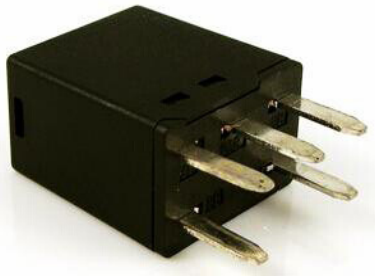


DG91

micro 280 automotive relay

DURAKOOL



- Industry Standard micro 280 relay
- Up to 120A 12VDC inrush capability
- 2.8mm QC terminals
- -40° to 125°C
- RoHS & ELV Compliant

Contacts

Contact number & arrangement		SPST-NO (1 Form A); SPDT (1 Form C)					
Contact material		AgSnOInO					
Max. switching voltage		DC	27VDC				
Rated load (max. continuous current)		DC1	30A/12VDC (Normally open); 20A/12VDC (Normally closed)				
Load Voltage VDC	Load Type	Max/Rated Current			On/Off Ratio	Diagram	
		SPDT		SPST-NO			
		NO	NC	NO			
13.5	Resistive On/Off	30	20	30	2s/2s	 Diagram 1 Diagram 2 Diagram 3	
	Motor	On	40	20			40
		Off	20	10			20
	Lamp	On	100	-			120
Off		20	-	20			
27	Resistive On/Off	20	10	20	1		
Minimum load		0.5A/12VDC					
Initial resistance		50mΩ, max. at 0.1A/24VDC					
Coil							
Rated voltage		DC	12 & 24V - see coil details - Table 1				
Rated power consumption		DC	Approx. 1.5W SPDT; 1.7W with resistor				
Insulation							
Insulation resistance		100MΩ at 500VDC, 50%RH					
Dielectric strength		coil to contact		550Vrms, 1min			
		contact to contact		550Vrms, 1min			
General Data							
Operating time (typical)		ms	5 (10ms max.)				
Release time (typical)		ms	5 (10ms max.)				
Electrical Life ²		ops	1 x 10 ⁵				
Mechanical life		ops	1 x 10 ⁷				
Dimensions		L x W x H	23.0 x 15.5 x 26.0 mm (excluding terminals)				
Weight		20g approx.					
Ambient temperature		storage		-40 to 155°C			
		operating		-40 to 125°C			
Shock resistance		Functional: 20g 11ms (196m/s ²) Destructive: 100g					
Vibration resistance		10Hz - 500Hz 49m/s ² (5g)					

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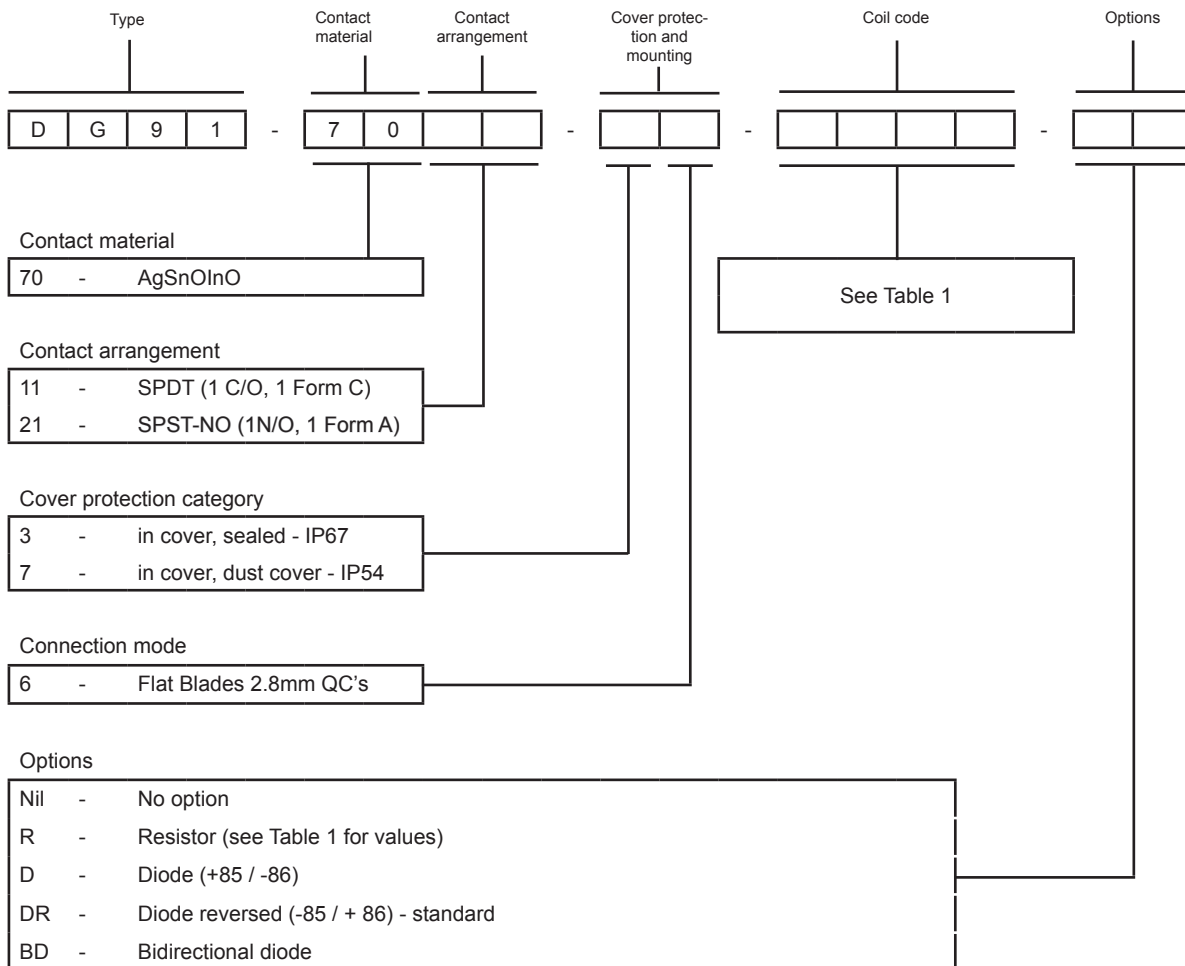


