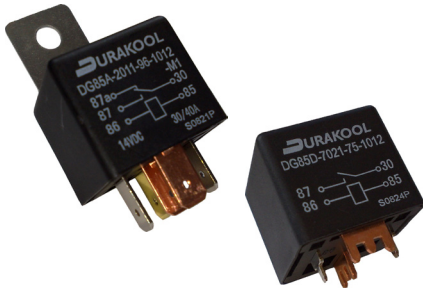


DG85 series

automotive / industrial relays

DURAKOOL



- General purpose automotive or industrial relays
- High inrush capabilities
- PCB Mounting option
- Ideal for DC Motor Control
- High continuous DC current capacity
- Industry standard size and footprint
- DG85F optimised for 24VDC switching
- RoHS Compliant

Contacts

Contact number & arrangement	SPST-NO (1 Form A); SPDT (1 Form C)					
Contact material	AgNi0.15; AgNi90/10; AgSnOInO; AgCdO					
Max. switching voltage	DC	30VDC (current dependent - see Figs 5 & 6); DG85F 24VDC				
Max. continuous current	SPST-NO	DG85A	DG85B	DG85C	DG85D	DG85F
	SPDT (NO/NC)	40A	60A	80A	100A	60A
Max. switching current - make	SPST-NO	40A/30A	60A/40A	80A/60A	-	60A/40A
	SPDT (NO/NC)	120A	120A	240A	240A	120A
Max. switching current - break	SPST-NO	120A/45A	120A/45A	240/180A	-	120A/45A
	SPDT (NO/NC)	40A	60A	80A	100A	60A
Min. switching current		40A/30A	60A/40A	80A/60A	-	60A/40A
Contact gap		0.1A 12VDC	0.5A 12VDC	0.5A 12VDC	0.5A 12VDC	0.5A 24VDC
Initial contact resistance		>0.5mm	>0.5mm	>0.5mm	≤1.0mm	>1.0mm
Coil						
Rated voltage	DC	<100mΩ, max. at 0.1A/6VDC				
Must release voltage		6...24V				
Operating range of supply voltage		≥0.1Un				
Rated power consumption	DC	See coil table 1				
Insulation						
Insulation resistance		1.6W; 1.81W with resistor; DG85F, 2.3W				
Dielectric strength		100MΩ at 500VDC, 50%RH				
	coil to contact	500Vrms, 1min				
	contact to contact	500Vrms, 1min				

Coil

Rated voltage	DC	6...24V
Must release voltage		≥0.1Un
Operating range of supply voltage		See coil table 1
Rated power consumption	DC	1.6W; 1.81W with resistor; DG85F, 2.3W

Insulation

Insulation resistance		100MΩ at 500VDC, 50%RH
Dielectric strength		
	coil to contact	500Vrms, 1min
	contact to contact	500Vrms, 1min

General Data

Operating time (typical)	mS	≤ 7mS
Release time (typical)	mS	≤ 2 mS
Electrical Life	ops	1 x 10 ⁵ , 5 x 10 ⁴ (DG85F only) (see Note 2)
Mechanical life	ops	1 x 10 ⁷ , 5 x 10 ⁵ (DG85F only)
Dimensions	L x W x H	various - see dimensional drawings
Weight		40g approx. depending on style and mounting
Ambient temperature	storage	-40 to 155°C
	operating	-40 to 125°C
Shock resistance		Functional: 20g 11mS; Destructive: 100g
Vibration resistance		DA 1.27mm 10-40Hz / 40-70Hz:5g / DA 0.5mm 100-500Hz: 10g

