



PCB Version pictured

- General purpose automotive or industrial relays
- High inrush capabilities
- PCB Mounting option
- Ideal for DC Motor Control
- High continuous DC current capacity - 80A
- Industry standard size and footprint
- Optimised for 24VDC switching
- RoHS Compliant

Contacts

Contact number & arrangement	SPST-NO (1 Form A); SPDT (1 Form C)	
Contact material	AgSnOInO	
Rated / Max. switching voltage	DC	24VDC / 30VDC (current dependent)
Max. continuous current	SPST-NO	80A
	SPDT (NO/NC)	80A/60A
Max. switching current - make ³ (AgSnOInO)	SPST-NO	240A
	SPDT (NO/NC)	240/180A
Max. switching current - break	SPST-NO	80A
	SPDT (NO/NC)	80A/60A
Min. switching current	(AgSnOInO)	0.5A 12VDC
Contact gap	>1mm	
Initial contact resistance	<100mΩ, max. at 0.1A/6VDC	

Coil

Rated voltage	DC	6...24V
Must release voltage	≥0.1Un	
Operating range of supply voltage	See coil table 1	
Rated power consumption	DC	2.3W

Insulation

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

General Data

Operating time (typical)	ms	7ms
Release time (typical)	ms	2 ms
Electrical Life ²	ops	1 x 10 ⁵
Mechanical life	ops	1 x 10 ⁷
Dimensions	L x W x H	various - see dimensional drawings
Weight	40g approx. depending on style and mounting	
Ambient temperature	storage	-40 to 155°C
	operating	-40 to 125°C , derate by 30% above 85°C
Shock resistance	Functional: 20g 11mS; Destructive: 100g	
Vibration resistance	DA 1.27mm 10-40Hz / 40-70Hz:5g / DA 0.5mm 100-500Hz: 10g	

Ordering Codes

Type					Contact material	Contact arrangement	Cover protection & mounting	Coil code	Options
D	G	8	5	G	7	0			
Contact Material									
70 - AgSnOInO									
Contact Arrangement									
11 - SPDT (1 C/O, 1 Form C)									
21 - SPST-NO (1N/O, 1 Form A)									
Cover Protection & Mounting									
7 - In cover, dust cover - IP54									
9 - Cover with mounting bracket (plastic, unless optional metal bracket specified - see Options 1)									
Connection Mode									
5 - For PCB									
6 - Flat Blades									
Coil Code									
See Table 1									
Options 1 - Metal Brackets *									
Nil - No bracket (cover 7) or Plastic bracket									
M1 - Metal bracket									
M2 - Bent metal bracket									
S1 - Skirted cover & metal bracket									
S2 - Skirted cover & bent metal bracket									
Options 2 Parallel Components									
Nil - No options									
R - Integral resistor									
D - Integral diode +85, -86									
DR - Integral diode reversed -85, +86 (standard)									
BD - Bi-directional diode									

* Metal brackets factory fitted to cover as standard
Consult factory for brackets supplied loose

Coil Data

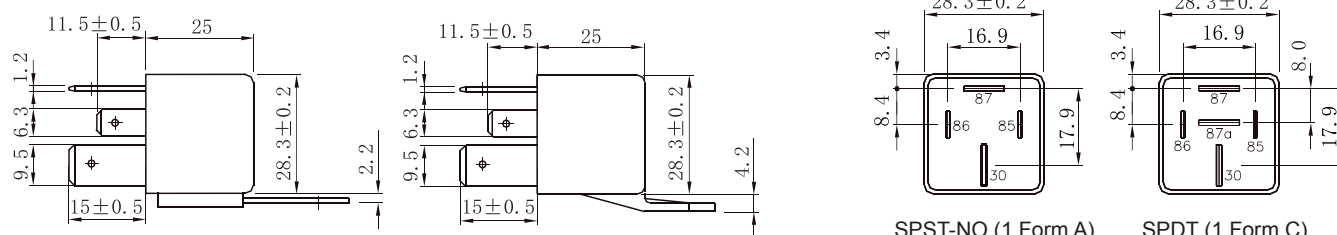
Table 1

Coil voltage code	Nominal voltage (VDC)	Coil resistance (Ω) $\pm 10\%$	Must operate voltage Max. (VDC)	Maximum Allowable voltage (VDC)*	Must release voltage min. (VDC)
1006	6	15.6	3.6	6.4	0.6
1012	12	62.5	7.2	14.8	1.2
1024	24	250	14.4	28.8	2.4

