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Please note that the number of variants of Goodsky relay part numbers means that it is not possible to maintain stock of every one. If you are researching to replace just one relay on a component, say as a spare part for domestic equipment, you may need to contact the manufacturer of that equipment. Stock of Goodsky relays is maintained in the UK for those exact parts where there is a continuous demand within the UK.

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### Important Note

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# *GIN SERIES*

## For Automotive

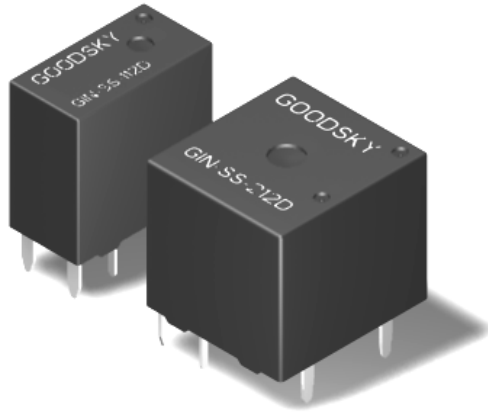
**Application :** Control Board on Power Window / ABS / Transmission / Central Locking System; etc.

**Features :** ◆ Slim Size ( 14.2×7.3×13.6mm ) with High Rating  
◆ High Current 30A

**RoHS Compliant**

## GIN性能比較表 (Performance Comparison List)

品牌 Supplier		GOODSKY		OMRON		SONG CHUAN		HONG FA		
型號 Item		Single	Dual	Single	Dual	Single	Dual	Single	Dual	
		GIN 1P	GIN 2P	G8N-1	G8NW-2	103	103T	HFKA	HFKA-T	
Coil Type		DCV	DCV	DCV	DCV	DCV	DCV	DCV	DCV	
接點部 Contact Specs	開關型式 Contact Configuration	1C,1A	1Ax2,1Cx2	1C	1Cx2	1C,1A	1Cx2	1C	1Cx2	
	接點材質 Contact Material	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	
	接點規格 Contact Rating	25A 16VDC	25A 16VDC	25A 16VDC	25A 16VDC	NO/NC: 20A/10A 14VDC	NO/NC: 20A/10A 14VDC	25A 16VDC	25A 16VDC	
	最大流通電流 Max. Allowable Current	30A	30A	30A	30A	20A	20A	30A	30A	
	最大承受電流 Rated Load	25A (20*/1hr)	25A (20*/1hr)	25A (20*/1hr)	25A (20*/1hr)	-	-	25A (20*/1hr)	25A (20*/1hr)	
	最大承受電壓 Max. Allowable Voltage	16V	16V	16V	16V	14DCV	14DCV	16V	16V	
	最小負載 Min.Switch Load	-	-	-	-	-	-	1A 6VDC	1A 6VDC	
線圈部 Coil Specs	額定電壓 Nominal Voltage	9,12,24,48	9,12,24,48	12VDC	12VDC	6,9,12,24VDC	6,9,12,24VDC	-	-	
	動作電壓 Pull-In Voltage %	60%	60%	60%(225Ω) 54%(180Ω) 46%(130Ω)	60%(225Ω) 54%(180Ω) 46%(130Ω)	60%	60%	60%	60%	
	開放電壓 Drop-Out Voltage %	5%	5%	8%	8%	5%	5%	8%	8%	
	額定消耗功率 Power Consumption	0.64W 0.8W(48V)	0.64W 0.8W(48V)	640mW(225Ω) 800mW(180Ω) 1108W(130Ω)	640mW(225Ω) 800mW(180Ω) 1108W(130Ω)	0.64W	0.64W	0.64W	0.64W	
	最大承受電壓 Max. Allowable Voltage	130%	130%			125%	125%			
性能 Performance	接點阻抗 Contact Resistance	100mΩ	100mΩ	100mΩ	100mΩ	100mΩ	100mΩ	100mΩ	100mΩ	
	動作時間 Operate Time	10ms	10ms	10ms	10ms	10ms	10ms	10ms	10ms	
	開放時間 Release Time	10ms	10ms	10ms	10ms	5ms	5ms	10ms	10ms	
	最大開閉頻率 Max. On/Off Switching	機械 Mechanical	18000/hr	18000/hr	18000/hr	18000/hr	18000/hr	18000/hr	-	-
		電氣 Electrical	1800/hr	1800/hr	1800/hr	1800/hr	1800/hr	1800/hr	-	-
	絕緣阻抗 Insulation Resistance	100m/S <sup>2</sup>	-	-	-	-	-	-	-	
	耐電壓(AC) Dielectric Strength	I/O	500VAC	500VAC	500VAC	500VAC	500VAC	500VAC	500VAC	500VAC
		O/O	500VAC	500VAC	500VAC	500VAC	500VAC	500VAC	500VAC	500VAC
	耐突入電壓 Surge Strength	I/O	-	-	-	-	-	-	-	-
	振動 Vibration	耐久 Endurance	100m/S <sup>2</sup>	100m/S <sup>2</sup>	100m/S <sup>2</sup>	100m/S <sup>2</sup>	10G	10G	10G	10G
		誤動作 Error Operation	1,000m/S <sup>2</sup>	1,000m/S <sup>2</sup>	1,000m/S <sup>2</sup>	1,000m/S <sup>2</sup>	100G	100G	100G	100G
	壽命 Life Expectancy:	機械 Mechanical	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>6</sup>	10 <sup>6</sup>
		電氣 Electrical	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>6</sup>	10 <sup>6</sup>	10 <sup>5</sup>	10 <sup>5</sup>
	使用環境溫度 Temperature Range	-40°C~105°C	-40°C~105°C	-40°C~85°C	-40°C~85°C	-40°C~125°C	-40°C~125°C	-40°C~125°C	-40°C~85°C	-40°C~125°C
	使用環境濕度 Humidity Range	45%~80%	45%~80%	35%~85%	35%~85%	-	-	-	-	-
重量 Weight	4	8	4.1	8	4	8	4	8		
安全規格 Safety Standard	-	-	-	-	-	-	-	-	-	
寸法 Dimension	外型尺寸 Dimension	14.2x7.3x13.6	14.2x14.5x13.6	14.3x7.5x13.8	14.5x14.1x14	14x7.2x13.5	15.4x14x13.5	14x7.2x13.5	14x15.4x13.5	
端腳外型 Terminal Type	直Pin(DIP)	V	V	V	V	V	V	V	V	
	90°Pin(SMD)	-	-	-	-	-	-	-	-	



