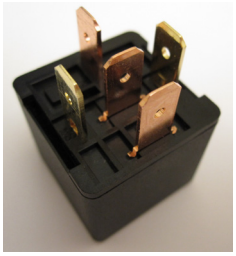
DG56

Automotive Relays





- General purpose automotive or industrial relays
- High resistance to inrush current
- PCB versions available
- Ideal for DC motor control
- Industry standard size and footprint
- High continuous DC current capacity
- RoHS Compliant

CONTACTS

Contact number & arrangement		SPST-NO, SPDT (1C/O)	
Contact material		AgSnO2	
Max. switching voltage		30VDC - current dependent, see curve in Fig. 1	
		DG56A	**DG56B**
Max. continuous current	SPST-NO	40A	60A
	SPDT (NO/NC)	40A / 30A	60A / 40A
Max. switching current - make	SPST-NO	120A	120A
	SPDT (NO/NC)	120A / 45A	120A / 45A
Max. switching current - break	SPST-NO	40A	60A
	SPDT (NO/NC)	40A / 30A	60A / 40A
Min. switching current		0.1A / 6VDC	0.5A / 6VDC
Contact resistance		< 100mΩ max. at 0.1A / 6VDC	

COIL

Rated voltage	DC	6, 12 & 24
Must release voltage		≥ $0.01U_n$
Operating range of supply voltage		See Table 1
Rated power consumption		1.6W (1.8W with resistor)

INSULATION

Dielectric strength	
coil-contact	500Vrms / 1min

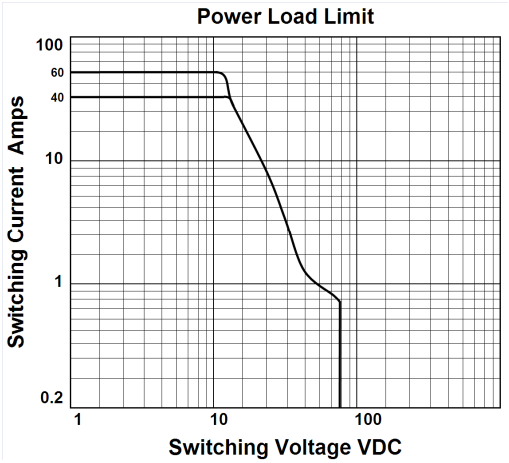
GENERAL DATA

Operating time (	7msec typical
Release time	5msec typical
Electrical life resistive	>1 $X10^5$
Mechanical life	$>10^7$
Insulation resistance	100MΩ at 500VDC
Dimensions (L x W x H)	Various - see dimensional drawings
Weight	~ 34g
Ambient temperature	
storage	-40°C to +155°C
operating	-40°C to +85°C
Cover protection category	IP54 Dust Cover
Shock resistance	30g / 6msec
Vibration resistance	20Hz - 200Hz (18g)

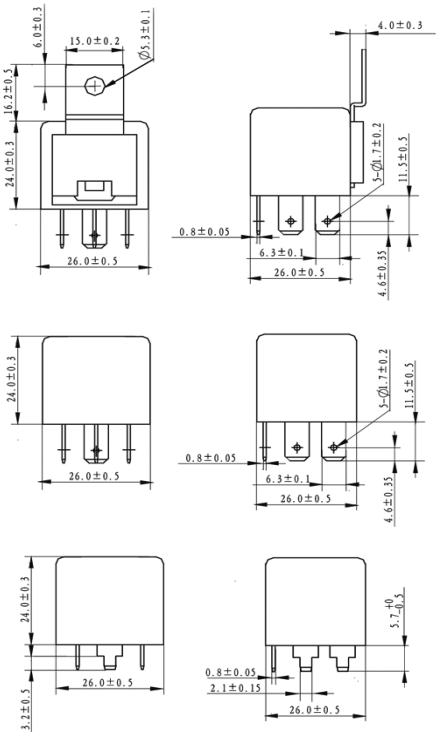
Coil Data (at 20ºC) — Table 1

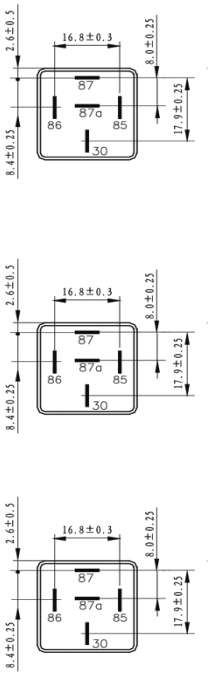
Coil Code	Rated Voltage VDC	Coil Resistance ±10% Ω	Must Operate Voltage Max VDC	Must Release Voltage Min VDC
1006	6	22	3.6	0.6
1012	12	90	7.2	1.2
1024	24	360	14.4	2.4

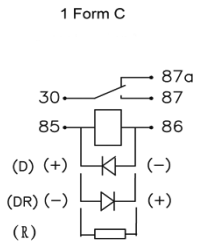
Max. DC Resistive Load Breaking Capacity — Fig. 1

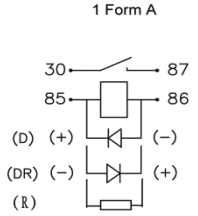


Dimensions & Wiring Diagrams

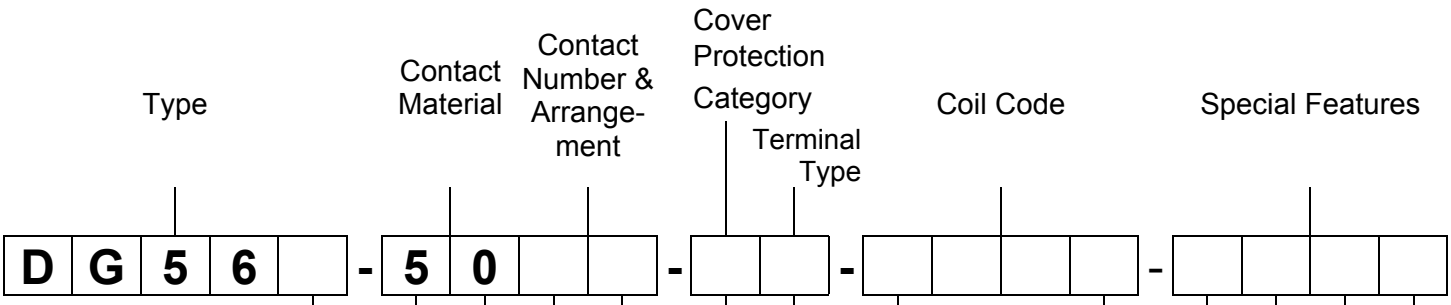








Ordering Codes



Current Rating

A - 40A
B - 60A

Contact Material

50 - $AgSnO_2$

Contact Number & Arrangement

11 - SPDT (1C/O)
21 - SPST-NO (1N/O)

Cover Protection Category

7 - IP54 Dust Cover
9 - IP54 Cover & Mounting Bracket

Terminal Type

5 - PCB
6 - 1/4" Quick Connect Flat Blades

Coil Code

See Table 1

Special Features 1

Nil - No Options
M1 - Metal Bracket

Special Features 2

Nil - No Options	
R - Integral Resistor:	180Ω on 6VDC Coil 680 Ω on 12VDC Coil 2700 Ω on 24VDC Coil
D - Integral Diode +85 / -86	
DR - Integral Diode Reversed -85 / +86	