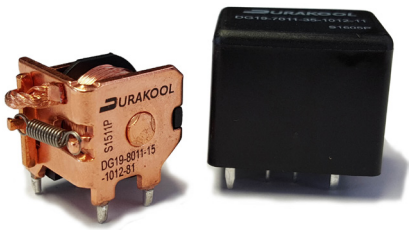
DG19
pcb automotive / industrial relay



- 30A to 45A continuous current capacity
- AgSnOInO contacts for motor & lamp loads
- open, dust cover and sealed versions
- US & European terminal configurations
- Automotive oriented design

RoHS Compliant

Contacts

Contact number & arrangement		SPST-NO (1 Form A), SPST-NC (1 Form B), SPDT (1 Form C)				
Contact material		AgNi0.15, AgNi90/10, AgSnOInO, $AgSnO_2$, AgCdO				
Max. switching voltage	DC	30VDC - Current dependent - see Fig 4				
Min. switching current / voltage		0.01A/12VDC (AgNi0.15), 0.5A/5VDC (AgSnOInO)				
		1 Form A	**1 Form B**	**1 Form C**		
				NO	**NC**	
Max. continuous current	DC1	45A (AgSnOInO) 40A ($AgSnO_2$)	30A	45A (AgSnOInO) 40A ($AgSnO_2$)	30A	
Max. switching current	Make	180A (AgSnOInO) 100A	30A	180A (AgSnOInO) 100A	30A	
	Break	60A	30A	60A	30A	
Initial resistance		100mΩ, max. at 0.1A/6VDC				
Coil						
Rated voltage	DC	6, 12, 24V				
Must release voltage		10% U_n				
Operating range of supply voltage		See coil table 1				
Rated power consumption	DC	1.5W approx.				
Insulation						
Insulation resistance		100MΩ at 500VDC, 50%RH				
Dielectric strength	coil to contact	500Vrms, 1 min.				
General Data						
Operating time (typical)	ms	≤ 5				
Release time (typical)	ms	≤ 3				
Electrical Life	ops	2×10^5 (see Note 2)				
Mechanical life	ops	1×10^7				
Dimensions	L x W x H	various - see dimensions Fig.1				
Weight		open: 18g / covered: 23g approx.				
Ambient temperature	storage	-40 to +155°C				
	operating	-40 to 125°C (higher to special order)				
Shock resistance		Functional: 20g 11mS; Destructive: 100g				
Vibration resistance		Functional: NO 20g; NC 10g 20-200Hz				
Drop resistance		1M height drop on concrete in final enclosure				

Specifications are subject to change without notice. E&OE.

