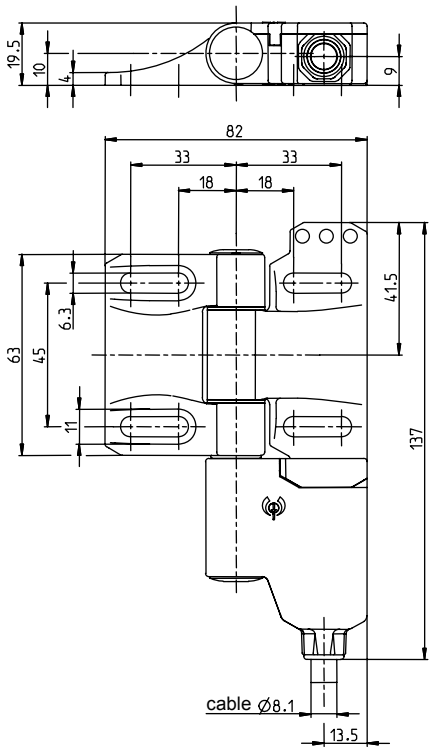
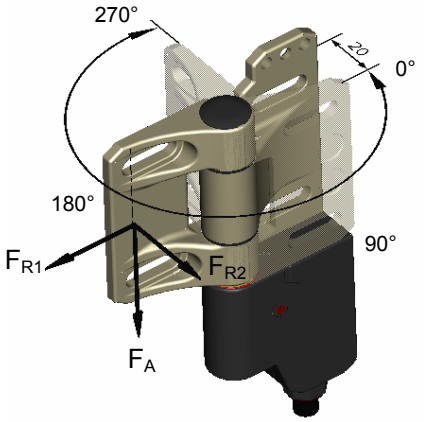
Technical Data
Safety switch

BERNSTEIN safe solutions

Series SHS3

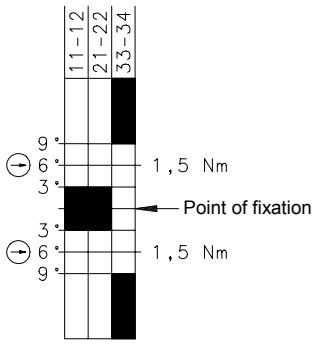
Description **SHS3-U15Z-KA 5 R** Article number **6019390022**



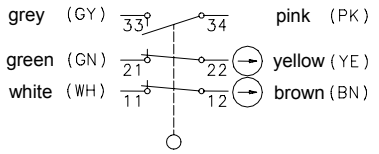


swivel range: 0° bis 270°

Operating diagram



Switching symbol



Tolerances Switching angle (N.C.) + / -1,5°
Tolerances Forced disconnect torque 10%
Tolerances Forced disconnect angle + / -1,5°

Point of fixation is in range of 0° ... 270° free selectable.

The data refer to a SHS3 with fixed switching point

Electrical Data

Rated isolation voltage	U_i	250V
Conventional thermal current	I_{the}	5A
Rated supply voltage	U_e	230V AC; 24V DC
Utilization category		AC-15, U_e/I_e 230V/3A; DC-13, U_e/I_e 24V/1A
Direct opening action	⊖	acc. IEC/EN 60947-5-1, annex K
Short circuit protection		melting fuse 4A gL/gG
Protection class		II, protective insulation

Mechanical Data	
Switch	PBT
Hinge	G-X22CrNi17
Ambient temperature	-25°C to +70°C (connecting cable permanently mounted)
Contact function	Slow make and break contacts 2 N.C., 1 N.O.
Mechanical life	10^6 operations
Switching frequency	Max. 300 operations/h
Mounting	4 x M6 screws DIN EN ISO 7984 On flat and stiff ground
Wiring	Fixed connecting cable 6 x 0,75 mm² x 5 m Bending radius = 60 mm min.
Weight	≈ 0,65 kg
Mounting position	Any
Protection class	IP 67 acc. IEC/EN 60529
Switching angle	+/- 3° from fixation 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 (for direction of loaded forces see the illustration below)	F_{R1}= max. 1200 N F_{R2}= max. 500 N F_A = max. 1200 N

Standards	VDE 0660 T100, DIN EN 60947-1, IEC 60947-1 VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1
EU-Conformity	CE
Approvals	BG, $_C$CSA$_{US}$ B300

Notes

The safety guard shall always be mounted using two SHS3 at least! See max. load. If the risk assessment of the machine permits a single-channel monitoring a blank hinge can used as bearing element.

In case that the SHS3 is used at an ambient temperature of 70° an accelerated ageing of the connecting cable can occur.

The connecting cable shall be protected against mechanical damages.
The installation of the connecting cable can be done via pipes or cable ducts.

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.
Especially these standards apply: EN 294, EN 349, EN 953, EN 1088, ...

The switch shall not be used as a mechanical stop.