



- General purpose automotive or industrial relays
- High resistance to inrush current
- For pcb mounting
- US and European pin configurations
- Open, dust cover and sealed options
- 30 to 45A continuous current capacity
- RoHS Compliant

Contacts

Contact number & arrangement	SPST-NO (1NO), SPST-NC (1NC), SPDT (1 C/O)
Contact material	AgNi, AgNi0.15, AgSnOInO, AgCdO
Max. switching voltage	30VDC - current dependent - see curve Fig 2
Max. continuous current	SPST-NO: 40A (45A AgSnOInO) / 12VDC, SPST-NO: 30A / 12VDC SPDT: 40A (45A AgSnOInO) (NO) / 30A (NC) / 12VDC
Max. inrush current	SPST-NO: 100A (180A AgSnOInO), SPST-NC:30A SPDT: 100A (180A AgSnOInO) NO / 30A NC
Rated current	SPST-NO: 40A, SPST-NC: 30A, SPDT: 40A (NO), 30A (NC)
Max. breaking capacity	SPST-NO: 60A, SPST-NC: 30A, SPDT: 60A (NO), 30A (NC)
Min. breaking capacity	1W
Min. switching current	10mA 12VDC (contact material dependent)
Resistance	< 100mΩ at 0.1A / 6VDC

Coil

Rated voltage	6, 12 & 24VDC
Must release voltage	$\geq 0.01U_n$
Operating range of supply voltage	See Table 1
Rated power consumption	1.5W

Insulation

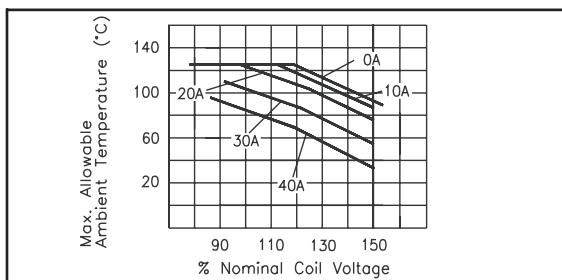
Dielectric strength coil - contact	500Vrms / 1min
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General data

Operating time (typical value)	$\leq 5\text{msec}$
Release Time	$\leq 3\text{msec}$
Electrical Life resistive	$> 2 \times 10^5$
Mechanical life	$> 10^7$
Dimensions (L x W x H)	various - see dimensional drawings
Weight	18g open, approx 23g covered
Ambient Temperature storage	-40... + 155°C
operating	-40... + 125°C - see also Fig 1
Cover protection category	IP00, IP40, IP67 depending on version
Shock resistance	20g, 11ms
Vibration resistance	DA 1.5mm, 20-200Hz

