

Features

- Micro-sized
- Contact load capacity up to 80A
- Terminal types: QC and PCB versions available
- Offered in plastic sealed and dust-proof types
- Dimensions: (26.5×26.5×23.5) mm
- Main applications: Rear window defrosters, battery disconnect units, automotive air conditioning, fog lamp/headlight control, power distribution, anti-lock braking systems (ABS), traction control systems, high-speed fan control



■ Performance Summary

Specifications	Item		
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		≤100mΩ
	Contact material		AgSnO ₂
Rated Load	Control Load (Resistive)		80A/14VDC
	Maximum Switching Voltage		75VDC
	Maximum Switching Current		80A
	Maximum Switching Capacity		1120W
	Minimum Permissible Load		6VDC 1A
Electrical performance	Insulation resistance(initial)		100MΩ (500VDC)
	Dielectric strength (initial)	Between open Main contacts	50Hz 500VAC,1 minute
		Between coil & Main contacts	50Hz 750VAC,1minute
	Set time		≤10ms
	Reset time		≤10ms
Mechanical performance	Shock	Stability	294m/s ²
		Strength	294m/s ²
	Vibration		10Hz～55Hz 3.0mm double amplitude
Endurance	Mechanical		1×10 ⁷ ops
	Electrical （at room home）		1×10 ⁵ ops
Condition	Ambient Temperature		-40℃～85℃/125℃ (special requirements to be specified)）
	Humidity		5% to 85%
Termination			PCB solder type; quick-connect type
Weight			Approx. 38g (without mounting bracket), 41g (with plastic mounting bracket), 46g (with metal mounting bracket)
Enclosure Type			Plastic sealed type, flux-proof type

■ COIL DATA (23℃)

■ Standard type

Nominal Voltage	Operate Voltage VDC	Release voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Maximum allowable voltage
DC 12V	≤7.8	≥1.2	133.3mA	90Ω	1.6W	DC 15.6V
DC 24V	≤15.6	≥2.4	66.7mA	360Ω		DC 31.2V

■ ORDERING INFORMATION

FHV7

-1A

S

T

B

R

P

-XXX

DC12V

① Type:

② Contact arrangement: 1A=1open contacts

③ Package form (1): No suffix = Solder mask type, S = Plastic-sealed type

④ Contact material: T=AgSnO₂

⑤ Housing: No suffix = No mounting bracket, B = With plastic mounting bracket, M = With metal mounting bracket

⑥ Coil transient suppression: No suffix = Standard; R = With resistor; D = With parallel transient suppression diode (anode connected to pin 85)

D1 = With parallel transient suppression diode (anode connected to pin 86)

⑦ Terminal form: No suffix = Quick connect type; P = PCB soldering type

⑧ Customer-specific code: Represented by numbers or letters

⑨ Coil specification: DC12/24V

- (1) For use in clean environments (free of contaminants such as H₂S, SO₂, NO₂, dust, etc.), the solder mask type is recommended. For use in polluted environments (containing contaminants such as H₂S, SO₂, NO₂, dust, etc.), the plastic-sealed type is suggested. If overall cleaning or surface treatment is required, please contact our company.

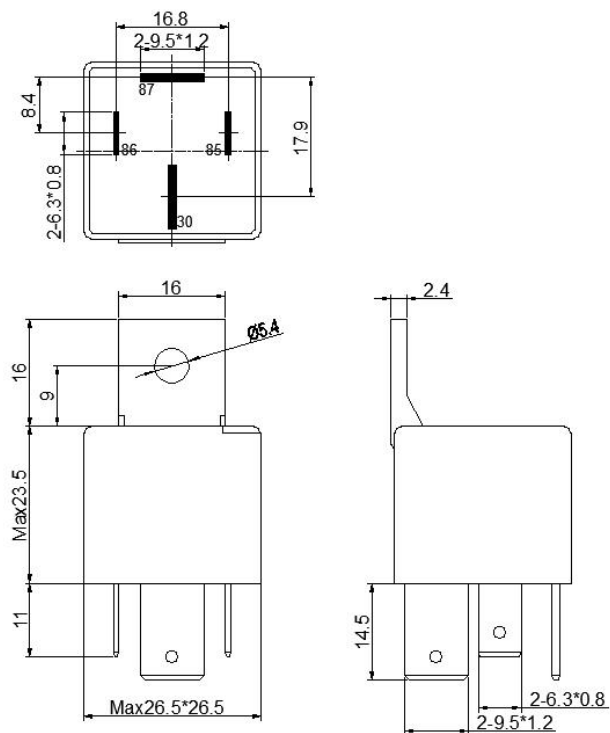
■ OUTLINE DIMENSIONS, WIRING DIAGRAM AND Mounting Dimensions (Unit: mm)

