

FEATURES

- 30 to 45A continuous current capacity
- Available with two footprints
- Available with open, dust cover and sealed version
- Automotive-oriented design

TYPICAL AUTOMOTIVE APPLICATIONS

- Flasher
- Interval wiper control
- Fuel pump control
- Ventilation motor
- Alarm system
- Safety belt warning system
- Inertia valve control
- Automatic mirror adjustment
- Sliding roof control
- Hazard light
- Heater control
- Rear window heating
- Air conditioning
- Central door lock
- ABS
- Belt tension adjustment
- Power window
- Seat positioning

CONTACT DATA

Form		1 Form A (1H)	1 Form B (1D)	1 Form C (1Z)	
				NO	NC
Max. Switching Current	Make	100A (S: 180A)	30A	100A (S: 180A)	30A
	Break	60A	30A	60A	30A
Material		AgNi0.15, AgSnOInO			
Initial Contact Resistance		100 mΩ max. at 0.1A, 6VDC			
Max. Switching Voltage		See curve, current dependent			
Max. Continuous Current		45A	30A	45A	30A
Min. Load		0.5A, 12VDC			
Service Life	Mechanical	10 <sup>7</sup> ops.			
	Electrical	2 x 10 <sup>5</sup> ops, see Note 4			

COIL DATA

Coil Voltage Code	Nominal Voltage (VDC)	Resistance (Ω) ±10%	Must Operate Voltage max. (VDC)	Allowable Voltage (VDC)	Must Release Voltage min. (VDC)
006	6	19	3.3	8.9	0.6
012	12	90	6.8	19.3	1.2
024	24	362	13.9	38.7	2.4

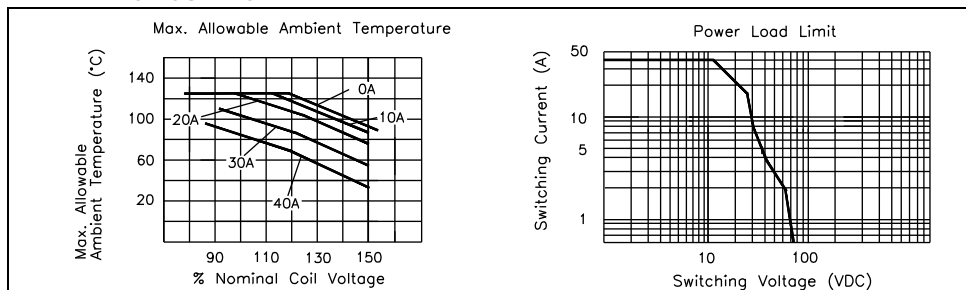
CHARACTERISTICS

Operate Time	5 ms. typical
Release Time	3 ms. typical
Insulation Resistance	100 MΩ, at 500 VDC, 50%RH
Dielectric Strength	500 Vrms, 1 min.
Shock Resistance	20 g, 11 ms.
Vibration Resistance	DA 1.5mm, 20 - 200 Hz, functional
Drop Resistance	1 M height drop on concrete in final enclosure
Power Consumption	1.5W, approx.
Ambient Temperature	-40°C to 125°C operating; -40°C to 155°C storage
Weight	Open: 18 g; Covered: 23 g, approx.

ORDERING DESIGNATION

Example:	HG4119 /	012 -	1H	11	- 1	A
Model						
Coil Voltage Code						
Contact Form	1H: 1 Form A ; 1D: 1 Form B ; 1Z: 1 Form C					
Footprint	8: US; 11: European					
Version	Nil: Open; 1: Sealed; 2: Dust Cover					
Contact Material	Nil: AgNi10; A: AgNi0.15; C: AgCdO; S: AgSnOInO					
For Sealed or Dust Cover US Footprint						
Nil: New Standard (with 1 common pin less); D: Old Style (Discontinued for New Designs)						

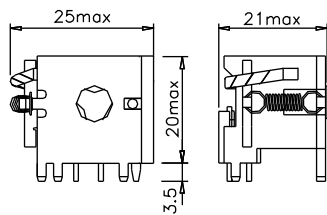
REFERENCE CURVES



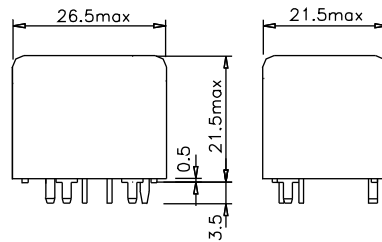
## OVERALL DIMENSIONS, MOUNTING HOLES AND WIRING DIAGRAMS (mm)

