



- General purpose automotive
- High inrush capabilities
- PCB Mounting option
- Ideal for DC Motor Control
- Industry standard size and footprint

Image is for illustrative purposes. Please refer to datasheet for detail.

Contacts

Contact arrangement	SPST-NO (1 Form A); SPDT (1 Form C)
Contact material	AgSnO ₂
Max. switching voltage	DC 75VDC (current dependent)
Max. continuous current	SPST-NO 50A, SPDT (NO/NC) 50A / 35A
Min. switching current	0.1A 12VDC
Contact gap	>0.5mm
Contact voltage drop (initial)	50mV / 10A

Coil

Nominal voltage	DC 12V, 24V
Must release voltage	≥0.1Un
Operating range of supply voltage	See table 1
Rated power consumption	1.6W; 1.81W with resistor

Insulation

Insulation resistance	100MΩ at 500VDC, 50%RH
Dielectric strength	coil to contact 750Vrms, 1min
	open contacts 500Vrms, 1min

General Data

Operating time	typ.	10ms
Release time	typ.	10ms
Electrical life ²	ops.	1 x 10 ⁵
Mechanical life	ops.	1 x 10 ⁷

Environmental

Environmental protection		IP54, IP67
Ambient temperature	operating	-40 to 125°C (Above 85°C - consult factory)
	storage	-40 to +155°C
Shock resistance	functional	294m/s (30g)
Vibration resistance		10 - 22 3Hz DA 10.0mm
		22.3 - 500Hz 98m/s2
Dimensions	L x W x H	26.0 x 26.0 x 22.7 mm (excluding terminals)
Weight	approx.	35g depending on mounting

Ordering Code

D G 8 5 B - 7 0 2 1 - 9 6 - 1 0 1 2 - M 1 D R / 2

Series

Contact material

70: AgSnO₂

Contact arrangement

11: SPDT (1 C/O, 1 Form C)

21: SPST-NO (1 N/O, 1 Form A)

Environmental protection

3: IP67 sealed cover

7: IP54 dust cover

9: IP54 dust cover with mounting bracket (integral plastic, unless optional metal bracket selected.

Parallel component options

Blank: No option

R: Integral resistor

D: Integral diode +85/-86

DR: Integral diode reversed -85/+86 (standard)

Version

/ 2: Revision 2

/ 3: Revision 3

Skirted cover & metal bracket option is available as revision 3 only.

RoHS
Compliant ✓

Coil code:

See table 1

Mounting & terminations

5. PCB pins

6. Flat blades

Bracket options

Blank: No options

M1: Metal bracket

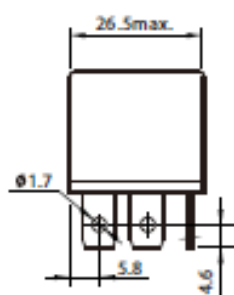
S1: Skirted cover & metal bracket

Coil Data					Table 1
Coil code	Nominal voltage (VDC)	Coil resistance Ω $\pm 10\%$	Must operate voltage max. (VDC)	Max. allowable voltage (VDC)*	Must release voltage min. (VDC)
1012	12.0	90.0	7.8	15.6	1.2
1024	24.0	360.0	15.6	31.2	2.4

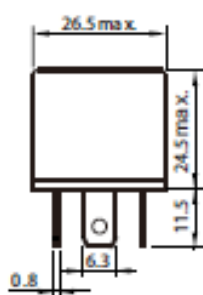
Dimensions mm

Fig. 1

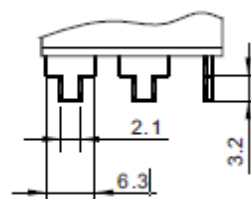
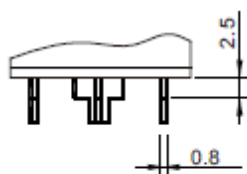
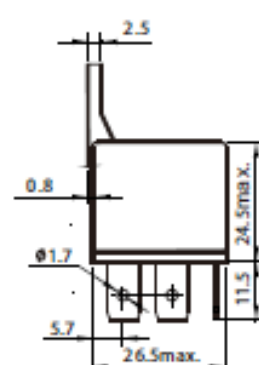
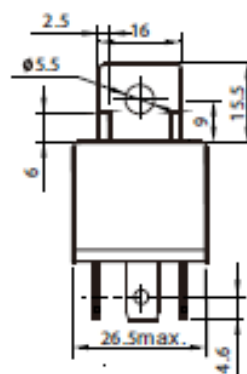
Dust cover