1A

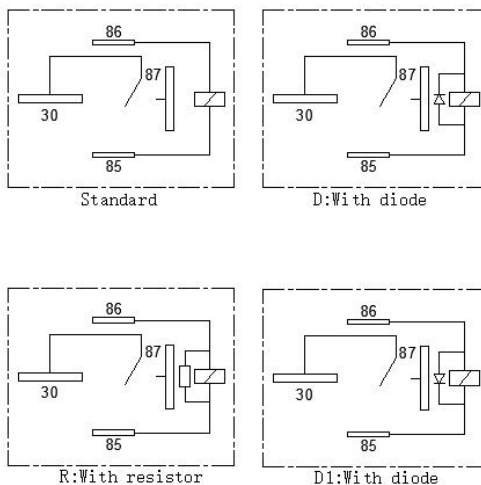
Outline Dimensions

Wiring Diagram (Bottom View)

Quick Connect Type (with Plastic Mounting Bracket)



Four wiring specifications are available

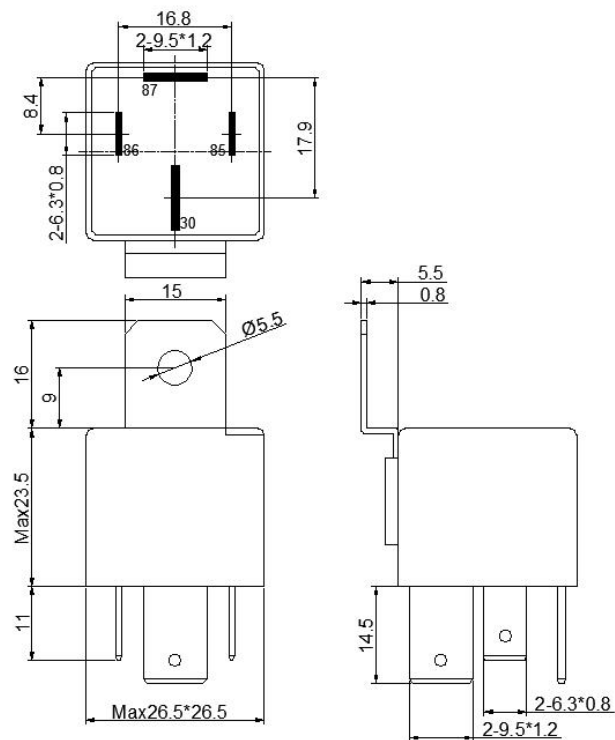


1A

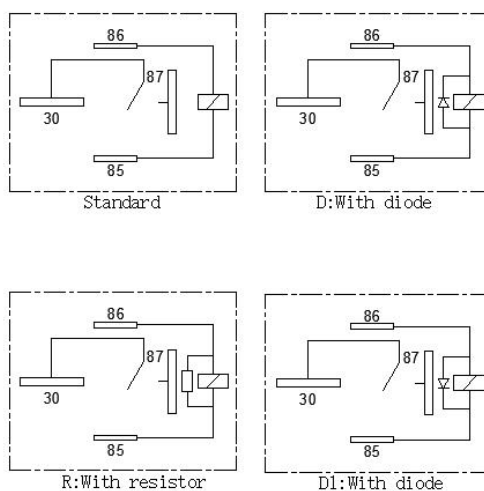
Outline Dimensions

Wiring Diagram (Bottom View)

Quick Connect Type (with Plastic Mounting Bracket)



