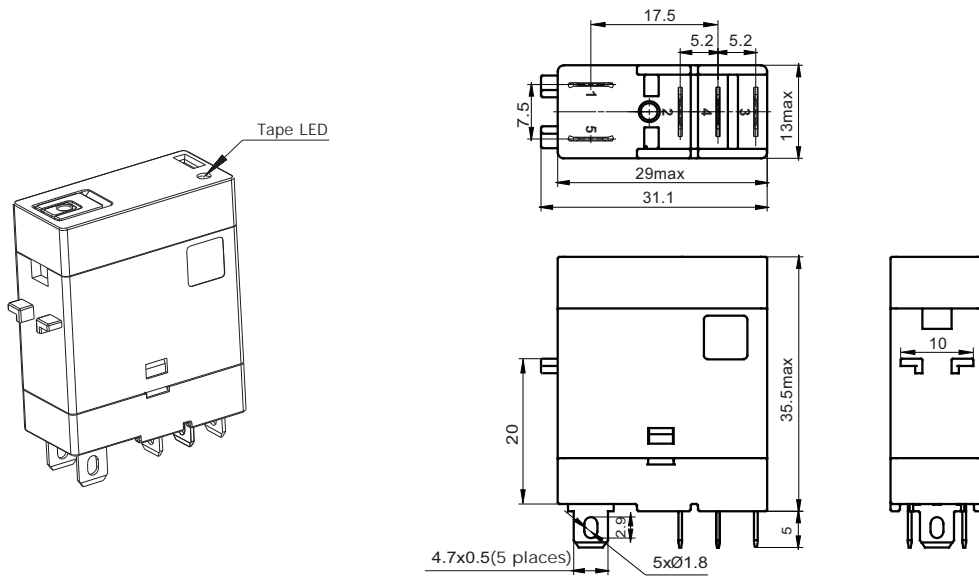


Outline drawing, wiring diagram

Unit: mm

External drawing

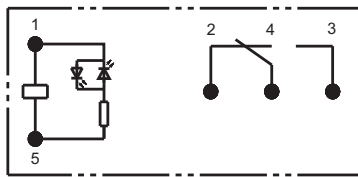
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Wiring diagram (bottom view)

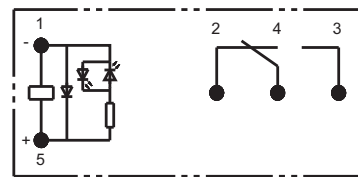
HLR-157F-13/□□□□-1Z25FD1(□□□)

Tape LED



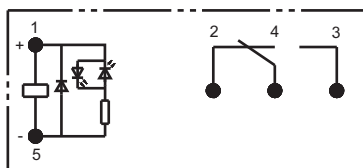
HLR-157F-13/□□□□-1Z25FDJ1(□□□)

With LED, with continuous current diode(1: “-”)



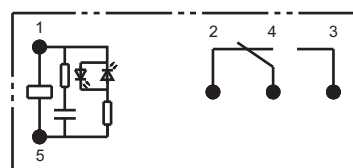
HLR-157F-13/□□□□-1Z25FDJ11(□□□)

With LED, with continuous current diode(1: “+”)



HLR-157F-13/□□□□-1Z25FDE1(□□□)

