

## SGR-PCB RELAYS 451

No. of contacts: **1 CO**  
 Rated current: **10 A**  
 Inrush current: **20 A**

### Order description

SGR 451 ...VDC

### Contact data

Contact material	AgCdO
Type of contact	Single contact
Rated switching capacity	250 VAC 10A AC1 2500 VA
Max. switching voltage	400 VAC
Electrical life	approx. 50.000 operations 250 VAC 10 A
Contact resistance	< 50 mΩ

### Coil data

Nominal voltages	3-5-6-9-12-18-24-36-48-60-110 VDC
Pick-up voltage	approx. 0,7 x Nominal voltage (at 20 °C)
Power consumption	typically 250 mW

### Options

Contact material AgSnO<sub>2</sub> / AgNi / ...+AU  
 SGR 451 ...VDC ASO  
 SGR 451 ...VDC AN  
 SGR 451 ...VDC ...+AU  
 Sealed IP 67  
 SGR 451V ...VDC ...  
 Light current model  
 SGR 451I ...VDC  
 Remanence model  
 SGR 451R ...VDC

### General data

Mechanical life	30 x 10 <sup>6</sup> Operations
Max. switching frequency	450 Operations/h
Operate time	typically 8 ms
Release time	typically 5 ms
Bounce time	typically 3 ms
Vibration resistance	10 g (10-55 Hz)
Test voltage coil-contact	4.000 V <sub>eff</sub>
Test voltage contact open	1.000 V <sub>eff</sub>
Weight	11,5 g
Ambient temperature	-40°C - +85°C (125°C)
Temperature of soldering bath	270°C / 5 s
Protection category	IP 40

### Accessories

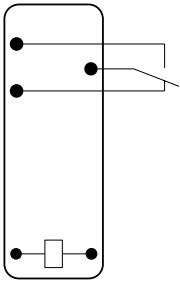
PCB mounting socket  
 ZVR 005

### Tests, regulations

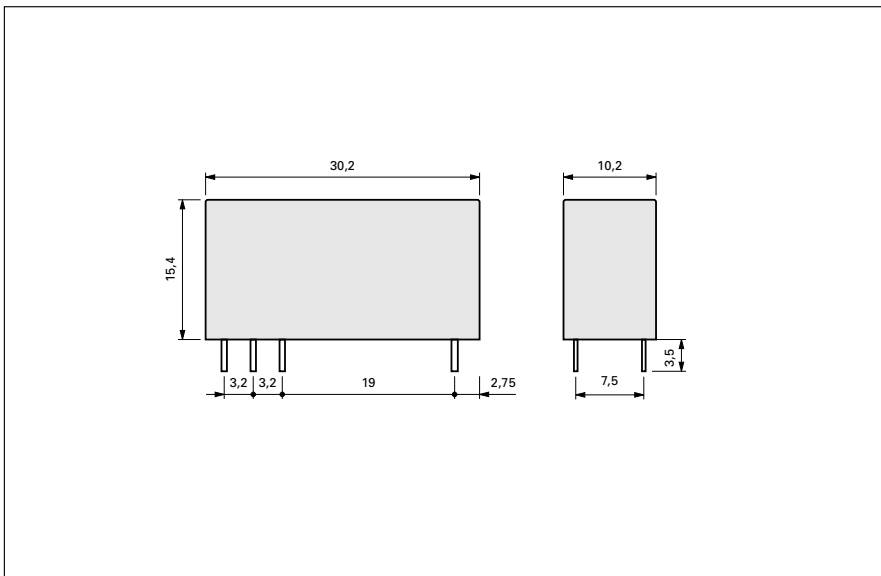
Approvals	on request
Insulation group	C/250
Creeping and leakage distance	10 mm

**Diagram**

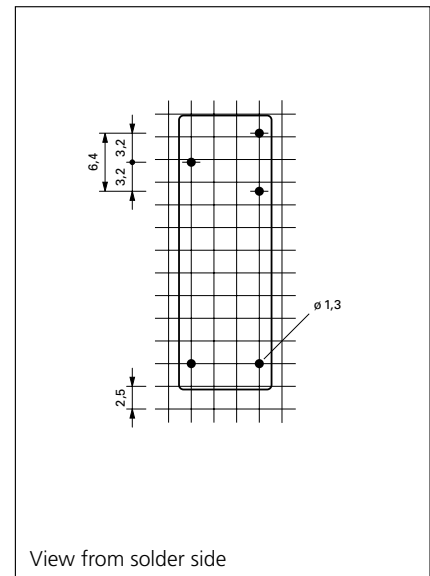
View from above



**Dimensions drawing (mm)**

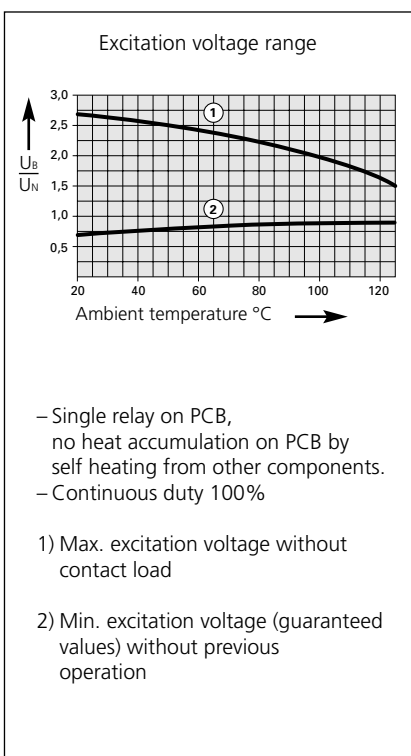


**Drilling pattern (mm)**



View from solder side

**Coil data**



**Standard coil for direct current (other voltages on request)**

Nominal voltage VDC	Min. pick-up voltage at 20°C	Drop-out voltage at 20°C	Nominal current mA	Resistance Ohm at 20°C	Tolerance %
3	2,2	0,3	73,17	41	10
5	3,5	0,5	45,45	110	10
6	4,2	0,6	40,00	150	10
9	6,5	0,9	25,00	360	10
12	8,4	1,2	18,18	660	10
18	13,0	1,8	12,86	1.400	15
24	16,8	2,4	10,91	2.200	15
36	25,2	3,6	7,74	4.650	15
48	33,6	4,8	6,00	8.000	15
60	42,0	6,0	4,29	14.000	15
110	77,0	11,0	4,07	27.000	15