

DG85

automotive / industrial relays

DURAKOOL



- General purpose automotive or industrial relays
- High resistance to inrush current
- PCB mounting 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 (1NO), SPDT (1 C/O)				
Contact material	AgNi, AgNi0.15, AgSnOInO, AgCdO				
Max. switching voltage	30VDC - current dependent - see curve Fig 2				
Max. continuous current	SPST-NO SPDT (NO / NC)	DG85A	DG85B	DG85C	DG85D
		30A 30A/30A	60A 60A/40A	80A 80A/60A	100A ---
Max. switching current - make	SPST-NO SPDT	120A 120A/45A	120A 120A/45A	240A 240A/180A	240A ---
		Max. switching current - break	SPST-NO SPDT	40A 40A/30A	60A 60A/40A
Min. switching current	0.1A 12VDC				
Resistance	< 100mΩ at 0.1A / 6VDC				

Coil

Rated voltage	6, 12 & 24VDC
Must release voltage	$\geq 0.01U_n$
Operating range of supply voltage	See Table 1
Rated power consumption	1.6W (1.81W with resistor)

Insulation

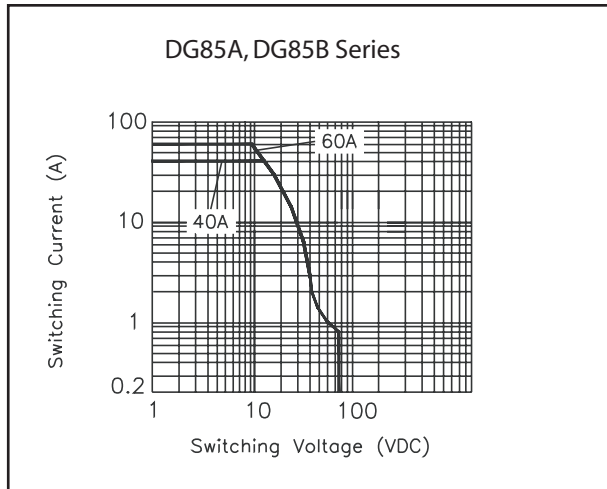
Dielectric strength coil - contact	500Vrms / 1min
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General data

Operating time (typical value)	≤ 7 msec
Release Time	≤ 2 msec
Electrical Life resistive	$> 2 \times 10^5$ (DG85A, DG85B); $> 10^5$ (DG85C, DG85D)
Mechanical life	$> 10^7$
Dimensions (L x W x H)	various - see dimensional drawings
Weight	35g approx.
Ambient Temperature storage operating	-40... + 155°C -40... + 125°C - see also Fig 1
Cover protection category	IP40, IP67 depending on version
Shock resistance	20g, 11ms
Vibration resistance	10-40Hz: DA 1.27mm; 70-100Hz: DA 0.5mm; 100-500Hz: 10g

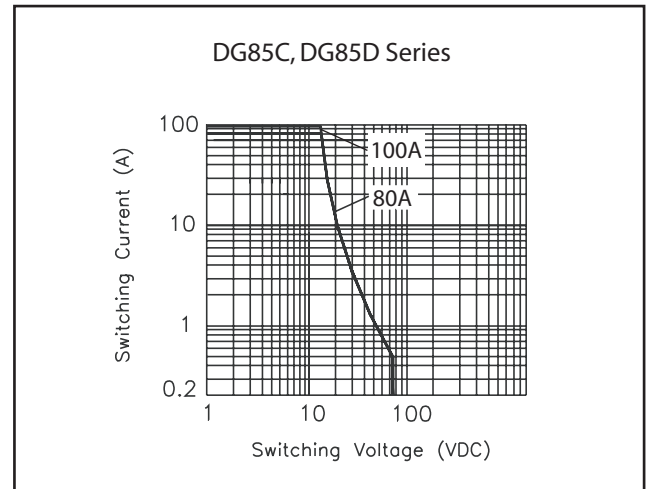
Max. DC resistive load breaking capacity

