

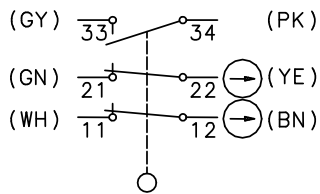
Safety switch

Series Safety Hinge Switch SHS3Z

Description **SHS3Z-U15Z-SA-L**

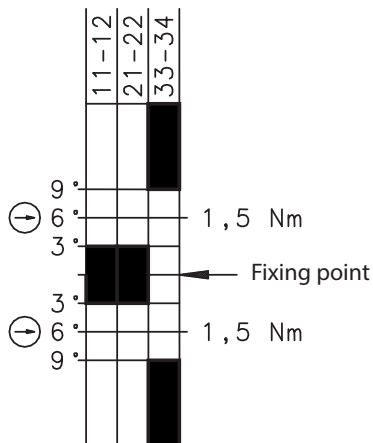
Article number **6019490055**

Operating symbol



The colour allocation refers to the plug-in-cables which we have in our range.

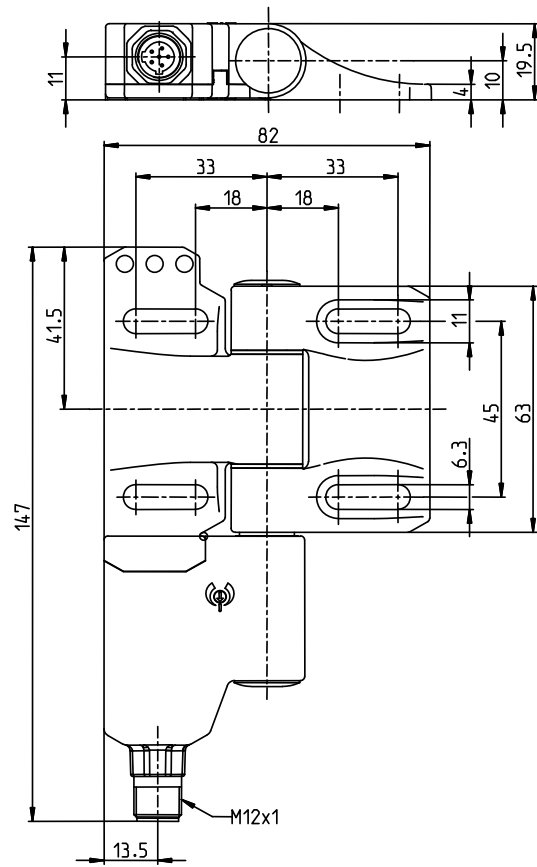
Operating diagram



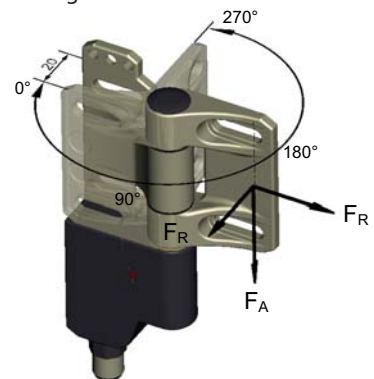
Fixing point in the range 0° ... 270° freely selectable



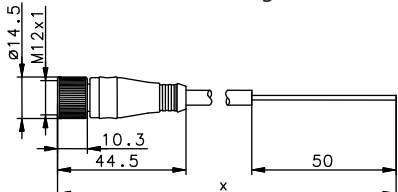
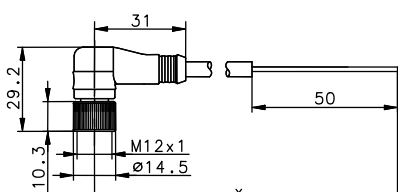
Tolerances:
 switching angle (opening) ±1,5°;
 direct opening torque 10 %;
 direct opening angle + 2°



