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## SN04D12-2514-M (ORDER NO. 090525)

### Series SN... 12 mm mechanical

- ▶ Plunger spacing 12 mm
- ▶ Upright housing, small flange
- ▶ Degree of protection IP67 according to IEC 60529



### Description

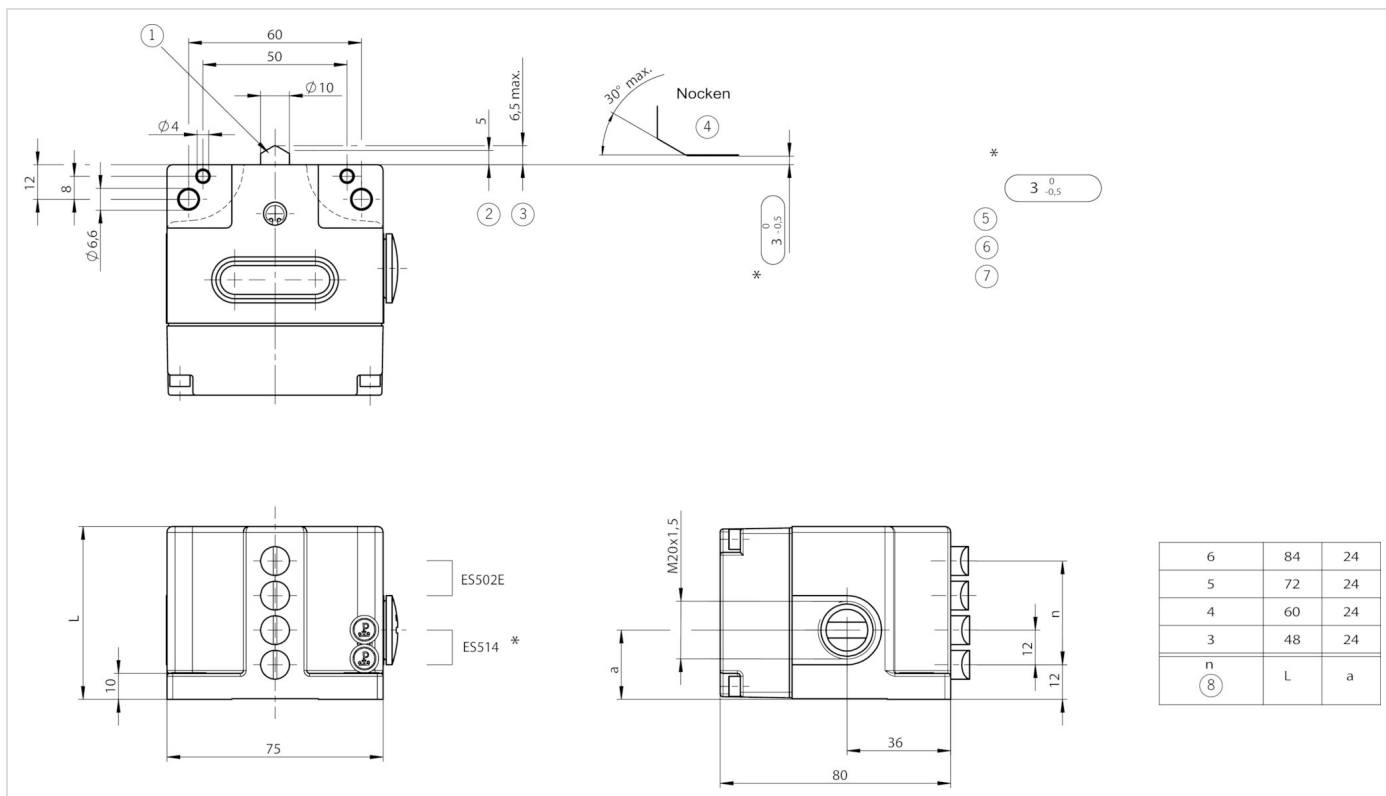
#### Switching elements

ES 502 E Snap-action switching contact 1 NC + 1 NO

ES 514 Snap-action switching contact 1 NC $\rightarrow$  + 1 NO

On the usage of safety switching elements, the dog distance (3.0.5) must be maintained to achieve the positively driven travel. The dogs must be positively mounted according to EN ISO 14119, i.e. riveted, welded or secured in some other way against becoming loose.

#### Dimension drawing



1 Depending on version

2 Operating point

3 Free position

4 Dog

\* Safety switching element ES514 positive opening. Positive opening function is dependent on maintaining this distance.