## Main Feature

1. 25Amp motor lock load.
2. Small size with high rating.
3. Single or dual version available.
4. Standard type contact form SPDT and SPST are available for customers' selection
5. High performance PCB Relay.
6. Applications : Power Windows 、 Seat adjustment 、 Power Doors 、 Sunroof 、 Wiper Control.

## Contact Rating

Load Type	GIN (DM)	GIN (D)
Rated Load (Resistive)	30A 14VDC	25A 16VDC
Rated Carrying Current	30A	25A
Max. Allowable Voltage	DC 14V	DC 16V
Max. Allowable Current	30A	25A
Max. Allowable Power Force	420W	400W
Contact Material	Ag Alloy	Ag Alloy
Contact Form	SPST	SPDT

## Application

For direct connection with Cell Motors, Transmission etc. and Anti-Locking Brake System.

## Performance (at Initial Value)

- Contact Resistance ..... 100 mΩ Max. @1A,6VDC
- Operate Time ..... 10mSec. Max.
- Release Time ..... 10mSec. Max.
- Dielectric Strength:
  - Between Coil & Contact ..... 500VAC at 50/60 Hz for one minute.
  - Between Contacts ..... 500VAC at 50/60 Hz for one minute.
- Insulation Resistance ..... 100MΩ Min. at 500VDC.
- Max. On/Off Switching:
  - Electrical..... 6 Cycles per Minute.
  - Mechanical..... 300 Cycles per Minute.

- Temperature Range.....-40~105 °C.
- Humidity Range .....45~80% RH.
- Coil Temperature Rise .....50 °C Max.
- Vibration:
  - Endurance ..... 10 to 55 Hz dual amplitude width 1.5 mm
  - Error Operation..... 10 to 55 Hz dual amplitude width 1.5mm.
- Shock:
  - Endurance .....1,000 m/S<sup>2</sup>.
  - Error Operation ..... 100 m/S<sup>2</sup>.
- Life Expectancy:
  - Electrical.....10<sup>5</sup> Operations at Rated Resistive Load.
  - Mechanical .....10<sup>6</sup> Operations at No load condition.
- Weight.....About 4 g.

