

DG5N

miniature pcb power relay

DURAKOOL



- miniature - only 20.5 x 7 x 15mm
- High switching capacity 140W, 1250VA
- High sensitivity 200mW coils
- Cadmium free contacts
- RoHS Compliant



Contacts

Contact number & arrangement	SPST-NO (1 Form A)	
Contact material	AgSnO ₂	
Max. switching voltage	AC/DC	250VAC, 28VDC
Rated load (resistive - cos φ=1)	AC1	5A/250VAC
	DC1	5A/28VDC
Max. switching power	1250VA / 140W	
Contact Resistance (Initial)	≤ 50mΩ at 6VDC/1A	

Coil

Rated voltage	DC	3...48V (3V coil not UL approved)
Must release voltage	≥0.10Un	
Operating range of supply voltage	See coil table 1	
Rated power consumption	DC	200mW

Insulation

Insulation resistance	≥100MΩ at 500VDC, 50%RH	
Tracking resistance	CTI	250
Dielectric strength	coil to contact	4,000Vrms, 1min (50/60Hz); 10,000V surge
	contact to contact	1,000Vrms, 1min (50/60Hz)

General Data

Operating time (typical)	ms	≤ 10
Release time (typical)	ms	≤ 5
Max Switch Rate (On/Off)	electrical	30 operations / minute
	mechanical	300 operations / minute
Electrical Life	ops	1 x 10 ⁵ (resistive 5A/250VAC)
Mechanical life	ops	1 x 10 ⁷ (no load)
Dimensions	L x W x H	20.5 x 7.0 x 15mm
Weight	≤ 4g	
Ambient temperature	storage	-30 to 85°C
	operating	-30 to 85°C
Flammability Class	UL	94V-0
Humidity range	45~85% RH	
Shock resistance	Functional: 98.1m/s ² (10g) / Destructive: 981m/s ² 6ms (100g)	
Vibration resistance	10-55Hz DA. 1.5mm	

DG5N

miniature pcb power relay



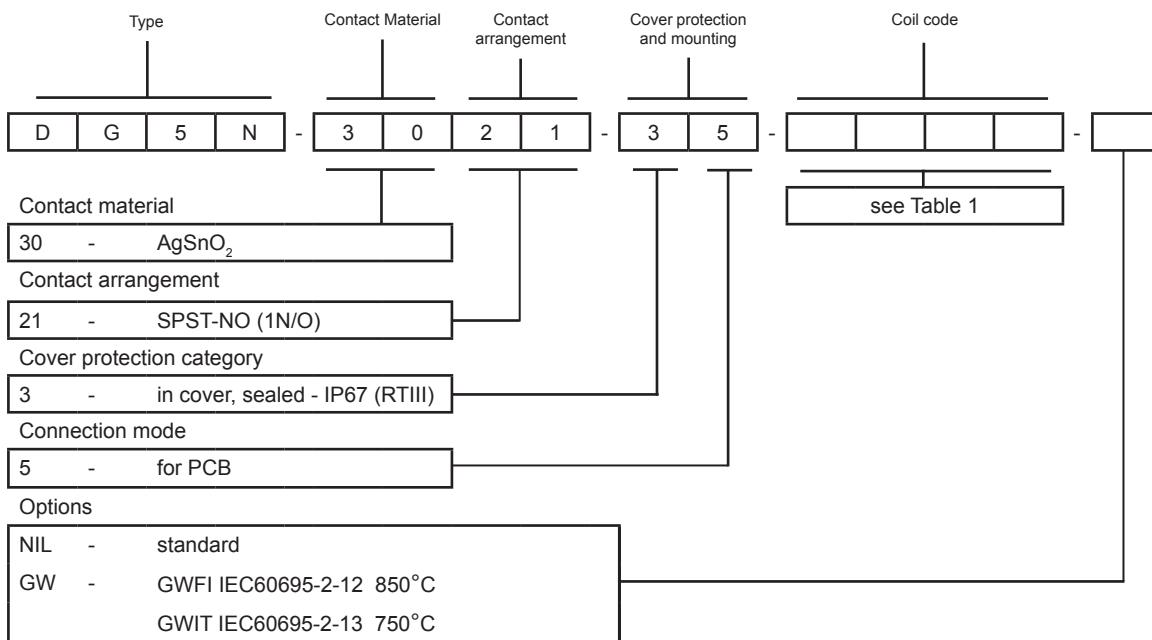
Coil Data (at 20°C)

Table 1

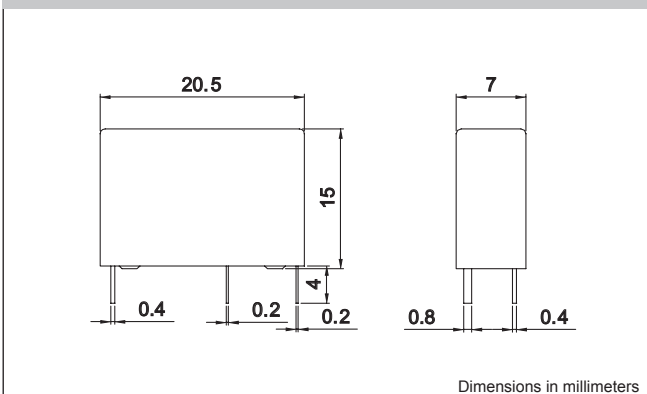
Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Nominal Current (mA)	Must Operate Voltage max. (VDC)	Must Release Voltage min. (VDC)	Max. Allowable Voltage (VDC)
1003	3	45	66.7	2.25	0.3	3.9
1005	5	125	40.0	3.75	0.5	6.5
1006	6	180	33.7	4.50	0.6	7.8
1009	9	405	22.2	6.75	0.9	11.7
1012	12	720	16.7	9.00	1.2	15.6
1024	24	2880	8.3	18.0	2.4	31.2

Notes: 1) Operating the relay coil below the nominal voltage may compromise the current ratings for the contacts.
2) 3VDC Coil not UL approved.

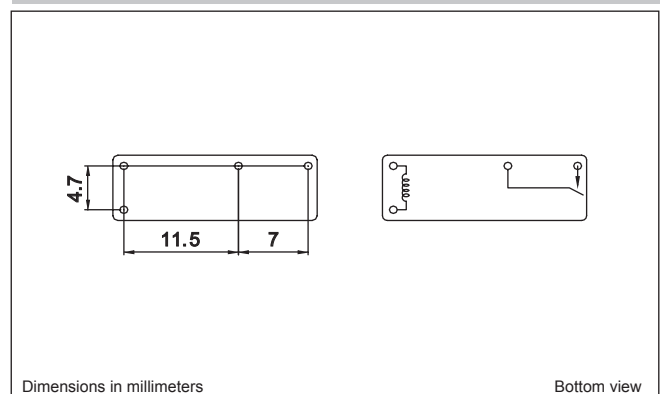
Ordering codes



Dimensions Fig. 1



PCB Mounting Dimensions Fig. 2



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

