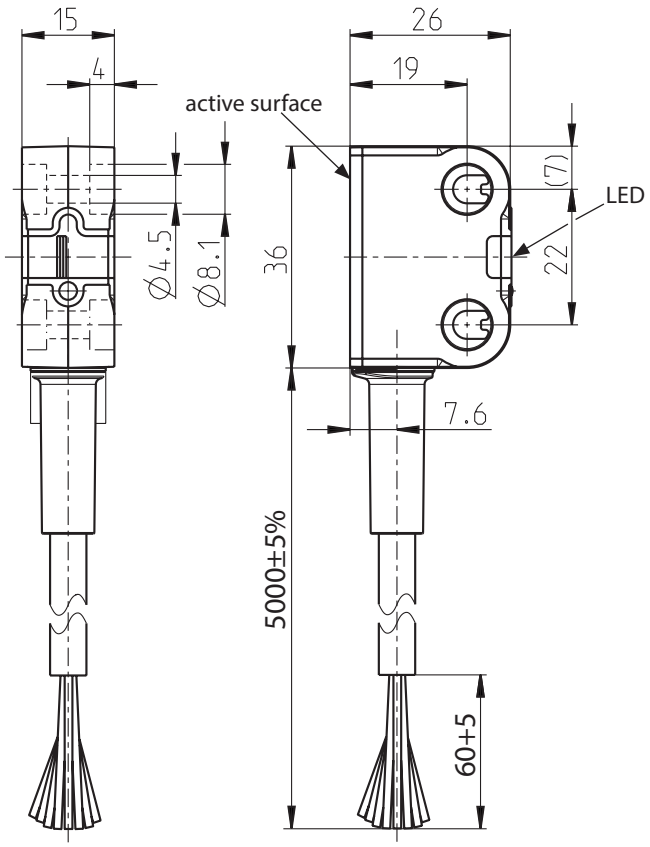
Safety switch
Series SRF

Description **SRF-4/1/1-A5-U** Article number **6075685203**

Connection

WH – +
BN – Q1
GN – -
YE – Q2
GY – I1
PK – I2
BU – PNP/OUT
RD – N.C.



Sensing distance (Only in conjunction with associated actuator from BERNSTEIN AG)				
		min.	typ.	max.
Rated sensing distance	S_n		13 mm	
Assured sensing distance – On	S_a	10 mm		
Hysteresis	H		2 mm	
Assured sensing distance – Off	S_{ar}			25 mm

Technical modifications and errors excepted.
The technical datasheet corresponds to the technical state as of 2022-05-13 and will not be removed in case of changes.

Electrical Data		
Rated operating voltage	U_e	24 V DC, Reverse polarity protection, +25 %, - 20 % PELV/SELV power supply unit
Rated insulation voltage	U_i	75 V DC
Rated impulse withstand voltage	U_{imp}	500 V
Rated conditional short circuit current		100 A
No-load current	I_0	≤ 50 mA
Transponder frequency		125 kHz
Repeatability	R	0,1 x S_n
operating frequency		≤ 1 Hz
Switch-off	t_a	max. 100 ms + 7 ms x following SRF
Time delay	t_v	max. 2 s
Electromagnetic interference		according to EN IEC 60947-5-3 and EN 61326-3-1
Emergency operation function		20 minutes
Outputs Q1,Q2		
Voltage level		according to Typ 3 EN 61131-2
Switching element funtion		PNP NO
Rated operating current	I_e	100 mA
Leakage current	I_r	≤ 1 mA DC
Switching elements		Sustained short-circuit and overload protection
Voltage drop	U_d	≤ 3 V
Type of short circuit protection		thermal / digital (clocking)
Utilization category		DC-13
Output PNP/OUT		
Function		PNP N.C. (in actuatet state)
Rated operating current	I_e	10 mA
Switching elements		Sustained short-circuit and overload protection
Voltage drop	U_d	≤ 3 V
Utilization category		current limited

Mechanical Data	
Enclosure	PA66 + PA6, red
Tension relief	TPE, black
Mounting	2 holes Ø 4,5 (for M4 screws)
Indication	1 x LED red / green operating state 1 x LED yellow Actuating state
Shock and Swing	acc. to EN IEC 60947-5-2
Ambient temperature	-25°C … +70°C
Storage temperature	-25°C … +70°C
Maximum relative humidity	93 % @ 40 °C without condensation
Altitude	≤ 4000 m NHN
Connection	Cable 8 x 0,25 mm^2 x 5 m ±5 %, PUR - Outer jacket
Type of protection	IP69
Protection class acc. to EN IEC 61558	III

Safety data		
Up to PL	e	acc. to EN ISO 13849-1
Category	4	
PFH_D	$6x10^{-9}$ 1/h	acc. to DIN EN 62061
SIL CL	3	
Service life	20 years	

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Standards	
	EN 60947-1, EN 60947-5-2, EN 61326-3-1
	EN ISO 13849-1, EN 62061, EN 60947-5-3, EN ISO 13849-2
	EN 60204-1, ETSI EN 301489-1, ETSI EN 300330-1

EU-Conformity	
	according to directive 2006/42/EG (Safety-of-Machinery-Directive)
	according to directive 2011/65/EU (RoHS II)
	according to directive 2014/53/EU (RED)
	according to directive 2012/19/EU (EU-WEEE II)

Approvals	
	TÜV Nord, cCSAus (class 2 Power source)
	FCC ID: 2ABA6SRF IC: 11535A-SRF