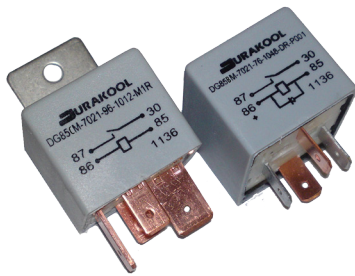


DG85*M series

automotive / industrial relays

DURAKOOL



- General purpose automotive or industrial relays
- High inrush capabilities
- Ideal for DC Motor Control
- High continuous DC current capacity
- Industry standard terminal arrangement
- Optimised for up to 145VDC switching with magnetic arc blowout
- RoHS Compliant

Contacts

Contact number & arrangement	SPST-NO (1 Form A); SPDT (1 Form C)	
Contact material	AgSnO ²	
Max. switching voltage	DC	145VDC (DG85CM)
	DG85BM (SPST-NO & SPDT)	DG85CM (SPST-NO only)
Contact rating (through normally open and normally closed contacts)	25A @ 36VDC 20A @ 48VDC 15A @ 72VDC 7A @ 110VDC	60A @ 36VDC 50A @ 48VDC 40A @ 60VDC 25A @ 72VDC 10A @ 110VDC 5A @ 145VDC
Max. switching current (3sec)	120A @ 12.8VDC	150A @ 12.8VDC
Min. switching current	100mA / 12VDC	100mA / 12VDC
Initial contact resistance	<100mΩ, max. at 0.1A/6VDC	
Coil		
Rated voltage	DC	6...110V
Must release voltage	See coil table 1	
Operating range of supply voltage	See coil table 1	
Rated power consumption	DC	1.7W / 1.8W (DG85BM) / 1.92W (DG85CM)
Insulation		
Insulation resistance	100MΩ at 500VDC, 50%RH, 25°C	
Dielectric strength	coil to contact	750Vrms, 1min
	contact to contact	500Vrms, 1min
General Data		
Operating time (typical)	mS	≤ 15mS (excluding bounce and without coil suppression)
Release time (typical)	mS	≤ 15 mS (excluding bounce and without coil suppression)
Electrical Life	ops	1 x 10 ⁵
Mechanical life	ops	1 x 10 ⁶
Dimensions	L x W x H	35 x 30.5 x 27mm (25mm for DG85BM)
Weight	65g approx. depending on style and mounting	
Ambient temperature	storage	-40 to 85°C (Maximum = 155°C)
	operating	-40 to 85°C (at nominal coil voltage - see Coil Data, Table 1)
Shock resistance	Functional: 30g 8mS; Destructive: 100g	
Vibration resistance	10 - 2000Hz, 4.4g (DG85BM) / 10 - 50Hz, 4.4g (DG85CM)	

