



- Miniature - only 19.5 x 15.5 x 16mm
- 12A @ 120VAC / 10A @ 250VAC
- Cost effective



### Contacts

Contact arrangement	SPST-NO (1 Form A); SPDT (1 Form C)
Contact material	AgSnOInO, AgSnO <sub>2</sub> (standard), AgNi0.15
Max. switching voltage	AC/DC 250VAC, 28VDC
Min. switching current / voltage	100mA / 12VDC
Rated load	AgSnO <sub>2</sub> 10A / 250VAC; 12A / 120VAC; 10A / 28VDC
	AgNi0.15 5A / 250VAC, 5A / 28VDC
	AgSnOInO 10A / 250VAC; 12A / 120VAC; 10A / 28VDC
Max. continuous current	12A
Max. switching current	12A
Max. switching power	2500VA / 280W
Initial resistance	<50mΩ at 0.1A/6VDC

### Coil

Rated voltage	DC 3...48V
Must release voltage	≥0.1Un
Operating range	See table 1
Rated power consumption	DC 360mW

### Insulation

Insulation resistance	100MΩ at 500VDC, 50%RH
Insulation category (creepage resistance)	CTI250
UL Insulation system	Class F (standard)
Dielectric strength	coil to contact 1800Vrms, 1min
	contact to contact 1100Vrms, 1min

### General Data

Operating time	typ. 10ms
Release time	typ. 5ms
Electrical life	ops. 1 x 10 <sup>5</sup>
Mechanical life	ops. 1 x 10 <sup>7</sup>

### Environmental

Ambient temperature	operating	-40 to +85°C
	storage	-40 to +85°C
Shock resistance	functional	10g 11ms
	destructive	100g
Vibration resistance	DA 1.5mm 10-55Hz	
Dimensions	L x W x H	19.5 x 15.5 x 16mm
Weight	approx.	10g approx.

### Ordering Code

D G 3 1 - 3 0 1 1 - 3 5 - 1 0 1 2

Series

Coil code:

See table 1

Contact material

**30: AgSnO<sub>2</sub>**

70: AgSnOInO

80: AgNi0.15

Contact arrangement

**11: SPDT (1C/O, 1 form C)**

21: SPST-NO

Environmental protection

2: In cover, flux tight - IP40

**3: In cover, sealed - IP67**

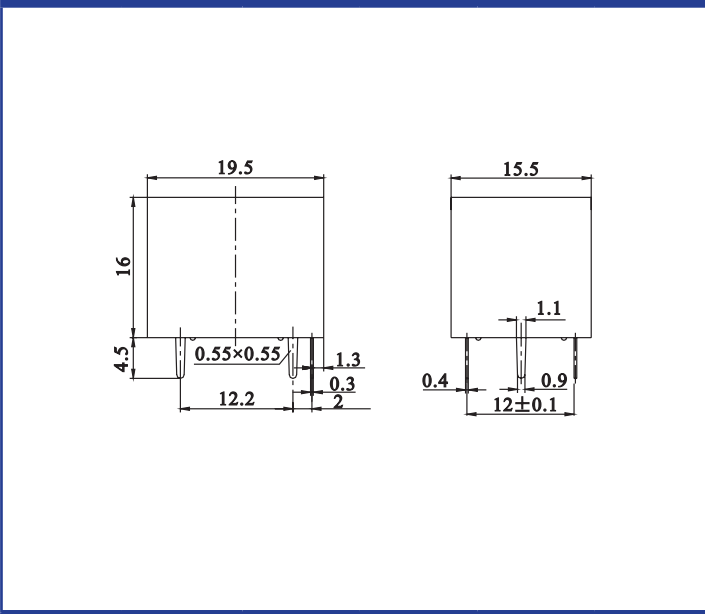
Mounting & terminations

5: For PCB

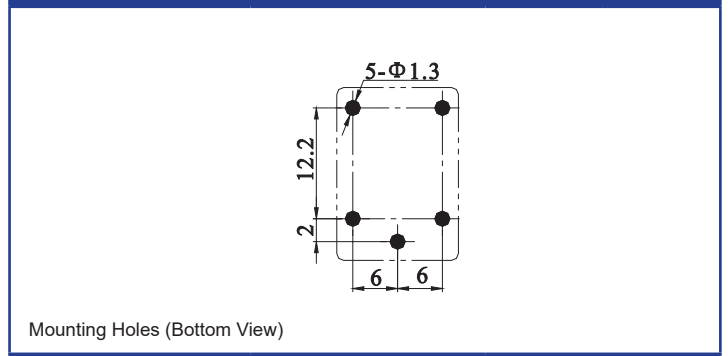
\* Standard options are in bold.