Fig. 1



Max. DC resistive load breaking capacity

Fig. 2



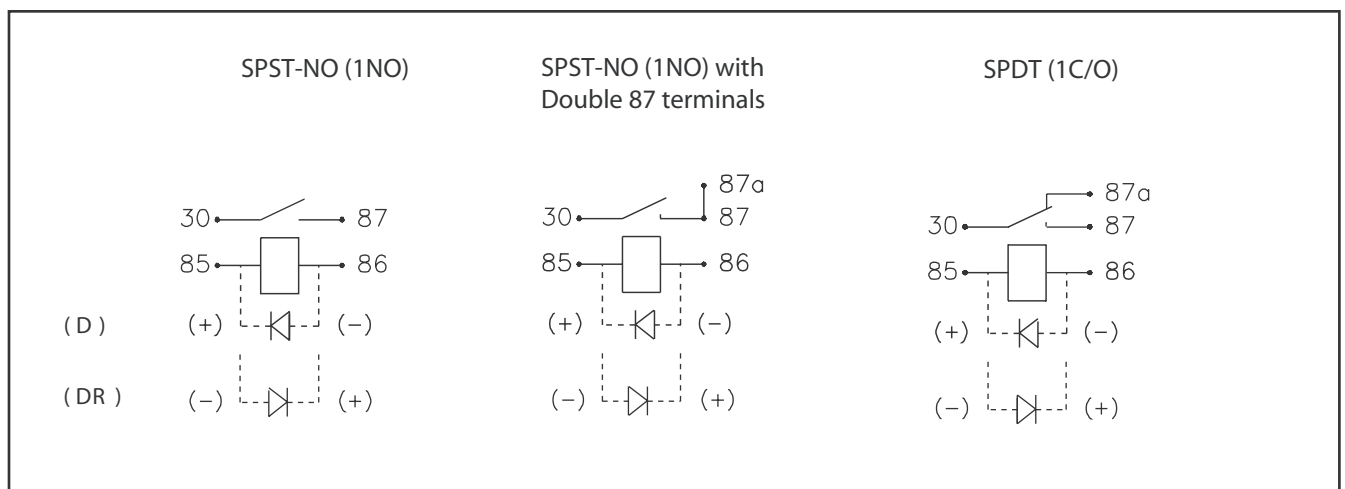
Coil Data - DC voltage version

Table 1

Coil code	Rated voltage V DC	Coil resistance ± 10% at 20°C 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	330	14.3	2.4

