

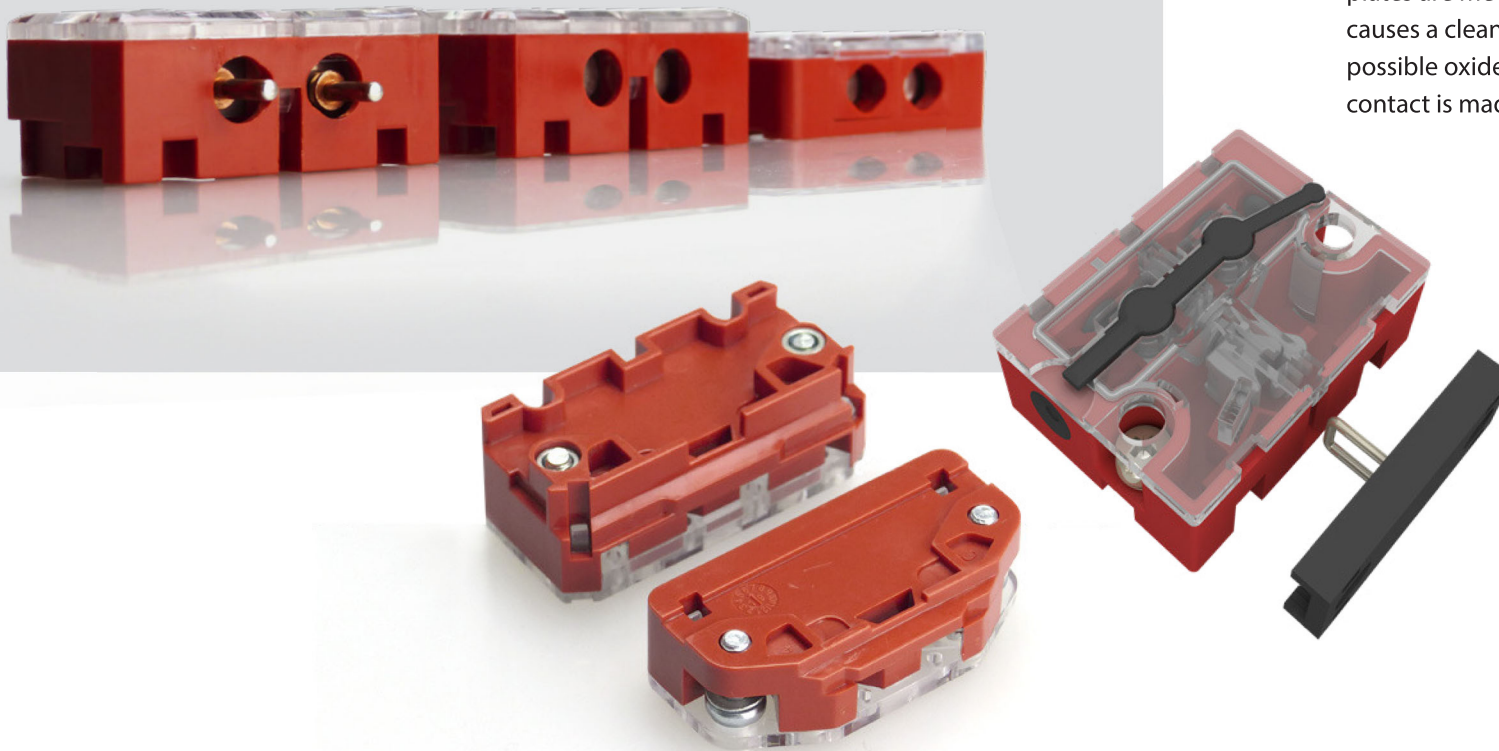
DOOR CONTACTS

A good team Door contacts of the SEL series

SEL switch family

For many years, the BERNSTEIN door contacts of the SEL series are an integral part of the lift industry. When it comes to supplying OEMs or delivering spare parts – you can find us everywhere in the world.