* At ambient temperature of 85°C and above, up to maximum ambient temperature of 125°C, maximum allowable voltage should be reduced by 28%

Overall Dimensions - Plug-in Types

Fig. 1



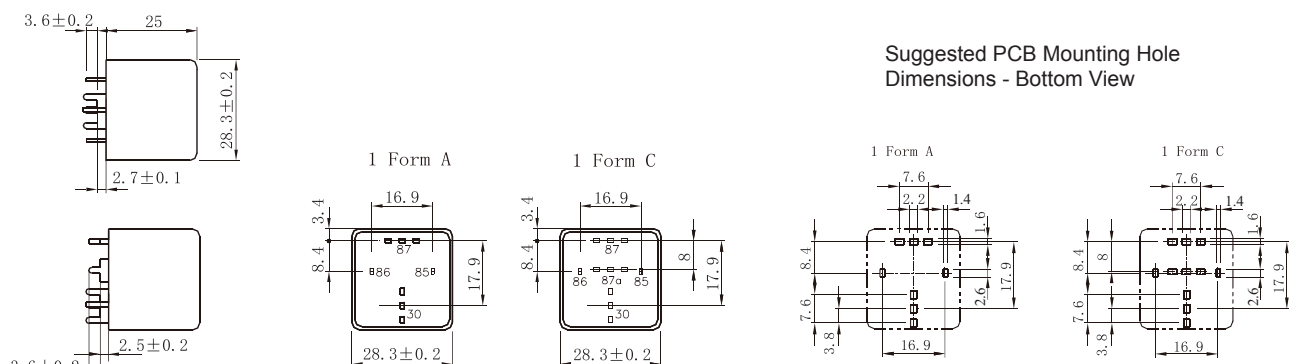
SPST-NO (1 Form A)

SPDT (1 Form C)

All dimensions in mm

Overall Dimensions and PCB Mounting Hole Dimensions - PCB Types

Fig. 2

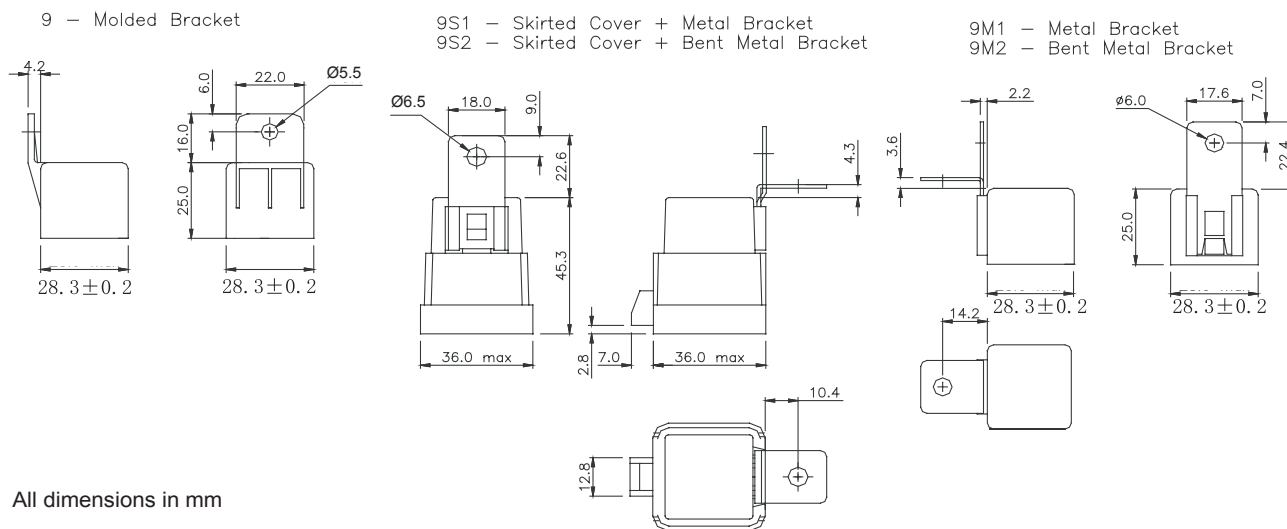


Suggested PCB Mounting Hole Dimensions - Bottom View

All dimensions in mm

Overall Dimensions - Plug-in types with optional brackets & skirts

Fig. 3



Wiring Diagrams

Fig. 4



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.