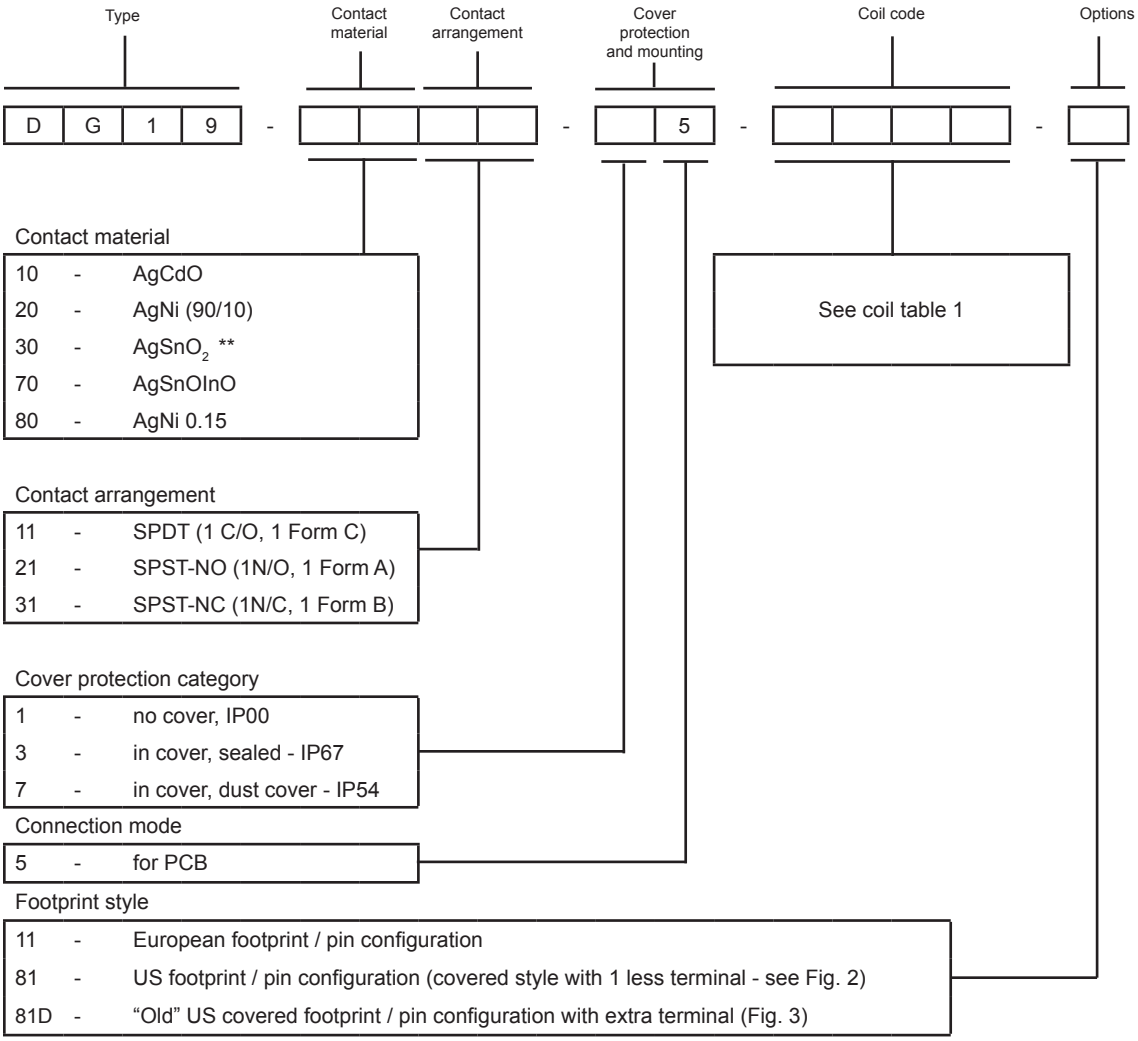
Coil Data

Table 1

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) ±10% at 20°C	Must Operate Voltage Max. (VDC)	Max.Allowable Voltage (VDC)*	Must Release Voltage min. (VDC)
1006	6	19	3.3	8	0.6
1012	12	90	6.8	16	1.2
1024	24	362	13.9	31	2.4

* At ambient temperature of 85˚C, maximum allowable voltage should be reduced to 72%

Ordering codes



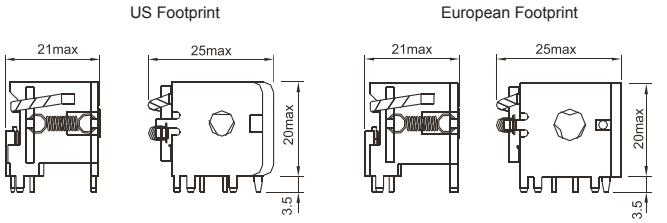
Notes:
** Contact rating for SPDT DG19-3011-*5-****-** is 40A for the normally open contact and 30A for the normally closed contact, but is marked 30A 14VDC to avoid inadvertent application of too much current on the normally closed contact.

