

# Miniature Power PCB Relay MSR

1 pole 8 A



## Features

- 1C/O or 1N/O contact
- High inrush currents with AgSnO contacts (TV4 = 65 A)
- 4 kV/8 mm coil-contact
- Protection class II
- Ambient temperature up to 85°C at 8 A

## Applications

HVAC, interface technology, power supplies, TV-/Monitor control, computer-/communication technology, domestic appliances, Hi-Fi products, timers

F0143-C



Technical data of approved types on request

## Contact data

Configuration	1 C/O contact or 1 N/O contact
Type of contact	single contact
Rated current	8 A
Rated voltage / max. breaking voltage AC	250 Vac / 440 Vac
Maximum breaking capacity AC	2000 VA
Make current (max. 4 s at duty cycle 10%)	15 A
Contact material	AgSnO <sub>2</sub> , AgCdO, AgNi 0.15

## Contact ratings

Type	Load	Operations	Standard
-A402	8 A, 240 Vac, resistive	1x10 <sup>5</sup>	UL 508
-A302	30 / 3 A, 230 Vac, AC15	3x10 <sup>5</sup>	VDE 0660
-A302	65 / 4 A, 120 Vac, TV4	25x10 <sup>3</sup>	UL 508

## Coil data

Nominal voltage	3...60 Vdc
Nominal coil power	approx. 220 mW
Operate category	2 / b

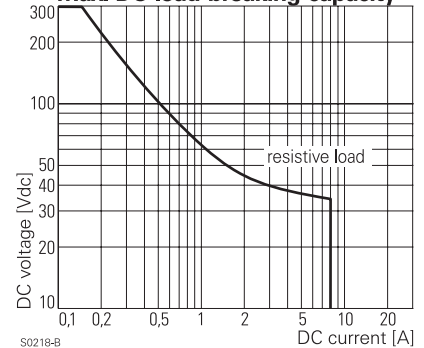
## Coil versions

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
001	3	2.1	0.3	7.5	40±10%	75.0
002	5	3.4	0.5	12.5	118±10%	42.4
003	6	4.1	0.6	15.0	165±10%	36.4
005	12	8.2	1.2	30.0	650±10%	18.5
007	24	16.3	2.4	56.0	2270±10%	10.6
009	48	32.6	4.8	110.0	8790±10%	5.5
010	60	40.8	6.0	142.0	15265±15%	4.0

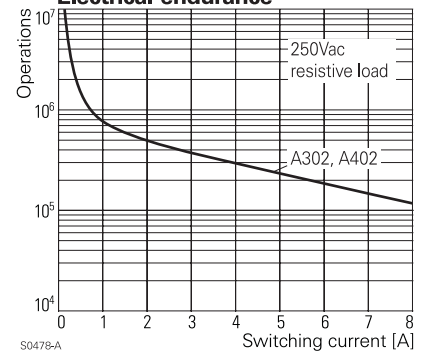
All figures are given for coil without preenergization, at ambient temperature +20°C

Other coil voltages on request

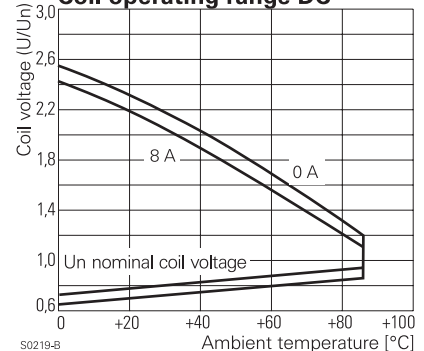
## Max. DC load breaking capacity



## Electrical endurance



## Coil operating range DC



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## Insulation

Dielectric strength	coil-contacts	4000 V <sub>rms</sub>
	open contact circuit	1000 V <sub>rms</sub>
Clearance / creepage (standard)		8 / 8 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Insulation to VDE 0110b (2/79)		
Insulation category / reference voltage		C / 250
Tracking resistance of relay base		CTI 250

## Other data

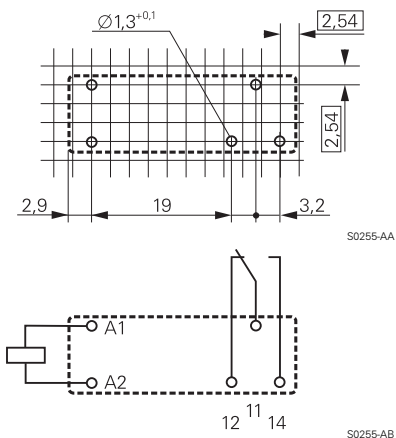
Flammability class according to UL 94	V-0
Ambient temperature	-40...+85 °C
Mechanical life	10x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load	6 min <sup>-1</sup> / 20 s <sup>-1</sup>
Operate- / release time	6 / 2.5 ms
Category of protection (IEC 61810)	RT II - flux proof, RT III - wash tight
Relay weight	11 g
Packaging unit	20 / 1000 pcs.