Swivel angle 0° to 270°



| Connector M12x1 with jiggle protection and molded cable | | | |
|---|------------------------|----------------|----------|
| Article number | Description | cable length x | Version |
| 3251006291 | AN-KAB.SHS3 2M GERADE | 2 m | straight |
| 3251006292 | AN-KAB.SHS3 5M GERADE | 5 m | straight |
| 3251006293 | AN-KAB.SHS3 10M GERADE | 10 m | straight |
| 3251006294 | AN-KAB.SHS3 2M WINKEL | 2 m | angled |
| 3251006295 | AN-KAB.SHS3 5M WINKEL | 5 m | angled |
| 3251006296 | AN-KAB.SHS3 10M WINKEL | 10 m | angled |

| Connector straight | Connector angled |
|---|--|
|  |  |

| Electrical Data | | |
|---------------------------------|-----------|--|
| Rated insulation voltage | U_i | 250 V |
| Conv. thermal current | I_{the} | 4 A |
| Rated operational voltage | U_e | 230 V AC; 24 V DC |
| Utilization category | | AC-15, U_e / I_e 230 V / 3 A; DC-13, U_e / I_e 24 V / 1 A |
| Direct opening action | \ominus | acc. to IEC/EN 60947-5-1, annex K |
| Short-circuit protective device | | Fuse 4 A gG |
| Protection class | | II (totally insulated) |

| Mechanical data | |
|---|---|
| Enclosure | PBT |
| Hinge | zinc die cast / nickel matt |
| Ambient air temperature | -25 °C to +70 °C (connecting cable permanently mounted; no freezing over / no condensation) |
| Contact type | Slow make and break contacts 2 N.C., 1 N.O. |
| Mechanical life | 1 x 10 ⁶ operating cycles |
| Switching frequency | max. 300 switching operations / hour |
| Attachment | 4 x M6 screws DIN EN ISO 7984 (on flat and stiff ground) |
| Connection type | 6-pin connector M12x1 (Dual-Key-Way) Equivalent connecting cable available as accessory |
| Weight | ≈ 0,4 kg |
| Installation position | operator definable |
| Protection type | IP 67 in acc. with IEC/EN 60529 |
| Switching angle | +/- 3 ° from fixing point for the N.C. contacts and 9° for the N.O. contact |
| Forced disconnect angle | 6°+2° from fixation point in both directions (for 0°-3° only in Plus-direction, for 267°-270° only in Minus-direction) |
| Forced disconnect torque | 1,5 Nm |
| Mechanical load (see dimensioned drawing for the introduction direction of the forces) | F_{R1} = max. 1200 N F_{R2} = max. 500 N F_A = max. 1200 N |

| ID for safety engineering | |
|---------------------------|----------------------------|
| B10d | 2 x 10 ⁶ cycles |

| Standards | |
|-----------|--|
| | VDE 0660 T100, DIN EN 60947-1, IEC 60947-1 |
| | VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1 |
| | DIN EN ISO 13849-1 |

| EU Conformity | |
|---------------|------------------------------|
| | acc. to directive 2006/42/EC |

| Approvals | |
|-----------|-------------------------|
| | DGUV |
| | CCC |
| | cCSA _{US} B300 |

| Notes |
|---|
| <p>The safety guard shall always be mounted using two SHS3Z at least! See max. load. If the risk assessment of the machine permits a single-channel monitoring a blank hinge can be used as bearing element.</p> <p>High forces, unfavourable force application as well as dynamic loads can shorten the service life.</p> <p>In case that the SHS3Z is used at an ambient temperature of 70° an accelerated ageing of the connecting cable can occur.</p> <p>The connecting cable shall be protected against mechanical damages.</p> <p>The installation of the connecting cable can be done via pipes or cable ducts.</p> <p>The manufacturer / supplier of the machine / equipment is obliged to take the applicable standards for the calculation of the safety distances of separating safety guards to hazardous areas into account.</p> <p>Especially these standards apply: DIN EN 349, DIN EN 953, DIN EN ISO 14119, DIN EN ISO 13857,</p> <p>The switch shall not be used as a mechanical stop.</p> |