

Interlocking safety switches

SKI

Protection class IP 65



The slim design and dimensions of the SKI (according to EN 50047) allow it to be mounted onto narrow profile systems and in confined spaces. Operation can be performed both horizontally and vertically. This flexible form of mounting is supported by the ability to position the actuating head in 4 x 90° increments.

The SKI has the option of two new built-in operating functions.

- Integrated forced ejection function (FE): The actuator is ejected from the switch:
 - preventing unauthorized use of a spare actuator to defeat the safety function
 - ensuring the guard must be closed securely to enable the machine to run
- Integrated actuator holding force (FI 50 = 50 N): Guard doors which may open due to vibration can be held shut by using the SKI with increased actuator holding force of 50 N, without the need for bulky external latches. In addition several doors mounted in a straight line on one machine are kept closed.

The SKI is equipped with positive-break and galvanically-isolated contacts.

Available are:

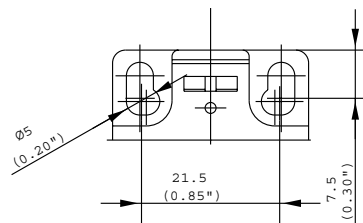
- 1 NC \leftrightarrow /1 NO slow-action device
- 1 NC \leftrightarrow /1 NO snap-action device
- 2 NC \leftrightarrow slow-action device
- 2 NC \leftrightarrow /1 NO slow-action device

Mechanical data

- Enclosure and lid made from glass-fibre reinforced PA 6 (UL 94-V0)
- Switching device made from PA/St and stainless steel
- Actuator made from stainless steel
- Cable entry M 20 x 1.5 (optional: M 16 x 1.5)

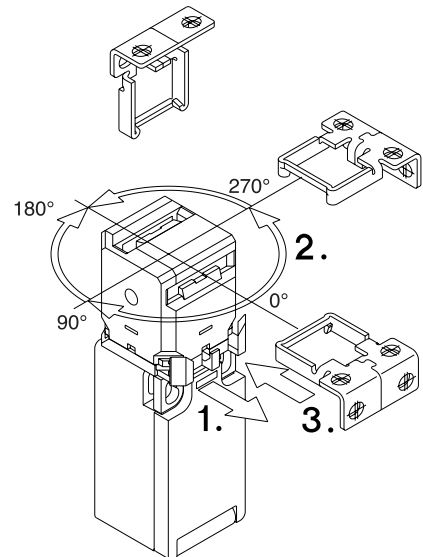
Mounting and installation

- The safety switch is mounted using 2 x M5 screws in the locating and mounting holes.
- The separate actuator is mounted using 2 x M4 screws. The safety switch and the actuator should be secured well, in order to prevent unintentional loosening (one-way and break-off screws, rivets etc.).



Positioning the actuator head

- Rotation in 4 x 90° increments: when mounted, the head is fixed into position by the clasp
- Horizontal or vertical operation



Warning

- **The safety switch must not be used as a mechanical end stop.**
- To preserve the level of safety, the safety switch must only be used in conjunction with the correct actuator.

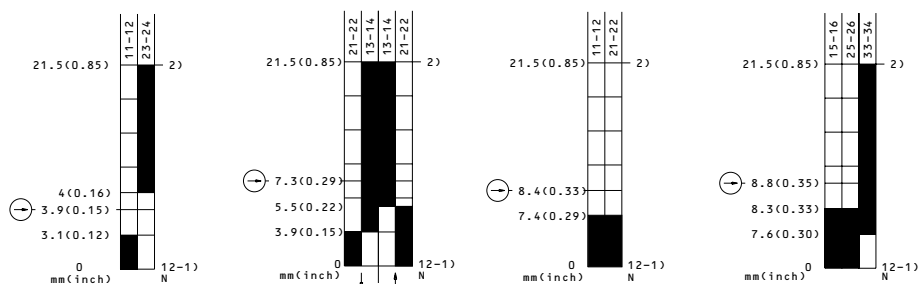
Contact configuration

| Switching element | Function | Contacts | Designation | Voltage | Continuous current |
|-------------------|-------------------------|-----------|-------------|---------|--------------------|
| Slow-action | changeover | 1 NC/1 NO | U1Z | 250 V | 10 A |
| Snap-action | changeover | 1 NC/1 NO | SU1Z | 250 V | 10 A |
| Slow-action | normally-closed | 2 NC | A2Z | 250 V | 10 A |
| Slow-action | changeover, overlapping | 2 NC/1 NO | UV15Z | 400 V | 6 A |



| Designation | SKI-U1Z M3 | SKI-SU1Z M3 | SKI-A2Z M3 | SKI-UV15Z M3 |
|---|---------------------|---------------------|---------------------|---------------------|
| Part number | 601.6819.052 | 601.6809.057 | 601.6869.056 | 601.6869.058 |
| Switching diagram | | | | |
| ⊕ positive break according to IEC 947-5-1 Chap. 3 | ⊕ Zb | ⊕ Zb | ⊕ Zb | ⊕ Zb |
| Za: changeover contact is not galvanically isolated | ●/- | -/● | ●/- | ●/- |
| Zb: changeover contact is galvanically isolated | iw | iw | iw | iw |
| Slow-action contact/snap-action contact | | | | |
| Gasket inside (iw)/outside (w) | | | | |

| | | |
|--|--------|------------------------------------|
| Contact travel mm (inch) Tol. ± 0.25 mm | | Actuating force N Tol. ± 10% |
| Switch angle degree Tol. ± 3.5° | | Actuating torque Ncm Tol. ± 10% |
| | | 1) actuator in 2) actuator out |
| | In Out | |



| | | | | | |
|---|-----------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Voltage | max. | 250 V AC | 250 V AC | 250 V AC | 400 V AC |
| Continuous current | max. | 10 A | 10 A | 10 A | 6 A |
| Making current, acc. to IEC 947-5-1 AC 15/DC 13 | | ● | ● | ● | ● |
| Switching frequency | max. | 30/min. | 30/min. | 30/min. | 30/min. |
| Mech. operational life – number of switching cycles | | 1 x 10 ⁶ | 1 x 10 ⁶ | 1 x 10 ⁶ | 1 x 10 ⁶ |
| Ambient temperature | min./max. | -30 °C/+80 °C -22 °F/+176 °F | -30 °C/+80 °C -22 °F/+176 °F | -30 °C/+80 °C -22 °F/+176 °F | -30 °C/+80 °C -22 °F/+176 °F |
| Approvals | | BG, UL, CSA | BG, UL, CSA | BG, UL, CSA | BG, UL, CSA |
| Weight | | 0.13 kg/0.29 lb | 0.13 kg/0.29 lb | 0.13 kg/0.29 lb | 0.13 kg/0.29 lb |
| Delivery: ex-stock/built to order | | ●/- | ●/- | ●/- | ●/- |

All dimensions in mm (inch)