With LED, with RC circuit board



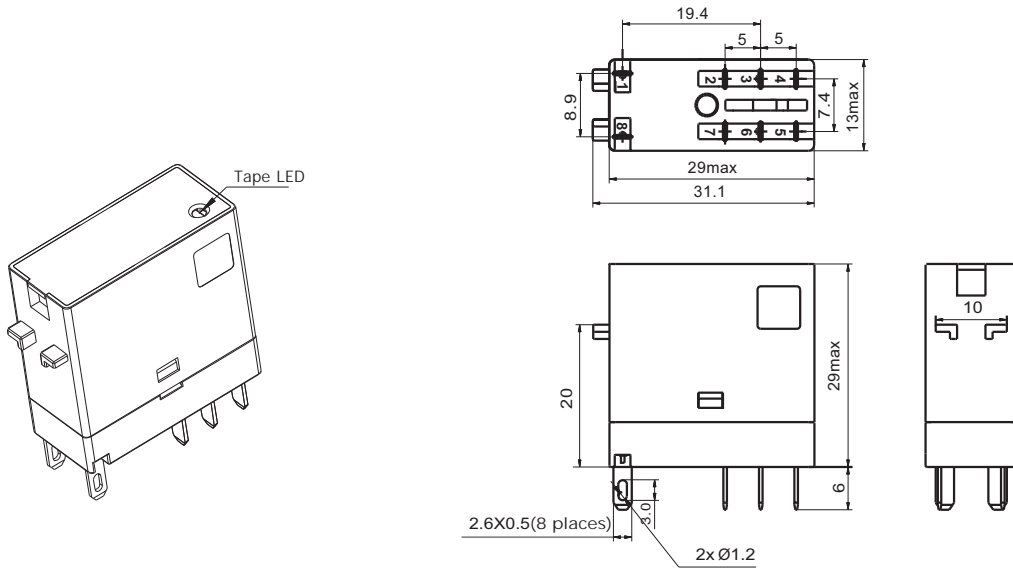


Outline drawing, wiring diagram

Unit: mm

External drawing

HLR-157F-13/□□□□-2Z25FD2(□□□)



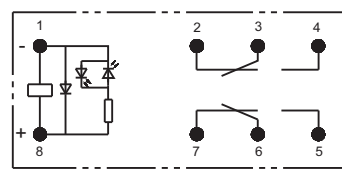
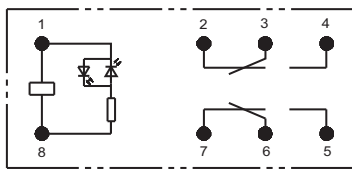
Wiring diagram (bottom view)

HLR-157F-13/□□□□-2Z25FD2(□□□)

HLR-157F-13/□□□□-2Z25FDJ2(□□□)

Tape LED

With LED, with continuous current diode(1: “-”)

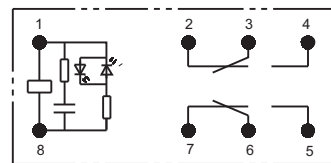
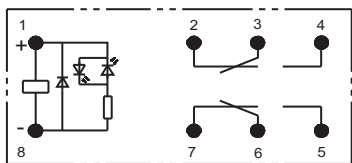


HLR-157F-13/□□□□-2Z25FDJ12(□□□)

HLR-157F-13/□□□□-2Z25FDE2(□□□)

With LED, with continuous current diode(1: “+”)

