

### Features

- Automotive applications
- Standardized terminal size & layout
- Now with continuous current capacity to 80 amps !
- Plastic cover for enviromental protection

### Characteristics

- Operate / Release Time: 7ms / 2 ms typical
- Dielectric Strength: 500 Vrms, 1 minute
- Insulation Resistance: 100M @ 500 VDC, 50% RH
- Shock Resistance: 20g, 11ms
- Vibration Resistance: 10-40Hz, 1.27mm DA  
40-70Hz, 5g  
70-100Hz, 0.5mm DA  
100-500Hz, 10g
- Drop Resistance: 1M drop ( 6 axii ) to concrete in final enclosure (GM)
- Power Consumption: 1.6W, un-suppressed ; 1.81W w/68 resistor
- Ambient temperature: -40 C to +125 C operating  
-40 C to +155 C storage
- Weight: 31g, approx.



**Typical Applications** :Head Lights, Fog Lamps  
Blower Control, Horn,  
Power Windows, Fans,  
Starters, ABS Systems

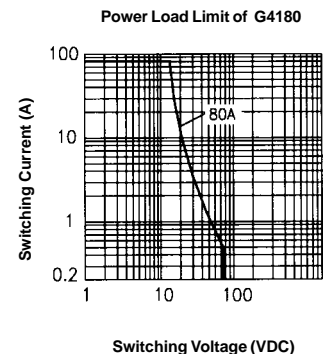
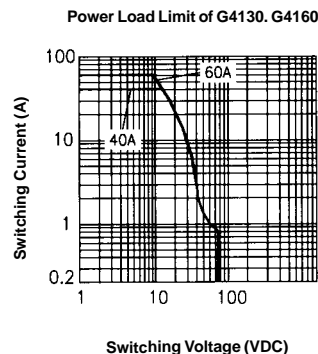
### Contact Data

Model	G4130	G4160	G4180
Contact Arrangement	1 Form A ; 1 Form C	1 Form A ; 1 Form C	1 Form A; 1 Form C
Max. Switching Current (M/B)	Form A: 120A/40A Form C: NC45A, NO120A	Form A: 120A/60A Form C: NC45A, NO120A	Form A : 240A/80A Form C: NO240A/NC180A
Contact Material	AgNi	AgCdO	AgSnOInO
Max. Switching V	See Curve #1, Current Dependent	See Curve #1, Current Dependent	See Curve #2, Current Dependent
Max. Continuous Current	Form A: 30A Form C: NO30A/ NC30A	Form A: 60A Form C: NO60A/ NC40A	Form A : 80A Form C : NO 80A / NC 60A
Minimum Load ( reference)	0.1A, 12VDC	0.5A, 12VDC	0.5A, 12VDC
Mechanical Life	10,000,000 ops.	10,000,000 ops.	10,000,000 ops.
Electrical Life	200,000 ops. ( See Note 4)	200,000 ops. ( See Note 4)	200,000 ops. ( See Note 4)

### Coil Data

Nominal Voltage	Coil Resistance 10%	Pull-In Voltage	Drop-Out Voltage
6	22	3.6	0.6
12	90	7.2	1.2
24	330	14.3	2.4

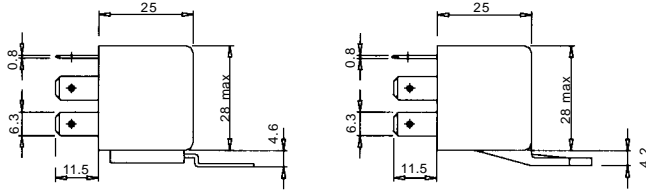
### Useful Curves



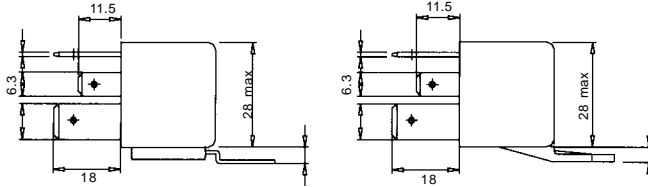
■ Overall Dimensions, Optional Covers, Terminal Layouts, Mounting Holes, and Wiring Diagrams (mm)

