



- High continuous DC current capacity - 80A
- General purpose automotive
- High inrush capabilities
- PCB Mounting option
- SPDT (Changeover) contacts available
- Ideal for DC Motor Control
- Industry standard size and footprint

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

RoHS
Compliant ✓

Contacts

Contact arrangement	SPST-NO (1 Form A); SPDT (1 Form C)
Contact material	AgSnO ₂
Max. switching voltage	DC 75VDC (current dependent - see fig.4)
Max. continuous current	SPST-NO 80A, SPDT (NO/NC) 80A / 50A
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	1.8W

Insulation

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

General Data

Operating time	typ.	10ms
Release time	typ.	5ms
Electrical life	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	15g, 11ms
Vibration resistance		DA1.5mm 10-40Hz
Dimensions	L x W x H	29.0 x 29.0 x 26.5 mm (excluding terminals)
Weight	approx.	46g depending on mounting

Ordering Code

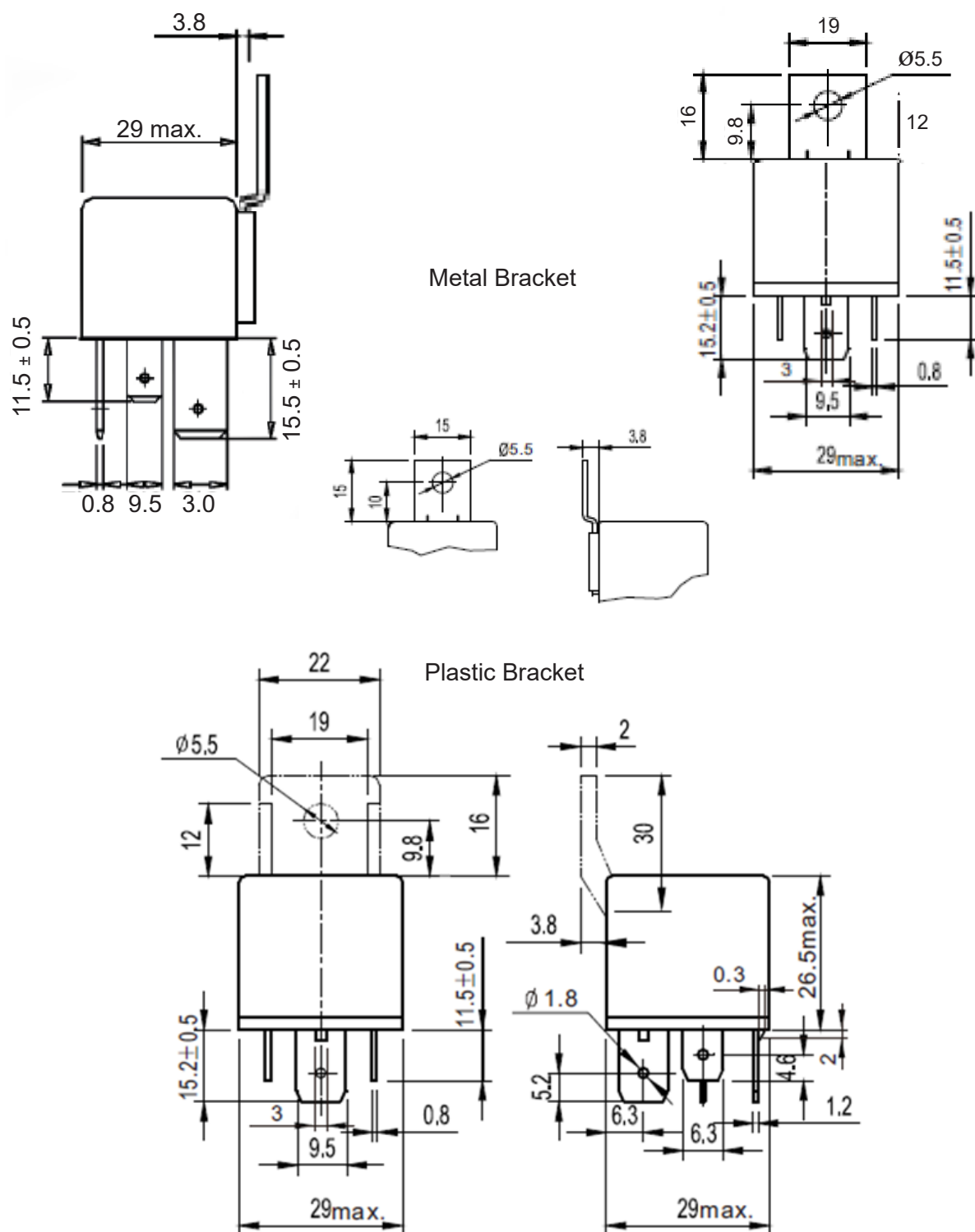
D G 8 5 C - 7 0 2 1 - 9 6 - 1 0 1 2 - M 1 D R / 2											
<u>Series</u>						<u>Coil code:</u>					
<u>Contact material</u>						See table 1					
70: AgSnO ₂											
<u>Contact arrangement</u>						<u>Mounting & terminations</u>					
11: SPDT (1 C/O, 1 Form C)						5. PCB pins					
21: SPST-NO (1 N/O, 1 Form A)						6. Flat blades					
<u>Environmental protection</u>						<u>Bracket options</u>					
3: IP67 sealed cover						Blank: No options					
7: IP54 dust cover						M1: Metal bracket					
9: IP54 dust cover with mounting bracket (integral plastic, unless optional metal bracket selected.						S1: Skirted cover & metal bracket					
<u>Parallel component options</u>											
Blank: No option											
R: Integral resistor											
D: Integral diode +85/-86											
DR: Integral diode reversed -85/+86 (standard)											
<u>Version</u>											
/ 2: Revision 2											

