



## Position switch with safety function

### ES 411 H 1Ö/1S

Material number: 1046651 (Material number old: 43013001)

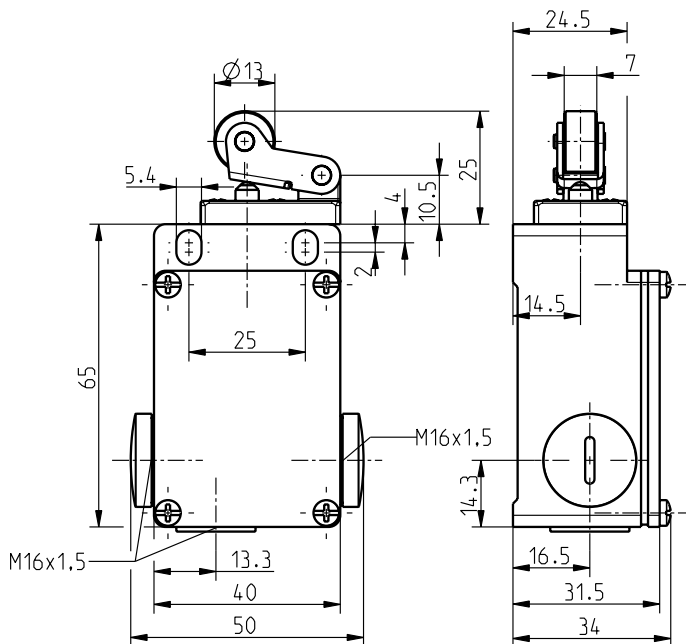
#### Features/Options:

- Metal enclosure
- Slow action  $\ominus$ , change-over contact with double break
- 3 cable entries M16 x 1.5
- Actuator: Roller lever H
- Actuating speed max. 0.5 m/s with a vertical actuating angle of  $\alpha = 40^\circ$  and  $\beta = 25^\circ$
- Wear-resistant plastic roller
- Actuator can be repositioned by  $4 \times 90^\circ$

#### Notes

- Actuation from the left should be avoided since this reduces the mechanical life of the position switch.
- 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                               |
| $B_{10d}$ (10 % load)                     | 2 million   |
| $T_M$                                     | 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 $U_{imp}$ | 4 kV  |
| Rated insulation voltage $U_i$            | 400 V   |
| Conventional thermal current $I_{the}$    | 6 A   |
| Utilisation category                      | AC-15   |
| Rated operating current/voltage $I_e/U_e$ | 6 A/400 VAC   |

Errors and omissions excepted.




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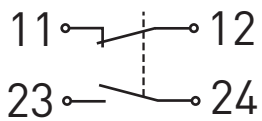
ES 411 H 1Ö/1S

Material number: 1046651 (Material number old: 43013001)

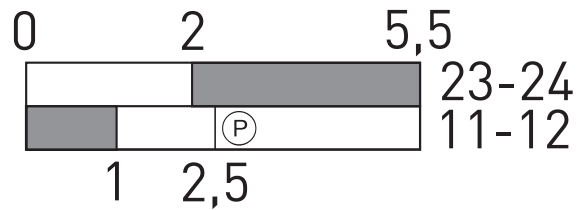
### Technical data

|                                     |   |
|-------------------------------------|---|
| Short-circuit protection            | 6 A gG/gN fuse  |
| Mechanical life                     | > 1 million operations  |
| Operation cycles                    | max. 3600/h   |
| Ambient temperature                 | -20 °C ... +80 °C   |
| Repeat accuracy of switching points | ± 0.1 mm  |
| Approvals                           |  |
| Weight                              | 130 g   |

### Contact diagram

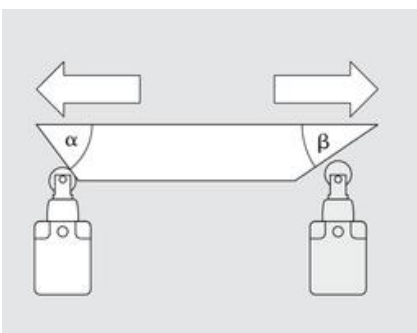


### Switching diagram



Ⓟ Positive break travel/angle

### Actuating angles



α - Actuating angle from right of switch axis  
 β - Actuating angle from left of switch axis as shown in picture

Errors and omissions excepted.