



- 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 arrangement	SPST-NO (1 Form A), SPST-NC (1 Form B), SPDT (1 Form C)				
Contact material	AgNi0.15, AgNi90/10, AgSnOInO, AgSnO ₂				
Max. switching voltage	DC	30VDC - Current dependent - see Fig. 4			
Min. switching current / voltage	0.01A/12VDC (AgNi0.15), 0.5A/5VDC (AgSnOInO)				
Max. continuous current	DC1	1 Form A 45A (AgSnOInO) 40A (AgSnO ₂)	1 Form B 30A	1 Form C	
				NO 45A (AgSnOInO) 40A (AgSnO ₂)	NC 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	See Table 1	
Rated power consumption	DC	1.5W approx.

Insulation

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

General Data

Operating time	ms	≤ 5
Release time	ms	≤ 3
Electrical life	ops.	2 x 10 ⁵ (see note 2)
Mechanical life	cops.	1 x 10 ⁷

Environmental

Ambient temperature	operating	-40 to +125°C (higher to special order)
	storage	-40 to +155°C
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	
Dimensions	L x W x H	various - see dimensions Fig. 1
Weight	approx.	open: 18g / covered: 23g approx.

Ordering Code

D G 1 9 - 8 0 3 1 - 7 5 - 1 0 2 4 - 8 1 D

Series

20: AgNi (90/10)
30: AgSnO₂ **
70: AgSnOInO
80: AgNi 0.15

Coil code:

See table 1

Contact material

Contact arrangement

11: SPDT (1 C/O, 1 Form C)
21: SPST-NO (1 N/O, 1 Form A)
31: SPST-NC (1 N/C 1Form B)