Coil Data					Table 1
Coil code	Nominal voltage (VDC)	Coil resistance $\Omega$ $\pm 10\%$	Must operate voltage max. (VDC)	Must release voltage min. (VDC)	Max. allowable voltage (VDC)
1003	3.00	25.00	2.25	0.15	3.90
1005	5.00	69.00	3.75	0.25	6.50
1006	6.00	100.00	4.50	0.30	7.80
1009	9.00	225.00	6.75	0.45	11.70
1012	12.00	400.00	9.00	0.60	15.60
1024	24.00	1600.00	18.00	1.20	31.20
1048	48.00	6400.00	36.00	2.40	62.40

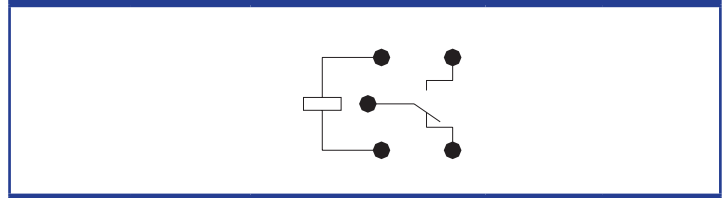
Dimensions mm Fig. 1



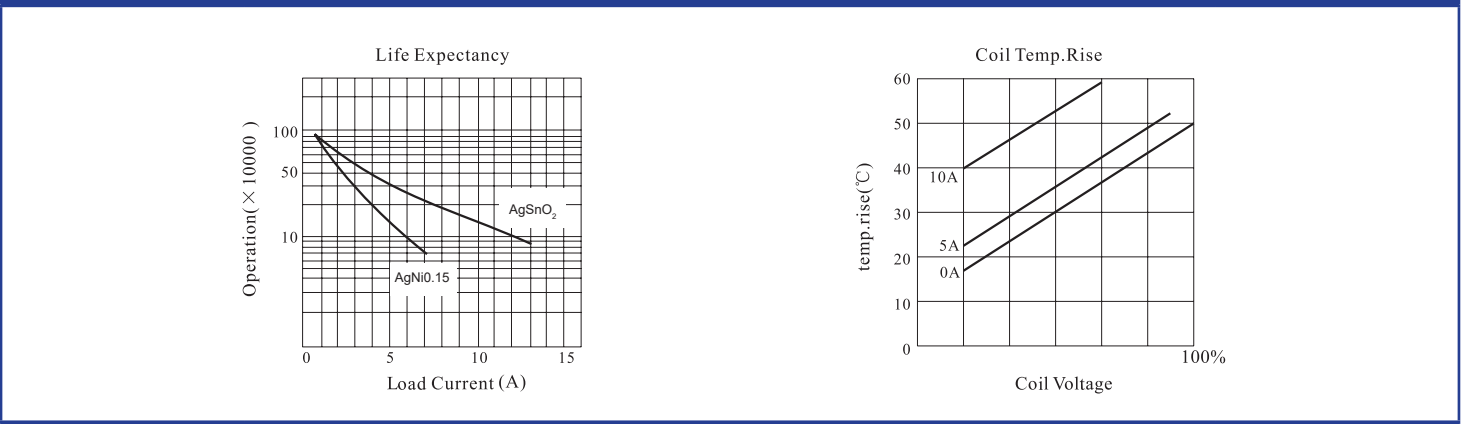
PCB Mounting Dimensions mm Fig. 2



Wiring Diagrams (bottom view) Fig. 3



Reference Curves Fig. 4



Notes:

- 1: All parameters, unless otherwise specified, are measured at ambient temperature of 23°C.
- 2: Maximum make current refers to inrush current of motor load.
- 3: Electrical life is strongly dependent of switching frequency, On/Off ratio and environmental conditions.