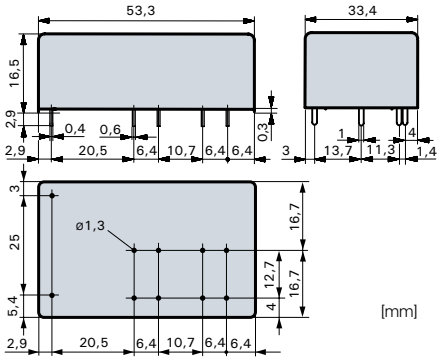
ELESTA relays

Safety without compromise

SLR 4 Contacts

Relay data

- PCB relay with forcibly guided contacts
- Protective separation between coil/control contacts and output contacts (> 8mm) as well as protective separation between the output contacts themselves (> 10mm)
- EN 50205, type A
- Contact mounting:
  SLR312 3NO/1NC
  SLR222 2NO/2NC
- Small external dimensions
- Mean coil power 0,6W



Contact material	$AgSnO_2$+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 current range*	10mA to 10A
Switching capacity range* 0,06VA(W) to 2'500VA	
Contact resistance (as delivered)	≤ 100mΩ

* Guide values

Standard coils for direct current (other voltages on request)

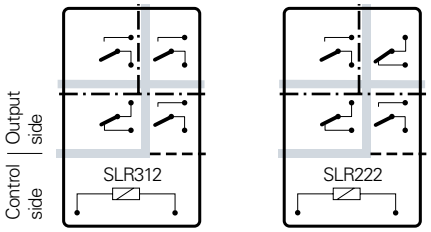
Nominal voltage VDC	Min. pick-up voltage at 20°C	Drop-out voltage at 20 °C	Nominal current in mA	Resistance in Ohm at 20 °C	Tolerance in %
5	3,5	≥ 0,5	121,0	41	± 10
6	4,2	≥ 0,6	100,0	60	± 10
12	8,4	≥ 1,2	50,0	240	± 10
24	16,8	≥ 2,4	25,2	950	± 10
48	33,6	≥ 4,8	12,6	3'800	± 10
60	42,0	≥ 6,0	10,0	6'000	± 13
110	77,0	≥ 11,0	5,5	20'000	± 15

Ordering example

SLR . . . . ——— Coil voltage
——— Soldering tags
——— Number of NC contacts
——— Number of NO contacts
——— Type designation

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 > 10g NC contact 6g
Vibration resistance 10-200Hz	NO contact > 5g NC contact 1,5g
Test voltage coil/control contacts	2'500Veff 1min
Test voltage coil-control contacts/output contacts	5'000Veff 1min
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. 30g
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 10A gG (pre-fuse)

** without spark suppression

Insulation terms

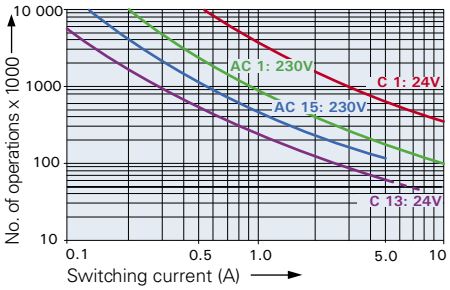
Coil/control contacts NO: Basic insulation
Coil/control contacts to output contacts: Double or reinforced insulation > 8mm
Output contacts as against each other: Reinforced insulation, EEx insulation > 10mm

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

Diagrammes

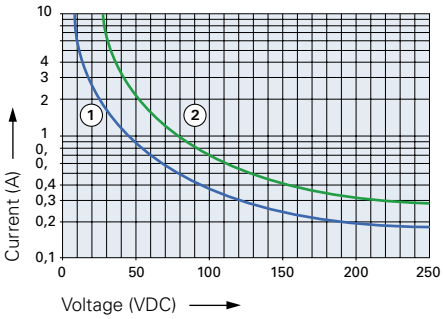
Contact lifetime



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

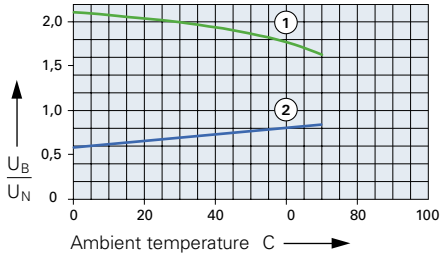
Maximal contact load at AC 1 with 230V:
2 contacts each with 10A
3 contacts each with 8,4A

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%.

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