Environmental protection

1: No cover, IP00
3: In cover, sealed - IP67
7: In cover, dust cover - IP54

Mounting & terminations

5: PCB Mounting

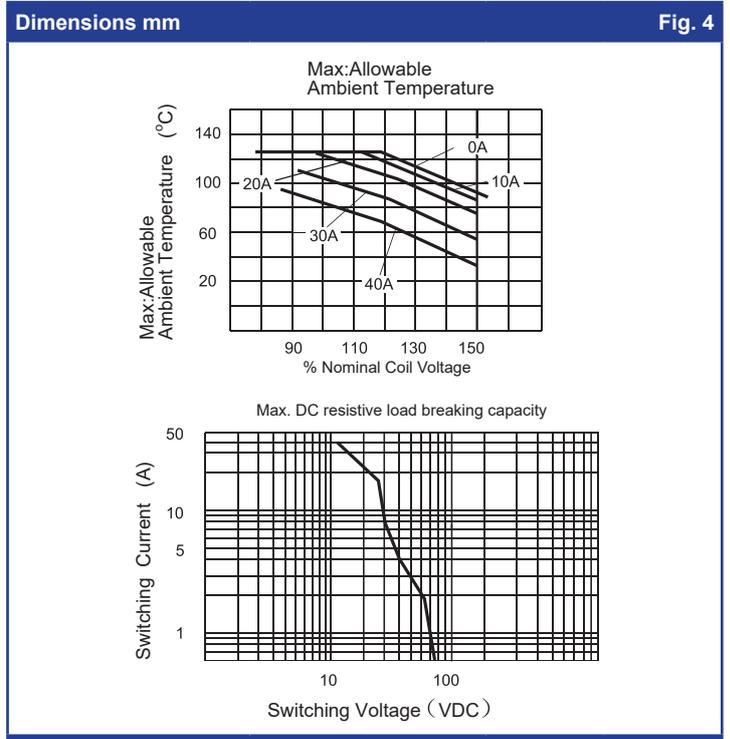
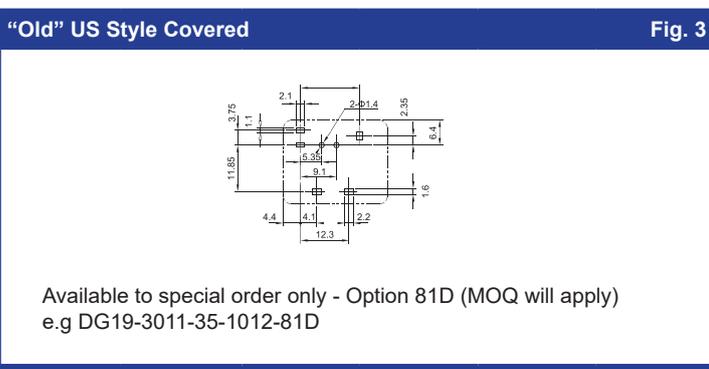
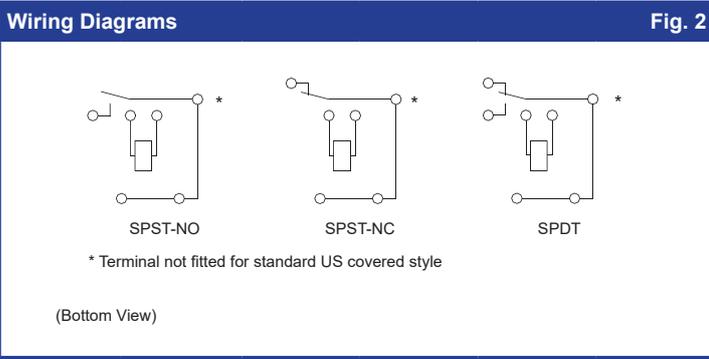
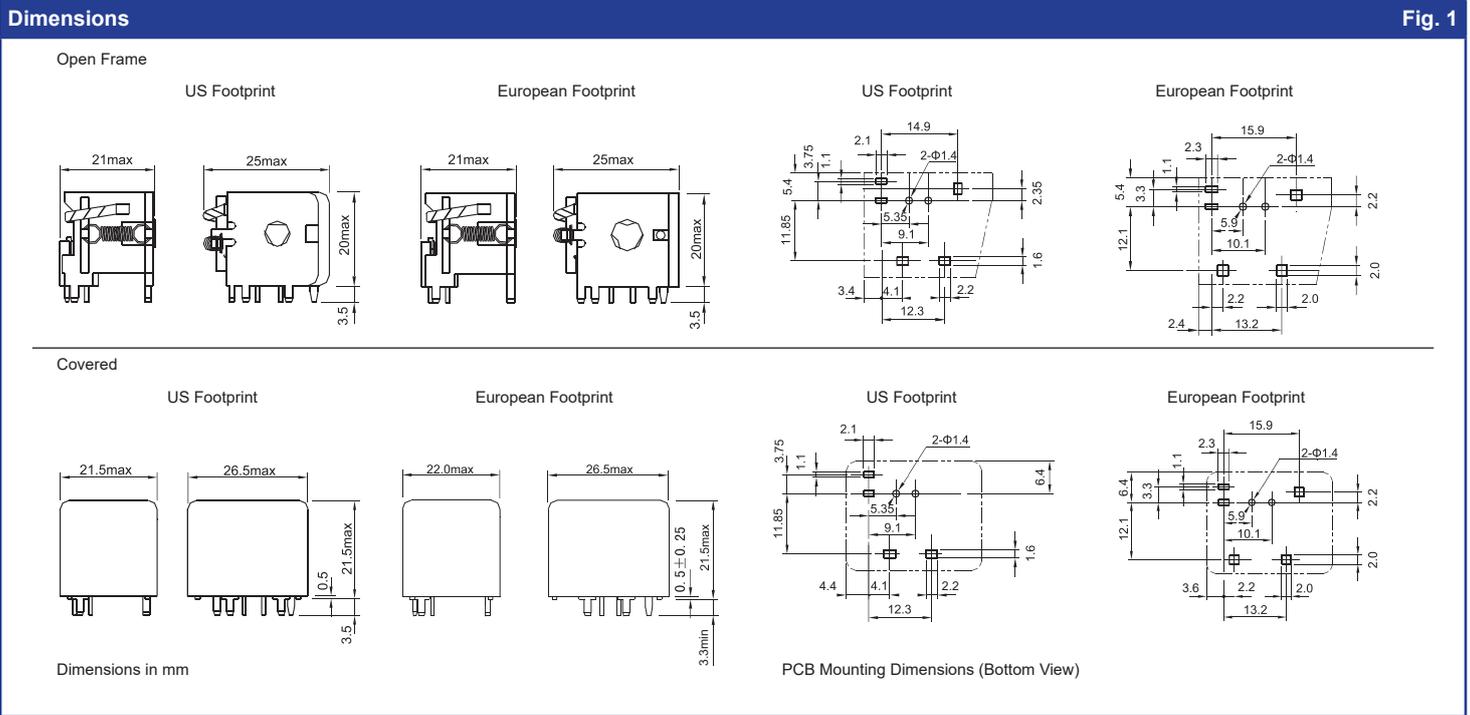
Footprint style

11: European pin configuration
81: US pin configuration (covered - 1 less terminal - fig. 2)
81D: "Old" US covered pin configuration - 1 extra terminal (Fig.3)

Notes: **Contact rating for SPDT DG19-3011*5-**** is 40A for the NO contact & 30A for the NC contact. It is marked 30A 14VDC to avoid inadvertent application of excess current on NC contact.

Coil Data						Table 1
Coil code	Nominal voltage (VDC)	Coil resistance (Ω) ±10% @ 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%



- 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.