



## Position switch with safety function

### ES 411 PH 1Ö/1S

Material number: 1046661 (Material number old: 43019001)

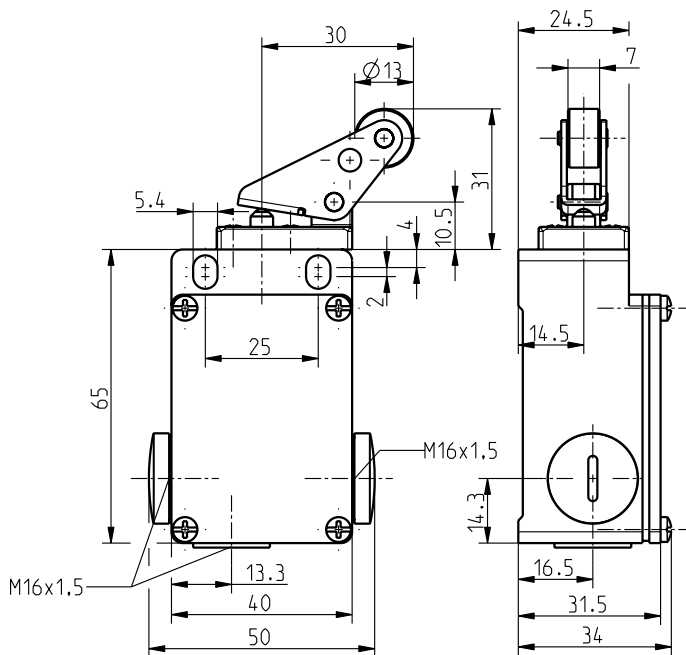
#### Features/Options:

- Metal enclosure
- Slow action  $\ominus$ , change-over contact with double break
- 3 cable entries M16 x 1.5
- Actuator: Parallel roller lever PH
- Actuating speed max. 0.5 m/s with an actuating angle of 30°
- Actuation parallel to switch from below
- Wear-resistant plastic roller
- Actuator can be repositioned by 4 x 90°

#### Notes

- With metal roller available on request
- When used as safety switch, secure the enclosure against slipping with appropriate means, e.g. pinning.

#### Dimensions



#### Technical data

Applied standards	EN ISO 13849-1, EN 60947-5-1, EN ISO 14119
Enclosure	aluminium die-cast, powder-coated
Switch type	type 1
Coding level	no coding
Degree of protection	IP 65 to IEC/EN 60529
B <sub>10d</sub> (10 % load)	2 million
T <sub>M</sub>	max. 20 years
Contact material	silver
Switching system	slow action, positive break NC contacts $\ominus$
Switching elements	1 NC/1 NO contact, type Za
Connection	screw connection terminals
Cable cross-section	max. 2.5 mm <sup>2</sup> (incl. conductor ferrules)
Cable entry	3 x M16 x 1.5
Rated impulse withstand voltage U <sub>imp</sub>	4 kV
Rated insulation voltage U <sub>i</sub>	400 V
Conventional thermal current I <sub>the</sub>	6 A
Utilisation category	AC-15
Rated operating current/voltage I <sub>e</sub> /U <sub>e</sub>	6 A/400 VAC
Short-circuit protection	6 A gG/gN fuse
Mechanical life	> 1 million operations

Errors and omissions excepted.



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Operation cycles max. 3600/h

Ambient temperature -20 °C ... +80 °C

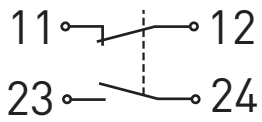
Repeat accuracy of switching points ± 0.1 mm

Approvals

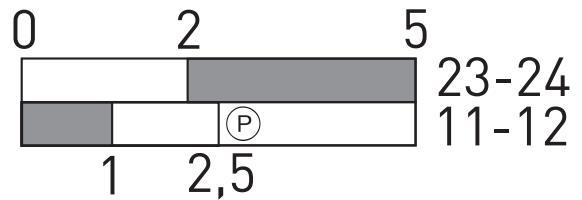


Weight 166 g

### Contact diagram

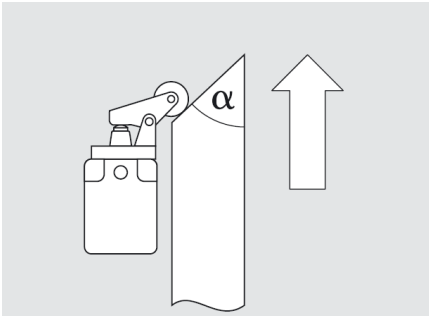


### Switching diagram



Ⓟ Positive break travel/angle

### Actuating angle



α - Actuating angle from bottom of switch axis as shown in picture