

DG27

ultra miniature automotive pcb relay

DURAKOOL



- ultra miniature - only 24.2 x 13.2 x 10.3 mm
- optimised for DC switching up to 30A
- two separate DG20 relays in one package
- Cost effective
- RoHS Compliant

Contacts

Contact number & arrangement		2 x SPST-NO (2 x 1 Form A), 2 x SPDT (2 x 1 Form C)		
Contact material		AgSnOInO, AgNi0.15		
Max. switching voltage	DC	16V		
		2 x SPST-NO	2 x SPDT	
			Normally Open	Normally Closed
Max continuous current per relay	DC	30A @12VDC	30A @ 12VDC	25A @ 12VDC
Max switching current ² (AgSnOInO)	make	50A	50A	25A
	break	30A	30A	25A
Min. switching current / voltage		AgNi0.15: 0.1A, 12VDC / AgSnOInO: 0.5A, 12VDC		
Initial contact resistance		≤100mΩ, max. at 0.1A, 6VDC		

Coil

Rated voltage	DC	6V, 10V, 12V
Must release voltage		≥0.1 (≥0.125 6VDC coil)
Operating range of supply voltage		See coil table 1
Rated power consumption	DC	0.55W - see coil table 1

Insulation

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

General Data

Operating time (typical)	ms	3
Release time (typical)	ms	1.5
Electrical Life ³	ops	1 x 10 ⁵
Mechanical life	ops	1 x 10 ⁷
Dimensions	L x W x H	24.2 x 13.2 x 10.3mm
Weight		8g approx.
Packing		Plastic tray, 100 relays per tube.
Ambient temperature	storage	-40 to 155°C
	operating	-40 to 105°C
Shock resistance		30g, 6ms

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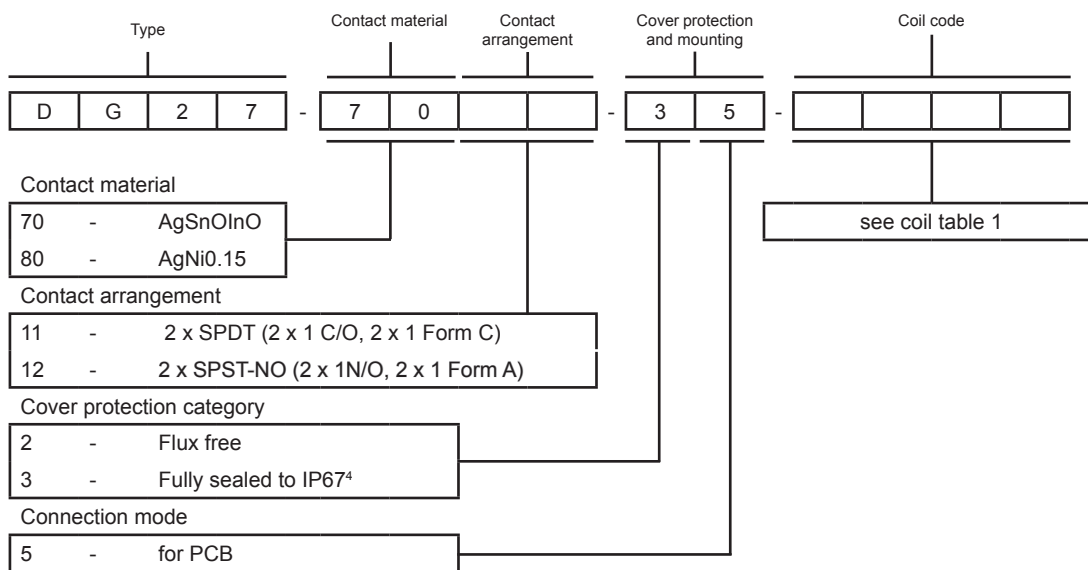
Coil Data

Table 1

Coil Voltage Code	Nominal Voltage (V DC)	Coil Resistance (Ω) $\pm 10\%$	Must operate voltage max. (V DC)	Must release voltage min. (V DC)	Max allowable Overdrive * V DC (23°C)
Standard Coil (0.55W) (Contact factory for 0.8W coil)					
1006	6	64	3.5	0.6	12.0
1010	10	181	5.7	1.00	20.0
1012	12	254	6.9	1.20	24.0

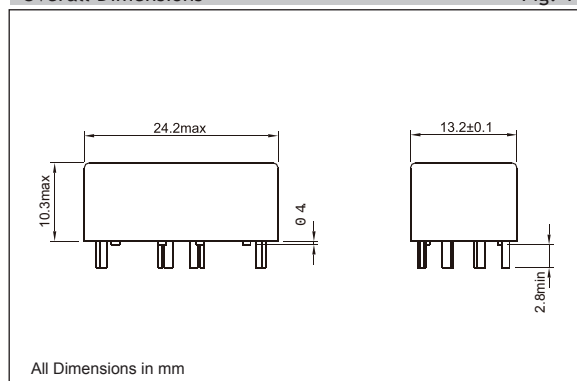
* Above 85°C, maximum allowable voltage should be reduced to 72%

Ordering codes



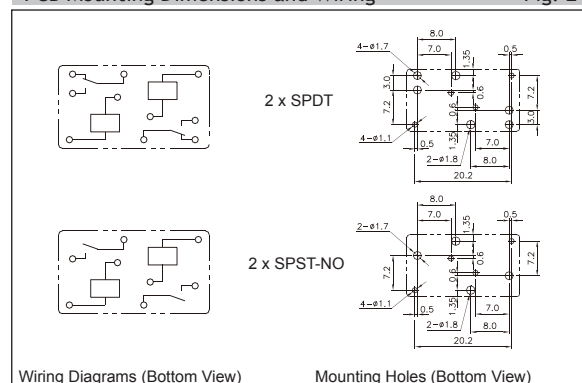
Overall Dimensions

Fig. 1



PCB Mounting Dimensions and Wiring

Fig. 2



Notes:

- 1: All parameters, unless otherwise specified, are measured at ambient temperature of 23°C.
- 2: Maximum make current refers to inrush current of lamp load.
- 3: Electrical life obtained at resistive load at 20A, 13.5VDC on NO contacts, 6 ops/min.
- 4: For maximum electrical life, please remove the knock off nib of the sealed version.

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