

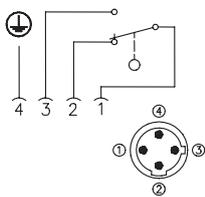
# Safety switch

## Series Safety Hinge Switch SHS

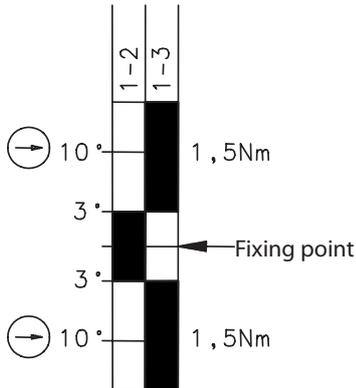
Description **SHS-A1Z-SR**

Article number **6019261016**

### Circuit diagram



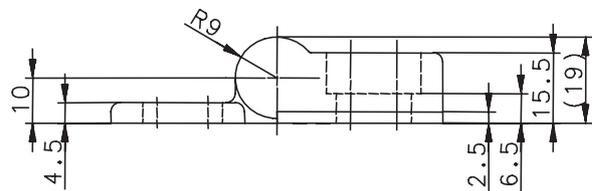
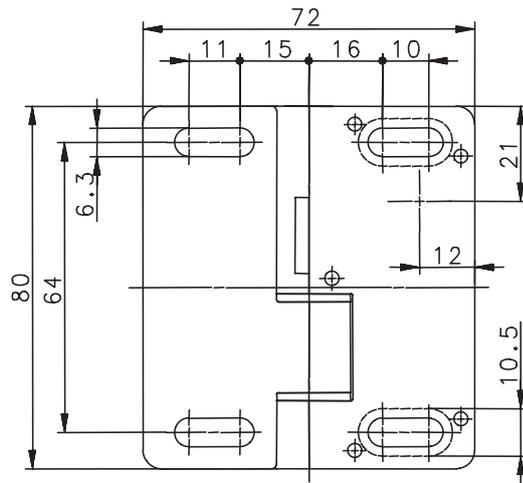
### Operating diagram



Fixing point in the range 0° ... 225° freely selectable



Tolerances:  
 switching angle (opening)  $+2,0^\circ / -1,5^\circ$ ,  
 direct opening torque 10%,  
 direct opening angle  $+0,5^\circ / -3^\circ$   
 Switching angle hysteresis  
 (closing the N.C. contact  $-1,0^\circ$ )  
 from the hinge's typical switch-off point



### Connection

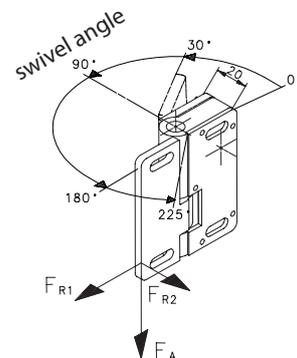
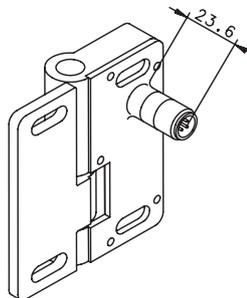


Illustration with fixed shaft and sheared-off set screw.

Electrical Data		
Rated insulation voltage	$U_i$	250 V
Rated impulse withstand voltage	$U_{imp}$	2,5 kV
Conv. thermal current	$I_{the}$	3 A
Rated operational voltage	$U_e$	230 V AC / 60 V DC
Utilization category		AC-15, 230 V AC / 1,5 A, DC-13, 60 V DC / 0,5 A
Direct opening action	⊖	acc. to IEC/EN 60947-5-1, annex K
Short-circuit protective device		Fuse 4 A gG
Protection class		I

Mechanical data	
Enclosure	GD-Zn
Cover	GD-Zn
Wing	GD-Zn
Ambient air temperature	-25 °C to +70 °C
Contact type	1 Change-over
Mechanical life	1 x 10 <sup>6</sup> operating cycles
Switching frequency	max. 1200 switching operations / hour
Attachment	4 x M6 screws DIN 7984 or DIN 6912
Connection type	plug M12 x 1, metal thread
Weight	≈ 0,4 kg
Installation position	operator definable
Protection type	IP 67 in acc. with IEC/EN 60529
Switching angle	+/- 3 ° from fixing point
Direct opening angle	+/- 10 ° from fixing point
Direct opening torque	1,5 Nm
Mechanical load	$F_{R1}$ = max. 1000 N
(see dimensioned drawing for the introduction direction of the forces)	$F_{R2}$ = max. 500 N
	$F_A$ = max. 750 N

ID for safety engineering	
B10d	2 x 10 <sup>6</sup> cycles

Standards	
	DIN EN 60947-5-1
	DIN EN ISO 13849-1

EU Conformity	
	acc. to directive 2006/42/EC (Safety-of-Machinery-Directive)

Approvals	
	cCSA <sub>US</sub> C300
	CCC

**Notes**

The safety fixture must always be attached by at least two SHS! See max. load.  
 If the risk assessment of the machine permits a single-channel evaluation, an empty hinge can be used as the support element.  
 If the SHS is used at an ambient temperature of 70 °C, it is possible that the connecting cable will age more rapidly!  
 The connecting cable must be protected against mechanical damage.  
 The cable can be installed in tubes or cable ducts.  
 The manufacturer / supplier of the machine / system is obligated to observe the applicable standards for the size of the safety intervals between the separating safety fixture and the hazard point.  
 These regulations include: DIN EN ISO 13857, DIN EN ISO 13854, DIN EN ISO 14120, DIN EN ISO 14119, ... .  
 The switch may not be used as a stop.  
 For a CSA/UL application it is essential to use CSA/UL approved cable for connection.  
 The suggested protection type (IP code), applies only when at least an equivalent cable coupling is used.