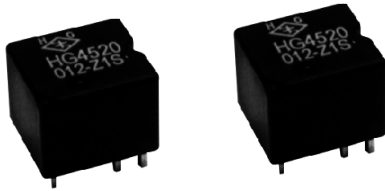


## Automotive Ultraminiature PCB Power Relay

# HG4520



### FEATURES

- Ultra-miniaturized design, extremely light weight
- 30A maximum continuous current

### TYPICAL AUTOMOTIVE APPLICATIONS

- Motor control
- Lamp control
- Intermittent wiper
- Rear window and seat heating

### CONTACT DATA

Form	1 Form A (H), 1 Form C (Z)	
Max. Switching Current	Make	100A
	Break	30A
Material	AgSnOInO	
Initial Contact Resistance	100 mΩ max. at 0.1A, 6VDC	
Max. Switching Voltage	16VDC	
Max. Continuous Current	NC25A / NO30A	
Min. Load	0.5A, 12VDC	
Service Life	Mechanical	10 <sup>7</sup> ops.
	Electrical	10 <sup>5</sup> ops.

### COIL DATA

Type	Coil Voltage Code	Nominal Voltage (VDC)	Resistance (Ω)±10%	Power Consumption	Must Operate Voltage Max. (VDC)	Allowable Voltage(VDC)	Must Release Voltage Min. (VDC)
Standard	006	6	64	0.55W	3.5	13.2	0.75
	010	10	181		5.7	22	1.25
	012	12	254		6.9	26	1.5
D	006	6	45	0.8W	3.5	11	0.75
	010	10	125		5.7	18	1.25
	012	12	181		6.9	22	1.5

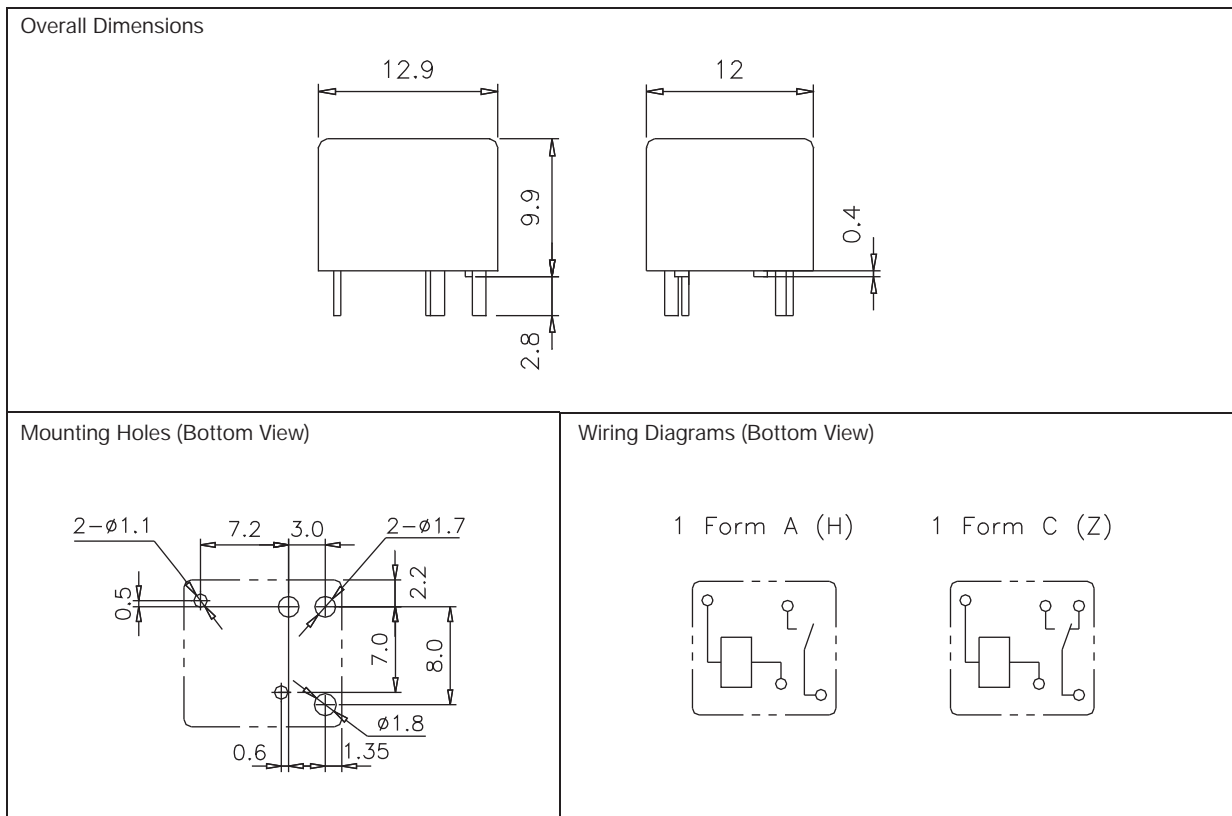
### CHARACTERISTICS

Operate Time	3 ms. typical
Release Time	1.5 ms. typical
Insulation Resistance	100 MΩ, at 500 VDC, 50%RH
Dielectric Strength	500 Vrms, 1 min.
Shock Resistance	30 g, 6ms.
Vibration Resistance	6 g, 10 - 500 Hz
Drop Resistance	1 M height drop on concrete
Power Consumption	0.55W, approx.
Ambient Temperature	-40°C to 105°C operating; -40°C to 155°C storage
Weight	4 g, approx.

### ORDERING DESIGNATION

Example:	HG4520 /	012 -	H	1	S
Model					
Coil Voltage Code					
Contact Form					
H: 1 Form A; Z: 1 Form C					
Version					
1: Sealed					
Contact Material					
A: AgNi0.15; S: AgSnOInO					

## OVERALL DIMENSIONS, MOUNTING HOLES AND WIRING DIAGRAMS (mm)



### NOTES

1. All parameters, unless otherwise specified, are measured at ambient temperature 23°C.
2. Maximum make current refers to inrush current of lamp load.
3. At ambient temperature of 85°C, maximum allowable voltage should be reduced to 72%.
4. Electrical life obtained at resistive load at 20A, 13.5 VDC on NO contacts with operating frequency of 6 ops/min.
5. To exert optimum electrical life, please remove the tape tab/knock-off nib of sealed version after cleaning process.
6. Custom-made services available with operational quantity. Please let us know your special requirements.
7. Specifications subject to change without prior notice.

T Y H Enterprise Limited  
 Room 1620B, Nan Fung Centre  
 264-298 Castle Peak Road  
 Tsuen Wan, N.T.  
 Hong Kong  
 Tel: 852-2416-0132  
 Fax: 852-2413-6229  
<http://www.tyhhk.com>  
 email: [info@tyhhk.com](mailto:info@tyhhk.com)

Plant: Shanghai Hi-Gradex Relay Mfg. Co., Ltd.  
 918 Shixin Road  
 Airport Town  
 Pudong New Area  
 Shanghai 201202  
 China  
 Tel: 86-21-6299-5619 / -5877  
 Fax: 86-21-6299-5619  
 email: [tyhesh@online.sh.cn](mailto:tyhesh@online.sh.cn)