Due to its elastic design of the contacts, the contact plates are mechanically moved with each actuation; this causes a cleaning effect by the actuator. Dirt, dust, and possible oxide layers are rubbed away – the electrical contact is made reliably.



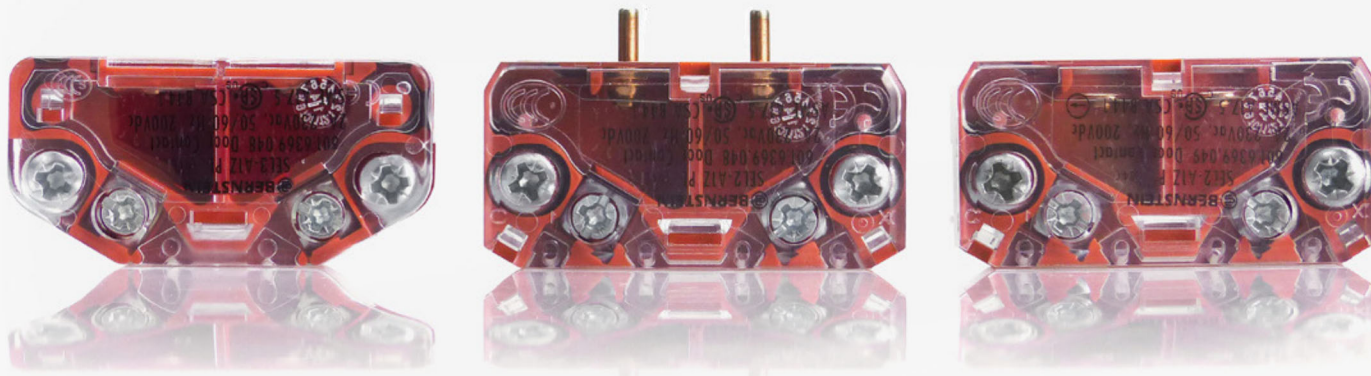
Product characteristics

The SEL1 is the basic switch with a height of 16 mm, a width of 50 mm and a depth of 24.5 mm. The fixing screws are in a usual distance of 40 mm.

The SEL2 has a height of 19 mm; the other dimensions are the same as for SEL1. Additional to the SEL1 it has an integrated cable duct on the bottom side – therefore the wires for the connection of the contacts can be led through below the door contact.