Coil Data

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

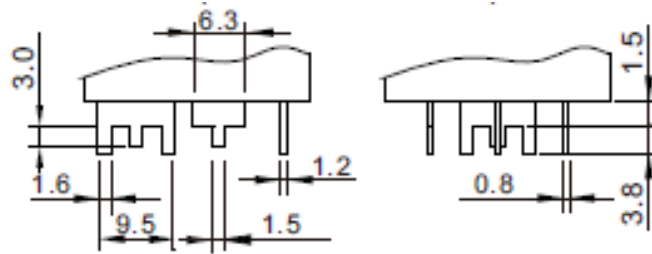
Dimensions mm

Fig. 1



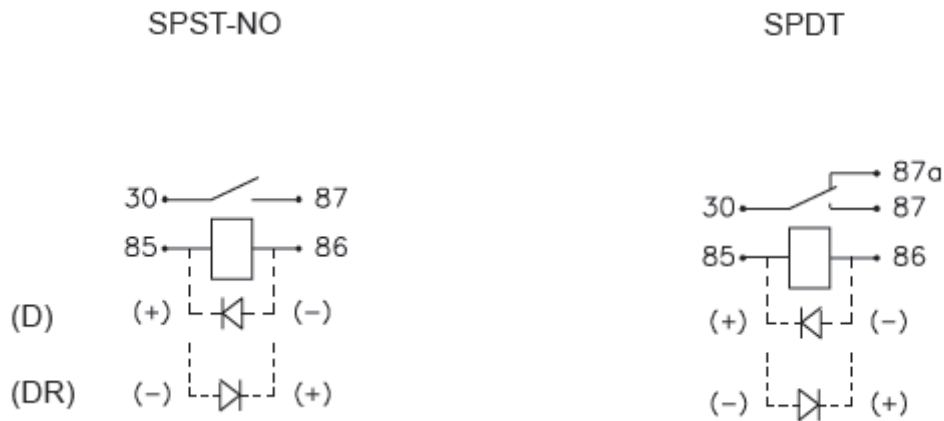
PCB Terminals

Fig. 2



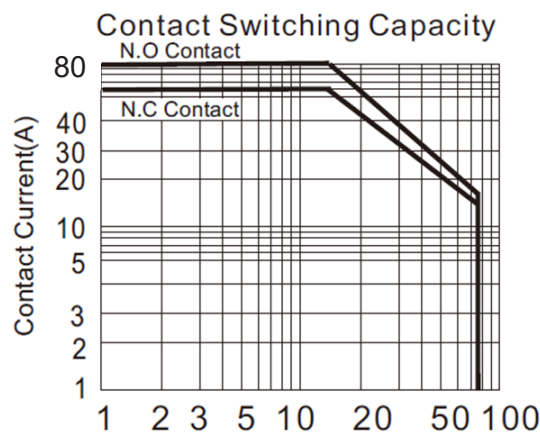
Wiring Diagrams

Fig. 3



Contact switching capacity

Fig. 4



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 $\pm 0.4\text{mm}$.

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