

DG76B

bistable (latching) power relay

DURAKOOL



- Up to 90A /240VAC continuous rating
- 30V maximum DC switching voltage
- Single Coil & Twin Coil Latching
- Utility meters, power conditioning
- Automotive / Electric Vehicle Battery
- Highly customisable power terminals

Contacts

Contact number & arrangement	SPST-NO (1 Normally Open)
Contact material	AgSnO ₂
Max. switching voltage	250VAC / 30VDC
Min. switching current / voltage	500mA/12VDC
Max. continuous current	90A
Max. switching current	90A
Max. switching power	22500VA
Short circuit current	2700A for 10mS (IEC62055-31)
Initial resistance	≤ 100mΩ, max. at 0.1A/6VDC

Coil

Rated voltage	5...48VDC
Operating range of supply voltage	See coil table 1
Rated power consumption	Single coil 1.5W
	Twin coil 3W

Insulation

Insulation resistance	>1000MΩ at 500VDC, 50%RH
Dielectric strength	
	coil to contact 4000Vrms, 1min (50Hz)
	between open contacts 3500Vrms, 1min (50Hz)
	Creepage & Clearance 8mm

General Data

Operating time	mS	≤ 20
Release time	mS	≤ 20
Electrical Life	ops	1 x 10 ⁴
Mechanical life	ops	1 x 10 ⁶
Dimensions	L x W x H	38 x 17 x 30mm (see drawings for detail)
Weight		≤ 55g (varies according to options)
Ambient temperature	storage	-40 to 70°C
	operating	-40 to 70°C (Class F)
Shock resistance		Functional: 98m/s ² 11mS; Destructive: 980m/s ²
Vibration resistance		10-55Hz: DA 1.5mm
Humidity		98%RH, 40°C

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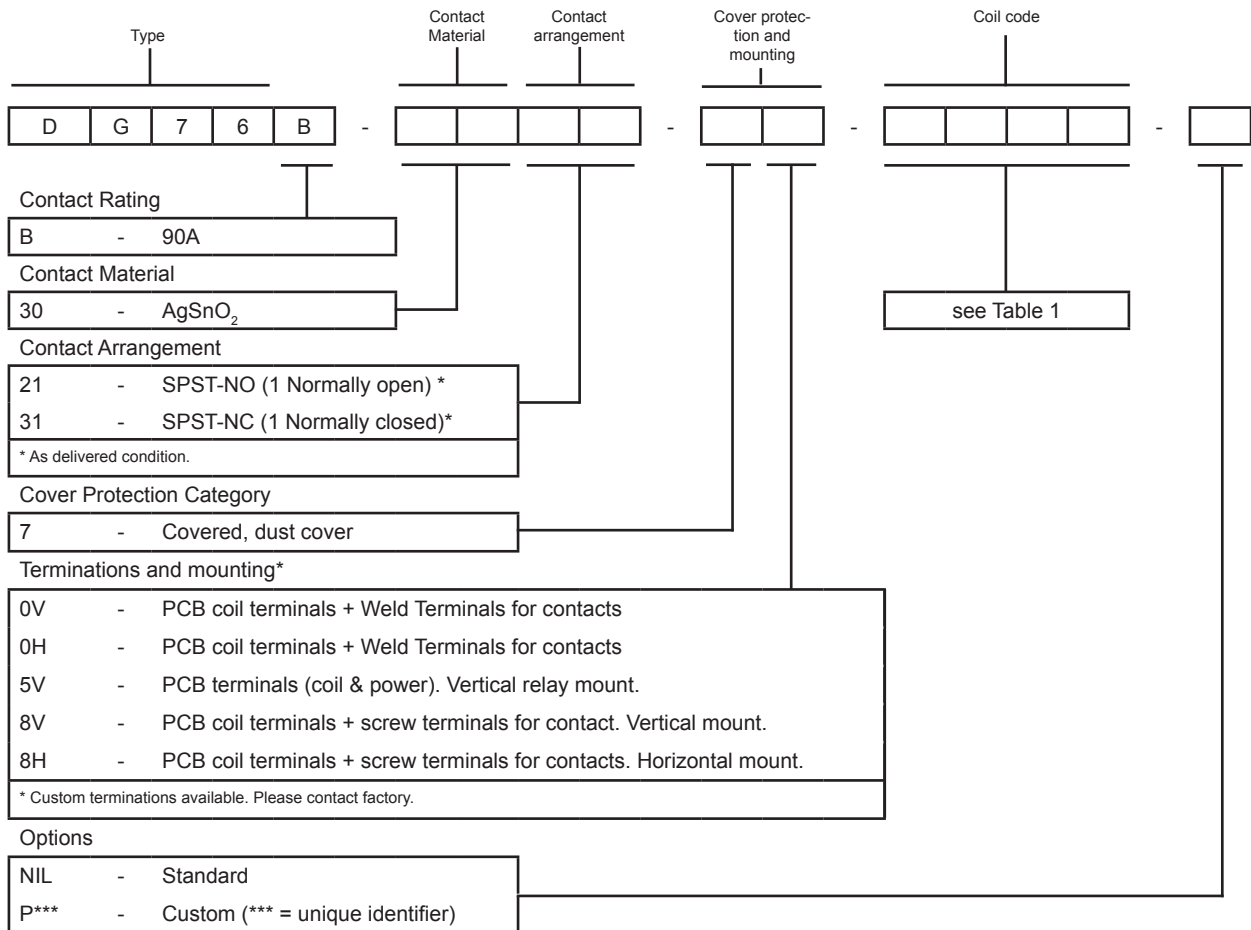