## PCB layout / terminal assignment

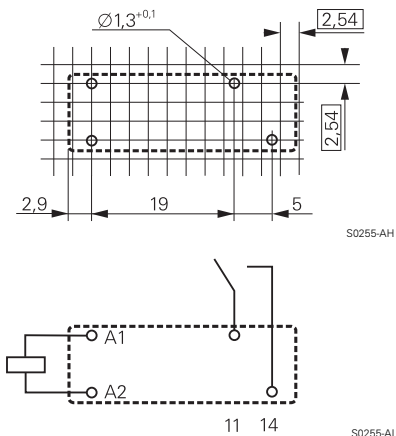
View on solder pins

Dimensions in mm

1 C/O contact, 3.2 mm



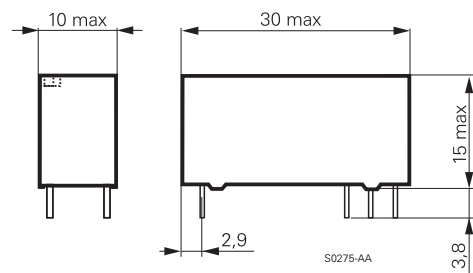
1 N/O contact, 5 mm



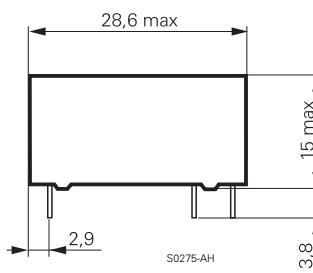
## Dimensions

Dimensions in mm

1 C/O contact, 3.2 mm



1 N/O contact, 5 mm



## Product key

V 2 3 0 6 1 - 1 - A

Type

Version

A 1 N/O contact

B 1 C/O contact

Version

1 wash tight

2 flux proof

Coil

Coil code: please refer to coil versions table

Contact version

A standard

Contact material

3 AgSnO<sub>2</sub>

5 AgNi 0,15

4 AgCdO

6 AgCdO, gold plated

Contact configuration

01 1 C/O contact

02 1 N/O contact

Version with UL-class F and other types on request

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Product key	Version	Contacts	Contact material	Coil	Part number
V23061-A1002-A302	wash tight	1 N/O contact	AgSnO	5 Vdc	0-1393222-4
V23061-A1002-A502			AgNi 0.15		0-1393222-6
V23061-A1003-A302			AgSnO	6 Vdc	0-1393222-9
V23061-A1003-A502			AgNi 0.15		1-1393222-3
V23061-A1005-A302			AgSnO	12 Vdc	2-1393222-0
V23061-A1005-A502			AgNi 0.15		2-1393222-7
V23061-A1005-A602			AgCdO gold pl.		2-1393222-8
V23061-A1007-A302			AgSnO	24 Vdc	3-1393222-9
V23061-A1007-A502			AgNi 0.15		4-1393222-6
V23061-A1007-A602			AgCdO gold pl.		4-1393222-7
V23061-A1009-A502			AgNi 0.15	48 Vdc	5-1393222-7
V23061-A1009-A602			AgCdO gold pl.		5-1393222-8
V23061-A1010-A502			AgNi 0.15	60 Vdc	6-1393222-2
V23061-A1010-A602			AgCdO gold pl.		6-1393222-3
V23061-B1002-A301		1 C/O contact	AgSnO	5 Vdc	7-1393222-2
V23061-B1002-A501			AgNi 0.15		7-1393222-4
V23061-B1002-A601			AgCdO gold pl.		7-1393222-5
V23061-B1003-A501			AgNi 0.15	6 Vdc	8-1393222-1
V23061-B1003-A601			AgCdO gold pl.		8-1393222-2
V23061-B1005-A301			AgSnO	12 Vdc	9-1393222-1
V23061-B1005-A501			AgNi 0.15		9-1393222-7
V23061-B1005-A601			AgCdO gold pl.		9-1393222-9
V23061-B1007-A301			AgSnO	24 Vdc	1-1393223-7
V23061-B1007-A501			AgNi 0.15		2-1393223-5
V23061-B1007-A601		AgCdO gold pl.		2-1393223-6	
V23061-B1009-A301		AgSnO	48 Vdc	3-1393223-7	
V23061-B1009-A501		AgNi 0.15		3-1393223-9	
V23061-B1009-A601		AgCdO gold pl.		4-1393223-0	
V23061-B1010-A501		AgNi 0.15	60 Vdc	4-1393223-3	
V23061-B1010-A601		AgCdO gold pl.		4-1393223-4	
V23061-A2002-A402	flux proof	1 N/O contact	AgCdO	5 Vdc	1-1416200-8
V23061-A2003-A402				6 Vdc	1-1416200-9
V23061-A2005-A402				12 Vdc	2-1416200-1
V23061-A2007-A402				24 Vdc	2-1416200-3
V23061-A2009-A402				48 Vdc	2-1416200-5
V23061-A2010-A402				60 Vdc	2-1416200-6
V23061-B2002-A401			1 C/O contact	5 Vdc	2-1416200-7
V23061-B2003-A401				6 Vdc	2-1416200-8
V23061-B2005-A401				12 Vdc	3-1416200-1
V23061-B2007-A401				24 Vdc	3-1416200-4
V23061-B2009-A401			48 Vdc	3-1416200-6	
V23061-B2010-A401			60 Vdc	3-1416200-7	