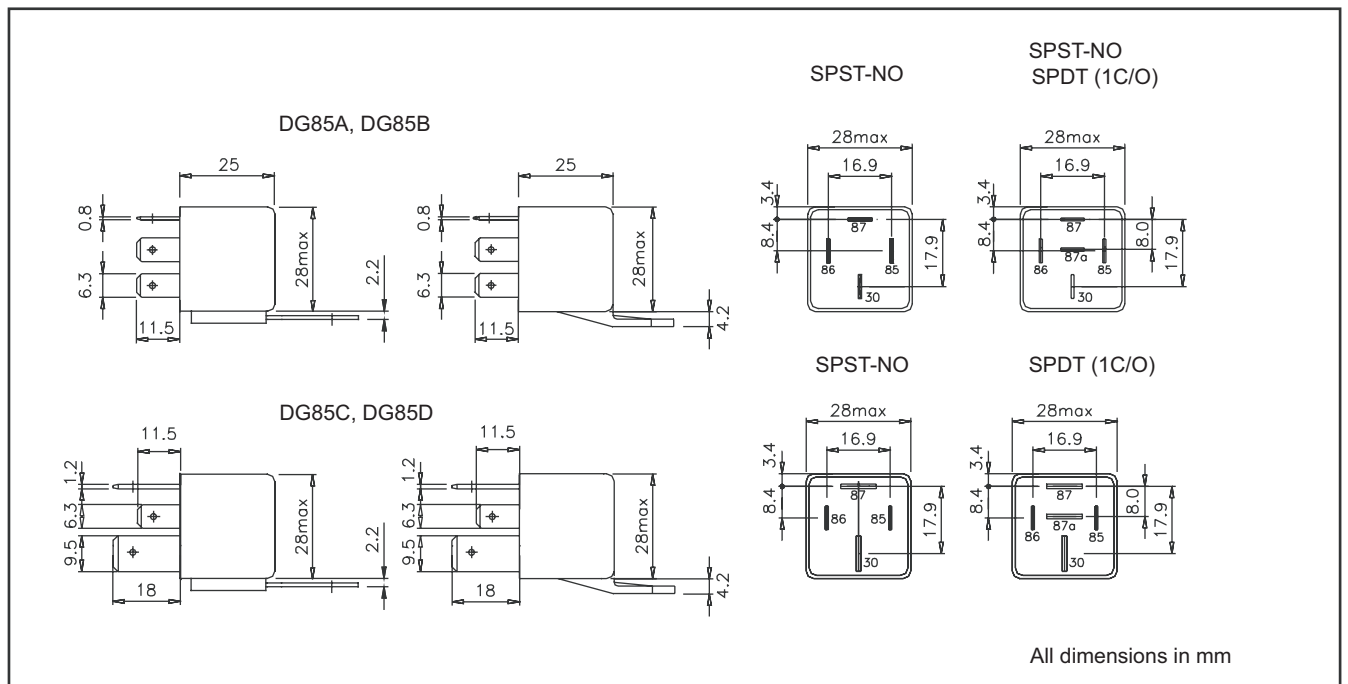
Wiring diagrams

Fig. 3



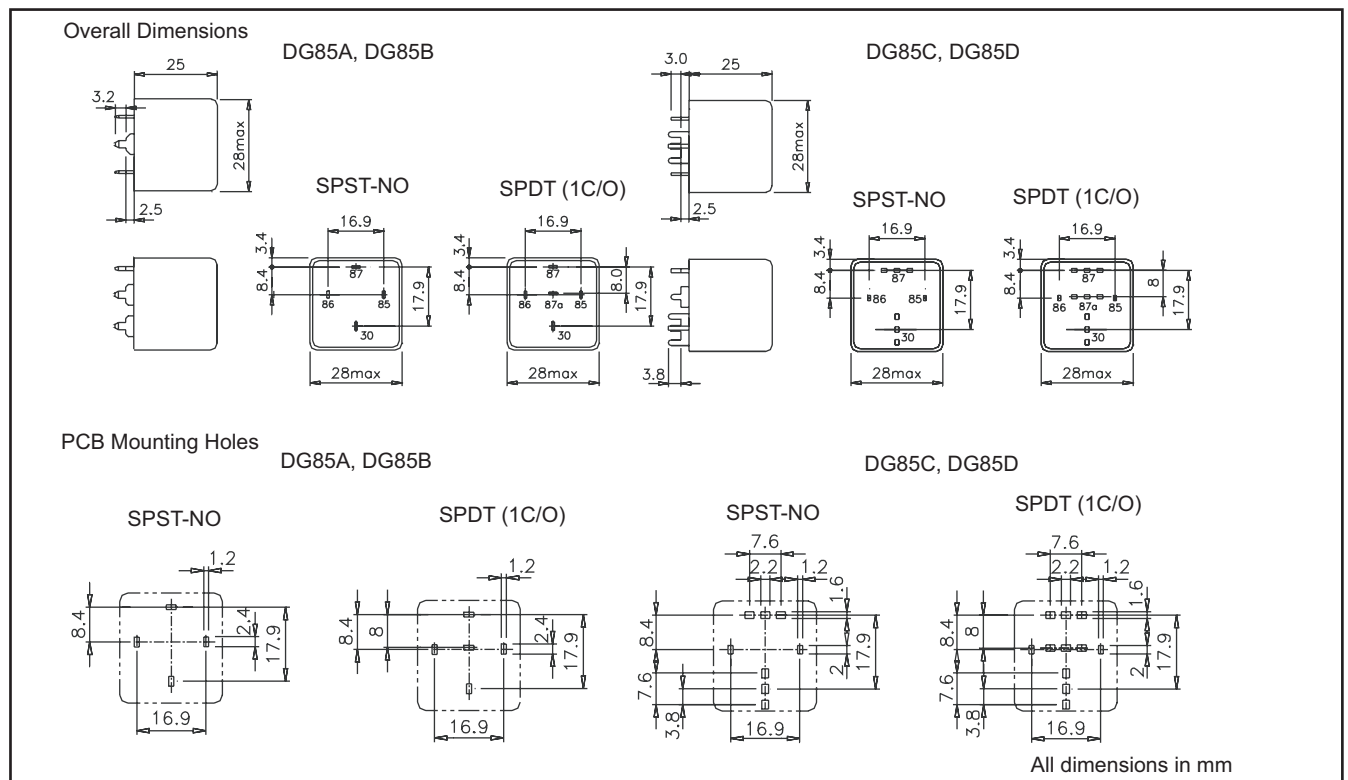
Dimensions - plug-in types

Fig. 4