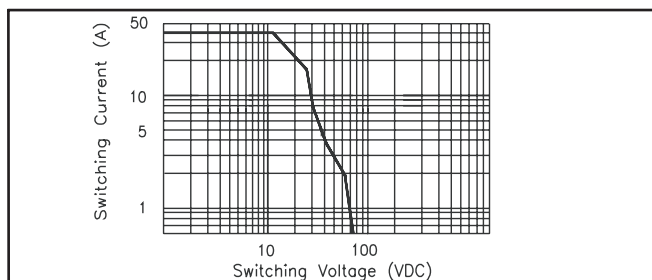
Maximum allowable ambient temperature

Fig. 1



Max. DC resistive load breaking capacity

Fig. 2



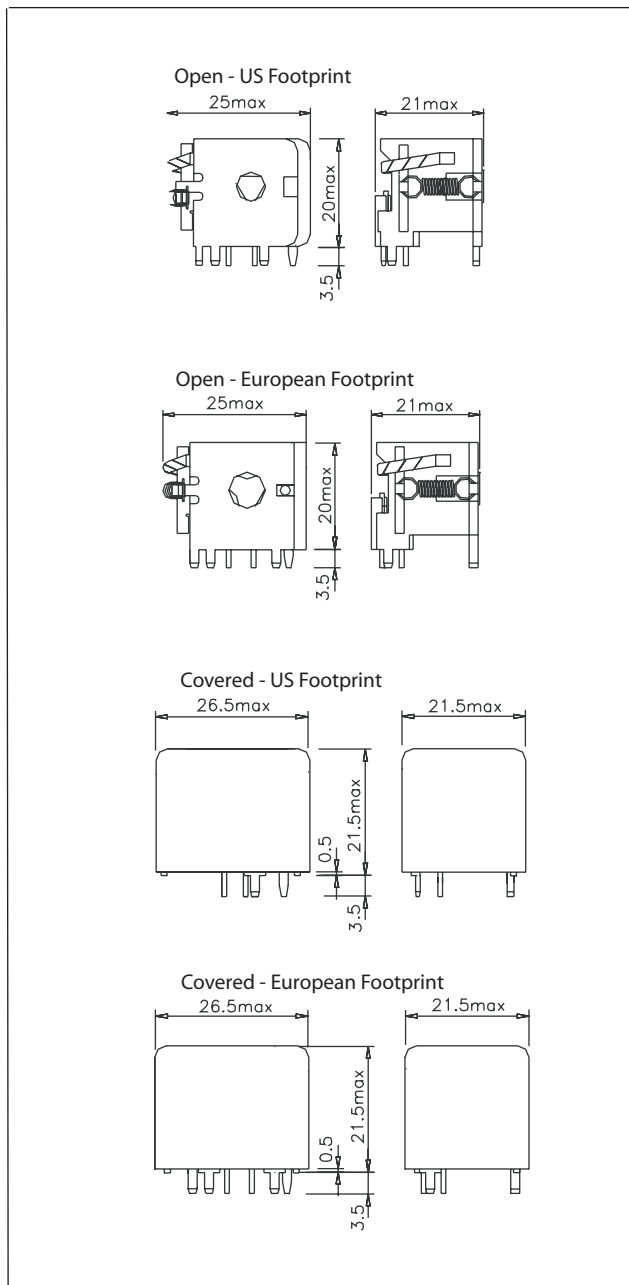
Coil Data - DC voltage version

Table 1

Coil code	Rated voltage V DC	Coil resistance ± 10% at 20°C Ω	Must Operate Voltage Max VDC	Must Release Voltage Min VDC
1006	6	19	3.3	0.6
1012	12	90	6.8	1.2
1024	24	362	13.9	2.4

