

DM05

miniature pcb power relay

DURAKOOL



- miniature - only 20.5 x 10.6 x 15.3mm
- High switching capacity 150W, 1250VA
- High sensitivity 200mW coils
- RoHS Compliant



Contacts

Contact number & arrangement	SPST-NO (1 Form A); SPDT (1 Form C)	
Contact material	Ag alloy	
Max. switching voltage	AC/DC	277VAC, 30VDC
Min. breaking capacity	W	0.5W (AgCdO), 1W (AgSnO ₂)
Rated load (resistive - cos φ=1)	AC1	SPST-NO: 10A/250VAC SPDT: (NO contact) 5A/250VAC, 10A/125VAC; SPDT: (NC contact) 3A/250VAC, 5A/125VAC
	DC1	SPST-NO: 10A/30VDC SPDT: (NO) 5A/30VDC; (NC) 3A/30VDC
Max. switching power	1250VA / 150W	
Initial resistance	≤ 100mΩ, max. at 1A/24VDC	
Coil		
Rated voltage	DC	3...24V
Must release voltage	≥0.05Un	
Operating range of supply voltage	See coil tables 1 & 2	
Rated power consumption	DC	See coil tables 1 & 2. 200mW & 450mW
Insulation		
Insulation resistance	≥1000MΩ at 500VDC, 50%RH	
Dielectric strength	coil to contact	4000Vrms, 1min (50Hz)
	contact to contact	1000Vrms, 1min (50Hz)
General Data		
Operating time (typical)	mS	≤ 8
Release time (typical)	mS	≤ 5
Electrical Life	ops	1 x 10 ⁵
Mechanical life	ops	1 x 10 ⁷
Dimensions	L x W x H	20.5 x 10.6 x 15.3mm
Weight	≤ 7g	
Ambient temperature	storage	-40 to 70°C
	operating	-40 to 70°C
Shock resistance	100m/s ² , 11ms	
Vibration resistance	DA 1.5mm 10-55Hz	

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Coil Data (at 20°C) 450mW Coil (SPST-NO / SPDT)

Table 1

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Power Consumption (mW)	Must Operate Voltage max. (VDC)	Must Release Voltage min. (VDC)	Max. Allowable Voltage (VDC)
1003 ¹	3	20	450	2.25	0.15	3.3
1005	5	56	450	3.75	0.25	5.5
1006	6	80	450	4.50	0.30	6.6
1009	9	180	450	6.75	0.45	9.9
1012	12	320	450	9.00	0.60	13.2
1024	24	1280	450	18.00	1.20	26.4

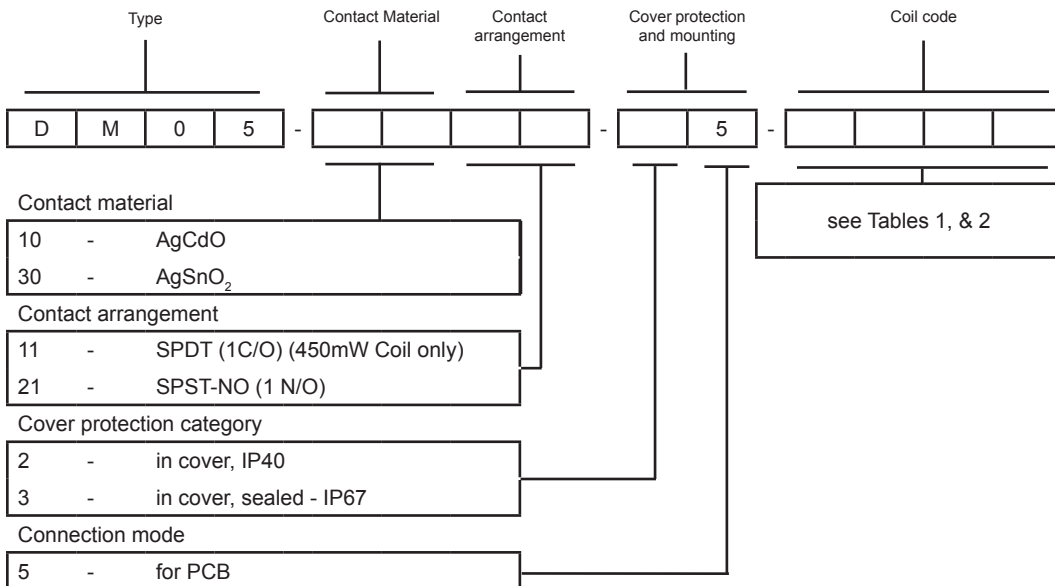
Coil Data (at 20°C) 200mW Coil (SPST-NO only)

Table 2

Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Power Consumption (mW)	Must Operate Voltage max. (VDC)	Must Release Voltage min. (VDC)	Max. Allowable Voltage (VDC)
S003 ¹	3	45	200	2.25	0.15	3.3
S005	5	125	200	4.00	0.25	5.5
S006	6	180	200	4.80	0.30	6.6
S009	9	405	200	7.20	0.45	9.9
S012	12	720	200	9.60	0.60	13.2
S024	24	2880	200	19.2	1.20	26.4

¹ 3VDC coils not UL approved.

Ordering codes



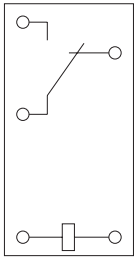
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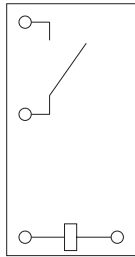


Wiring Diagrams

Fig. 1



SPDT (1 Form C)

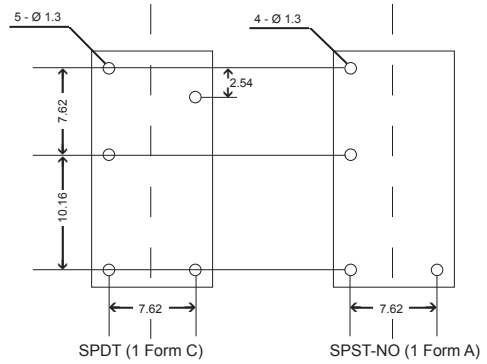


SPDT (1 Form A)

Bottom View

PCB Mounting Dimensions

Fig. 2

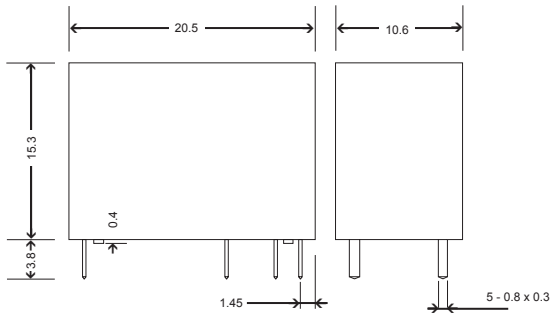


Bottom View
All dimensions in mm

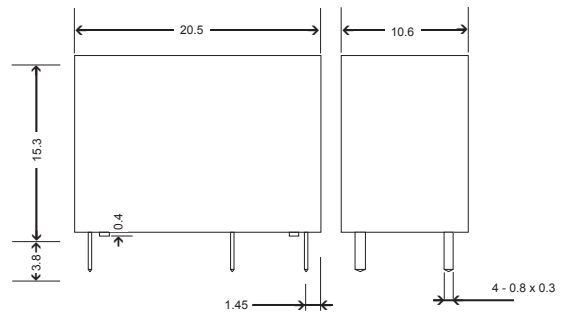
Overall Dimensions

Fig. 3

SPDT (1 Form C)



SPST-NO (1 Form A)



All dimensions in mm