



**Part no.: 63000103**  
**S20-P4C1-M20-FH**  
**Safety switch**



Figure can vary

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## Technical data

<b>Basic data</b>	
Series	S20
<b>Functions</b>	
Functions	Type 2 interlock device with mechanically actuated position switch with low-coded actuator acc. to DIN EN ISO 14119
<b>Characteristic parameters</b>	
Mission time $T_M$	20 years, EN ISO 13849-1
B10 <sub>d</sub>	2,000,000 number of cycles
<b>Electrical data</b>	
Usage category at DC 13	Ue / Ie: 24 V / 6 A, 125 V / 1.1 A, 250 V / 0.4 A, EN 60947-5-1
Usage category at AC 15	Ue / Ie: 250 V / 6 A, 400 V / 4 A, 500 V / 1 A, EN 60947-5-1
Contact allocation	2NC + 1NO
Contact opening	Force-fit
Short circuit protected	500 V, 10 A, type aM, IEC 60269-1
Contact protection	Protective insulation O
<b>Performance data</b>	
Rated insulation voltage	400 V AC, 500 V DC
Conventional thermal current, max.	10 A
<b>Connection</b>	
Number of connections	1 Piece(s)
Number of cable entries	1 Piece(s)
<b>Connection 1</b>	
Type of connection	Terminal
Function	Contact connection
Type of terminal	Screw terminal
No. of pins	6 -pin
<b>Cable properties</b>	
Connection cross sections	1 x 0.34 mm <sup>2</sup> to 2 x 1.5 mm <sup>2</sup> , wire
<b>Mechanical data</b>	
Design	Cubic
Dimension (W x H x L)	30.8 mm x 30.8 mm x 93 mm
Housing material	Plastic, Glass fiber reinforced (PPS), self-extinguishing
Electrical contact material	Silver alloy
Net weight	102 g
Housing color	Red Black
Type of fastening	Through-hole mounting
Type of cable entry	M20 x 1.5
Switch type	Interlock device without guard interlocking, ISO 14119
Switching principle	Slow-action contact
Approach actuation directions	4 x side (90°) 1 x top
Approach speed	0 ... 0.5 m/s
Mechanical life time	1,000,000 actuation cycles, IEC 6047-5-1

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Actuation frequency, max.	3,600 per hour, IEC 6047-5-1
External actuator	AC-ANxx series: straight, angled, resilient, alignable
Actuation force (pull-out)	10 N
Actuating path with forced separation	7.8 mm
Recoil tolerance	4.5 mm

### Environmental data

Ambient temperature, operation	-25 ... 80 °C
Degree of contamination, external	3, EN 60947-1

### Certifications

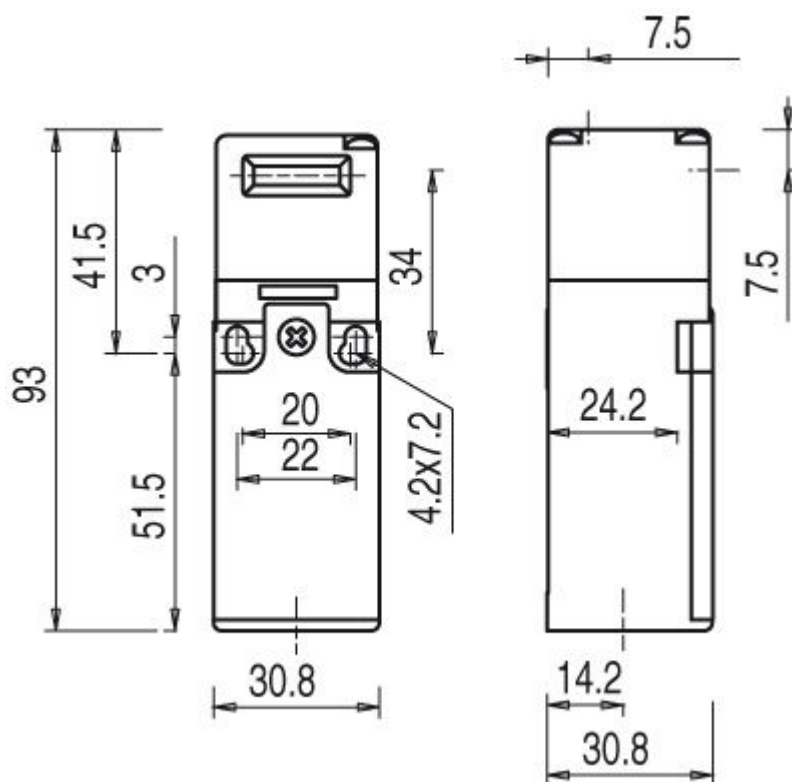
Degree of protection	IP 67
Certifications	c UL US IMQ

