



- Miniature PCB power relay
- Up to 12A /28VDC Rating
- Industry standard style
- 'Sensitive' 250mW coil version available
- Cost effective



RoHS Compliant ✓

### Contacts

Contact arrangement	SPST-NO (1 N/O), SPDT (1 C/O)
Contact material	AgNi 90/10, AgSnO <sub>2</sub>
Max. switching voltage	AC/DC 440VAC / 125VDC
Max. switching power	2500VA / 3000VA
Min. switching current / voltage	100mA/12VDC
Rated load	AC1 10A, 250VAC (Sensitive Coil) / 12A, 250VAC
	DC1 10A, 30VDC (Sensitive Coil) / 12A, 30VDC
Initial resistance	100mΩ, max. at 0.1A/6VDC

### Coil

Rated voltage	DC 5...110V
Must release voltage	DC ≥ 0.1U <sub>n</sub>
Operating range of supply voltage	See tables 1 & 2
Rated power consumption	DC 250mW (Sensitive Coil) / 400mW

### Insulation (EN 60664-1)

Insulation resistance	≤ 1000MΩ at 500VDC, 50%RH
Dielectric strength	coil to contact 5000Vrms, 1min
	contact to contact 1000Vrms, 1min

### General Data

Operating time	typ. ≤ 15ms
Release time	typ. ≤ 8ms
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	100m/s <sup>2</sup>
	destructive	1000m/s <sup>2</sup>
Vibration resistance	DA 1.5mm 10-55Hz	
Dimensions	L x W x H	29 x 12.7 x 15.7mm
Weight	approx.	13.5g

### Ordering Code

D X 8 7 N - 3 0 1 1 - 3 5 - 1 0 1 0

Series

Contact terminal pitch

N: 3.5mm

Contact material

20: AgNi 90/10

30: AgSnO<sub>2</sub>

Contact arrangement

11: SPDT (1C/O)

21: SPST-NO (1N/O)

Environmental protection

2: In cover, flux tight - IP40

3: In cover, sealed - IP67

Mounting & terminations

5: For PCB

Coil code:

See tables

1 & 2

**Coil Data (DC voltage 400mW)**
**Table 1**

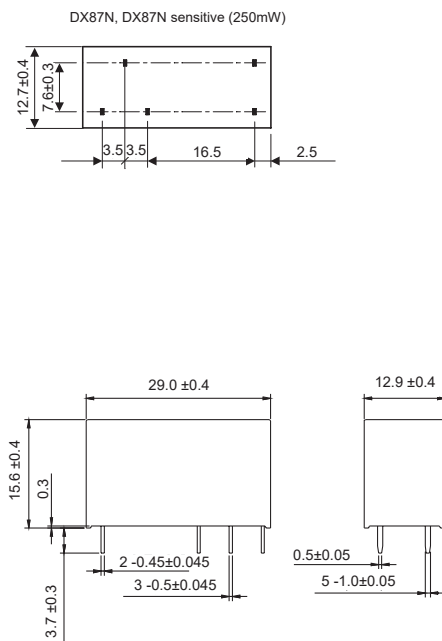
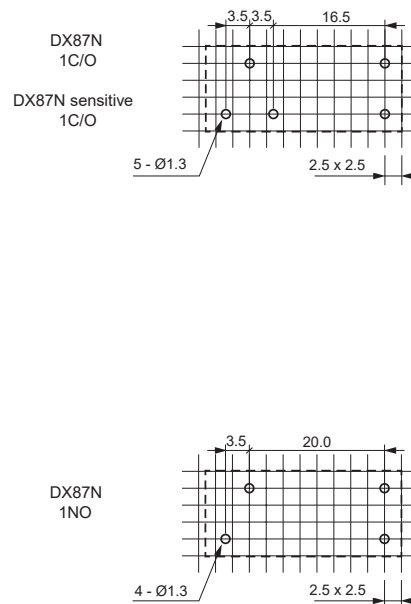
Coil code	Nominal voltage (VDC)	Coil resistance (Ω) ±10%	Max. allowable voltage (VDC)	Must operate voltage max. (VDC)	Must release voltage min. (VDC)
1005	5	62.5	6.5	3.75	0.5
1006	6	90	7.8	4.5	0.6
1009	9	202.5	11.7	6.75	0.9
1012	12	360	15.6	9.0	1.2
1024	24	1440	31.2	18.0	2.4
1048	48	5760	62.4	36.0	4.8

Operating relays below or above the nominal voltage may prove detrimental to performance.

**Coil Data (DC voltage 250mW) - SPDT (1 Form C, 1C/O only)**
**Table 2**

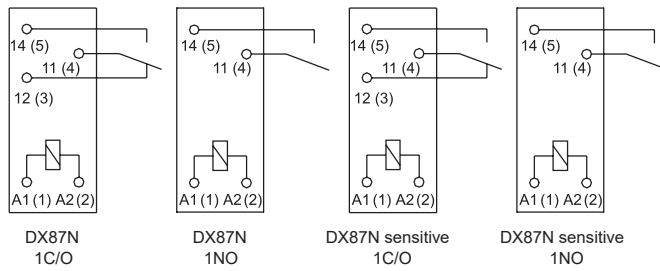
Coil code	Nominal voltage (VDC)	Coil resistance (Ω) ±10%	Operate voltage max. (VDC)	Must operate voltage max. (VDC)	Must release voltage min. (VDC)
S005	5	100	6.5	3.75	0.5
S006	6	144	7.8	4.50	0.6
S009	9	324	11.7	6.75	0.9
S010	10	400	13.0	7.50	1.0
S012	12	576	15.6	9.00	1.2
S024	24	2304	31.2	18.0	2.4
S048	48	9216	62.4	36.0	4.8

Operating relays below or above the nominal voltage may prove detrimental to performance.

**Dimensions mm**
**Fig. 1**

**PCB Mounting Holes Dimensions mm (bottom view)**
**Fig. 2**


Wiring Diagrams (bottom view)

Fig. 3



Terminal (pin)	A1(1); A2(2)	12(3); 11(4); 14(5)
[mm]	Ø 0.5±0.2	0.5±0.2 x 0.8±0.05
Drilling hole:	Ø 1,3 + 0,1 mm	
• for relays	Ø 1,5 + 0,1 mm	
• for sockets		