No Bracket

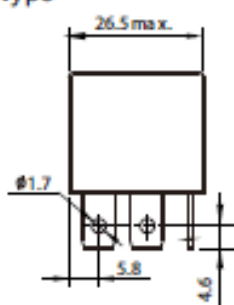


Plastic Bracket

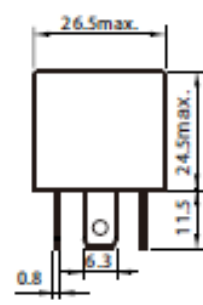


Dust cover PCB type terminals

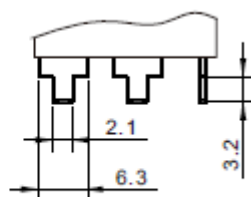
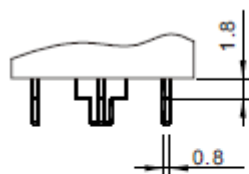
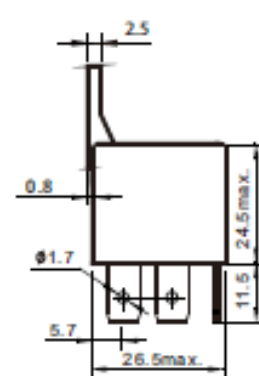
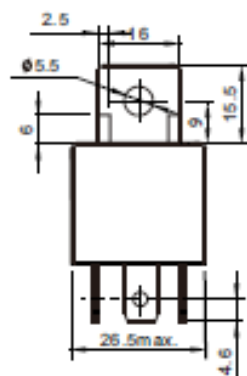
Sealed type



No Bracket



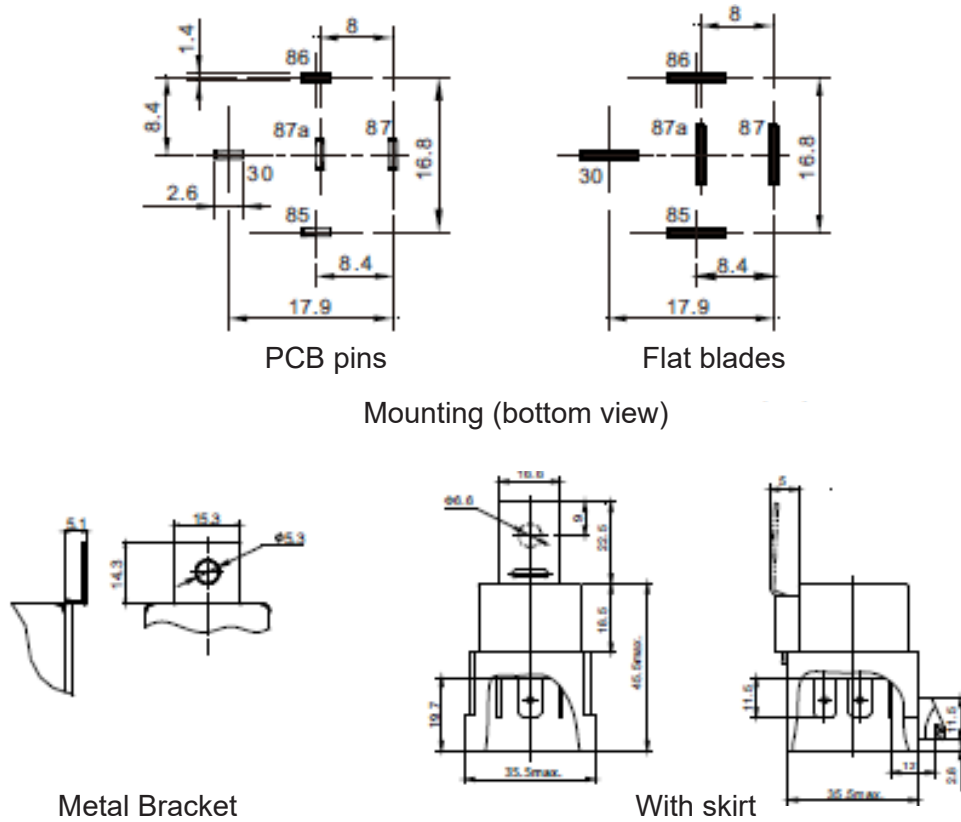
Plastic Bracket



Sealed PCB type terminals

Dimensions mm (continued)

Fig. 1



Wiring Diagrams

Fig. 2



NOTE:

In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.

All parameters, unless otherwise specified, are measured at ambient temperature of 23°C .