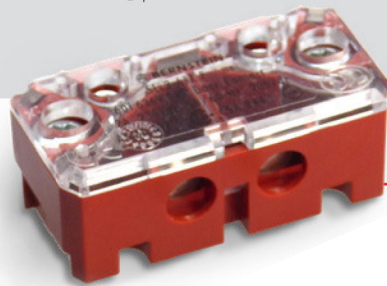
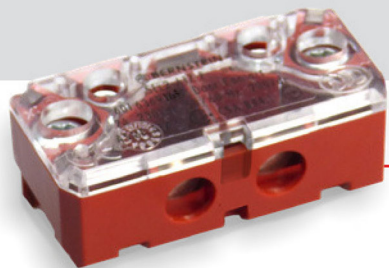
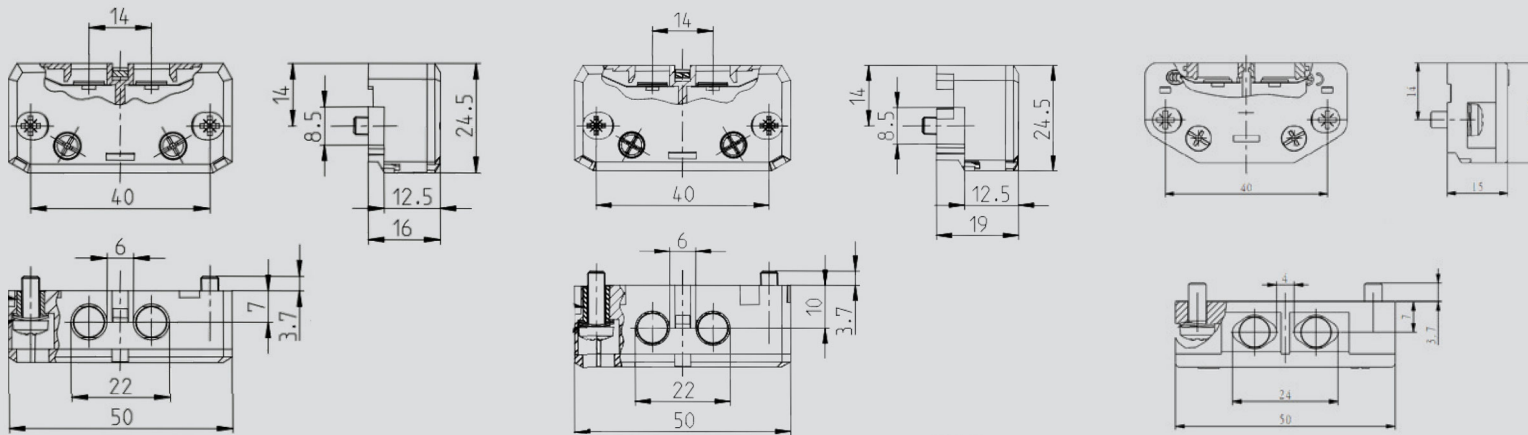
The SEL3 is the youngest member of our door contact family. It is designed similar to the SEL1. However, the lower edges were reduced here to further reduce the dimensions. It has a height of 15 mm and with this it is flatter than the SEL1 by 1 mm. The operating height of the contact plates (7 mm) as well as the fixing dimensions are the same for the two switches.

Please find the SEL1 and the SEL2 also as contact pin version PL in the BERNSTEIN product portfolio.



DOOR CONTACTS

With separated actuator Door contacts **SEL1, SEL2 and SEL3**



Technical design

- Contact plate design (Fig. left)
- PL-contact pin design (Fig. right)
 - here on the right side, using the example of SEL2



Technical data

Electrical data

Rated operating current	I_e	2 A AC / DC
Rated operating voltage	U_e	230 V AC; 200 V DC
Conventional thermoelectric current	I_{the}	4 A
Positive break	p	accor. to IEC/EN 60947-5-1, Annex K
Isolating distance – NC contacts	Ⓢ	DIN EN 81-20
Short-circuit protection device		Safety fuse 6 A gG

Mechanical data

Enclosure material	PC (UL 94-V0) red/transparent
Cover	PC (UL 94-V0) transparent/transparent
Ambient temperature	-30 °C ... to +70 °C
Type of contact	1 NC contact
Mechanical lifetime	10 × 10 ⁶ switching cycles
Switching frequency	≤ 30/min
Mounting of safety switch	2 × M4 self-tapping screws accor. to DIN 7500 captive
Type of connection	2 screwed connections (M3.5)
Conductor cross-sections	Single-wire 0.5 – 1.5 mm ² Strand with wire-end ferrule 0.5 – 1.5 mm ²
Weight	≈ 0.02 kg
Mounting position	arbitrary
Protection class	IP20 conforming to EN 60529

Standards

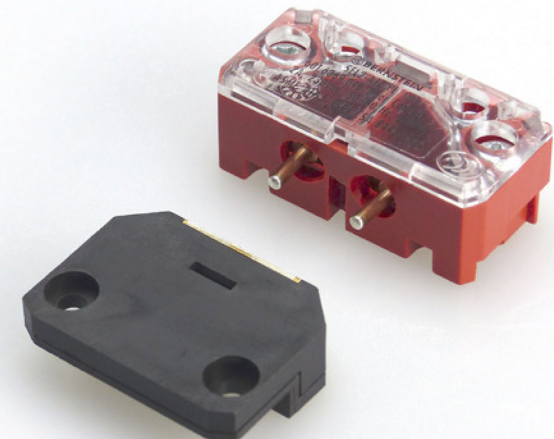
VDE VDE 0660 T100, DIN EN 60947-1, IEC 60947-1
 VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1
 EN 81-20, EN 81-50