With LED, with RC circuit board



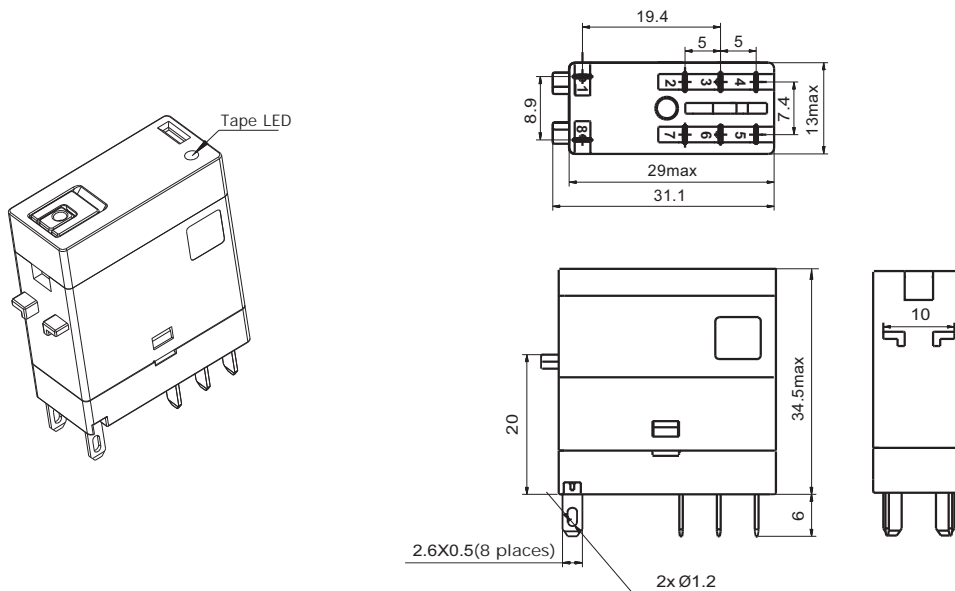


Outline drawing, wiring diagram

Unit: mm

External drawing

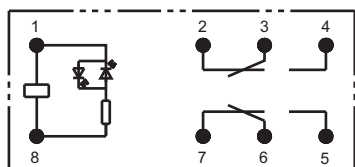
HLR-157F-13/□□□□-2Z25FD1(□□□)



Wiring diagram (bottom view)

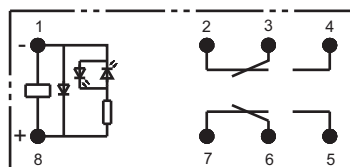
HLR-157F-13/□□□□-2Z25FD1(□□□)

Tape LED



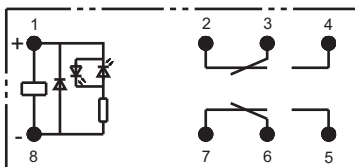
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With LED, with continuous current diode(1: “-”)



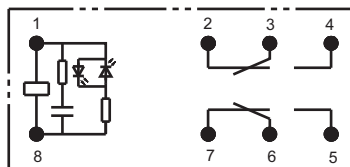
HLR-157F-13/□□□□-2Z25FDJ11(□□□)

With LED, with continuous current diode(1: “+”)



HLR-157F-13/□□□□-2Z25FDE1(□□□)

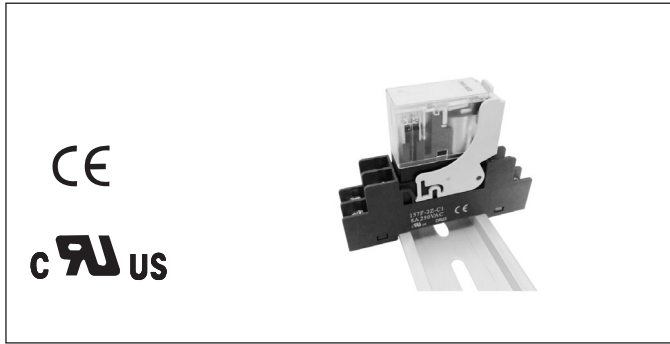
With LED, with RC circuit board



Note: (1) No dimensional tolerance is noted in the overall dimension of the product part. When the overall dimension is less than 1mm, the tolerance is $\pm 0.2\text{mm}$; When the overall size is between (1 and 5)mm, the tolerance is $\pm 0.3\text{mm}$; When the overall size is $> 5\text{mm}$, the tolerance is $\pm 0.4\text{mm}$;
 (2) The dimension tolerance of the mounting hole is $\pm 0.1\text{mm}$.



Relay socket



Features


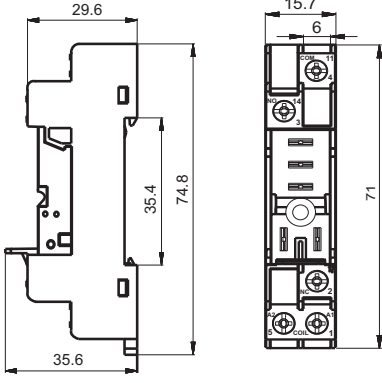
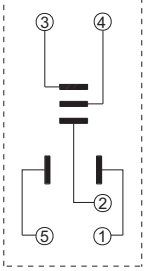