## Safety Standard & Its File Number

- NIL

## Coil Specification (at 20 °C)

Coil Sensitivity	Nominal Voltage(VDC)	Nominal Current (mA)	Coil Resistance (W±10%)	Power Consumption (W±10%)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
GIN	9	70.8	127	Abt. 0.64	60%	5%	130%
	12	53.3	225				
	24	26.7	900				
	48	26	1843	Abt. 0.8			

## Ordering Information

GIN	-SS-	1	12	D	M		
						<b>Contact Form:</b>	NIL : One Form C M : One Form A
						<b>Coil Type:</b>	D Standard DC Coil
						<b>Coil Voltage:</b>	09: 9V, 12: 12V, 24: 24V, 48: 48V
						<b>Number of Pole:</b>	1 : Single Relay 2 : Dual Relay
							SS : RT II Flux Proofed Relays SH : RT III Wash Tight Relays
						<b>TYPE:</b>	GIN

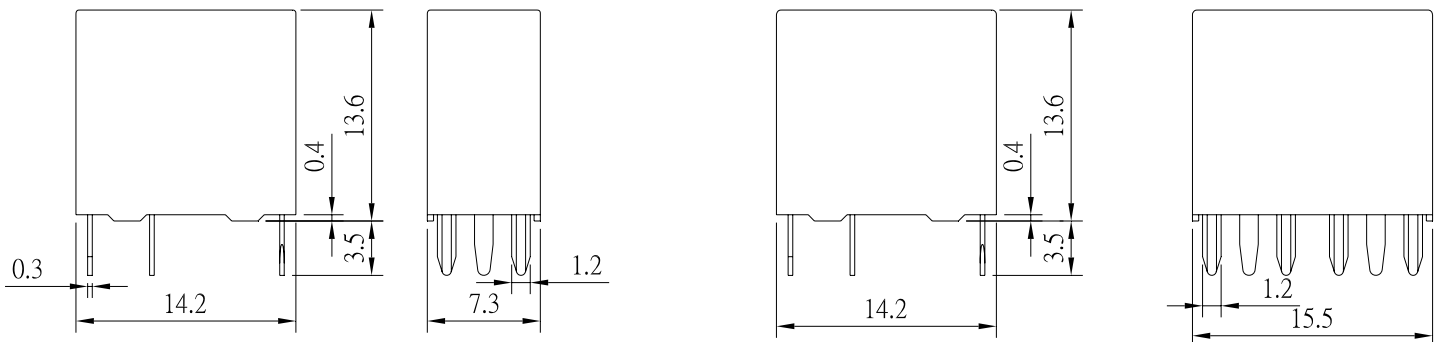
## Classification

Model	GIN			
	Single Relay		Dual Relay	
Single or Dual Relay				
Contact Form	1C	1A	2C	2A
Flux Proofed Relay	GIN-SS-1□□D	GIN-SS-1□□DM	GIN-SS-2□□D	GIN-SS-2□□DM
Wash Tight Relay	GIN-SH-1□□D	GIN-SH-1□□DM	GIN-SH-2□□D	GIN-SH-2□□DM

Dimension ( ≤ 5mm ± 0.2mm, > 5mm ± 0.3mm, the tolerance of PCB thru hole: +0.1mm)

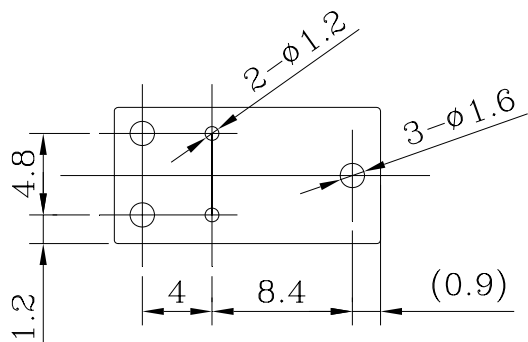
Single Type

Dual Type

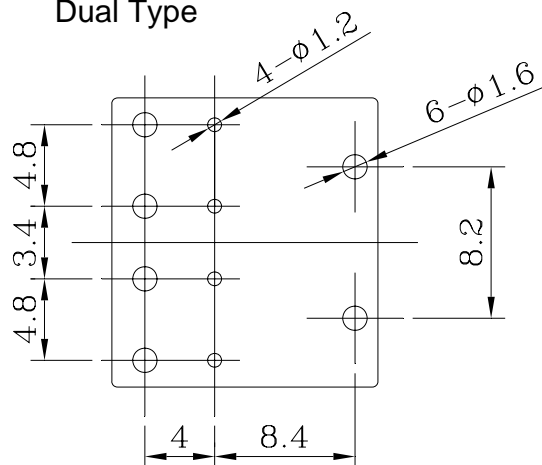


## PCB. Layout

Single Type

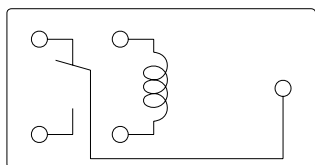


Dual Type



## Electric diagrams

Single Type



Dual Type