DURAKOOL

DG85 series

automotive / industrial relays



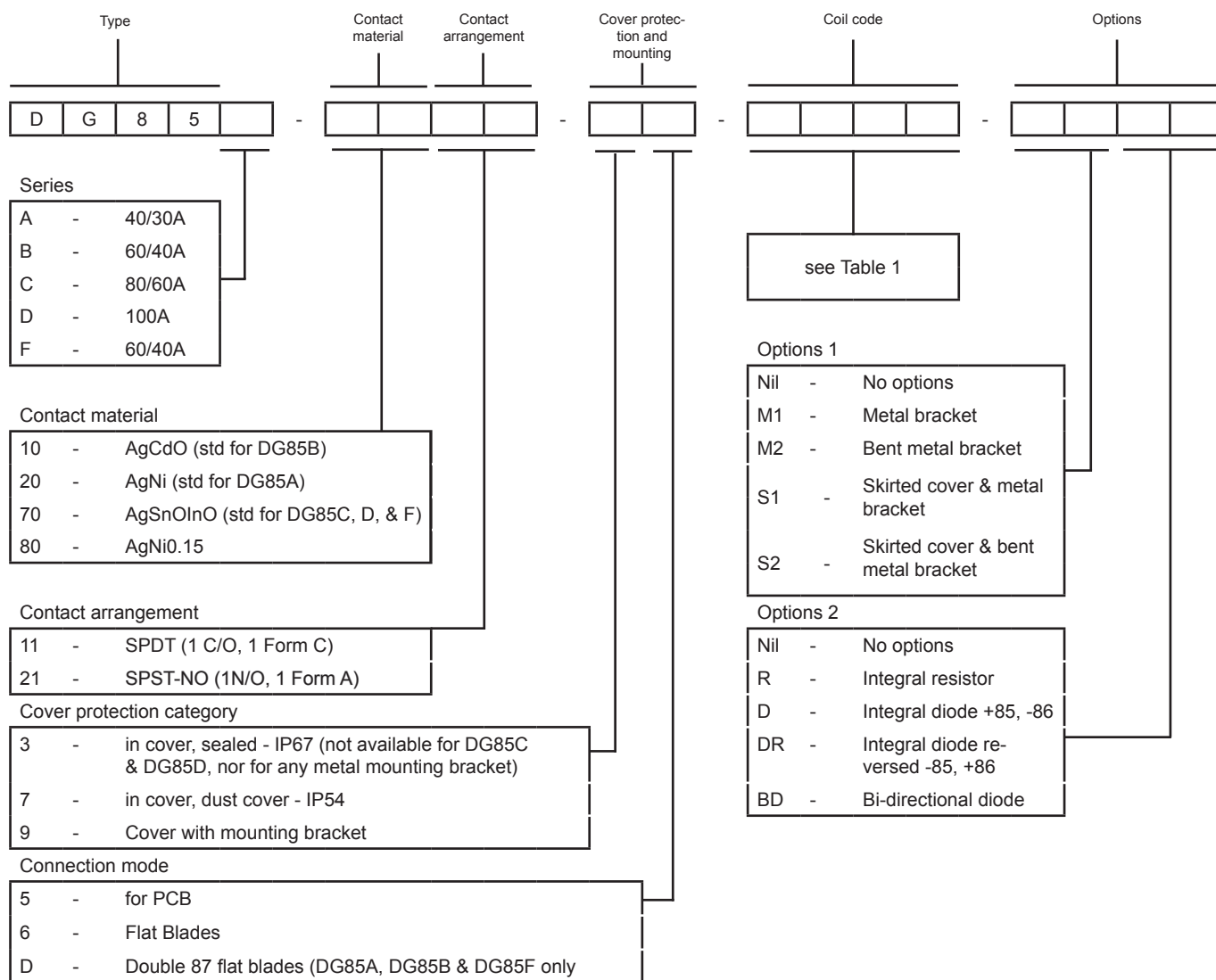
Coil Data

Table 1

Model	Coil voltage code	Nominal voltage (VDC)	Coil resistance (Ω) $\pm 10\%$	Must operate voltage Max. (VDC)	Allowable voltage (VDC)*	Must release voltage min. (VDC)
DG85A	1006	6	22	3.6	10.1	0.6
DG85B	1012	12	90	7.2	20.5	1.2
DG85C	1024	24	330	14.4	39.1	2.4
DG85D						
DG85F	1006	6	15.6	3.6	6.4	0.6
	1012	12	62.5	7.2	14.8	1.2
	1024	24	250	14.4	28.8	2.4

