

Main Feature

1. 40A switching use relay at ambient temperature of 80°C.
2. Compatible Plug-in terminal available.
3. Metal or plastic bracket selection.
4. Standard type contact form SPDT and DPST available for customer's selection.
5. Operating ambient temperature range covers from -40°C to +125°C.
6. Comply with RoHS, REACH and ELV regulations

Contact Rating

Load Type	GRL (DM/DB)	GRL (D)	GRL-2P (DM)
Rated Load (Resistive)	N.O.: 40A 12VDC	N.O.: 40A 12VDC	40A(20Ax2) 12VDC
	N.C.: 30A 12VDC	N.C.: 30A 12VDC	
Rated Carrying Current	40A	40A	40A(20Ax2)
Max. Allowable Voltage	30VDC	30VDC	30VDC
Max. Allowable Current	40A	40A	40A(20Ax2)
Max. Allowable Power Force	480W	480W	240W
Contact Material	Ag Alloy	Ag Alloy	Ag Alloy
Contact Form	SPST	SPDT	DPST

Application

Engine Cooling Fan Control, Air-Conditioning Control, Fuel Pump control, Lighting Control

Performance (at Initial Value)

- Contact Resistance 100 mΩ Max. @1A,6VDC
- Operate Time..... 10 mSec. Max.
- Release Time 10 mSec. Max.
- Dielectric Strength:
Between Coil & Contact..... 1,000VAC at 50/60 Hz
for one minute
Between Contacts 500VAC at 50/60 Hz
for one minute
- Insulation Resistance 100 MegaΩ Min. at 500VDC
- Max. On/Off Switching:
Electrical..... 6 Cycles per Minute
Mechanical 300 Cycles per Minute
- Temperature Range..... -40~+125°C
- Humidity Range 45~80% RH.
- Coil Temperature Rise..... 60°C Max.

- Vibration:
Endurance..... 10 to 55 Hz dual
amplitude width 2 mm
Error Operation 10 to 55 Hz dual
amplitude width 2 mm
- Shock:
Endurance 1,000 m/S²
Error Operation 50 m/S²
- Life Expectancy:
Mechanical 10⁷ Operations at No
Load condition
Electrical 10⁵ Operations at Rated
Resistive Load
- Weight.....About 36.5g

Accessories & Sockets

- UC3003.....See Page
- CS3770.....See Page
- UC3001.....See Page

Safety Standard & File Number

- NIL

Coil Specification (at 20°C)

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ($\Omega \pm 10\%$)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
GRL	12	150	80	Abt. 1.8	75% Maximum	5% Minimum	150% (for short time carrying current)
	24	75	320				

Ordering Information

GRL - S - 1 12 D M H R1

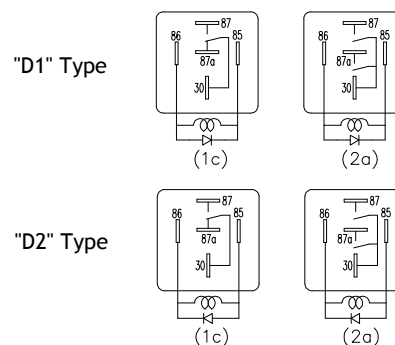
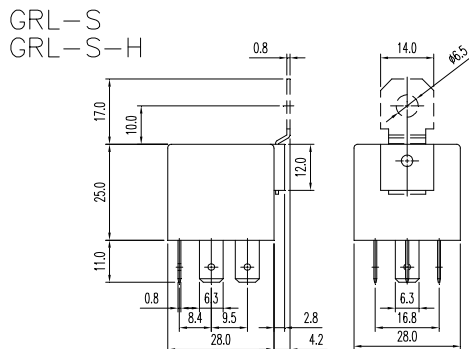
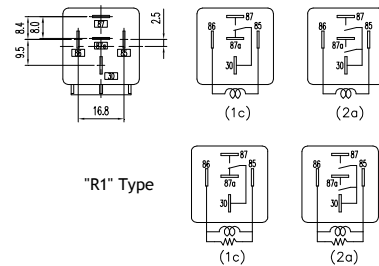
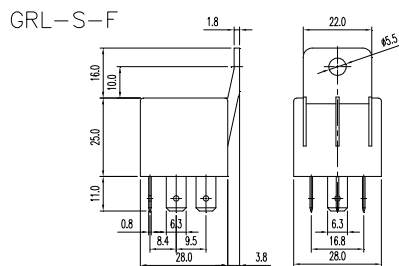
Options:

- Nil:** Standard
- R1:** Coil parallel with 1/2W Resistor
680 Ω for Coil Voltage 12VDC
2700 Ω for Coil Voltage 24VDC
- D1:** Coil parallel with diode & the Positive pole "+" on #85 Terminal
- D2:** Coil parallel with diode & the Negative pole "-" on #85 Terminal
- Bracket:**
 - Nil:** No Bracket Standard
 - H:** Dust Cover with Metal Bracket
 - F:** Plastic Bracket Cover
- Contact Form:**
 - Nil:** One Form C
 - M:** One Form A
 - B:** One Form B
 - D:** Standard DC
- Coil Type:**
 - 12:** 12V, **24:** 24V
- Coil Voltage:**
 - 1:** One Pole
 - 2:** Two Poles (Form A only)
- Number of Pole:**
 - S:** RT I Dust Protected
- Type of Sealing:**
 - Type:** GRL

Classification

Model	GRL			
Number of Pole	1 Pole			2 Poles
Contact Form	1C	1A	1B	2A
No Bracket Standard	GRL-S-1□□D	GRL-S-1□□DM	GRL-S-1□□DB	GRL-S-2□□DM
Dust Cover Metal Bracket	GRL-S-1□□DH	GRL-S-1□□DMH	GRL-S-1□□DBH	GRL-S-2□□DMH
Plastic Bracket Cover	GRL-S-1□□DF	GRL-S-1□□DMF	GRL-S-1□□DBF	GRL-S-2□□DMF
Coil Additional Parts	Please add your choice Coil Parallel "R1", "D1", "D2" at the back of all above-mentioned part number.			

Dimension ($\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, the tolerance of PCB thru hole: $+0.1\text{mm}$)



V.01DS