Coil Data Table 1

Coil Voltage Code		Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$		Must operate voltage (VDC)	Operate pulse length
Single Coil	Twin Coil*		Single Coil (1.5W)	Twin Coil* (3W)		
SL05	TL05	5	16	8.0 + 8.0	≥ 3.5	$\geq 50\text{ms}$
SL06	TL06	6	24	12.0 + 12.0	≥ 4.2	
SL09	TL09	9	54	27.0 + 27.0	≥ 6.3	
SL12	TL12	12	96	48.0 + 48.0	≥ 8.4	
SL24	TL24	24	384	192 + 192	≥ 16.8	
SL48	TL48	48	1536	768 + 768	≥ 33.6	

* NB: Latch & Reset coils must not be powered simultaneously.

Ordering codes



The DG76B terminals are highly customisable. Some examples can be seen on Pages 3 & 4
 Please contact factory for additional information. (MOQ's may apply)



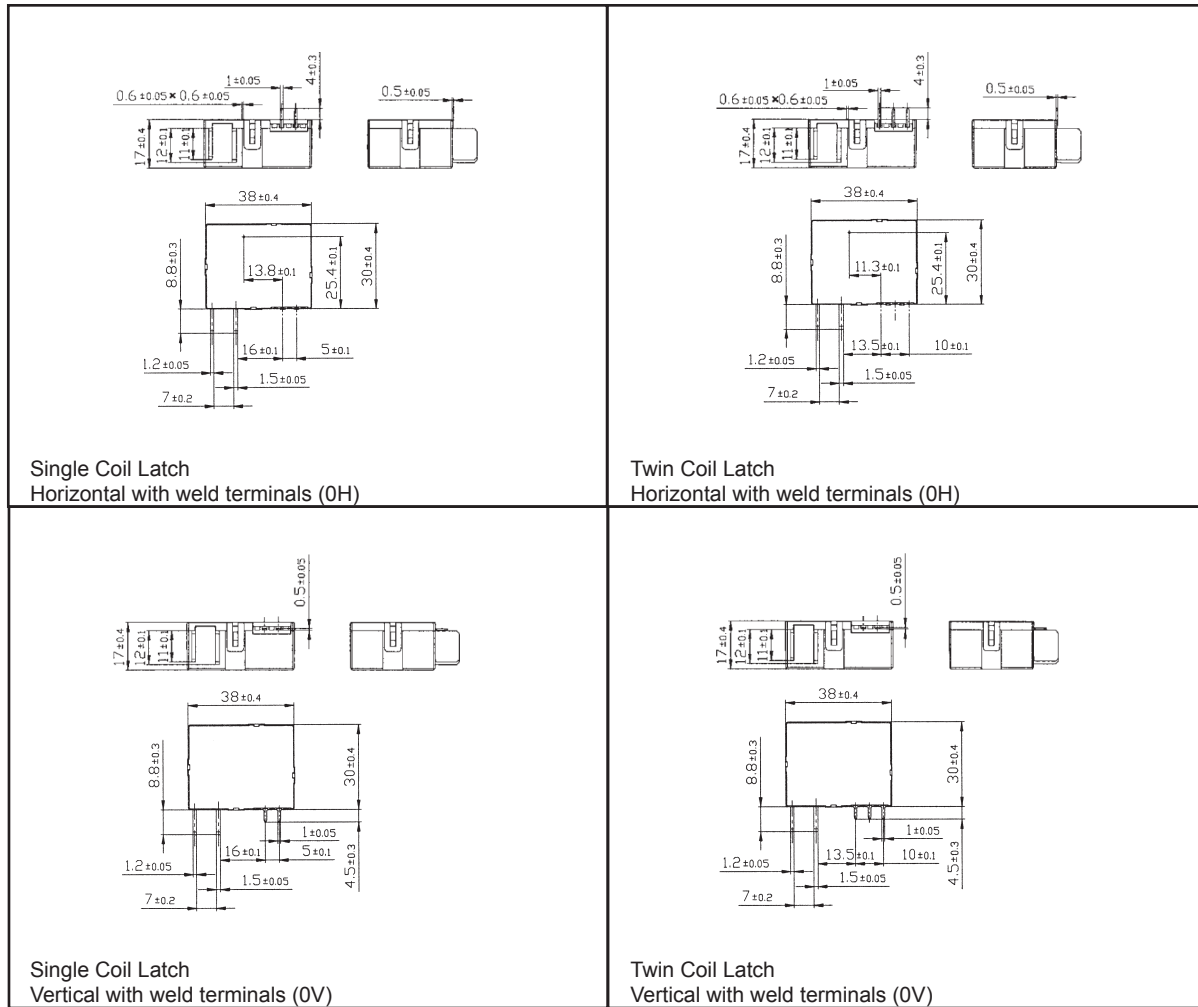
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Overall Dimensions

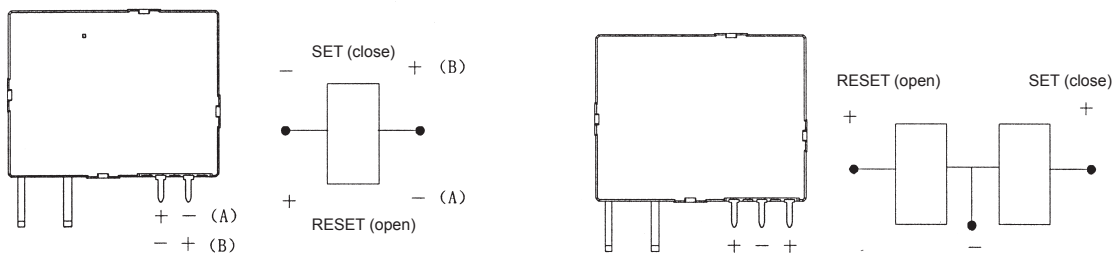
Fig. 1



All dimensions in mm

Wiring Diagrams

Fig. 3



Notes:
1) All parameters, unless otherwise specified, are measured at an ambient temperature of 23°C.



