

DX87

pcb power relay

DURAKOOL



- miniature pcb power relay
- Up to 12A /28VDC rating
- industry standard style
- Cost effective
- RoHS Compliant



Contacts

Contact number & arrangement	SPST-NO (1 N/O), SPDT (1 C/O)	
Contact material	AgNi 90/10, AgSnO ₂	
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
	AC	
Must release voltage	DC	≥ 0.1Un
	AC	
Operating range of supply voltage	See coil tables 1 and 2	
Rated power consumption	DC	250mW (Sensitive Coil) / 400mW
	AC	

Insulation

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

General Data

Operating time (typical)	mS	≤ 15ms
Release time (typical)	mS	≤ 8ms
Electrical Life	ops	≥ 1 x 10 ⁵
Mechanical life	ops	≥ 1 x 10 ⁷
Dimensions	L x W x H	29 x 12.7 x 15.7mm
Weight	13.5g	
Ambient temperature	storage	-40 to 85°C
	operating	-40 to 85°C
Shock resistance	Functional: 100m/s ² ; Destructive: 1000m/s ²	
Vibration resistance	DA 1.5mm 10-55Hz	

DX87

pcb power relay

DURAKOOL

Coil Data (DC voltage 400mW)					Table 1
Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Operate voltage max. (VDC)	Must operate voltage max. (VDC)	Must release voltage min. (VDC)
1005	5	62	7.5	3.5	0.5
1006	6	90	9.0	4.2	0.6
1009	9	202	13.5	6.3	0.9
1012	12	360	18.0	8.4	1.2
1018	18	810	27.0	12.6	1.8
1024	24	1440	36.0	16.8	2.4
1048	48	5760 $\pm 15\%$	72.0	33.6	4.8
1060	60	7500 $\pm 15\%$	90.0	42.0	6.0
1110	110	25200 $\pm 15\%$	165.0	77.0	11.0

Coil Data (DC voltage 250mW) - SPDT (1 Form C, 1C/O only)					Table 2
Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	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
S012	12	576	15.6	9.00	1.2
S018	18	1296	23.4	13.5	1.8
S024	24	2304	31.2	18.0	2.4
S048	48	9216 $\pm 15\%$	62.4	36.0	4.8
S060	60	12857 $\pm 15\%$	78.0	45.0	6.0

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

Ordering codes

Type	Contact Material	Contact arrangement	Cover protection and mounting	Coil code
D X 8 7			5	

Contact terminal spacing	
N	- 3.5mm pitch (standard)
L	- 5.0mm pitch

Contact material	
20	- AgNi 90/10
30	- AgSnO ₂

Contact arrangement	
11	- SPDT (1 C/O)
21	- SPST-NO (1N/O)

Cover protection category	
2	- in cover, flux tight - IP40
3	- in cover, sealed - IP67

Connection mode	
5	- for PCB

see Tables 1 & 2

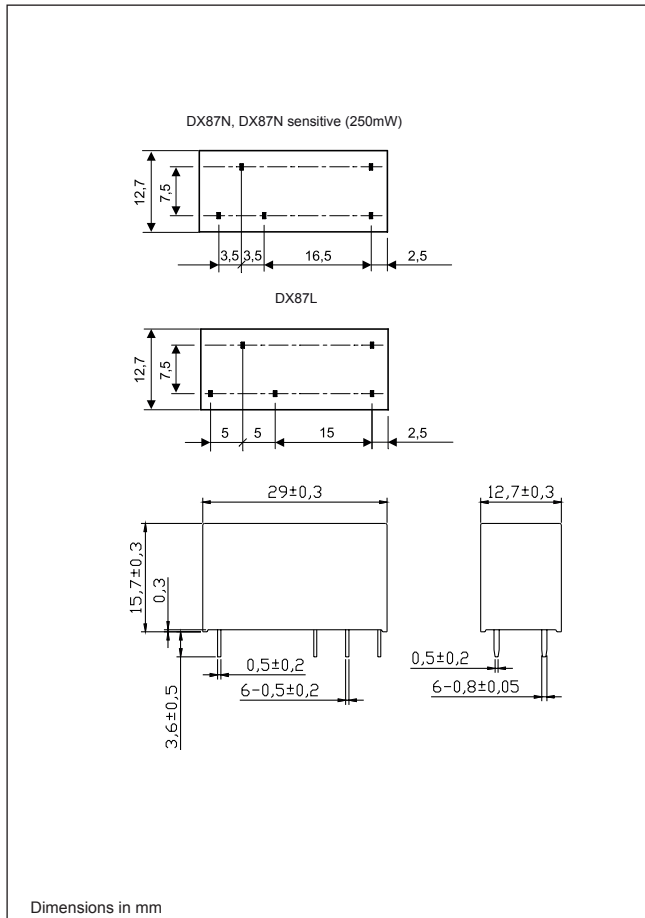
DX87

pcb power relay

DURAKOOL

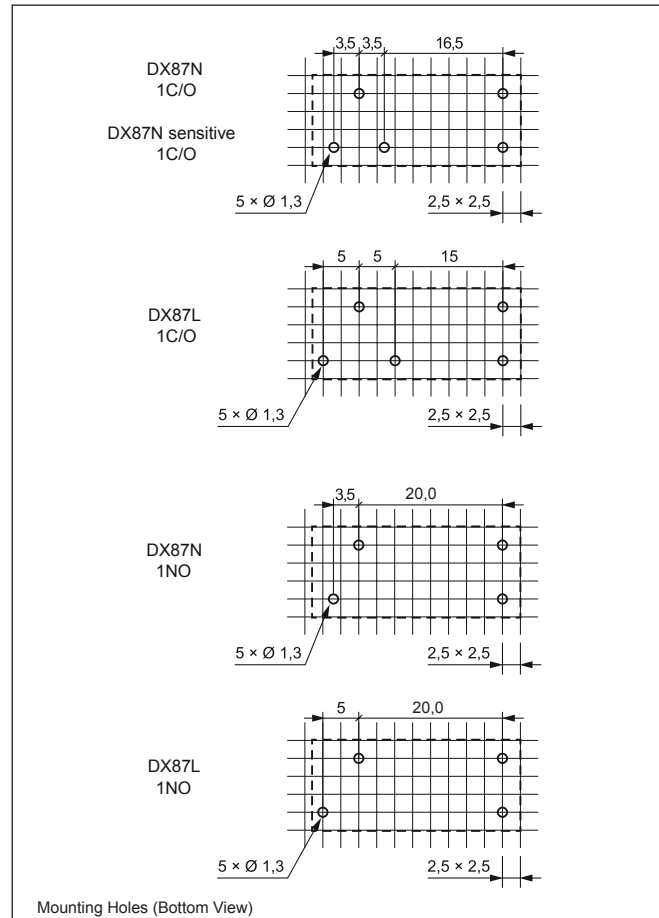
Overall Dimensions

Fig. 1



PCB Mounting Dimensions

Fig. 2



Connection diagrams

Fig. 3