Product characteristics

- Classical door contact with contact plates or contact pins, as well as integrated, bottom side cable duct (with SEL2)
- SEL1: 16mm height, 50mm width and 24.5mm depth
- SEL2: 19mm height, 50mm width and 24.5mm depth
- SEL3: 15 mm height, 50mm width and 24.5mm depth
- Distance of fixing screws: 40 mm
- Available as red-transparent enclosure and as overall-transparent variant

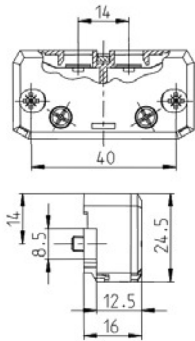
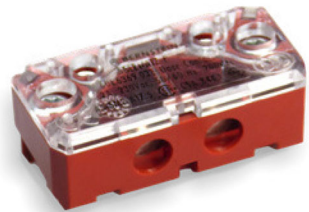
Options

- PO standard actuator
- P1 and P3 actuator with transverse mounting
- PL actuator in case of the contact pin version (Fig. on the right using the example of SEL2)
- Selection of actuator on pages 18–19



DOOR CONTACTS

SEL 1...P



1 NC contact

Transparent cover
Red enclosure

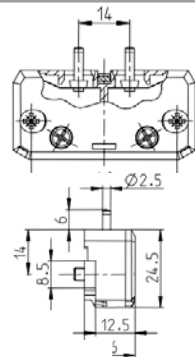
6016369045
SEL1-A1Z P

Transparent enclosure

6016369038
SEL1-A1Z P

Special features/ variants

SEL 1...PL



1 NC contact

Transparent cover
Red enclosure

6016369125
SEL1-A1Z PL0

Transparent enclosure

6016369037
SEL1-A1Z PL

Special features/ variants

Contact pins

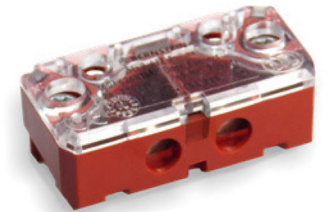
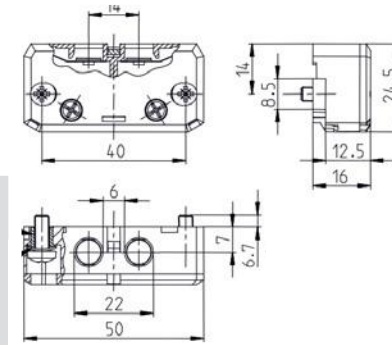


SEL 1...P with extended mounting screws

1 NC contact

Transparent cover
Red enclosure

6016369164
SEL1-A1Z P



Special features/variants

Extended mounting screws, excess length 6.7mm

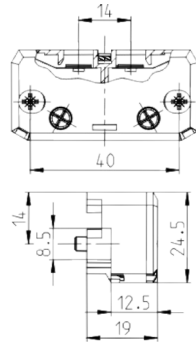
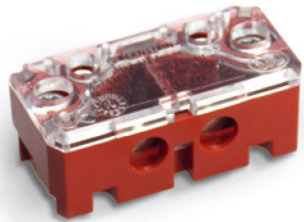


DOOR CONTACTS

SEL 2 ... P



1 NC contact



Transparent cover
Red enclosure

6016369049
SEL2-A1Z P

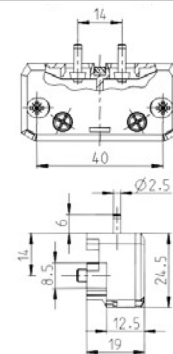
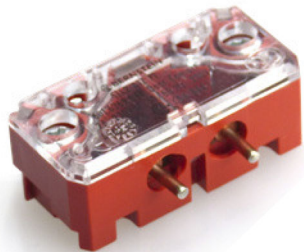
Special features/variants

