



- Miniature - only 20.5 x 7 x 15mm
- High switching capacity 140W, 1250VA
- High sensitivity 200mW coils
- Cadmium free contacts



### Contacts

Contact arrangement	SPST-NO (1 Form A)	
Contact material	AgSnO <sub>2</sub>	
Max. switching voltage	AC/DC	250VAC, 28VDC
Rated load (resistive - cos φ=1)	AC1	5A/250VAC
	DC1	5A/28VDC
Max. switching power	1250VA / 140W	
Initial contact resistance	≤ 50mΩ at 6VDC/1A	

### Coil

Rated voltage	DC	3...48V (3V coil not UL approved)
Must release voltage	≥ 0.10Un	
Operating range of supply voltage	See table 1	
Rated power consumption	DC	200mW

### Insulation

Insulation resistance	100MΩ at 500VDC, 50%RH	
Tracking resistance	CTI	250
Dielectric strength	coil to contact	4,000Vrms, 1min (50/60Hz); 10,000V surge
	contact to contact	1,000Vrms, 1min (50/60Hz)

### General Data

Operating time	typ.	≤ 10ms
Release time	typ.	≤ 5ms
Max. switch rate (On/Off)	electrical	30 operations / minute
	mechanical	300 operations / minute
Electrical life	ops.	1 x 10 <sup>5</sup> (resistive 5A/250VAC)
Mechanical life	ops.	1 x 10 <sup>7</sup> (no load)

### Environmental

Ambient temperature	operating	-40 to 85°C
	storage	-40 to 85°C
Shock resistance	functional	98.1m/s <sup>2</sup> (10g)
	destructive	981m/s <sup>2</sup> 6ms (100g)
Vibration resistance	10-55Hz DA. 1.5mm	
Flammability class	UL	94V-0
Humidity range	45~85% RH	
Dimensions	L x W x H	20.5 x 7.0 x 15mm
Weight	approx.	≤ 4g

### Ordering Code

D G 5 N - 3 0 2 1 - 3 5 - 1 0 0 9 -

Series

Coil code:

See table 1

Contact material

30: AgSnO<sub>2</sub>

Contact arrangement

21: SPST-NO (1 N/O, 1 Form A)

Environmental protection

3: In cover, sealed - IP67 (RTIII)

Mounting & terminations

5: For PCB

Options

Blank: Standard

GW: GWFI IEC60695-2-12 850°C

GWIT IEC60695-2-13 750°C

#### Notes:

For AC loads this relay is designed for 50-60Hz standard industrial power and was tested according to AC1 category as defined by the IEC 60947-1 standard, covering low-frequency switchgear (typically 50-60 Hz). Operating at higher frequencies, places the component outside its certified utilisation category, invalidating all safety certifications (CE, UL, etc.) and manufacturer performance guarantees.

DC Coil Data (at 20°C)

Table 1

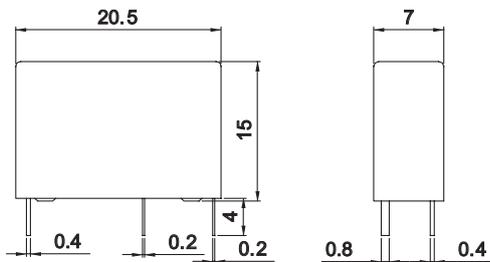
Coil code	Nominal voltage (VDC)	Coil resistance $\Omega \pm 10\%$	Nominal Current (mA)	Must operate voltage max. VDC)	Must release voltage min. (VDC)	Max. allowable voltage (VDC)
1003	3	45	66.7	2.25	0.3	3.9
1005	5	125	40.0	3.75	0.5	6.5
1006	6	180	33.7	4.50	0.6	7.8
1009	9	405	22.2	6.75	0.9	11.7
1012	12	720	16.7	9.00	1.2	15.6
1024	24	2880	8.3	18.0	2.4	31.2

1. Operating the relay coil below the nominal voltage may compromise the current ratings for the contacts.

2. 3VDC Coil not UL approved.

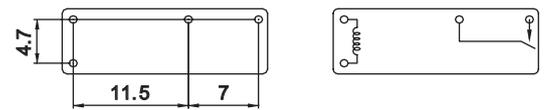
Dimensions mm

Fig. 1



PCB Mounting Dimensions mm

Fig. 2



Bottom view