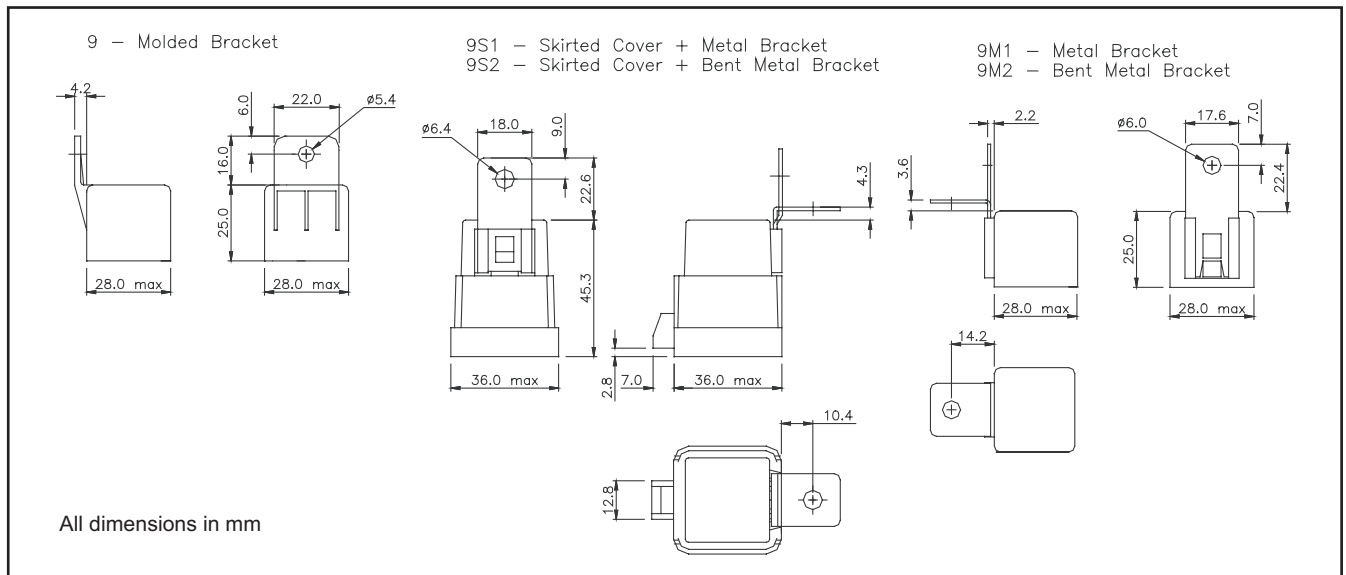
Dimensions - PCB types

Fig. 5



Dimensions - optional covers & brackets

Fig. 6



Ordering Codes