Cable duct on the bottom side

SEL 2... PL



1 NC contact



Transparent cover
Red enclosure

6016369031
SEL2-A1Z PL0

Special features/variants

Contact pins, with cable duct on the bottom side

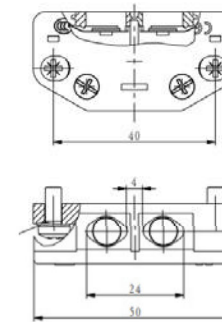


SEL 3 ... P

1 NC contact

Transparent cover
Red enclosure

6016369173
SEL3-A1Z P



Particularities/variants

Just 15mm high, inclined corners.



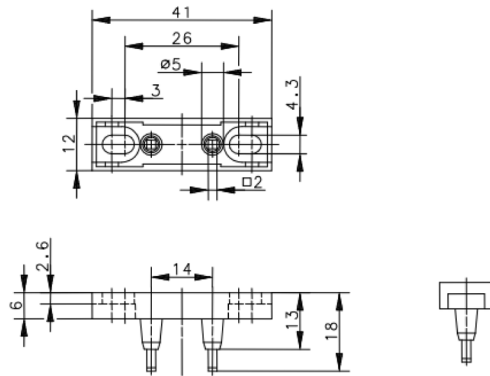
DOOR CONTACTS

SEL actuators



P0 actuator

Product range	
Article number	Designation
3911462082	P0-BET.

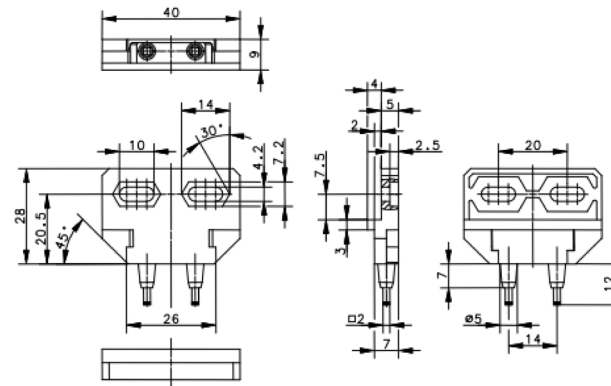


Mechanical data	
Enclosure	PA 6.6 (UL 94-V0) black
Ambient temperature	-30 °C ... +70 °C
Contact material	AgCu3 on CuNi18Zn20
Mounting	2 × M4
Weight	≈ 0.01 kg
Remarks	Actuators may not be used as end stop. Only use the door contacts of the SEL series with BERNSTEIN actuators.



P1 actuator

Product range	
Article number	Designation
3911462088	P1-BET.

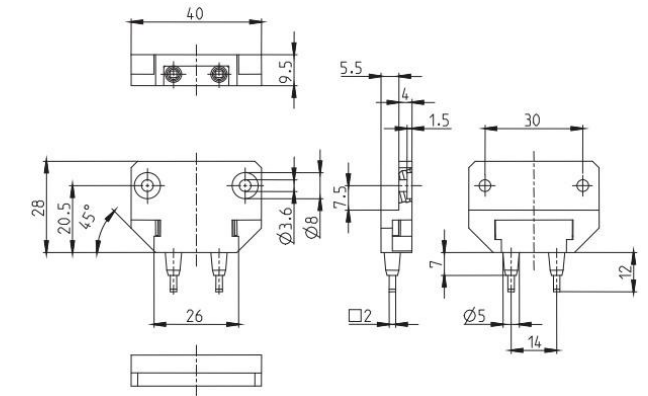


Mechanical data	
Enclosure	PA 6.6 (UL 94-V0) black
Ambient temperature	-30 °C ... +70 °C
Contact material	AgCu3 on CuNi18Zn20
Mounting	2 × M4
Weight	≈ 0.01 kg
Remarks	Actuators may not be used as end stop. Only use the door contacts of the SEL series with BERNSTEIN actuators.