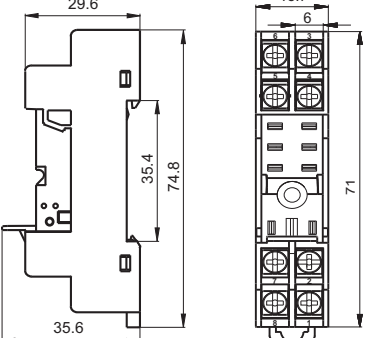
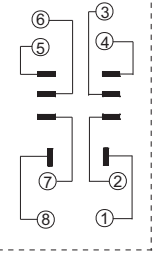
- The medium can withstand voltage up to 4000VAC (between contact and coil), and the insulation resistance is 1000M
- Screw type, rail type installation form is available
- Optional accessories plastic circlip (can be matched with mark plate), metal circlip
- Applicable relay model :HLR-157F-13

Performance parameter

Socket type	Rated voltage	Rated current	Ambient temperature	Medium withstand voltage min.	Screw torque	Strip wire length	Weight
157F-1Z-C2	250VAC/VDC	12A	-40 °C ~ 70 °C No freezing, no condensation	4000VAC (between coil and contact)	1.0N · m	7mm	About 24.5g
				1000VAC (between homopolar contacts)			
				3000VAC (between polar contacts)			
157F-2Z-C1	250VAC/VDC	8A/10A	-40 °C ~ 70 °C No freezing, no condensation	4000VAC (between coil and contact)	1.0N · m	7mm	About 28g
				1000VAC (between homopolar contacts)			
				3000VAC (between polar contacts)			

Outline drawing, wiring diagram, mounting hole dimensions

Unit: mm

Socket (if you need the parts in the picture, please order separately)	Overall dimension	Wiring diagram/ mounting hole dimensions	Optional accessories
<p>157F-1Z-C2</p>  <p>Rail and screw mounting options are available</p>		 <p>(Top view)</p>	<p>Plastic circlip 157F-H1 Metal circlip 157F-H2</p>
<p>157F-2Z-C1</p>  <p>Rail and screw mounting options are available</p>		 <p>(Top view)</p>	<p>Plastic circlip 157F-H1 Metal circlip 157F-H2</p>

Note: The figure shows the socket and accessories. If you need accessories, please order by model or consult our sales staff.

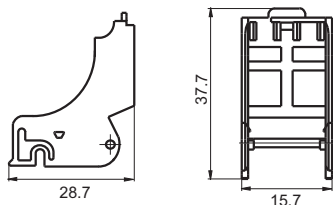


Size of relevant parts (optional)

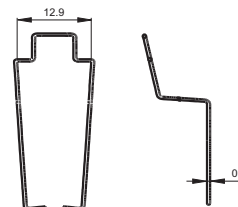
Unit: mm

Circlip

157F-H1(Plastic circlip)



157F-H2 (Metal circlip)



Accessory selection list

Relay type	Panel structure	Socket type	Circlip type	Sign Board	Module
HLR-157F-13/□□□-1Z2□□□1	Button type	157F-1Z-C2	157F-H1	14FF-M1	-
HLR-157F-13/□□□-1Z2□□□2	Buttonless	157F-1Z-C2	157F-H1	14FF-M1	-
			157F-H2	-	
HLR-157F-13/□□□-2Z2□□□1	Button type	157F-2Z-C1	157F-H1	14FF-M1	-
HLR-157F-13/□□□-2Z2□□□2	Buttonless	157F-2Z-C1	157F-H1	14FF-M1	-
			157F-H2	-	

Points for attention when selecting the socket:

1. Please select the appropriate relay socket according to the actual installation environment, the number of relay contact groups and the position of the relay leading foot. If you have any questions during the selection process, please contact us for more technical support;
2. The socket that can install the identification card is equipped with a standard sign plate, and other related accessories must be selected separately. Please indicate the model of the selected relay socket and related accessories when ordering.
3. The above only lists the typical sockets and related accessories for HLR-157F-13 relay products, if you have special requirements, please contact us;
4. The main outline size, when the outline size is >50mm, the tolerance is ±1mm; When 20mm < overall size ≤50mm, the tolerance is ±0.5mm; When 5mm < overall size ≤20mm, the tolerance is ±0.4mm; when overall size ≤5mm, the tolerance is ±0.3mm;
5. For guide rail installation, it is recommended to use DIN standard 35x7.5x1mm, 35x15x1mm standard guide rail.