* At ambient temperature of 85°C, maximum allowable voltage should be reduced by 28%

Ordering codes



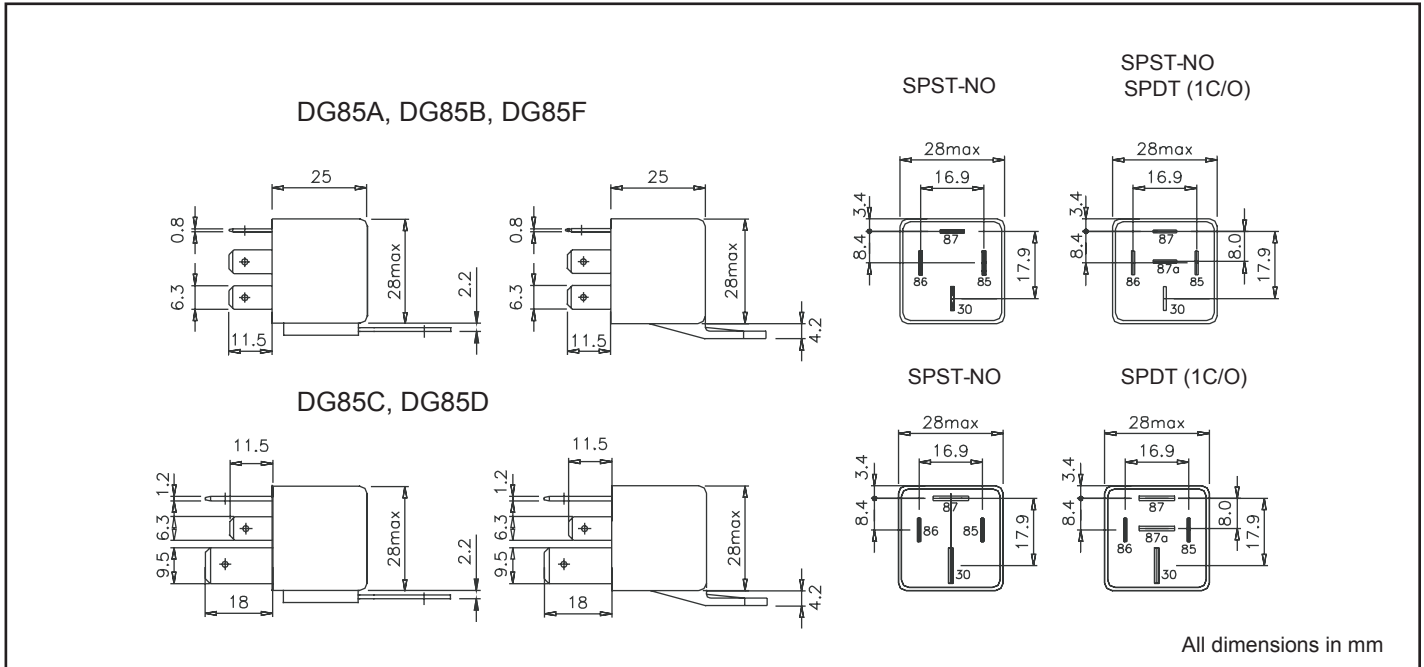
DG85 series

