

DM41

pcb power relay

DURAKOOL



- miniature pcb power relay
- Up to 10A /28VDC rating
- industry standard style
- Cost effective
- RoHS Compliant

Contacts

Contact number & arrangement	SPST-NO (1 N/O), SPDT (1 C/O)	
Contact material	AgCdO, AgSnO ₂	
Max. switching voltage	AC/DC	240VAC / 28VDC
Min. switching current / voltage	1mA/1VDC	
Rated load	AC1	10A, 240VAC
	DC1	10A, 28VDC
Initial resistance	100mΩ, max. at 0.1A/6VDC	

Coil

Rated voltage	DC	3...48V
	AC	6V...230V
Must release voltage	DC	≥ 0.1Un
	AC	≥ 0.3Un
Operating range of supply voltage	See coil tables 1 and 2	
Rated power consumption	DC	0.53W
	AC	1.0VA

Insulation

Insulation resistance	≤ 100MΩ at 500VDC, 50%RH	
Dielectric strength	coil to contact	5000Vrms, 1min
	contact to contact	1000Vrms, 1min

General Data

Operating time (typical)	mS	≤ 20ms
Release time (typical)	mS	≤ 10ms
Electrical Life	ops	≥ 1 x 10 ⁵
Mechanical life	ops	≥ 1 x 10 ⁷
Dimensions	L x W x H	29 x 13 x 25.3mm
Weight	17g	
Ambient temperature	storage	-55 to 70°C
	operating	-55 to 70°C
Shock resistance	Functional: 10g 11mS; Destructive: 100g	
Vibration resistance	DA 1.5mm 10-55Hz	

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Coil Data (DC voltage)

Table 1

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Must operate voltage max. (VDC)	Must release voltage min. (VDC)
1003	3	20	2.25	0.3
1005	5	50	3.75	0.5
1006	6	68	4.50	0.6
1009	9	160	6.75	0.9
1012	12	270	9.00	1.2
1018	18	650	13.5	1.8
1024	24	1080	18.00	2.4
1048	48	4340	36.00	4.8

Coil Data (AC voltage 50/60Hz)

Table 2

Coil Voltage Code	Nominal Voltage (VAC)	Coil Resistance (Ω) $\pm 10\%$	Must operate voltage max. (VAC)	Must release voltage min. (VAC)	Max. allowable voltage (VAC)
5006	6	12.6	4.8	1.8	6.6
5012	12	50.4	9.6	3.6	13.2
5024	24	201.6	19.2	7.2	26.4
5110	110	4235	88.0	33	121
5220	220	16940	176	66	242
5230	230	18515	184	69	253

Ordering codes

Type	Contact Material	Contact arrangement	Cover protection and mounting	Coil code
D M 4 1	0	1	5	

Footprint style	
Nil	- 3.5mm pitch
L	- 5mm pitch

Contact material	
10	- AgCdO
30	- AgSnO ₂ (to special order)

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

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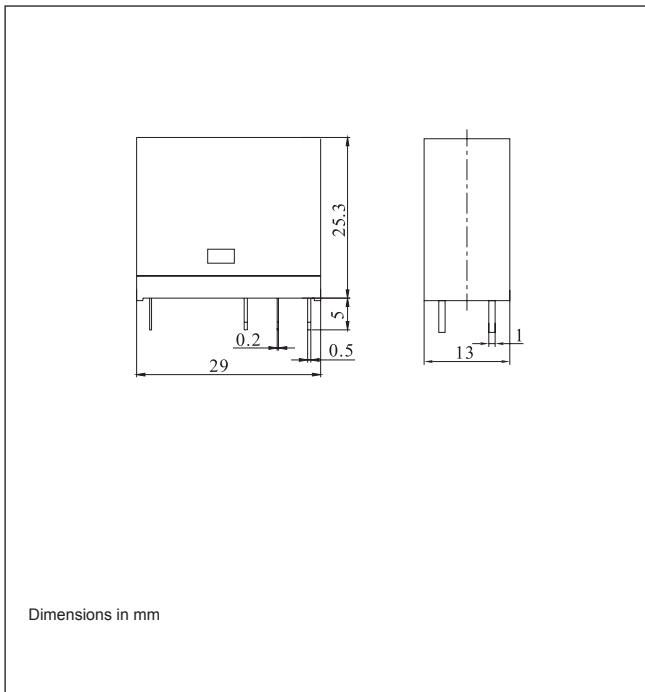
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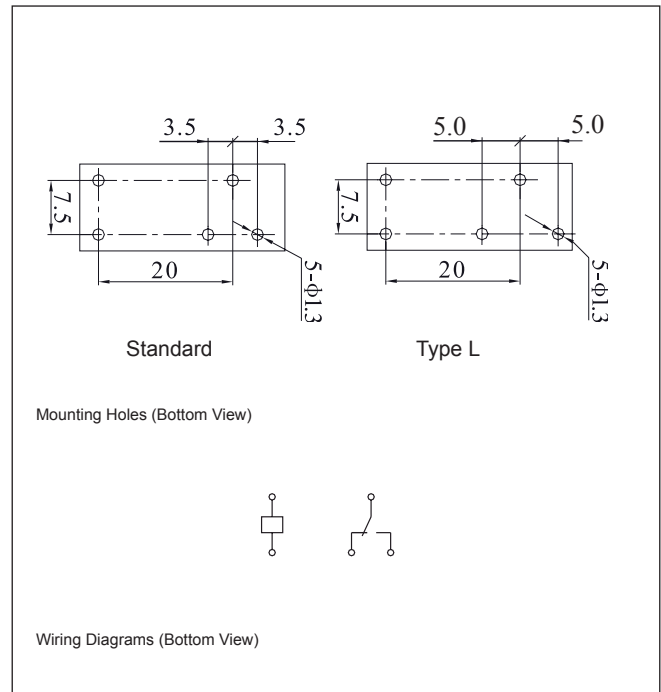
Overall Dimensions

Fig. 1



PCB Mounting Dimensions

Fig. 2



Reference Curves

Fig. 3