Plug-in Type

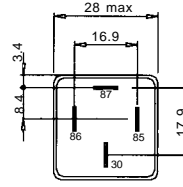
G4130, G4160



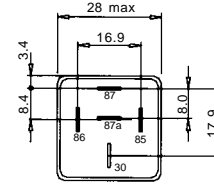
G4180



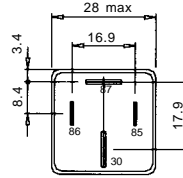
1 Form A



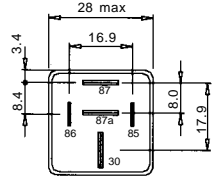
1 Form A (AA)  
1 Form C



1 Form A

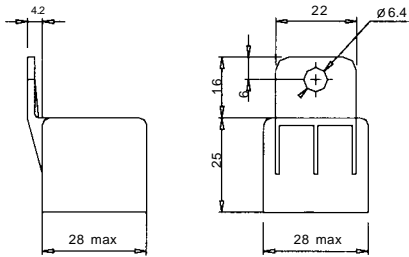


1 Form C

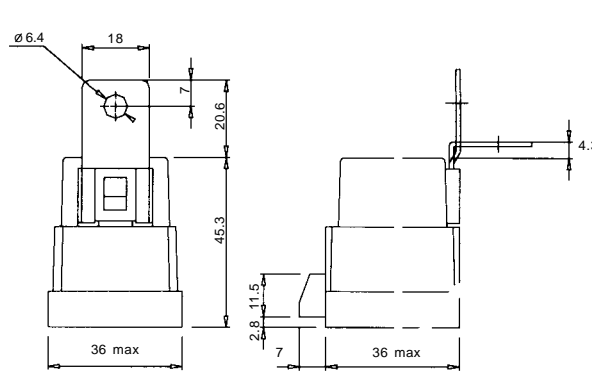


Optional Covers

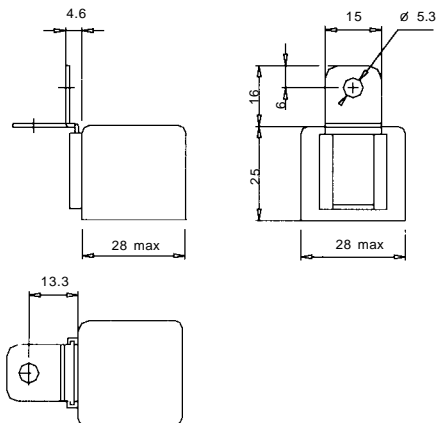
Molded Bracket



Skirted Cover w/Metal Bracket  
Skirted Cover w/Bent Metal Bracket



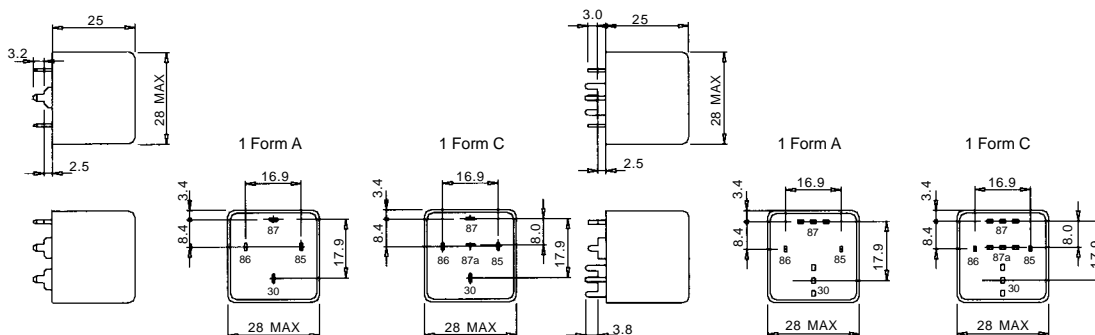
Metal Bracket  
Bent Metal Bracket



Overall Dimensions, PCB Type