Four wiring specifications are available



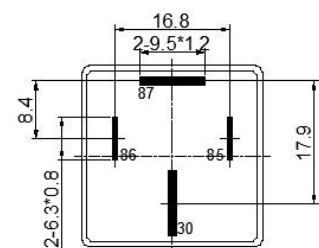
■ OUTLINE DIMENSIONS, WIRING DIAGRAM AND Mounting Dimensions (Unit: mm)

1A

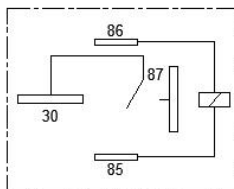
Outline Dimensions

Wiring Diagram (Bottom View)

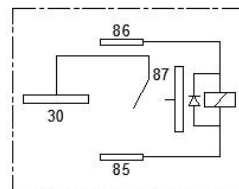
Quick Connect Type (with Plastic Mounting Bracket)



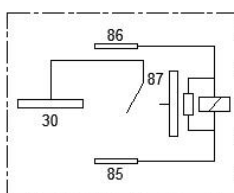
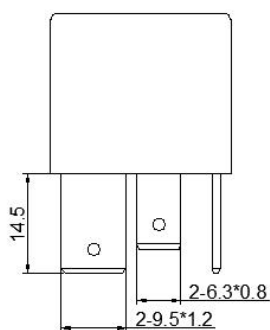
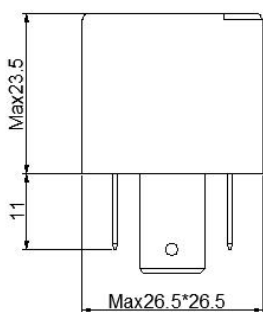
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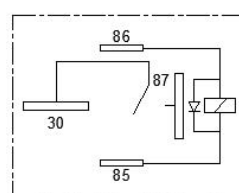
Standard



D:With diode



R:With resistor



D1:With diode

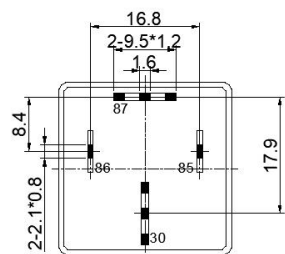
1A

Outline Dimensions

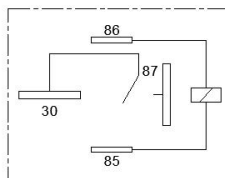
Wiring Diagram (Bottom View)

Mounting Dimensions (Bottom View)

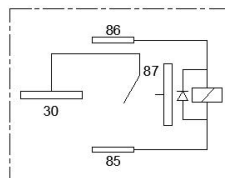
PCB Soldering Type



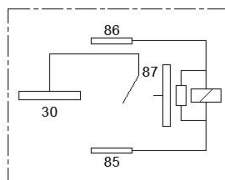
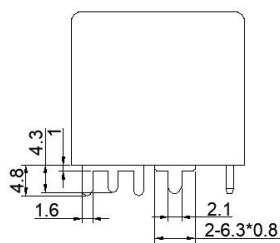
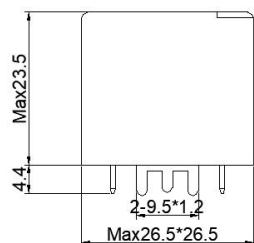
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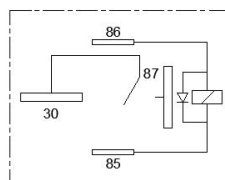
Standard