### Classification

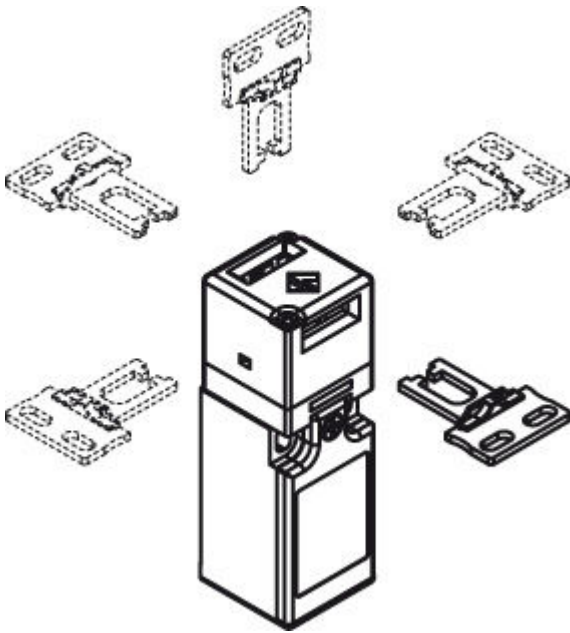
eCl@ss 8.0	27272602
eCl@ss 9.0	27272602
ETIM 5.0	EC002592

## Dimensioned drawings

All dimensions in millimeters



## Approach directions

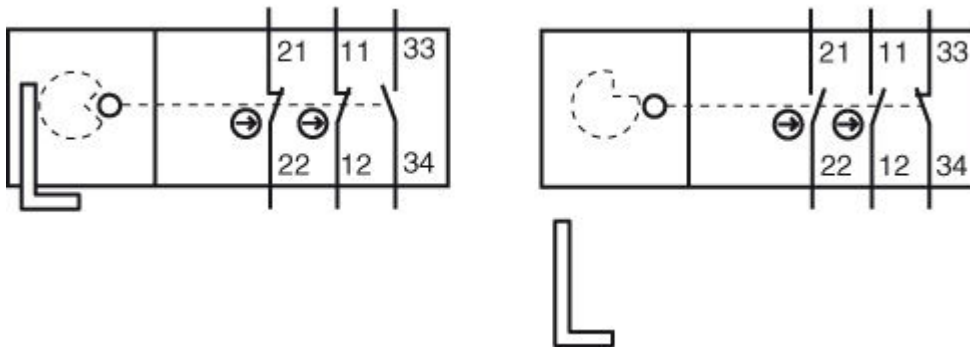


## Electrical connection

Connection 1	
Type of connection	Terminal
Function	Contact connection
Type of terminal	Screw terminal
No. of pins	6 -pin

Terminal	Assignment
11	NC(1)
12	NC(1)
21	NC(2)
22	NC(2)
33	NO(1)
34	NO(1)





## Circuit diagrams




21/22 NC contact, forced  
11/12 NC contact, forced

## Accessories

### Connection technology - Connection cables


	Part no.	Designation	Article	Description
	50135128	KD S-M12-8A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50135129	KD S-M12-8A-P1-100	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR
	50135130	KD S-M12-8A-P1-150	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 15,000 mm Sheathing material: PUR
	50135131	KD S-M12-8A-P1-250	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 25,000 mm Sheathing material: PUR

### Connection technology - Connectors

	Part no.	Designation	Article	Description
	63000844	AC-PLP-8	Built-in plug	Number of conductors: 8 Piece(s) Connection: Connector, M12, Plastic, Axial, 8 -pin

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## Connection technology - Adapters

	Part no.	Designation	Article	Description
	63000843	AC-A-M20-12NPT	Adapter	Design: M20 x 1.5 on 1/2 NPT

## Actuator

	Part no.	Designation	Article	Description
	63000701	AC-AN-A	Actuator	Dimensions: 28 mm x 11.8 mm x 30.7 mm Type of fastening: Through-hole mounting Design: Angled Area of application: Normal duty Mounting bore holes: In key direction Material: Stainless steel
	63000705	AC-AN-AL	Actuator	Dimensions: 20.6 mm x 41.7 mm x 42.7 mm Type of fastening: Through-hole mounting Design: Angled Area of application: Normal duty Mounting bore holes: In key direction Material: Stainless steel
	63000707	AC-AN-ASH	Actuator	Dimensions: 53 mm x 14 mm x 29 mm Type of fastening: Through-hole mounting Design: Angled Area of application: Normal duty Mounting bore holes: In key direction Material: Stainless steel
	63000706	AC-AN-F1J2	Actuator	Dimensions: 56 mm x 16 mm x 35 mm Type of fastening: Through-hole mounting Design: Straight Area of application: Normal duty Mounting bore holes: In key direction Material: Plastic, Stainless steel Functions: Flexible, 1 direction, Adjustable, 2 directions
	63000703	AC-AN-F2J2	Actuator	Dimensions: 30 mm x 22 mm x 44 mm Type of fastening: Through-hole mounting Design: Straight Area of application: Normal duty Mounting bore holes: 90° to key direction Material: Plastic, Stainless steel Functions: Flexible, 2 directions, Adjustable, 2 directions
	63000702	AC-AN-F4	Actuator	Dimensions: 30 mm x 16 mm x 48 mm Type of fastening: Through-hole mounting Design: Straight Area of application: Normal duty Mounting bore holes: 90° to key direction Material: Plastic, Stainless steel Functions: Flexible, 4 directions
	63000700	AC-AN-S	Actuator	Dimensions: 28 mm x 9 mm x 39.8 mm Type of fastening: Through-hole mounting Design: Straight Area of application: Normal duty Mounting bore holes: 90° to key direction Material: Stainless steel
	63000704	AC-AN-SL	Actuator	Dimensions: 20.6 mm x 9 mm x 64 mm Type of fastening: Through-hole mounting Design: Straight Area of application: Normal duty Mounting bore holes: 90° to key direction Material: Stainless steel

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## Notes

### Observe intended use!

- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.