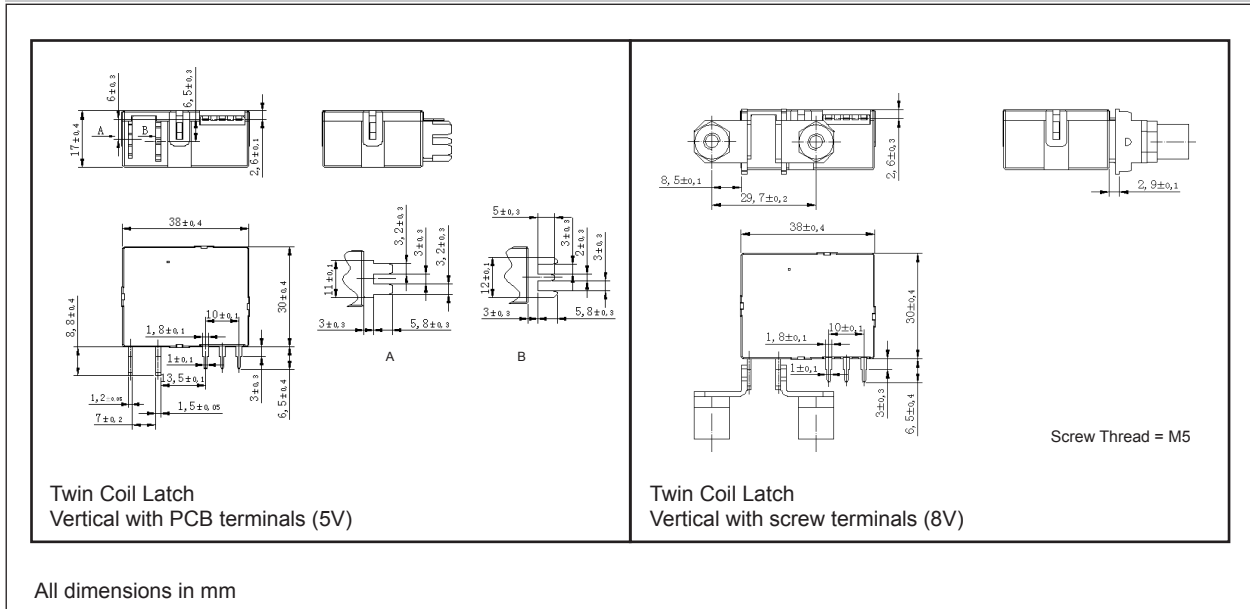
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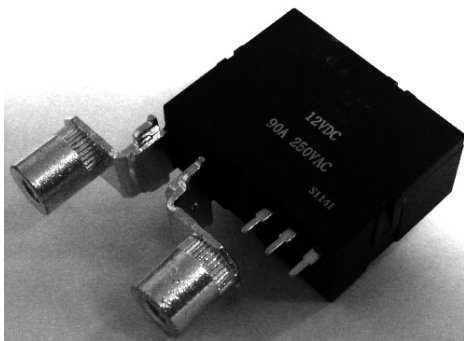


Overall Dimensions

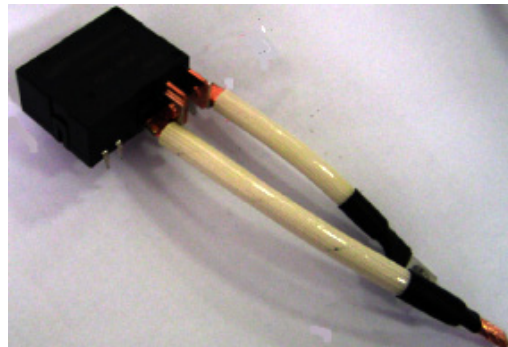
Fig. 3



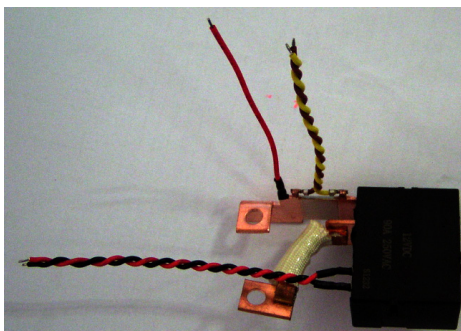
Examples of custom terminations :



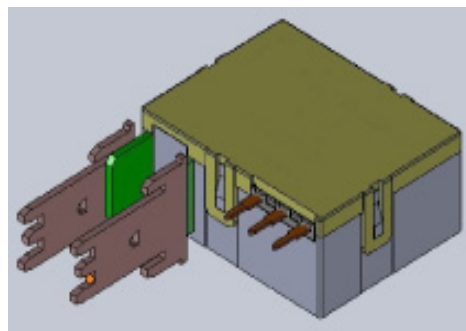
DG76B with screw thread terminations



DG76B with welded copper braid terminations for power and horizontal PCB terminals for coil.



DG76B with current shunt and welded copper braid termination.



DG76B with extended power terminals for PCB mounting or 9.5mm QC push on connectors

