

## Technical data sheet

### Safety switch

Part no.: 63000107

S20-P4C1-M20-FH-CF23-F1J2

#### Contents



- Set consists of
- Technical data
- Dimensioned drawings
- Electrical connection
- Circuit diagrams
- Notes
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For illustration purposes only



## Set consists of

	Quantity	Part no.	Designation	Article	Description
	1	63000706	AC-AN-F1J2	Actuator	Functions: Flexible, 1 direction, Adjustable, 2 directions Type of fastening: Through-hole mounting Design: Straight Area of application: Normal duty Mounting bore holes: In key direction Material: Plastic, Stainless steel
	1	63000103	S20-P4C1-M20-FH	Safety switch	Cable entry: 1 Piece(s)M20 x 1.5 Connection: Terminal Housing material: Plastic, Glass fiber reinforced (PPS), self-extinguishing Switch type: Interlock device without guard interlocking

## Technical data

### Basic data

Series	S20
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### Functions

Functions	Type 2 interlock device with mechanically actuated position switch with low-coded actuator acc. to DIN EN ISO 14119
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### Characteristic parameters

Mission time $T_M$	20 years, EN ISO 13849-1
$B10_d$	2,000,000 number of cycles

### Electrical data

Usage category at DC 13	$U_e / I_e$ : 24 V / 6 A, 125 V / 1.1 A, 250 V / 0.4 A, EN 60947-5-1
Usage category at AC 15	$U_e / I_e$ : 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

### Performance data

Rated insulation voltage	400 V AC, 500 V DC
Conventional thermal current, max.	10 A

### Connection

Number of connections	1 Piece(s)
Number of cable entries	1 Piece(s)

### Connection 1

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

### Cable properties

Connection cross sections	1 x 0.34 mm <sup>2</sup> to 2 x 1.5 mm <sup>2</sup> , wire
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### Mechanical data

Design	Cubic
Dimension (W x H x L)	30.8 mm x 30.8 mm x 93 mm
Housing material	Plastic
Plastic housing	Glass fiber reinforced (PPS), self-extinguishing
Electrical contact material	Silver alloy
Net weight	102 g
Housing color	Black Red
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	1 x top 4 x side (90°)
Approach speed	0 ... 0.5 m/s
Mechanical life time	1,000,000 actuation cycles, IEC 6047-5-1
Actuation frequency, max.	3,600 per hour, IEC 6047-5-1
External actuator	AC-ANxx series: straight, angled, resilient, alignable
Extraction force, unlocked actuator	10 N
Actuating path with forced separation	7.8 mm
Recoil tolerance	4.5 mm
Screw tightening torque	3 ... 4 N·m
Cable gland material of body and ring	Halogen-free technopolymer

### Environmental data

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

### Certifications

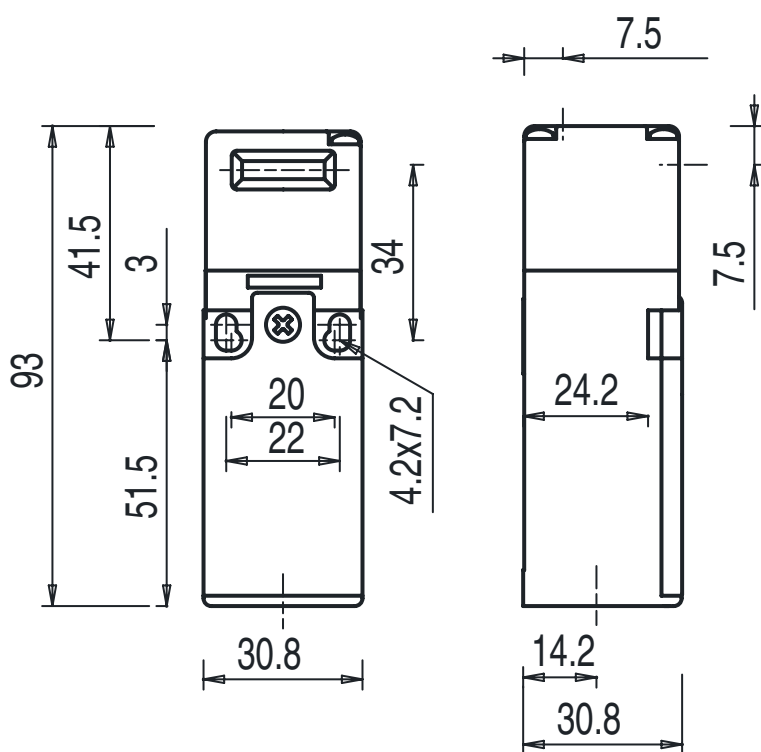
Degree of protection	IP 67 when in the plugged-in and screwed-down state (EN 60529)
Approvals	c UL US IMQ

