

Miniature Power PCB Relay MSR

- 1 pole 8 / 10 A, 1CO or 1NO contact
- High inrush currents with AgSnO contacts (TV4 = 65 A)
- 4 kV/8 mm coil-contact
- Reinforced insulation (protection class II)
- Ambient temperature up to 85°C at 8 A
- Plastic materials according to IEC60335-1 (domestic appliances)
- RoHS compliant (Directive 2002 / 95 / EC) as per product date code 0404



F0143-C

Applications

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

Approvals

VDE REG.-Nr. 3919, **CE** US E214024
 Technical data of approved types on request

Contact data

| | | |
|---|----------------------------|-----------|
| Contact configuration | 1CO or 1NO | |
| Contact set | single contact | |
| Type of interruption | micro disconnection | |
| Rated current | versions A,B: | 8 A |
| | versions C,D: | 10 A |
| Rated voltage / max.switching voltage AC | 240/400 VAC | |
| Maximum breaking capacity AC | 2000 VA | |
| Limiting making capacity, max 20 ms | A302: 65 A | |
| max 4 s, duty factor 10% | 15 A | 15 A |
| Contact material | AgSnO ₂ , AgCdO | AgNi0,15* |
| Mechanical endurance | 10x10 ⁶ cycles | |
| Rated frequency of operation with / without load | 6 / 1200 min ⁻¹ | |
| *not recommended for AC loads with arcing (CC2 according EN61810-2) | | |

Contact ratings

| Type | Load | Cycles |
|-------------------|--|---------------------|
| V23061-A1***-A302 | 8 A, 250 VAC, resistive load, 85°C, 1 mm mounting distance, 6 cycles min ⁻¹ , 50% duty factor, EN61810-1 | 100x10 ³ |
| V23061-C2***-A302 | 10 A, 250 VAC, resistive load, 85°C, 0 mm mounting distance, 6 cycles min ⁻¹ , 50% duty factor, EN61810-1 | 10x10 ³ |
| V23061-C2***-A302 | 5 A, 250 VAC, resistive load, 105°C, 0 mm mounting distance, 6 cycles min ⁻¹ , 50% duty factor, EN61810-1 | 100x10 ³ |
| V23061-A1***-A302 | TV-4 Tungsten, 120 VAC, UL508 | 25x10 ³ |
| V23061-*****-A30* | 240 VAC, A300, Pilot duty, UL508 | 6x10 ³ |

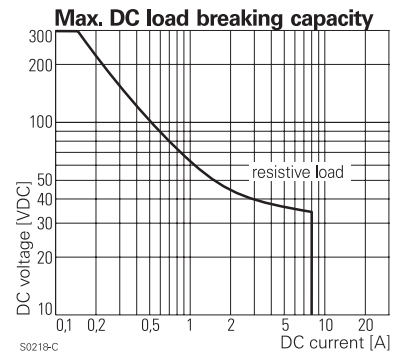
Coil data

| | |
|---|------------------|
| Rated coil voltage range DC coil | 3...60 VDC |
| Coil power DC coil | typ. 220 mW |
| Operative range | 2 |
| Coil insulation system according UL1446 | Class A, Class F |

Coil versions, DC-coil

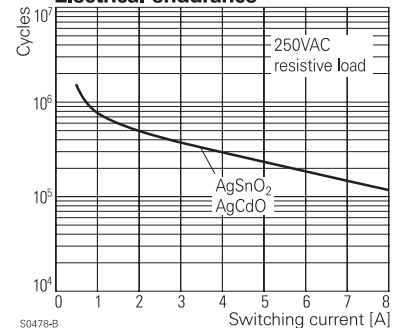
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ohm | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|---------------------|---------------------|
| 001 | 3 | 2.1 | 0.3 | 40±10% | 225 |
| 002 | 5 | 3.4 | 0.5 | 118±10% | 212 |
| 003 | 6 | 4.1 | 0.6 | 165±10% | 218 |
| 004 | 9 | 6.1 | 0.9 | 364±10% | 223 |
| 005 | 12 | 8.2 | 1.2 | 652±10% | 221 |
| 007 | 24 | 16.3 | 2.4 | 2270±10% | 254 |
| 009 | 48 | 32.6 | 4.8 | 8790±10% | 262 |
| 010 | 60 | 40.8 | 6.0 | 15265±15% | 236 |