automotive / industrial relays



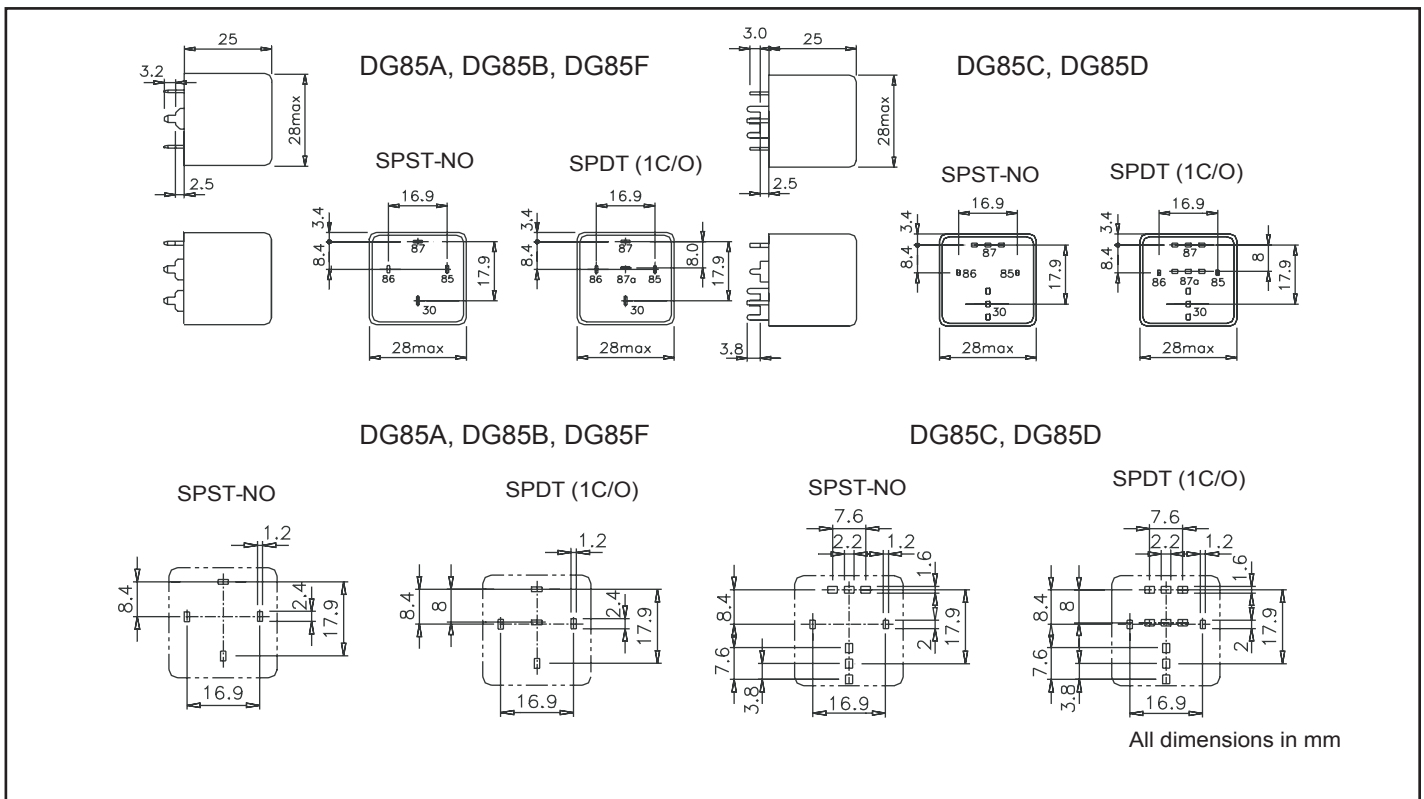
Overall Dimensions - Plug-in Types

Fig. 1



Overall Dimensions - PCB Types

Fig. 2



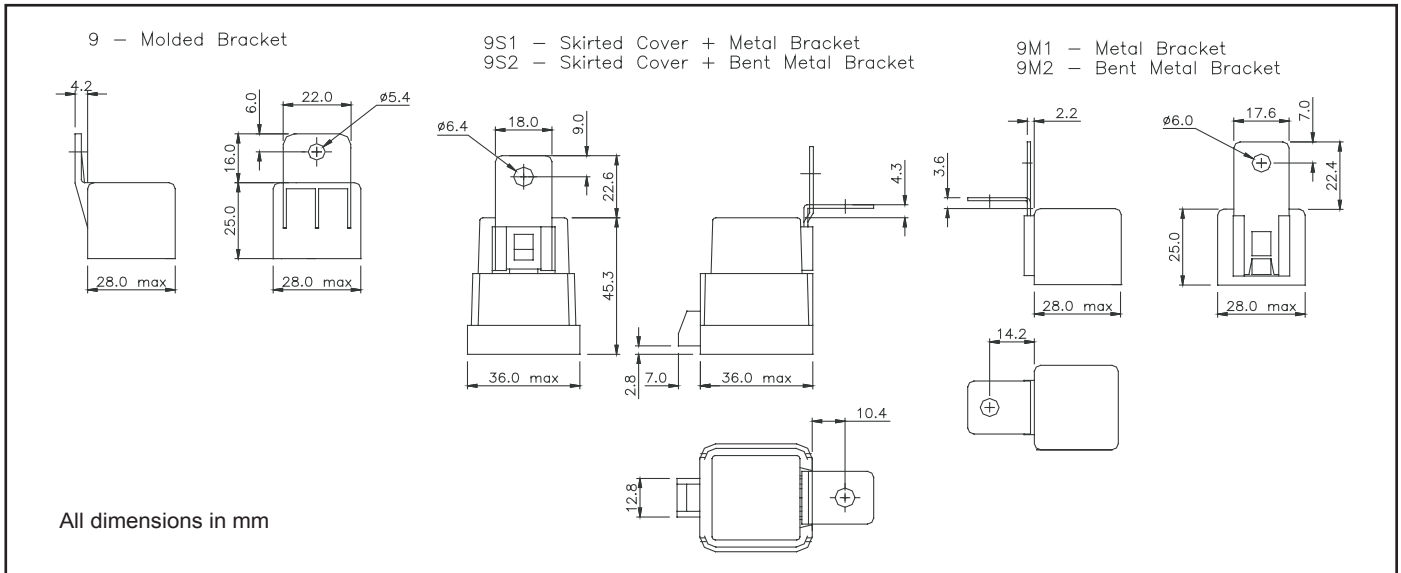