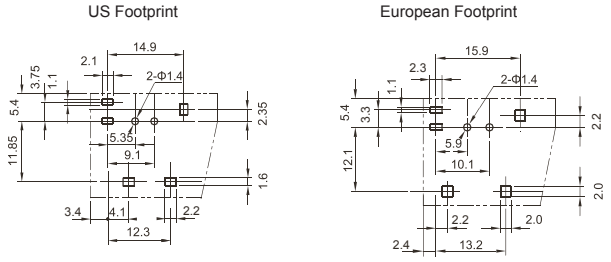
DG19
pcb automotive relay

DURAKOOL

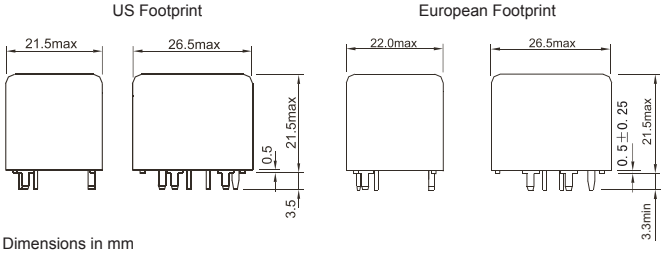
Overall Dimensions — Fig. 1

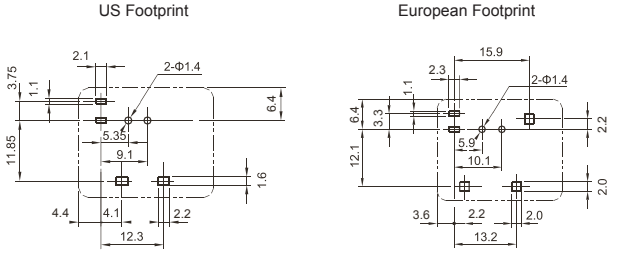
Open Frame





Covered

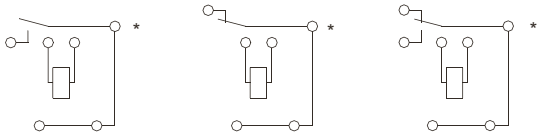




Dimensions in mm

PCB Mounting Dimensions (Bottom View)

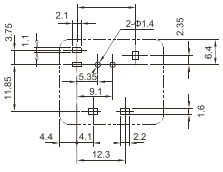
Wiring Diagrams — Fig. 2



* Terminal not fitted for standard US covered style

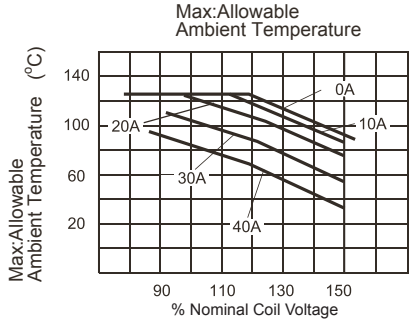
(Bottom View)

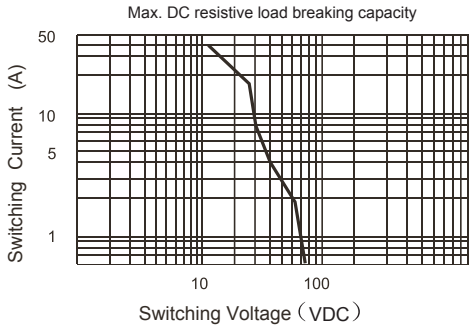
"Old" US Style Covered — Fig. 3



Available to special order only - Option 81D (MOQ will apply)
e.g DG19-3011-35-1012-81D

Reference Curves — 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, 13.5VDC, with suitable arc suppression circuit attached and with operating frequency of 1 op/sec.
3: Maximum make current refers to lamp load inrush current. Consult factory for motor and capacitive loads.
4: For optimum electrical life, please remove the knock off nib of the sealed version after cleaning process.

American Electronic Components Inc., 1101 Lafayette St. Elkhart, IN46516
www.aecsensors.com Sales Department Tel: (888) 847-6552

DURAKOOL
Specifications are subject to change without notice. E&OE.