

MAYSER®

Polymer Electric



Product Information



DIY SE 1 TPE spring contact

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Materials list

Part no.	Designation	PE
7500270	Contact tube SE 1 TPE, 18 mm	50 m
1004064	Spring contact PCB with 0.4 m cable incl. end cap and sealing ring (round)	10 pcs.
1004065	Spring contact PCB with 2.5 m cable incl. end cap and sealing ring (round)	10 pcs.
1004063	Spring contact PCB with resistor 8k2	10 pcs.
7501212	End cap for resistor end	10 pcs.
1002606	Sealing ring (oval)	20 pcs.
7501927	Tongs with tool insert for sealing rings	1 pc.
7501928	Service case with tongs 7501927 and Assembly Instructions 7501800 and 7501801	1 pc.
7501800	Assembly instructions, German	1 pc.
7501801	Assembly instructions, English	1 pc.
7501931	Assembly instructions, French	1 pc.

Application

The complete Safety Element SE 1 TPE is inserted into a suitable rubber profile and is optimized for the rubber profiles GP 38, GP 58, GP 68 and GP88.

If another rubber profile is used, it is to be ensured that the rubber profile does not exert any pressure on the contact tube in the unloaded state.

If the Safety Element SE 1 TPE is used without a rubber profile, secure attachment is to be ensured.

Resistances

Physical resistance

Safety Element SE 1	TPE
IEC 60529: Degree of protection Hardness as per Shore A	IP65 55 ±5

Subject to technical modifications.

Chemical resistance

The Safety Element is resistant against normal chemical influences such as diluted acids and alkalis as well as alcohol over an exposure period of 24 hrs.

The information in the table are results of tests carried out in our laboratory to the best of our knowledge and belief. The suitability of our products for your special area of application must always be verified with your own practical tests.

Safety Element SE 1	TPE
Acetone	-
Formic acid	-
Armor All	+
Car shampoo	+
Petrol	-
Brake fluid	+
Buraton	+
Butanol	-
Sodium hypochlorite	-
Disinfectant	+
Diesel	-
Acetic acid 10 %	-
Ethanol	+
Ethyl acetate	-
Ethylene glycol	+
Greases	±
Anti-frost agent	+
Skin cream	+
Icidine	+
Incidin	+
Incidin plus	+
Cooling lubricant	-
Plastic cleaner	+
Lyso FD 10	+
Metal working oil	-
Microbac	+
Microbac forte	+
Minutil	+
Saline solution 5 %	+
White spirit (ethyl alcohol)	+
Terralin	+
UV-resistance	+
Centring oil	-

Explanation of symbols:

+ = resistant

± = partially resistant

- = not resistant

Note:

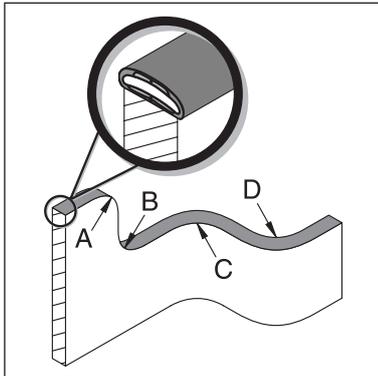
Tests are carried out at room temperature (+23 °C).

Technical data

Safety Element SE 1 TPE manufactured
with resistor for 2-wire technology or
without resistor for 4-wire technology.



Bend radii:



Switching characteristics at $v_{\text{test}} = 50 \text{ mm/s}$	
Switching operations	$> 1 \times 10^5$
Actuating force	+23 °C -25 °C
Test piece (rod) Ø 4 mm	$< 20 \text{ N}$ $< 30 \text{ N}$
Test piece (rod) Ø 200 mm	$< 30 \text{ N}$ $< 50 \text{ N}$
Switch travel	
Test piece (cylinder) Ø 80 mm	$< 3.0 \text{ mm}$
Actuation angle	
Test piece (cylinder) Ø 80 mm	$< 50^\circ$
Mechanical operating conditions	
Safety Element length (min./max.)	100 mm / 50 m
Bend radii, minimum	
A / B / C / D	350 / - / - / - mm
Tensile load, cable (max.)	60 N
IEC 60529: Degree of protection	IP65
Operating temperature	
short-term	-25 to +80 °C
	-40 to +100 °C
Behaviour in fire	
as per DIN 75200	ca. 40 mm/min
also complies with	limit values of the StVZO, TA 29
Electrical operating conditions	
Terminal resistance 8k2	$\pm 3\%$
Output	max. 250 mW
Contact transition resistance	$< 400 \text{ Ohm}$ (per sensor)
Several Safety Elements	5 in series max.
Switching capacity (max.)	250mW
Electrical rating	
Voltage (max.)	DC 24 V
Current (min./max.)	1 mA / 30 mA
Connection cable	Ø 3.7 mm TPE 2x 0.22 mm ²
Chemical resistance (see page 3)	
	The Safety Element is resistant to normal chemical influences over a period of exposure of 24 hours (see p. 3).
Dimensional tolerances	
Length as per	ISO 3302 L2
Profile section as per	ISO 3302 E2