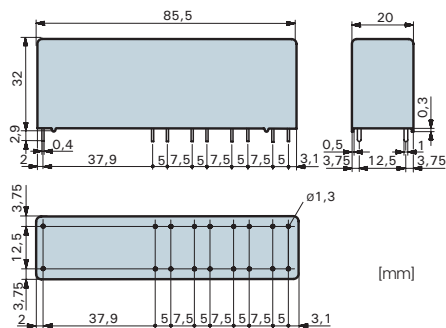




## Relay data

- PCB relay with forcibly guided contacts
- Protective separation between coil and output contacts (> 10mm) and contacts in one row (> 8mm) and as left to right contact side (> 10mm)
- EN 50205, type A
- Contact mounting: SIR442 4NO/4NC  
SIR262 2NO/6NC SIR532 5NO/3NC  
SIR352 3NO/5NC SIR622 6NO/2NC
- Small external dimensions
- Mean coil power 1.3W
- Holding power 0.39W
- For Railway Applications: EN 50155



Contact material	AgSnO <sub>2</sub> +0,2µm Au
Type of contact	Crest contact
Rated switching capacity	250VAC 10A AC1 2'500VA
Electr. life AC1 (360 cycles/h)	approx. 100'000
Inrush current max.	25A for 20ms
Switching voltage range	5 to 250 VDC/VAC
Switching current range*	10mA to 10A
Switching capacity range*	0,06VA(W) to 2'500VA
Contact resistance (as delivered)	<100mΩ/28 V/100mA

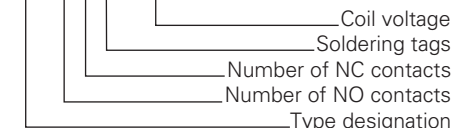
\* Guide values

## Standard coils 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 in mA	Resistance in Ohm at 20 °C	Tolerance in %
6	4,2	≥ 0,6	218	275	± 10
12	8,4	≥ 1,2	109	110	± 10
18	13,5	≥ 1,8	72	250	± 10
24	16,8	≥ 2,4	54,5	440	± 10
48	33,6	≥ 4,8	27,2	1'760	± 10
60	42,0	≥ 6,0	11,8	2'750	± 10
110	77,0	≥ 11,0	6,8	9'250	± 13
220	154,0	≥ 22,0	5,9	37'000	± 15

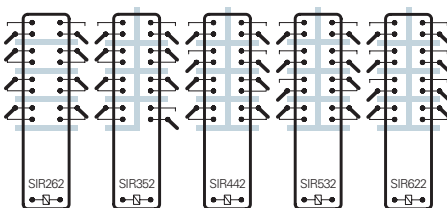
## Ordering example

**SIR 3 5 2 24VDC**



## General data

### Circuit diagram (view on relay upper side)



Double or reinforced insulation

Mechanical life	> 10 x 10 <sup>6</sup> 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 > 10g NC contact 6g
Vibration resistance	10-200Hz NO contact > 5g NC contact 2g
Test voltage	5'000Veff 1min
coil- contacts	
Test voltage contacts	
as against each other	4'000Veff 1min
Test voltage contact open	1'500Veff 1min
Insulation resistance	10 <sup>11</sup> Ω
Creepage resistance	CTI 250
Weight	approx. 60g
Mounting position	any
Ambient temperature	-40°C to +70°C
Type of protection	RT II
Solder bath temperature	270 °C/5s
Thermal resistance	40K/W
Temperature limit for coil	125°C
Pollution degree	2
Overvoltage category	III
Resistance to short circuiting	1'000A SCPD 10A gG (pre-fuse)

\*\* without spark suppression

### Insulation terms

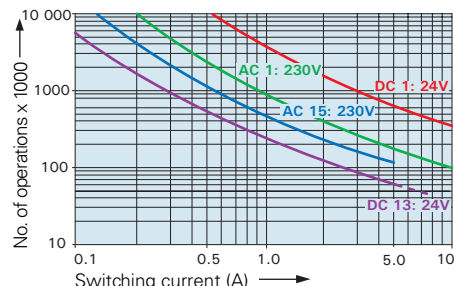
- Coil to contacts: Double or reinforced insulation > 10mm
- All contacts in one row: Double or reinforced insulation > 8mm
- All contacts as left to right contact side: Double or reinforced insulation > 10mm

### Tests, regulations

Approvals	SEV, UL, cUL, TÜV
Insulation class IEC 60664-1	250VAC
Protection class II	VDE 0106
Fire protection requirements	UL 94 / V0

## Diagrams

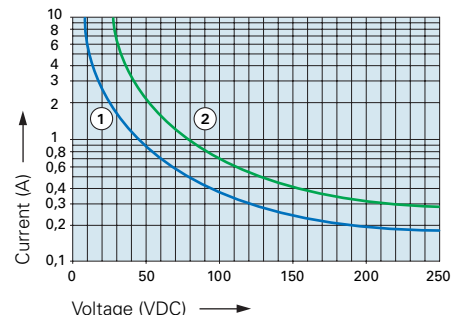
### Contact lifetime



Max. switching characteristics (determined acc. to DIN EN 60947-5-1 table C2):  
AC 15: 230V/5A  
DC 13: 24V/7.5A/0.1 Hz  
UL 508: C600/R300

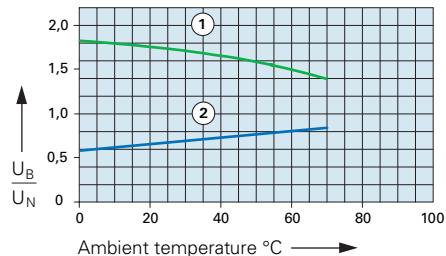
Maximal contact load at AC 1 with 230V:  
2 contacts each with 10A  
3 contacts each with 8.4A  
4 contacts each with 7.3A  
5 contacts each with 6.5A  
6 contacts each with 6A

### Load limit curve with direct current



- 1) Inductive load, L/R 40 ms
- 2) Resistive load

### Excitation voltage range



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

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