

NOT FOR NEW DESIGN



- Miniature - only 19 x 15.4 x 15mm
- 12A @ 250VAC, 15A @ 125VAC
- 105°C Operating Temperature
- Domestic appliances, office equipment etc.



ROHS Compliant ✓

Contacts

| | |
|----------------------------------|---|
| Contact arrangement | SPST-NO (1 Form A); SPDT (1 Form C) |
| Contact material | AgSnO ₂ (standard) |
| Max. switching voltage | AC/DC 250VAC, 28VDC |
| Min. switching current / voltage | 100mA / 12VDC |
| Rated load | UL 15A/ 125VAC TV-5 |
| | VDE 10A/250VAC (NO Contact), 7A/250VAC (NC Contact) |
| Max. switching current | 15A |
| Max. switching power | 3000VA / 280W |
| Initial resistance | <50mΩ, max. at 1A/6VDC |

Coil

| | |
|-------------------------|------------------------|
| Rated voltage | DC 3...48V (3V not UL) |
| Must release voltage | ≥0.1Un |
| Operating range | See table 1 |
| Rated power consumption | DC 360mW |

Insulation

| | |
|---|---|
| Insulation resistance | 1000MΩ at 500VDC, 50%RH |
| Insulation category (creepage resistance) | CTI250 |
| UL Insulation system | Class F (155°C) |
| Dielectric strength | coil to contact 1500Vrms, 1min (50/60Hz) |
| | contact to contact 1000Vrms, 1min (50/60Hz) |
| Surge resistance | 3000V (between coil & contact, 1.2 x 50μs) |

General Data

| | |
|-----------------|---|
| Operating time | typ. 10ms |
| Release time | typ. 5ms |
| Electrical life | ops. 1 x 10 ⁵ (at rated resistive load - 1,800 ops/hr) |
| Mechanical life | ops. 1 x 10 ⁷ (no load, 18,000 ops/hr) |

Environmental

| | | |
|----------------------|-------------|--------------------------------|
| Ambient temperature | operating | -40 to +105°C (40 to 85°C VDE) |
| | storage | -40 to +105°C |
| Shock resistance | functional | 10g 11ms |
| | destructive | 100g |
| Vibration resistance | | DA 1.5mm 10-55Hz |
| Dimensions | L x W x H | 19.5 x 15.4 x 15mm |
| Weight | approx. | 9g approx. |

Ordering Code

D G 3 1 H - 3 0 1 1 - 3 5 - 1 0 0 5

Series

Coil code:
See table 1

Contact material

30: AgSnO₂

Contact arrangement

11: SPDT (1C/O, 1 form C)
21: SPST-NO

Environmental protection

3: In cover, sealed - IP67

Mounting & terminations

5: For PCB

Coil Data (360mW)

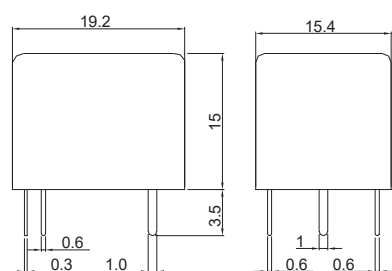
Table 1

| Coil code | Nominal voltage (VDC) | Coil resistance Ω $\pm 10\%$ | Must operate voltage max. (VDC) | Must release voltage min. (VDC) | Max. allowable voltage (VDC) |
|-------------------|--------------------------|---|---------------------------------------|---------------------------------------|------------------------------------|
| 1003 ¹ | 3 | 25 | 2.25 | 0.30 | 3.9 |
| 1005 | 5 | 70 | 3.75 | 0.50 | 6.5 |
| 1006 | 6 | 100 | 4.50 | 0.60 | 7.8 |
| 1009 | 9 | 225 | 6.75 | 0.90 | 11.7 |
| 1012 | 12 | 400 | 9.00 | 1.20 | 15.6 |
| 1024 | 24 | 1600 | 18.00 | 2.40 | 31.2 |
| 1048 | 48 | 6400 | 36.00 | 4.80 | 62.4 |

¹ 3VDC Coil not UL approved.

Dimensions mm

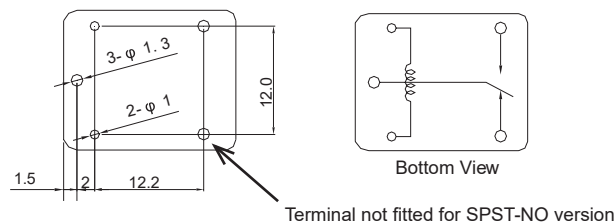
Fig. 1



Tolerances:
 $<1\text{mm} \pm 0.2\text{mm}$
 $1 \sim 5\text{mm} \pm 0.3\text{mm}$
 $>5\text{mm} \pm 0.5\text{mm}$

PCB Mounting Dimensions mm

Fig. 2



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.