**G4130, G4160**

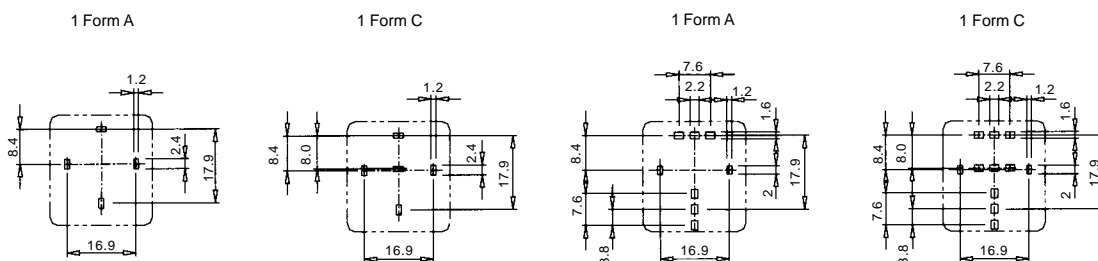
**G4180**



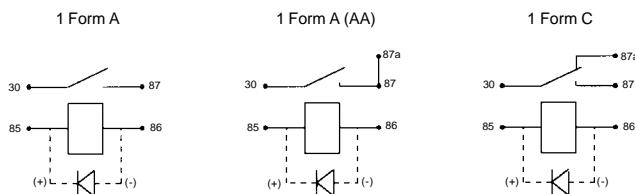
PCB Type Mounting Holes ( Bottom View )

**G4130, G4160**

**G4180**

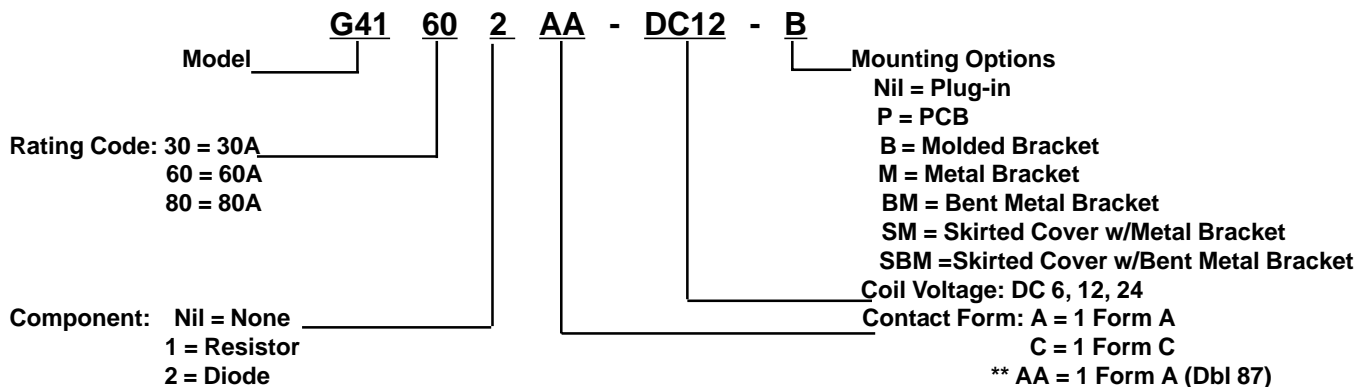


Wiring Diagrams



- Notes: 1) All parameters, unless otherwise specified, are measured at ambient temperature of 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 20A,15VDC for G4130; 40A, 15VDC for G4160; 80A, 15VDC for G4180 ( with suitable arc-suppression circuit attached with operating frequency of 1 ops/sec.)  
 5) Specifications subject to change without prior notice.

How to Order



\*\* G4130 and G4160 only