Coil Data

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 (optional) (Ω)	Equivalent Resistance (Ω)	Power (W) Resistor/ No Resistor	Max. allowable Overdrive (VDC)	
								23°C	85°C
1012	12	98	7.2	1.2	680	85.7	1.5 / 1.7	20	15
1024	24	385	14.4	2.4	2700	337	1.5 / 1.7	40	30

Ordering codes



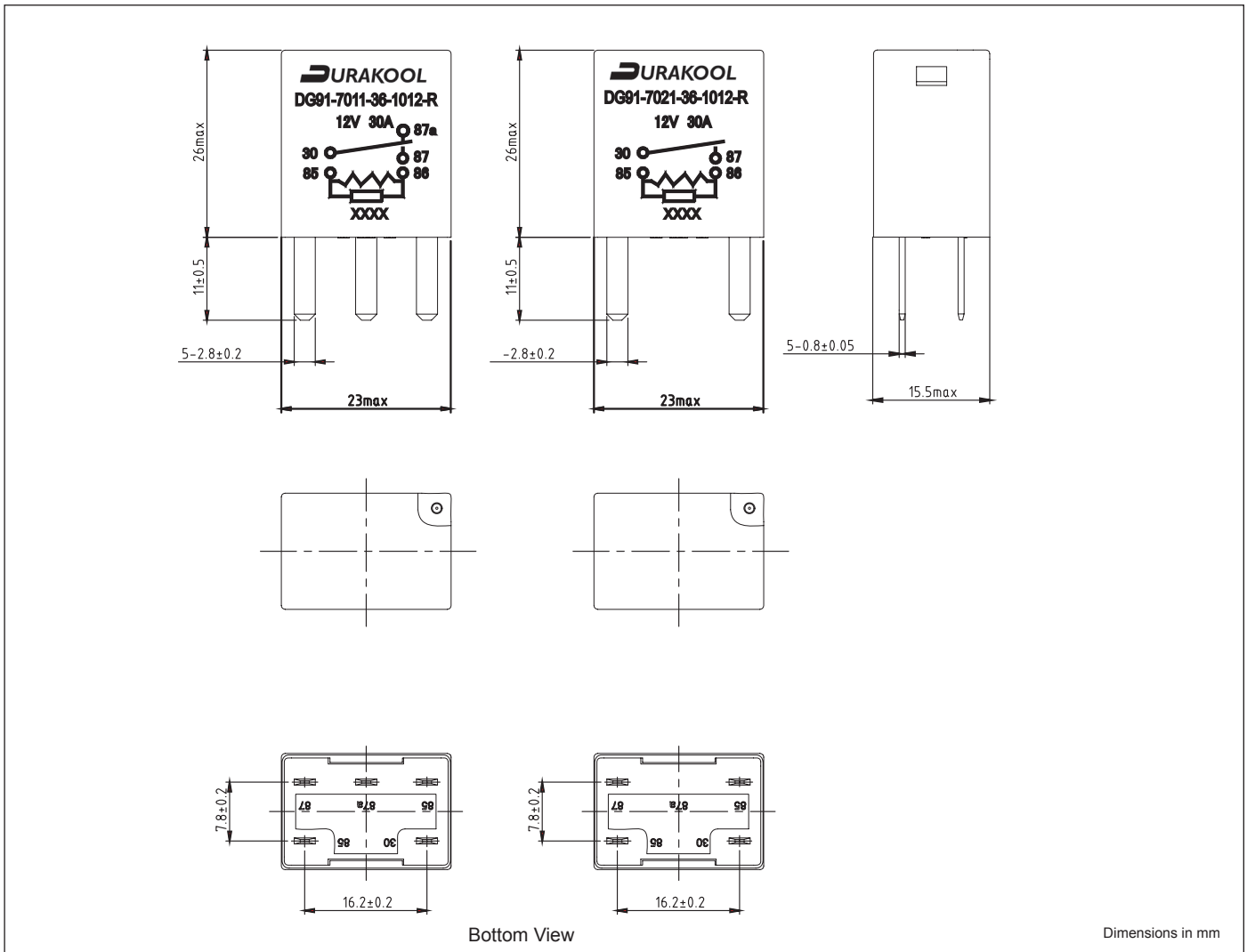
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Overall Dimensions

Fig. 1



Wiring Diagrams

Fig. 2



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.