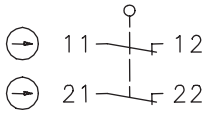
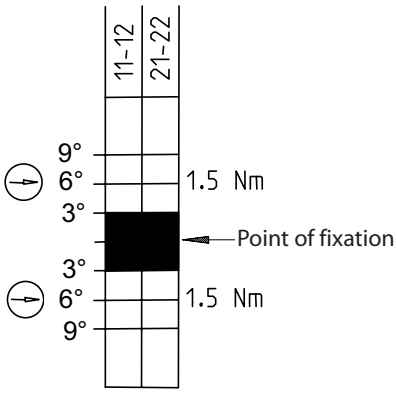
Safety switch
Series SHS3 - ASI

Description **ASI-SHS3-KA1-R-IPX** Article number **6173200002**

Operating symbol



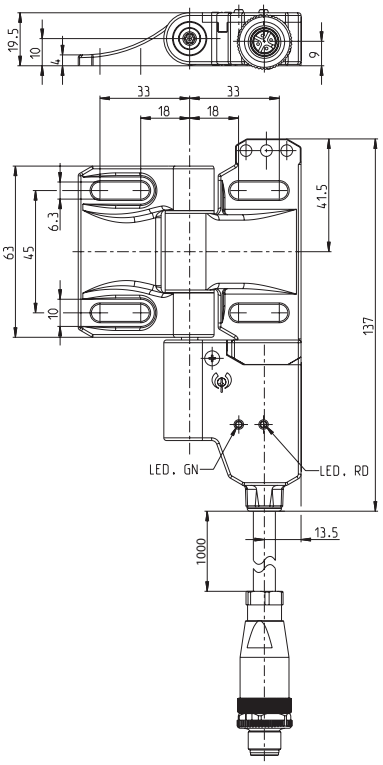
Operating diagram

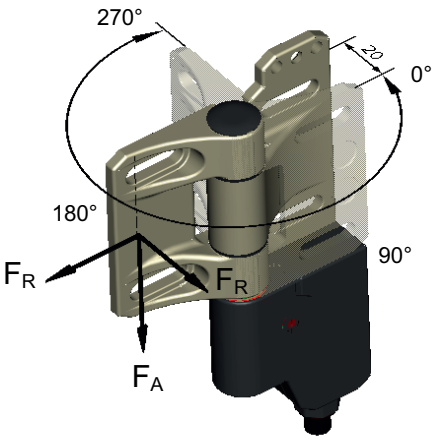


Point of fixation is in range of 0° ... 270° free selectable.

On Off

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





Swivel range: 0° bis 270°

Electrical data		
Operating voltage	U	18 … 31,6 V; via AS-interface, reverse-polarity proof
Operating current	I	< 40 mA
AS-i Specifications		Profile S-0.B IO-Code: 0x0 ID-Code: 0xB ID-Code1: 0xF ID-Code2: 0xE
AS-i Inputs		Contact 1: Data bits D0/D1 = static 00 or dynamic code transmission Contact 2: Data bits D2/D3 = static 00 or dynamic code transmission
Parameter bits		no function
AS-i Address		preset address: 0

Mechanical data	
Switch	PBT
Hinge	Cast stainless steel
Indication	LEDs for slave and bus state
Ambient air temperature	-25 °C ... +70 °C (connecting cable permanently mounted; no freezing over / no condensation)
Contact type	2 NC (slow-action, Zb)
Mechanical life	10^6 operating cycles
Switching frequency	Max. 300 operations/h
Mounting	4 x M6 screws DIN EN ISO 7984 on flat and stiff ground
Connection	Fixed connecting cable with M12 plug connector male min. bending radius = 60 mm
Plug connection	1: AS-i + 2: free 3: AS-i - 4: free
Weight	≈ 0,56 kg
Mounting position	any
Protection type	IP69 acc. to EN 60529
Switching angle	± 3 ° from fixation point for the N.C. contacts
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 (Forces see the illustration page 1)	F_{R1}= max. 1200 N F_{R2}= max. 500 N F_A= max. 1200 N

Standards	
	DIN EN 60947-1
	DIN EN 60947-5-1
	DIN EN 62026-2 , EN ISO 13849-1 , EN 62061

EU Conformity	
	acc. to directive 2014/30/EU (EMC-Directive)

ID for safety engineering	
Electronics	MTTFd >100 years
	PFH 1,05 x 10^{-9} 1/h
Mechanics	B10d 2 x 10^{6} cycles

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.

High forces, unfavourable force application as well as dynamic loads can shorten the service life.

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 349, EN 953, DIN EN ISO 14119, DIN EN ISO 13857, ...

The switch shall not be used as a mechanical stop.

During cleaning process, the protection class must be considered.