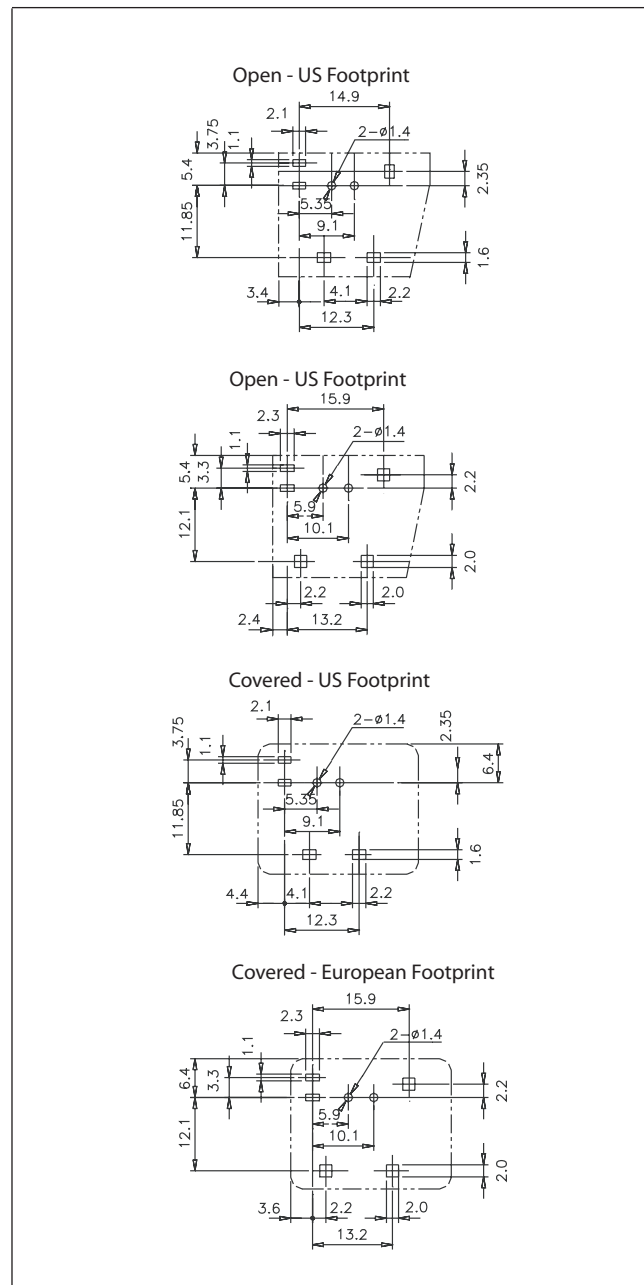
Overall dimensions

Fig. 3



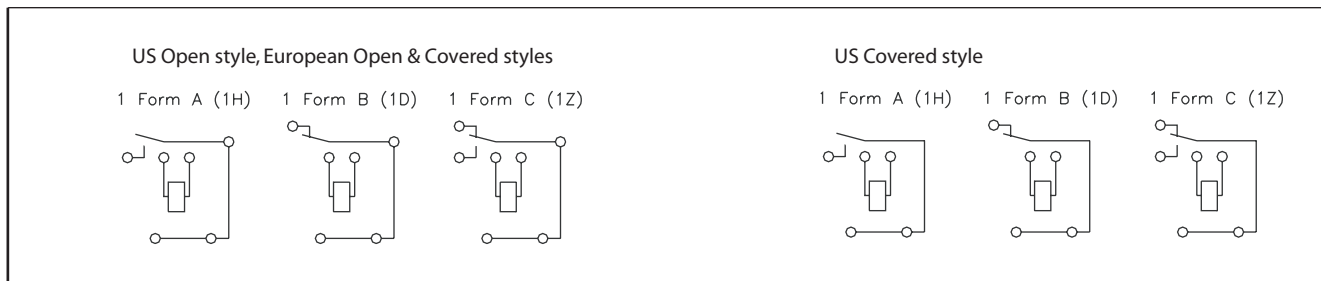
PCB mounting dimensions

Fig. 4

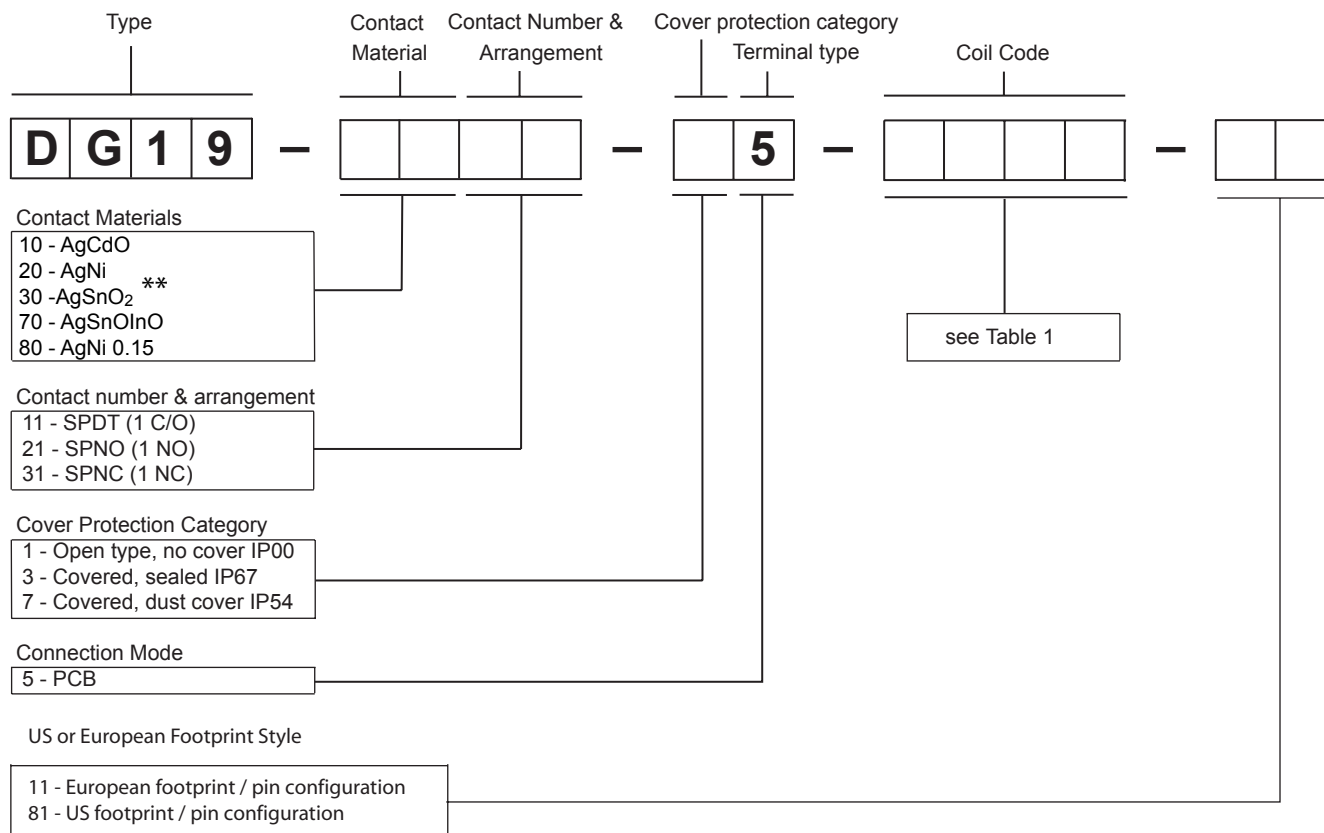


Wiring diagrams

Fig. 5



Ordering codes



Notes:

** Contact Rating for SPDT DG19-3011-*5-****-* is 40A for normally open contact and 30A for normally closed contact, but relay is marked 30A 14VDC to avoid the inadvertent application of too much current on the normally closed contact.