DG85 series

automotive / industrial relays



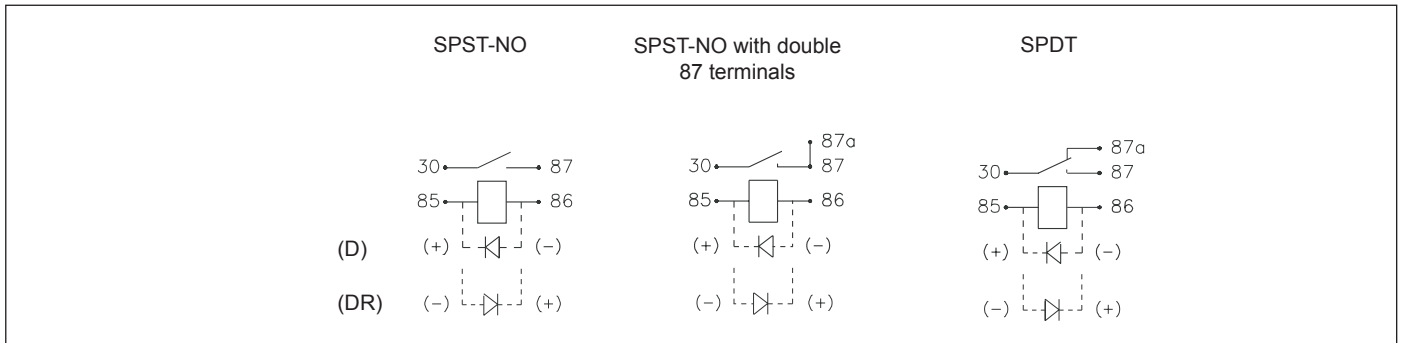
Overall Dimensions - Plug-in types with optional brackets & skirts

