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 ø/1 NO slow-action device
- 1 NC ø/1 NO snap-action device
- 2 NC ø slow-action device
- 2 NC ø/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)

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

Positioning the actuator head

1. Rotation in 4 x 90° increments.
2. Horizontal or vertical operation
3. Rotation in 4 x 90° increments.

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

<table>
<thead>
<tr>
<th>Switching element</th>
<th>Function</th>
<th>Contacts</th>
<th>Designation</th>
<th>Voltage</th>
<th>Continuous current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow-action</td>
<td>changeover</td>
<td>1 NC/1 NO</td>
<td>U1Z</td>
<td>250 V</td>
<td>10 A</td>
</tr>
<tr>
<td>Snap-action</td>
<td>changeover</td>
<td>1 NC/1 NO</td>
<td>SU1Z</td>
<td>250 V</td>
<td>10 A</td>
</tr>
<tr>
<td>Slow-action</td>
<td>normally-closed</td>
<td>2 NC</td>
<td>AZZ</td>
<td>250 V</td>
<td>10 A</td>
</tr>
<tr>
<td>Slow-action</td>
<td>changeover, overlapping</td>
<td>2 NC/1 NO</td>
<td>UV15Z</td>
<td>400 V</td>
<td>6 A</td>
</tr>
</tbody>
</table>
### Designation

<table>
<thead>
<tr>
<th>Part number</th>
<th>Switching diagram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKI-U1Z M3</td>
<td><img src="image" alt="Switching Diagram" /></td>
<td>Positive break according to IEC 947-5-1 Chap. 3</td>
</tr>
<tr>
<td>SKI-SU1Z M3</td>
<td><img src="image" alt="Switching Diagram" /></td>
<td>Changeover contact is not galvanically isolated</td>
</tr>
<tr>
<td>SKI-A22 M3</td>
<td><img src="image" alt="Switching Diagram" /></td>
<td>Changeover contact is galvanically isolated</td>
</tr>
<tr>
<td>SKI-UV15Z M3</td>
<td><img src="image" alt="Switching Diagram" /></td>
<td>Slow-action contact/snap-action contact</td>
</tr>
</tbody>
</table>

### Gasket inside (iw)/outside (w)

- **Contact travel (mm)**: Tol. ± 0.25 mm
- **Switch angle (°)**: Tol. ± 3.5°
- **Actuating force (N)**: Tol. ± 10%
- **Actuating torque (N·cm)**: Tol. ± 10%
- **Voltage max.**: 250 V AC
- **Continuous current max.**: 10 A
- **Making current, acc. to IEC 947-5-1 AC 15/DC 13**: 10 A
- **Switching frequency max.**: 15 30/min.
- **Mech. operational life – number of switching cycles**: 1 x 10^6
- **Ambient temperature min./max.**: –30 °C/+80 °C
- **Approvals**: BG, UL, CSA
- **Weight**: 0.13 kg/0.29 lb
- **Delivery**: ex-stock/built to order

### All dimensions in mm (inch)

<table>
<thead>
<tr>
<th>Designation</th>
<th>Part number</th>
<th>Switching diagram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKI-U1Z M3</td>
<td>601.6819.052</td>
<td><img src="image" alt="Switching Diagram" /></td>
<td>Positive break according to IEC 947-5-1 Chap. 3</td>
</tr>
<tr>
<td>SKI-SU1Z M3</td>
<td>601.6809.057</td>
<td><img src="image" alt="Switching Diagram" /></td>
<td>Changeover contact is not galvanically isolated</td>
</tr>
<tr>
<td>SKI-A22 M3</td>
<td>601.6869.056</td>
<td><img src="image" alt="Switching Diagram" /></td>
<td>Changeover contact is galvanically isolated</td>
</tr>
<tr>
<td>SKI-UV15Z M3</td>
<td>601.6869.058</td>
<td><img src="image" alt="Switching Diagram" /></td>
<td>Slow-action contact/snap-action contact</td>
</tr>
</tbody>
</table>

### Contact travel (mm)

- Tol. ± 0.25 mm

### Switch angle (°)

- Tol. ± 3.5°

### Actuating force (N)

- Tol. ± 10%

### Actuating torque (N·cm)

- Tol. ± 10%

### Voltage max.

- 250 V AC

### Continuous current max.

- 10 A

### Making current, acc. to IEC 947-5-1 AC 15/DC 13

- 10 A

### Switching frequency max.

- 15 30/min.

### Mech. operational life – number of switching cycles

- 1 x 10^6

### Ambient temperature min./max.

- –30 °C/+80 °C

### Approvals

- BG, UL, CSA

### Weight

- 0.13 kg/0.29 lb

### Delivery: ex-stock/built to order

- ex-stock/built to order

---

**Alternative M 2**

![Switch Diagram](image)