5 Actuators (dogs) must be connected to the machine in a flush position.

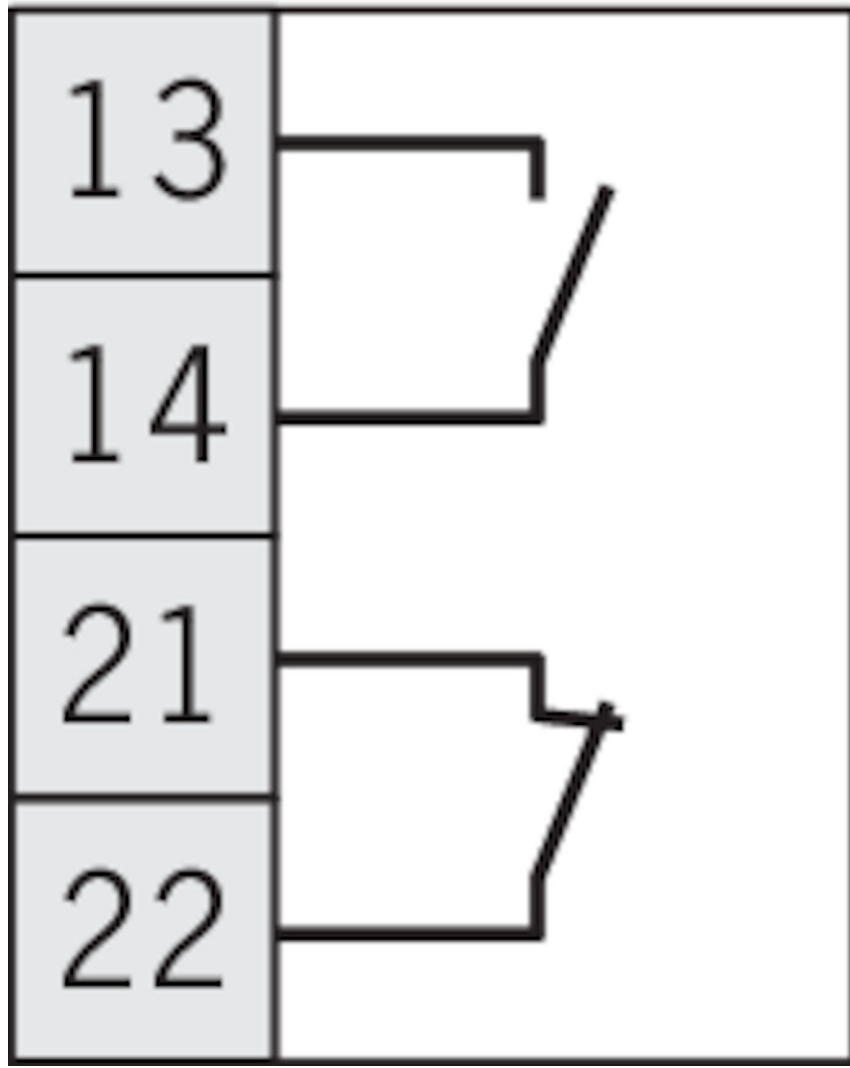
6 Switch can be replaced only with the same type.

