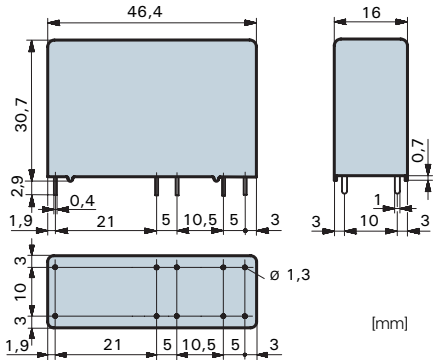


Relay data

- PCB relay with forcibly guided contacts
- Protective separation between coil/control contacts and output contacts (> 10mm) and output contacts side by side (> 8mm)
- EN 50205, type A
- Contact mounting:
SIR312P „Power“ Control contacts 1NO/1NC
Output contacts 2NO
SIR222P „Power“ Control contacts 2NC
Output contacts 2NO
- Inrush current 60A / continuous current 12A
- Mean coil power 0,75W (holding power 0.23W)



Control Contacts

Contact material	AgSnO ₂ +0,2µm Au
Rated switching capacity	250VAC 6A AC1 1'500VA
Electr. life AC1 (360 cycles/h)	approx. 100'000
Inrush current max.	15A for 20ms
Switching current range*	5mA to 6A
Switching capacity range*	60mW to 1'500W (VA)
Contact resistance (as delivered)	≤ 100mΩ

* Guide values

Output contacts

Contact material	AgSnO ₂
Rated switching capacity	250VAC (440VAC) 12A AC1 3'000VA
Electr. life AC1 (360 cycles/h)	approx. 250'000
Inrush current max.	60A for 20ms
Switching current range*	10mA to 12A
Switching capacity range*	120mW to 3'000W (VA)
Contact resistance (as delivered)	≤ 100mΩ

* Guide values

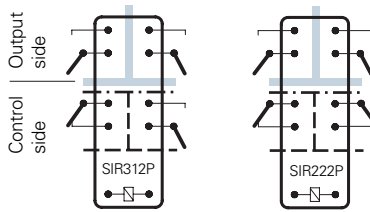
Standard coils for direct current (examples)

other voltages on request

Nominal voltage VDC	Min. pick-up voltage at 20°C VDC	Drop-out voltage at 20 °C VDC	Nominal current in mA	Resistance in Ohm at 20 °C	Tolerance in %
5	≤ 3.5	≥ 0.5	151.0	33	± 10
12	≤ 8.4	≥ 1.2	63.1	190	± 10
20	≤ 14.0	≥ 2.0	37.7	530	± 10
24	≤ 16.8	≥ 2.4	31.5	760	± 10
48	≤ 33.6	≥ 4.8	15.7	3'050	± 10
60	≤ 42.0	≥ 6.0	12.5	4'800	± 10
110	≤ 77.0	≥ 11.0	6.8	16'000	± 15

General data

Circuit diagram (view on relay upper side)



- - - - Basic insulation
- ▬ Double or reinforced insulation
- · - · - EEx insulation

Mechanical life	> 10 x 10 ⁶ operations
Switching frequency, mechanical	15Hz
Response time	typically 15ms
Drop-out time**	typically 4ms
Bounce time of NO contact	typically 6ms
Bounce time of NC contact	typically 12ms
Shock resistance	16ms NO contact 17g NC contact 7g

Vibration resistance	NO contact 10g NC contact 4,5g
Test voltage	
coil/control contacts	2'500Veff 1min
Test voltage	5'000Veff 1min
coil-control contacts/output contacts	

Test voltage output contacts	
as against each other	4'000Veff 1min
Test voltage contact open	1'500Veff 1min
Insulation resistance	10 ¹¹ Ω
Creeping resistance	CTI 250
Weight	approx. 32g
Mounting position	any
Ambient temperature	-40°C to +70°C
Type of protection	RT II
Solder bath temperature	270 °C/5s
Thermal resistance	55K/W
Temperature limit for coil	120°C

Pollution degree	3
Overvoltage category	III
Resistance to short circuiting 1'000A SCPD 6A control contacts	gG (pre-fuse)
Resistance to short circuiting 1'000A SCPD 16A output contacts	gL/gG (pre-fuse)

** without spark suppression

Insulation terms

Coil to control contacts: Basic insulation

Coil/control contacts to output contacts:

Double or reinforced insulation

EEx insulation > 10mm

Output contacts as against each other:

Double or reinforced insulation > 8mm

Tests, regulations

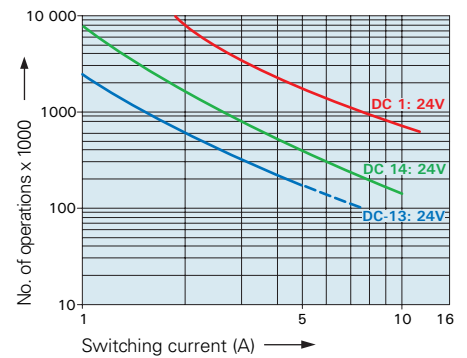
Approvals	SEV, UL, cUL, TÜV
Insulation class	VDE 0110 / group C 250VAC
Protection class II	VDE 0106
Fire protection requirements	UL 94 / V0

Options, accessories

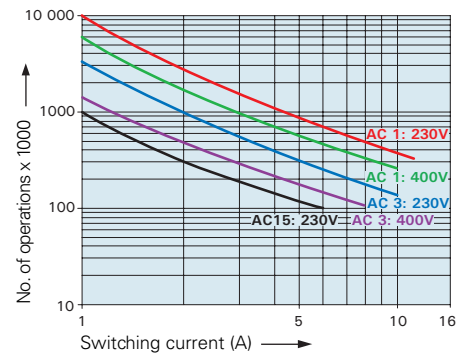
PCB socket: washproof version RT III (IP67)

Diagrammes

contacts each with (output contacts)

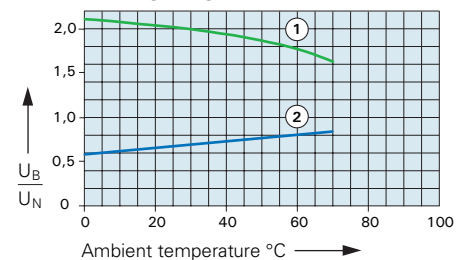


Contact lifetime (output contacts)



Maximal contact load at AC 1 with 230V:
2 contacts each with 12A

Excitation voltage range



- 1) Max. excitation voltage with contact load ≤ 2A control contacts / ≤ 10A output contacts
- 2) Min. excitation voltage (guaranteed values) without previous operation

No heat accumulation due to intrinsic heating of other components.
Continuous duty 100%.

Ordering example

SIR 3 1 2 P 24VDC RT III

- 3: Number of NO contacts
- 1: Number of NC contacts
- 2: Type designation
- P: Power version
- 24VDC: Coil voltage
- RT III: washproof version