P3 actuator

Product range	
Article number	Designation
3911462155	P3-BET.



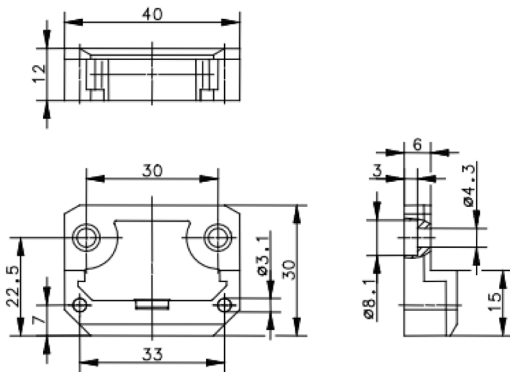
Mechanical data	
Enclosure	PA 6.6 (UL 94-V0) black
Ambient temperature	-30 °C ... +70 °C
Contact material	AgCu3 on CuNi18Zn20
Mounting	2 × M4
Weight	≈ 0.01 kg
Remarks	Actuators may not be used as end stop. Only use the door contacts of the SEL series with BERNSTEIN actuators.



PL actuator

Product range

Article number	Designation
3911462094	PL1-BET.



Mechanical data

Enclosure	PA 6.6 (UL 94-V0) black
Ambient temperature	-30 °C ... +70 °C
Contact material	AgCu3 on CuNi18Zn20
Mounting	2 × M4
Weight	≈ 0.01 kg
Remarks	Actuators may not be used as end stop. Only use the door contacts of the SEL series with BERNSTEIN actuators.

Did you know that ...

... door contacts, in addition to the driving contactors, are the most actuated switchgear in a lift?

... the door contacts in the car door are integrated in the active safety circuit and are actuated with each travel?

... our door contacts have a mechanical lifetime of >10.000.000 operations? If a lift would make approx. 1.000 travels per day, the door contacts can be used for more than 27 years before they reach their mechanical end of life.

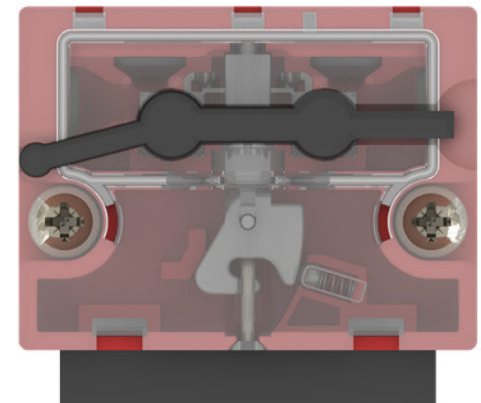
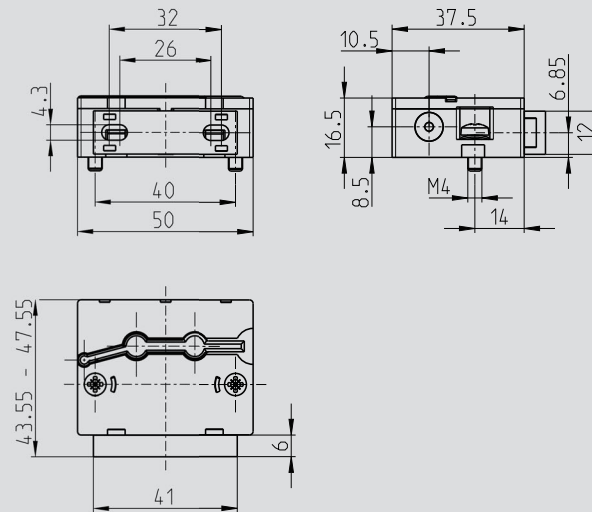
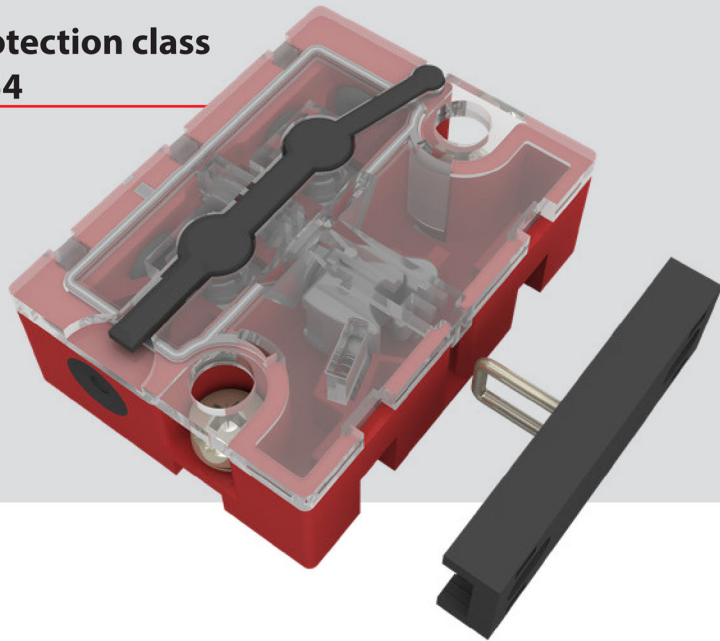