### Overall Dimensions

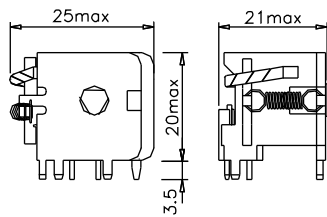
Open - European Footprint (11)



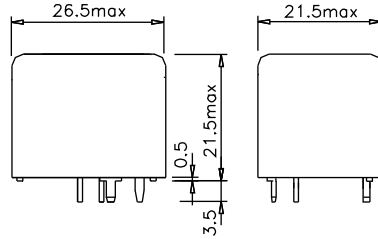
Covered - European Footprint (11)



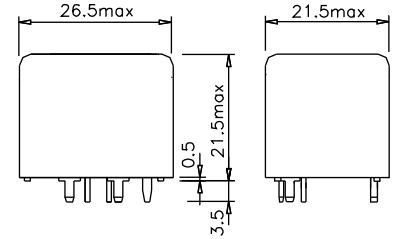
Open - US Footprint (8)



(New Standard) Covered - US Footprint (8)

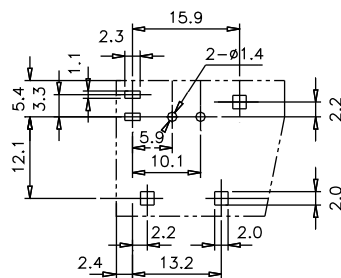


(Old Style) Covered - US Footprint (8)

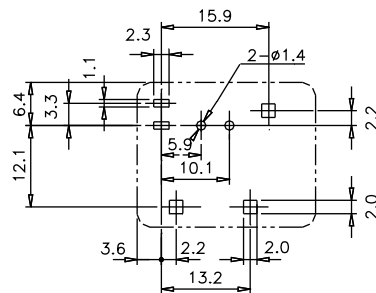


### Mounting Holes (Bottom View)

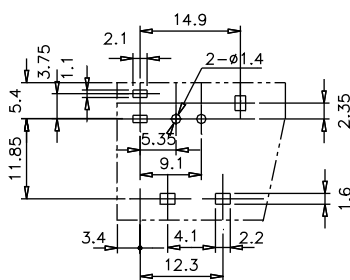
Open - European Footprint (11)



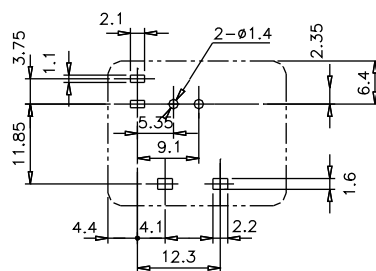
Covered - European Footprint (11)



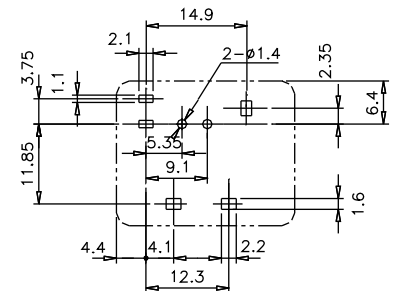
Open - US Footprint (8)



(New Standard) Covered - US Footprint (8)

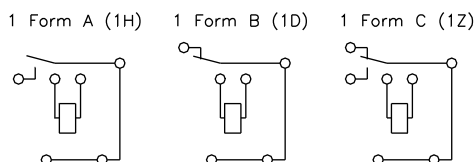


(Old Style) Covered - US Footprint (8)

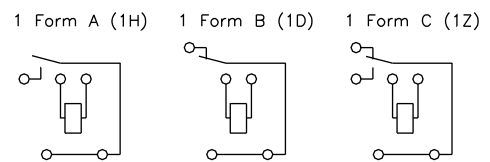


### Wiring Diagrams (Bottom View)

European Open & Covered and US Open & (Old Style) Covered



US (New Standard) Covered



### 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 or inductive load at 40A, 15VDC with suitable arc-suppression circuit attached with operating frequency of 1 ops/sec.
5. Custom-made services available with operational quantity. Please let us know your special requirements.
6. 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

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