

# Switching element - New Version

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704.912.5-1



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## 704.912.5-1 Switching element - New Version

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### ELECTRICAL CHARACTERISTICS

#### Switching voltage and switching current:

as per DIN EN IEC 60947-5-1		
voltage	DC13	AC15
24 V	4.0 A	8.0 A
60 V	1.5 A	8.0 A
110 V	1.0 A	
120 V		8.0 A
230 V	0.4 A	7.0 A
400 V	0.2 A	5.0 A
500 V	0.15 A	4.0 A
as per UL 60947-5-1		
voltage	power	
24 VDC	4.0 A, Pilot duty	
60 VDC	1.5 A, Pilot duty	
120 VDC	1.0 A, Pilot duty	
240 VDC	0.4 A, Pilot duty	
415 VDC	0.2 A, Pilot duty	
480 VDC	0.14A, Pilot duty	
120 VAC	8.0 A, Pilot duty	
240 VAC	7.0 A, Pilot duty	
415 VAC	5.0 A, Pilot duty	
480 VAC	4.0 A, Pilot duty	
For voltages greater than $U_e = 400$ V, the grid dimensions must not be less than 35 mm x 50 mm.		

**Contacts:** 1 NC / 1 NO

**Rated impulse withstand voltage  
 $U_{imp}$ :** 4 kV

**Rated insulation voltage  $U_i$ :** 500 V

#### Recommended minimum operational data:

Gold-silver contacts		
Voltage	24 VDC	110 VDC
Current	5 mA	2 mA
Hard silver contacts		
Voltage	24 VDC	110 VDC
Current	50 mA	10 mA

**Switching rating:** 500 V AC @ 10 A

**Electrical lifetime:** 50 000 cycles of operation (500 VAC, 10 A)

**Pollution degree:** 3

**Standards:** The switches comply with the "Standards for low-voltage switching devices" DIN EN IEC UL 60947-5-1

**Thermal current I<sub>th</sub>:** Max. current as per EN IEC 60947-5-1 10 A

## MECHANICAL CHARACTERISTICS

**Terminal:** Screw terminal

**Contact material:** Palladium

**Switching system:** Slow-make switching element

**Switching system:** The double-break, slow-make switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. The normally closed contact has forced opening. Slow-make contacts with forced action are ideal for high switch ratings.

**Operating force:** 1 Normally closed approx. 2 N, 1 Normally open approx. 3 N

**Tightening torque:** Screw terminal 0.8 Nm

**Wire cross section:** Wire cross-section 0.75 ... 2.5 mm<sup>2</sup> / AWG 18 to AWG 14  
Skinning wire 10 mm  
Max. number of wires: 2  
Wire cross-section of stranded cable 0.5 ... 1.5 mm<sup>2</sup> / AWG 24 to AWG 18  
use stranded wires only with wire end ferrules of 10 mm length  
Max. number of stranded cables: 2  
Only one polarity is allowed on each side when wiring.

**Weight:** 0.031 kg

## AMBIENT CONDITION

**IP Protection:** IP20

**Operating temperature:** – 40 °C ... + 55 °C

**Storage temperature:** – 40 °C ... + 85 °C

**Shock resistance:** (single impacts, semi-sinusoidal) 300 m/s<sup>2</sup>, pulse width 18 ms, as per DIN EN 60068-2-27

**Vibration resistance:** (sinusförmig) 100 m/s<sup>2</sup> bei 10 Hz...500 Hz, nach DIN EN 60068-2-6, Erhöhtes Breitbandrauschen nach DIN EN 61373, Klasse 1B

**Climate resistance:** Relative humidity 10 %rh ... 95 %rh (non-condensing) original packaging according to DIN EN IEC 60721-3-1 Class 1C1

## CERTIFICATE

**Approbations:** CB (IEC 60947-5-1), cULus, DNV, VDE

**Conformities:** CE, CCC, UKCA

**REACH:** REACH compliant

**RoHS:** RoHS compliant

**OTHER**

**Short Description:**

Switching element - New Version, Slow-make switching element, 500 V AC @ 10 A, Palladium, 1 NC / 1 NO, Screw terminal

**Hints:**

When using the switching element, the application guidelines must be observed. For the third switching element the terminal marking insert is to be ordered separately

Operating temperature: Other temperatures on request

A suitable enclosure is required for applications with increased protection requirements. In North America, the product must be installed in an enclosure in accordance with UL 50E Type 2 or higher.

**Special requirements:**

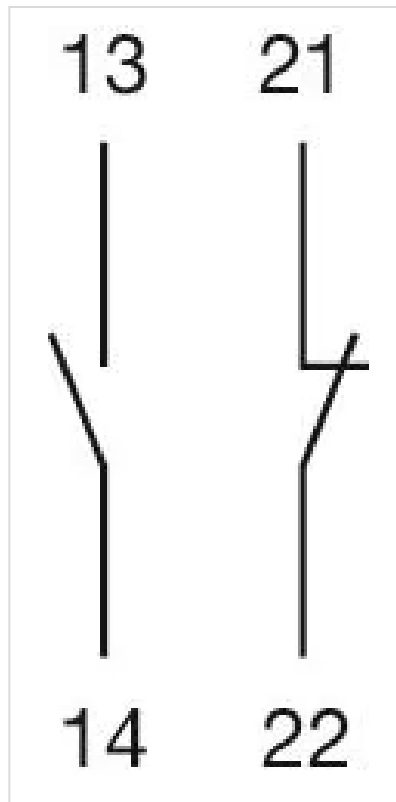
Special requirements for positive-opening auxiliary current switches  
Positive opening travel

Minimum force

Max. travel

Emerg  
Emerg  
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Emerg

**Wiring diagrams:**



**Dimension drawings:**