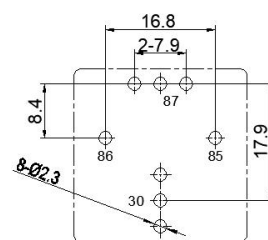
D:With diode



R:With resistor

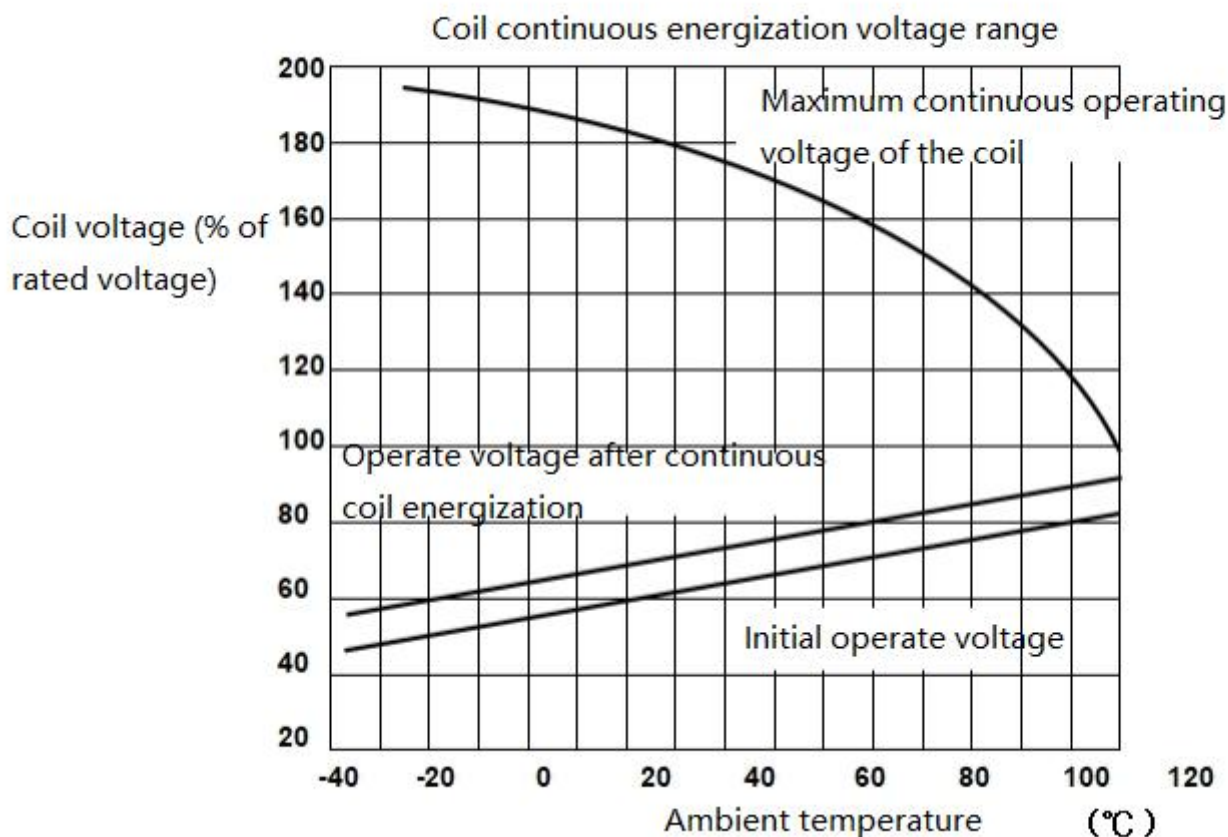


D1:With diode



- Notes: (1) For unstated dimensional tolerances on the product outline dimensions, When the outline dimension ≤ 1 mm, the tolerance is ± 0.2 mm; When the outline dimension is between 1 mm and 5 mm, the tolerance is ± 0.3 mm; When the outline dimension ≥ 5 mm, the tolerance is ± 0.5 mm.
- (2) The unstated tolerance for mounting dimensions is ± 0.1 mm.

■ Performance Curves



Note:

- (1) These curves apply under the condition of no load current at the contacts.
- (2) The operate voltage is related to the coil pre-energization time and pre-energization voltage. The operate voltage value will increase when measured after pre-energization.
- (3) The maximum allowable coil temperature is 180°C. Considering that the coil temperature rise measured by the resistance method is an average value, it is recommended that the coil temperature be kept below 170°C when measured under different operating environments, different coil voltages, and different load conditions. If the actual operating voltage of the coil exceeds the range specified in the curves, please contact FANHAR and provide detailed usage conditions.

■ Precautions

- ① To maintain the initial performance parameters of the relay, please do not drop the product.
- ② This product specification is for customer reference only. Subject to change without notice.