DOOR CONTACTS

High protection class in all mounting positions Door contact SEL54

NEW

Protection class
IP54



Product characteristics

- Protection class IP54
- Compact size 50 x 37.5 x 16 mm
- High reliability at low currents (1mA)
- Minimized contact resistance down to 25 mOhm (unused), great benefits for series connection
- Self-cleaning contacts
- Positive break contacts
- Separate actuator

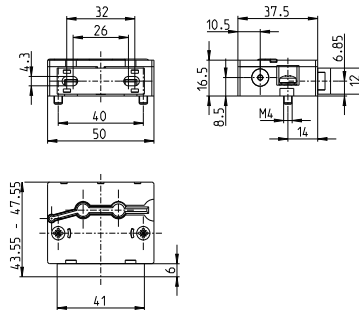
SEL54



1 NC contact

Transparent cover
Red enclosure

6016369188
SEL54-A1Z PC0-S



Special features/variants

Technical data

Electrical data

Rated insulation voltage	U_i	400 V
Rated impulse withstand voltage	U_{imp}	4 kV
Conventional thermal current	I_{the}	4 A
Rated operating voltage	U_e	230 V AC
Rated operating current	I_e	1 A
Utilization category		AC 15, U_e/I_e 230 V / 1 A
Short-circuit protective device		Safety fuse 4 A gG
Positive break	\rightarrow	acc. to IEC/EN 60947-5-1, Annex K
Minimum current		1 mA for 24VDC
Max. contact resistance		25 mOhm (unused)

Mechanical data

Enclosure material		PA, self-extinguishing
Cover		PC transparent, self-extinguishing
Actuator		The actuator is included in the scope of delivery
Ambient temperature		-30 °C to +70 °C
Type of contact		1 N.C.
Mechanical lifetime		10 x 10 ⁶ operating cycles (pending)
Switching frequency		≤ 60/min.
Mounting	Safety switch	2 x M4 thread rolling captive screws according to DIN 7500
	Actuator	2 x M4
Type of connection		2 screw connections, bottom connection (M3)
Conductor cross-sections		Solid wire: 0.34 - 1.5 mm ² or Strand with wire-end ferrule: 0.34 - 1.5 mm ²
Weight		≈ 0.03 kg
Mounting position		arbitrary
Protection class		IP54 acc. to EN 60529