All figures are given for coil without preenergization, at ambient temperature +23°C
 Other coil voltages on request



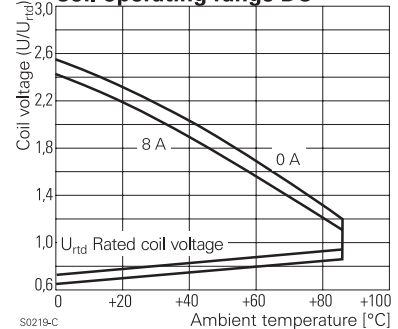
S0219-C

Electrical endurance



S0478-B

Coil operating range DC



S0219-C

Miniature Power PCB Relay MSR (Continued)

| Insulation | CO contact | NO contact |
|---|-----------------------|------------|
| Dielectric strength coil-contact circuit | 4000 V _{rms} | |
| open contact circuit | 1000 V _{rms} | |
| Clearance / creepage coil-contact circuit | ≥ 8 / 8 mms | ≥ 8 / 8 mm |
| Material group of insulation parts | IIIb | IIIb |
| Insulation to IEC 60664-1 | | |
| Type of insulation coil-contact circuit | reinforced | reinforced |
| open contact circuit | functional | functional |
| Rated insulation voltage | 250 V | 250 V |
| Pollution degree | 3 | 2 |
| Rated voltage system | 230 V | 400 V |
| Overvoltage category | III | III |

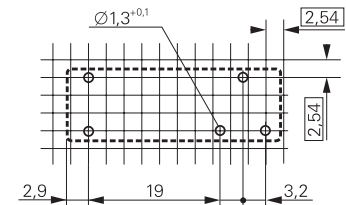
Other data

| | |
|---|---|
| RoHS - Directive 2002/95/EC | compliant as per product date code 0404 |
| Flammability class according to UL94 | V-0 |
| For WG version: GWFI to IEC 60335-1 | > 850 °C |
| GWIT to IEC 60335-1 | > 775 °C |
| Ambient temperature range | -40...+85°C |
| Operate- / release time | 6 / 2,5 ms |
| Bounce time NO / NC contact | 0,5 / 4 ms |
| Vibration resistance (function) NO / NC contact | 10 / 4 g |
| Shock resistance (function) NO / NC contact | 20 / 5 g |
| Shock resistance (destruction) | 100 g |
| Category of protection | RTII-flux proof; RTIII- wash tight |
| Mounting | pcb |
| Mounting position | any |
| Minimum mounting distance | 0 mm |
| Resistance to soldering heat flux-proof version | 270°C / 10 s |
| wash-tight version | 260°C / 5s |
| Relay weight | 11 g |
| Packaging unit | 20 / 1000 pcs |

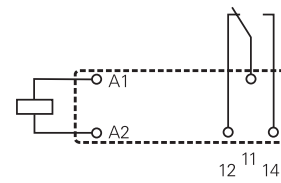
PCB layout / terminal assignment

Bottom view on solder pins

1 CO contact, 3,2 mm

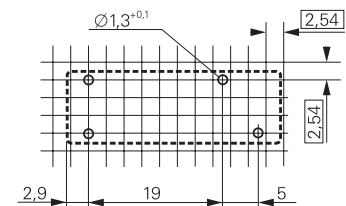


S0255-AA

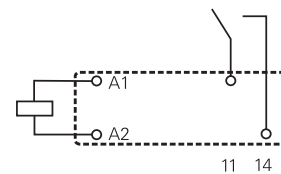


S0255-AB

1 NO contact, 5 mm



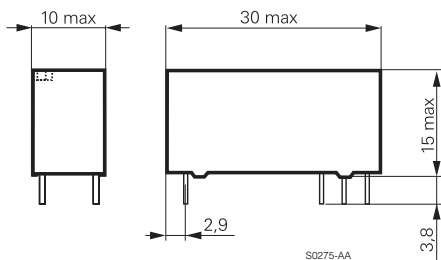
S0255-AH



S0255-AI

Dimensions

1 CO contact, 3,2 mm



1 NO contact, 5 mm

