



- Miniature PCB power relay
- Up to 20A @ 24VDC or 230VAC
- Industry standard style
- Recyclable packing



Contacts

Contact arrangement	SPST-NO (1N/O)
Contact material	AgSnO ₂
Max. switching voltage	AC/DC 440VAC / 125VDC
Max. breaking capacity	5000VA
Min. switching current / voltage	10mA/10VDC
Rated load	AC1 20A, 250VAC
	AC3 750W (single phase motor)
	DC1 20A, 24VDC
Initial resistance	≤ 100mΩ, max. at 0.1A/24VDC

Coil

Nominal voltage	5...48V
Must release voltage	≥ 0.1U _n
Operating range of supply voltage	See table 1
Rated power consumption	DC 250mW

Insulation (EN 60664-1)

Insulation rated voltage	AC 400V	
Rated surge voltage	4000V 1.2 / 50 μs	
Overtoltage category	III	
Insulation pollution degree	3	
Dielectric strength	coil to contact	5000Vrms, 1min
	contact to contact	1000Vrms, 1min
Contact - coil distance	clearance	≥10mm
	creepage	≥10mm

General Data

Operating time	typ. ≤ 8ms
Release time	typ. ≤ 3ms
Electrical life	ops. ≥ 1.5 x 10 ⁵ (10A, 250VAC, 105°C)
	ops. ≥ 2 x 10 ⁴ (20A, 250VAC, 85°C)
Mechanical life	ops. ≥ 3 x 10 ⁷

Environmental

Ambient temperature	operating	-40 to 105°C
	storage	-40 to 125°C
Shock resistance		30g
Vibration resistance		10g 10~150Hz
Dimensions	L x W x H	40.5 x 12.7 x 15.7mm
Weight	approx.	16g

Ordering Code

D M 8 5 V 7 - 3 0 2 1 - 2 0 - S 0 1 2

Series

Contact material

30: AgSnO₂

Contact arrangement

21: SPST-NO (1N/O)

Environmental protection

2: In cover, flux tight - IP40

Mounting & terminations

0: For PCB + fast on for contacts

Coil code:
See table 1

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.

Coil Data (DC voltage 250mW)

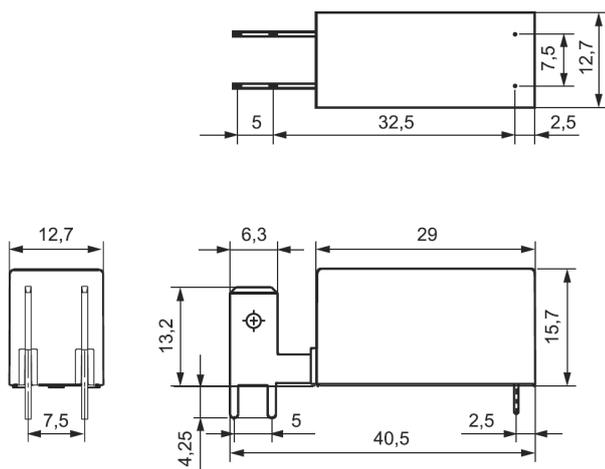
Table 1

Coil code	Nominal voltage (VDC)	Coil resistance (Ω) ±10%	Must operate voltage max. (VDC)	Must release voltage min. (VDC)	Max. operating voltage (VDC)
S005	5	102	3.75	0.5	15
S006	6	144	4.50	0.6	18
S009	9	330	6.75	0.9	27
S010	10	380	7.50	1.0	30
S012	12	580	9.00	1.2	36
S018	18	1300	13.5	1.8	54
S024	24	2300	18.0	2.4	72
S048	48	9340	36.0	4.8	144

Note: Parameters at 20°C

Dimensions (mm)

Fig. 1



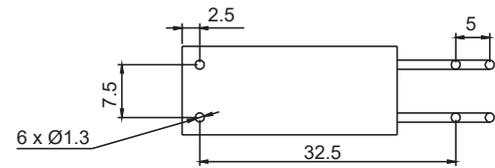
Wiring Diagram (bottom view)

Fig. 3



PCB Mounting Dimensions mm (bottom view)

Fig. 2



Electrical life reduction factor for AC inductive loads

Fig. 4