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Coil Data

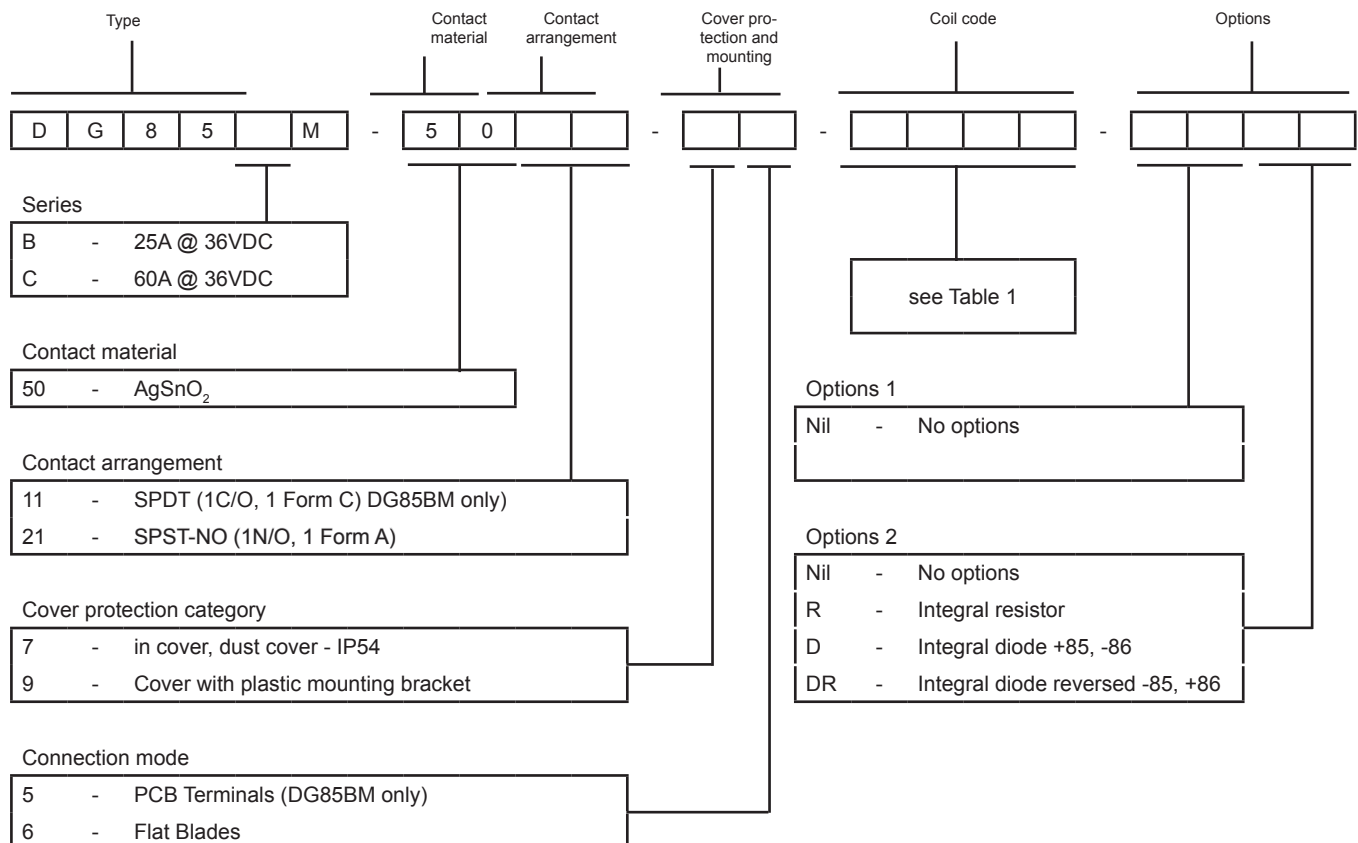
Table 1

Coil voltage code	Nominal voltage (VDC)	Coil resistance (Ω) $\pm 10\%$		Must operate voltage Max. (VDC)	Must release voltage min. (VDC)	Parallel resistor (option) (Ω) $\pm 10\%$	
		SPST-NO (DG85BM & DG85CM)	SPDT (DG85BM)			SPST-NO (DG85BM & DG85CM)	SPDT (DG85BM)
1006	6	20	*	4.0	0.6	150	*
1009	9	45	*	6.0	0.9	330	*
1012	12	75	85	8.0	1.2	1000	1000
1024	24	250	305	16.0	2.4	2200	2200
1036	36	650	*	24.0	3.6	4700	*
1048	48	1100	*	32.0	4.8	10000	*
1110	110	5500	*	73.2	11.0	not available	not available

All specifications at 23°C ambient

* Contact factory for availability.

