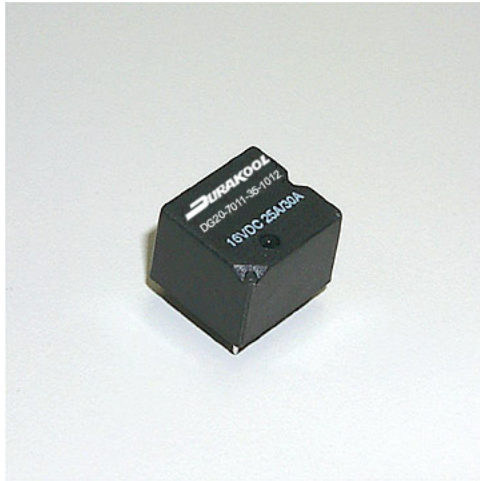


# DG20

Ultraminiature automotive relays

# DURAKOOL



- Ultra miniature automotive relays
- High resistance to inrush current
- 30A maximum continuous current for pcb mounting
- Applications include DC motor drives
- RoHS Compliant

## Contacts

Contact number & arrangement	SPST-NO (1NO), SPDT (1 C/O)
Contact material	AgNi0.15, AgSnOInO,
Max. switching voltage	16VDC
Max. continuous current	SPST-NO: 30A / 12VDC SPDT: 30A (NO) / 25A (NC) / 12VDC
Max. inrush current	SPST-NO: 100A, SPDT: 30A NO / 25A NC
Rated current	SPST-NO: 30A, SPDT: 30A (NO), 25A (NC)
Max. breaking capacity	SPST-NO: 100A
Min. breaking capacity	0.5A / 12VDC
Min. switching current	10mA 12VDC (contact material dependent)
Resistance	< 100mΩ at 0.1A / 6VDC

## Coil

Rated voltage	6, 10, 12 & 24VDC
Must release voltage	$\geq 0.125U_n$
Operating range of supply voltage	See Table 1
Rated power consumption	0.55W

## Insulation

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

Operating time (typical value)	$\leq 3\text{msec}$
Release Time	$\leq 1.5\text{msec}$ (Typical)
Electrical Life resistive	$> 2 \times 10^5$ (20A@13.5VDC on SPST-NO contacts. 6 ops/minute)
Mechanical life	$> 10^7$
Dimensions (L x W x H)	12.9 x 12 x 9.9mm
Weight	4g approx
Ambient Temperature storage	-40... + 155°C
operating	-40... + 105°C
Cover protection category	IP67
Shock resistance	30g, 6ms
Vibration resistance	6g, 10-500Hz

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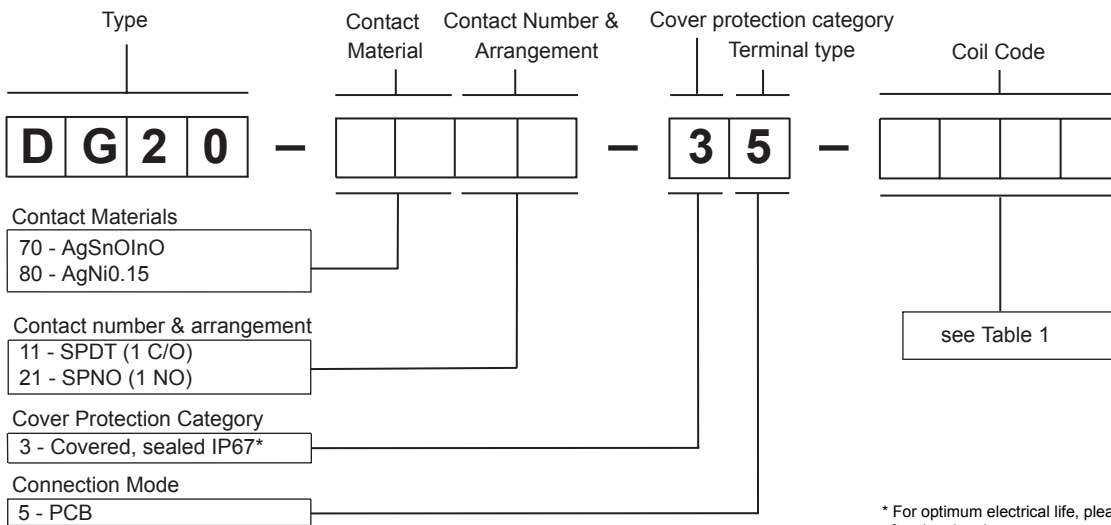
Coil Data - DC voltage version

Table 1

Coil Code	Rated Voltage V DC	Coil Resistance $\pm 10\%$ @ 23°C $\Omega$	Must Operate Voltage Max. V DC	Allowable Voltage * V DC	Must Release Voltage Min. V DC
1006	6	64	3.5	13.6	0.75
1010	10	181	5.7	22.7	1.25
1012	12	254	6.9	27.2	1.50
1024	24	1000	14.0	54.4	3.00

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

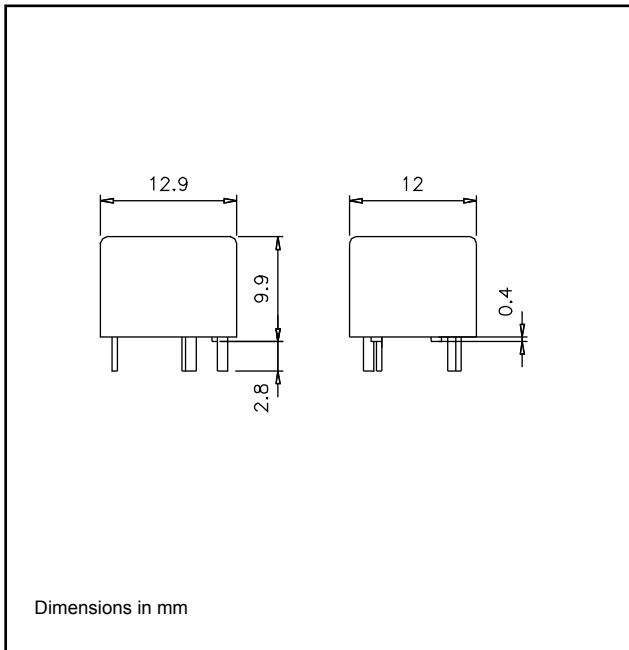
## Ordering Codes



\* For optimum electrical life, please remove the knock off nib after the cleaning process.

Overall dimensions

Fig. 1



PCB mounting dimensions

Fig. 2