Fig. 3



Wiring Diagrams

Fig. 4

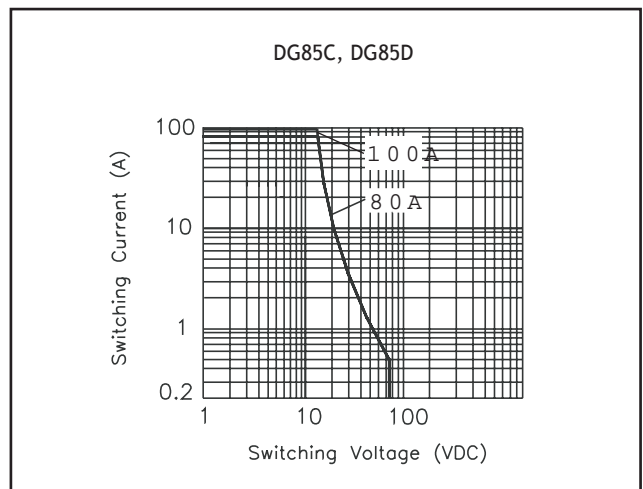
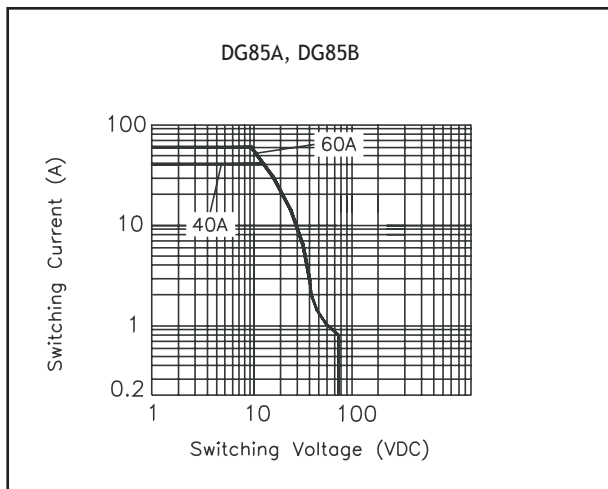


Max. DC resistive load breaking capacity

Fig. 5

Max. DC resistive load breaking capacity

Fig. 6



Notes:

- 1: All parameters, unless otherwise specified, are measured at ambient temperature of 23°C.
- 2: Electrical life obtained at resistive or inductive load at 40A, 15VDC with suitable arc suppression circuit attached and with operating frequency of 1 op/sec.
- 3: Maximum make current refers to lamp load inrush current.

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



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Automotive Relays](#) category:

Click to view products by [Durakool](#) manufacturer:

Other Similar products are found below :

[896H-1AH-D1SW-001-24VDC](#) [896H-1AH-D1SW-R1-12VDC](#) [896H-1CH-C1-001-12VDC](#) [896H-1CH-S-24VDC](#) [896HP-1AH-C-12VDC](#)
[G5CE1ASIDC12](#) [AEV31024](#) [1393204-2](#) [1393302-3](#) [13Z99A115-0074](#) [1432872-1](#) [1617057-2](#) [2-1617057-2](#) [CB1F-M-12V-H15](#) [CB1-T-R-M-](#)
[12V](#) [896H-1CH-D1SF-R1-12VDC](#) [896H-1CH-D1SF-R1-T-12VDC](#) [898H-1AH-D-001-12VDC](#) [24198-1](#) [5-1616920-2](#) [5-1617052-9](#) [5407-](#)
[0011-HS](#) [CB1AF-M-12V-H59](#) [5-1617346-8](#) [103-1AH-C-12VDC](#) [CF2Q-12V](#) [V23134A1052X299](#) [CP112J](#) [896H-1AH-S1-001-12VDC](#)
[897H-1AH-D-R1-U01-12VDC](#) [896H-1CH-D-U39-24VDC](#) [896HP-1AH-C-U2120VDC](#) [896E-1CH-D1SW-U57-12VDC](#) [896H-1CH-D1SW-](#)
[R1-U30-12VDC](#) [896H-1AH-C1S-R1-24VDC](#) [102-1CH-C-12VDC](#) [V23076A3001D142T](#) [1-19042-6](#) [3-1393305-1](#) [J7TKNA9](#)
[V23234A1001X043-EV-144](#) [V23086-R1851-A502](#) [898H-1AH-D1SW-R1-12VDC](#) [RH4C1P2607](#) [RE031005](#) [V23134M0052G242](#) [1393204-1](#)
[G8N-1L-AS DC12](#) [V23076A3022D142](#) [V23074A2001A402](#)