## Technical data

Customs tariff number	85369095
ECLASS 5.1.4	27272602
ECLASS 8.0	27272602
ECLASS 9.0	27272602
ECLASS 10.0	27272602
ECLASS 11.0	27272602
ECLASS 12.0	27272602
ECLASS 13.0	27272602
ECLASS 14.0	27272602
ECLASS 15.0	27272602
ECLASS 16.0	27272602
ETIM 5.0	EC002592
ETIM 6.0	EC002592
ETIM 7.0	EC002592
ETIM 8.0	EC002592
ETIM 9.0	EC002592
ETIM 10.0	EC002592
UNSPSC 26.08	39122205

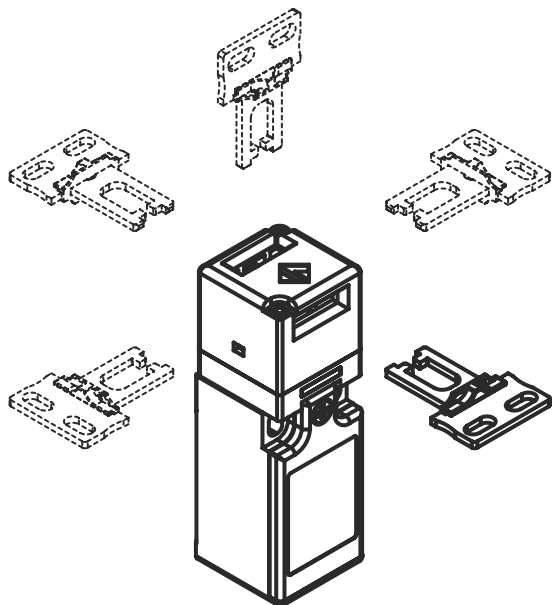
## Dimensioned drawings

All dimensions in millimeters

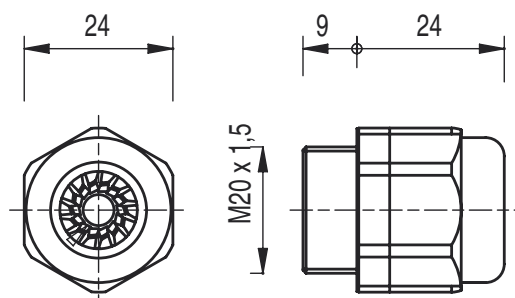


## Dimensioned drawings

### Approach directions



### Cable gland



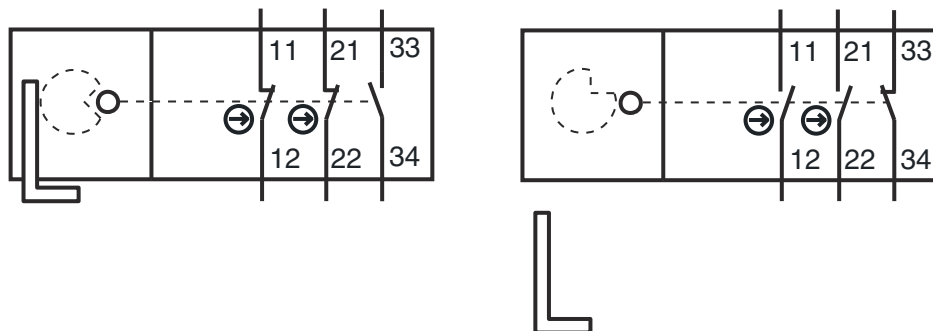
## Electrical connection

### Connection 1

Function	Contact connection
Type of connection	Terminal
Type of terminal	Screw terminal
Cable gland	M20 x 1.5 / PG 13.5
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



11/12 NC contact, forced  
 21/22 NC contact, forced  
 33/34 NO (normally open)

## Notes

<b>Observe intended use!</b>	
	<ul style="list-style-type: none"> <li>↪ The product may only be put into operation by competent persons.</li> <li>↪ Only use the product in accordance with its intended use.</li> </ul>

## Accessories

### Actuators

	Part no.	Designation	Article	Description
	63000706 **	AC-AN-F1J2	Actuator	Functions: Flexible, 1 direction, Adjustable, 2 directions Type of fastening: Through-hole mounting Design: Straight Area of application: Normal duty Mounting bore holes: In key direction Material: Plastic, Stainless steel

\*\* Included in delivery contents

<b>Note</b>	
	↪ A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.