Ordering codes



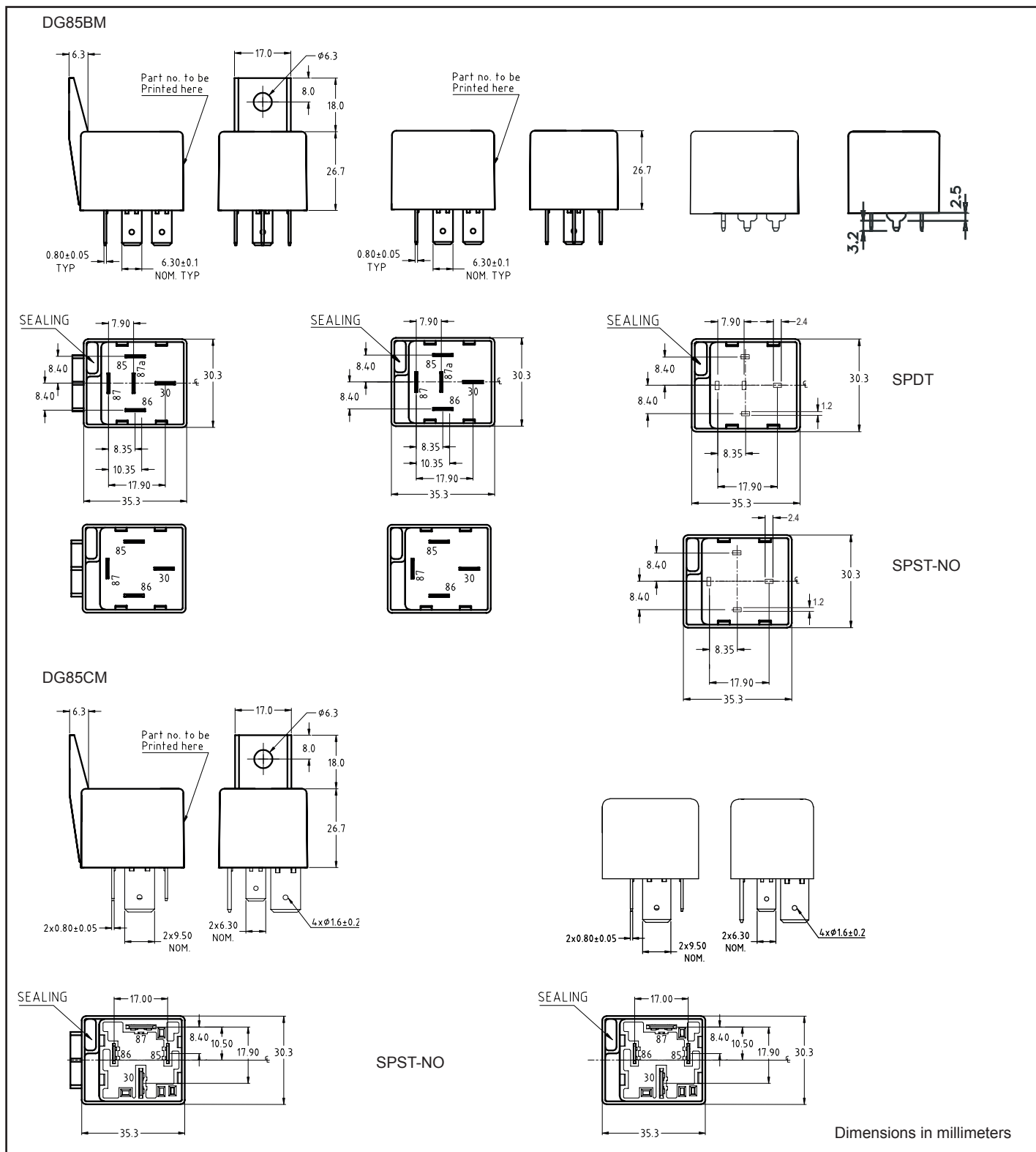
DG85*M series

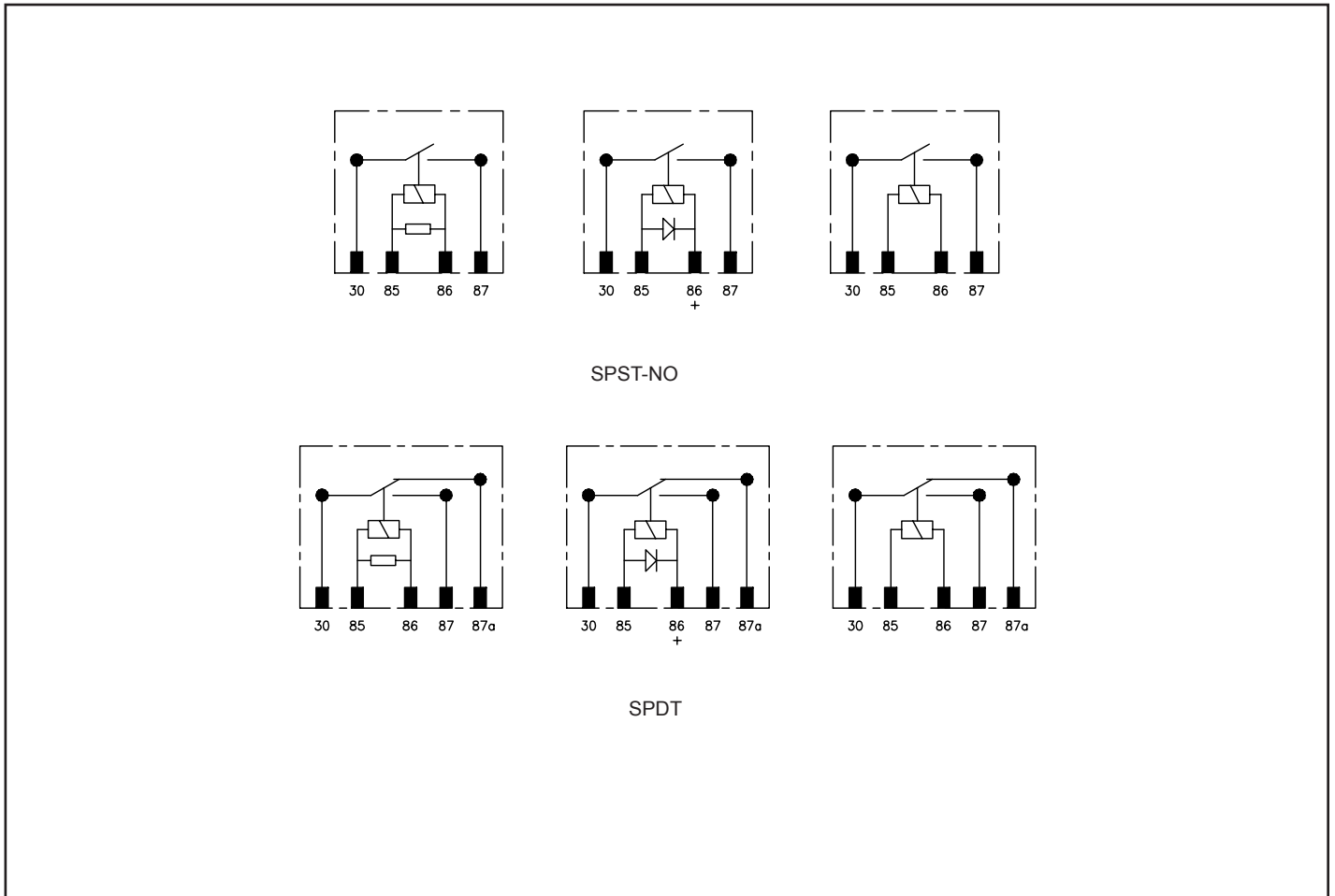
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Overall Dimensions - Plug-in & PCB Mount types

Fig. 1





Specifications are liable to change without notice. E&OE.