7 Pressure sensitive label 041734 applied.

8 Number of plungers

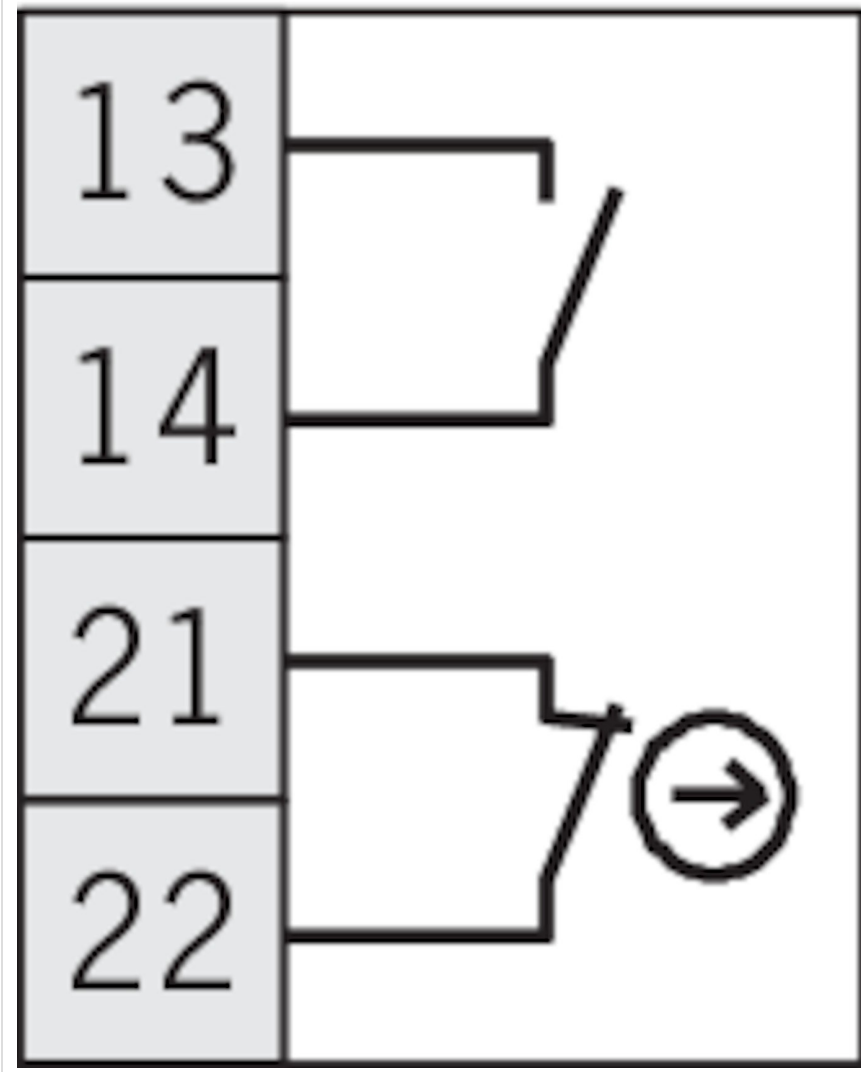
## Wiring diagram

# ES 502 E



Wiring diagram

# ES 514



Technical data

Approvals

**EAC**

Mechanical values and environment

Design	Upright
Housing material	
	Housing Die-cast aluminum, anodized
Weight	
	Net 0,5 kg
Ambient temperature	-5 ... 80 °C
Degree of protection	IP67
Mechanical life	1 x 10 <sup>6</sup>
Contact material	Silver alloy, gold flashed
Switching principle	
	Snap-action switching contact (Contact closing time < 4 ms contact bounce time < 3 ms, applies from station 3 with switching element ES502E)
	Snap-action switching contact (Contact closing time ≤ 5ms, contact bounce time ≤ 3ms, applies for station 1-2 with switching element ES514)
Plunger spacing	12 mm
Installation orientation	Any
Number of switching elements	4
Number of positively driven contacts	2
Number of NC contacts	2
Number of NO contacts	4
Connection	
	2 x M20 x 1.5
Approach speed	0,01 ... 40 m/min
Actuating element	Chisel plunger (Operating point accuracy ± 0.002. The reproducible switching point accuracy refers to the axial travel of the plunger after the switching element ES 502 E has been run-in with approx. 2000 operating cycles.)
Actuating force	min.30 N

## Electrical connection ratings

Thermal rated current $I_{th}$	8 A
Utilization category acc. to EN 60947-5-1	
	AC-15 6A 250V (Applies from station 3 with switching element ES502E)
	2.5A 230V (Applies for station 1-2 with switching element ES514)
	DC-13 6A 24V
	AC-12 8 A, 250 V (Applies from station 3 with switching element ES502E)
Short circuit protection according to IEC 60269-1	
	6A gG (Applies for station 1-2 with switching element ES514)
	8A gG (Applies from station 3 with switching element ES502E)
Rated insulation voltage $U_i$	250 V
Rated impulse withstand voltage $U_{imp}$	2,5 kV
Switching current	
	Min. at DC 24V min.5 mA (Applies for station 1-2 with switching element ES514)
	Min. at DC 12V min.10 mA (Applies from station 3 with switching element ES502E)
Connection cross-section	0,34 ... 1,5 mm <sup>2</sup>


## Other


Additional information	Mixed contact assembly (On upright multiple limit switches it is necessary to start with the safety station/s on the flange side. If several safety stations are to be fitted, these must be fitted directly one after the other.)
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## Reliability values according to EN ISO 13849-1


B10 <sub>D</sub>	2 x 10 <sup>6</sup>
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