



Part no.: 63000100  
**S20-P3C1-M20-FH**  
Safety switch



Figure can vary

## Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Circuit diagrams
- Accessories
- Notes

Part no.: 63000100 – S20-P3C1-M20-FH – Safety switch

## 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   |
| 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           | 500 V AC, 600 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                        | 4 -pin  |
| <b>Cable properties</b>            |   |
| Connection cross sections          | 1 x 0.5 mm <sup>2</sup> to 2 x 2.5 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                         | 100 g   |
| Housing color                      | Black<br>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      | 4 x side (90°)<br>1 x top   |
| Approach speed                     | 0 ... 0.5 m/s   |
| Mechanical life time               | 1,000,000 actuation cycles, IEC 6047-5-1  |

## Part no.: 63000100 – S20-P3C1-M20-FH – Safety switch

|                                       |  |
|---------------------------------------|--|
| 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 | 9 mm   |
| Recoil tolerance                      | 4.5 mm   |

### Environmental data

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

### Certifications

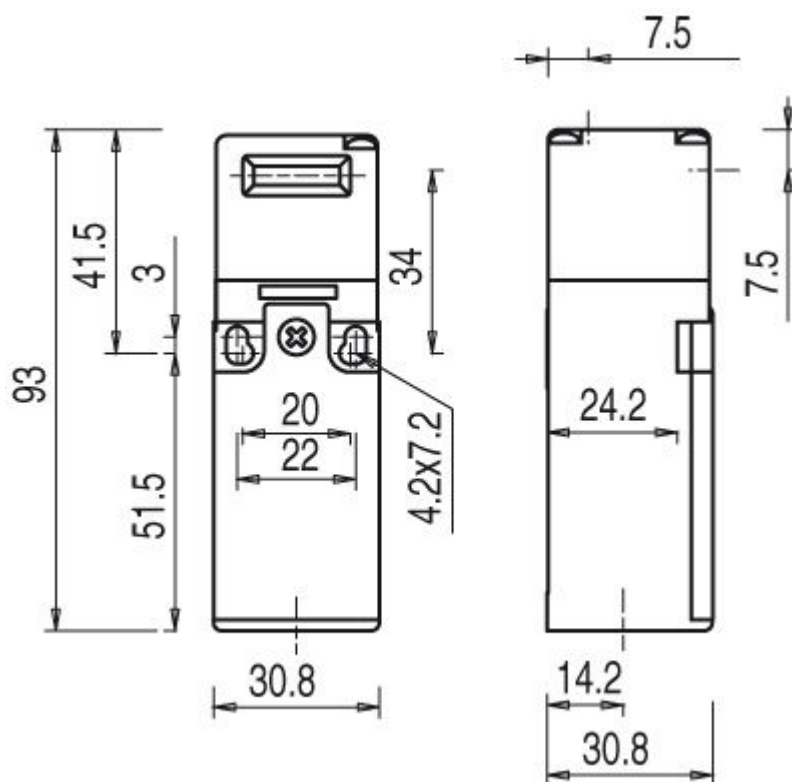
|                      |                |
|----------------------|----------------|
| Degree of protection | IP 67          |
| Certifications       | IMQ<br>c UL US |

### Classification

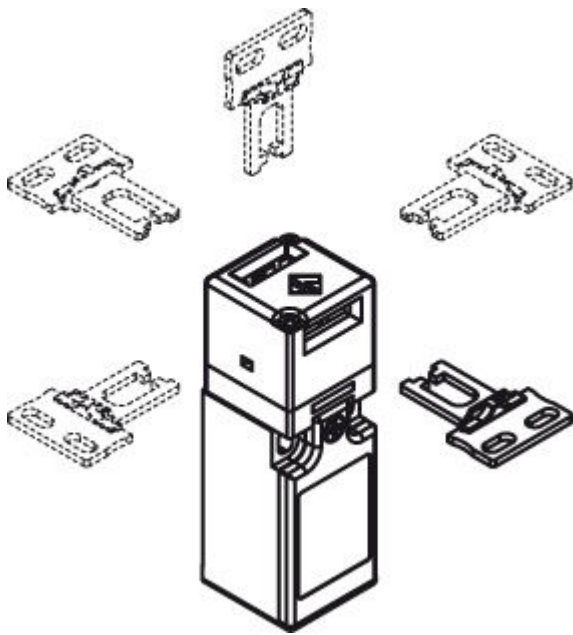
|            |          |
|------------|----------|
| eCl@ss 8.0 | 27272602 |
| eCl@ss 9.0 | 27272602 |
| ETIM 5.0   | EC002592 |

## Dimensioned drawings

All dimensions in millimeters



Approach directions

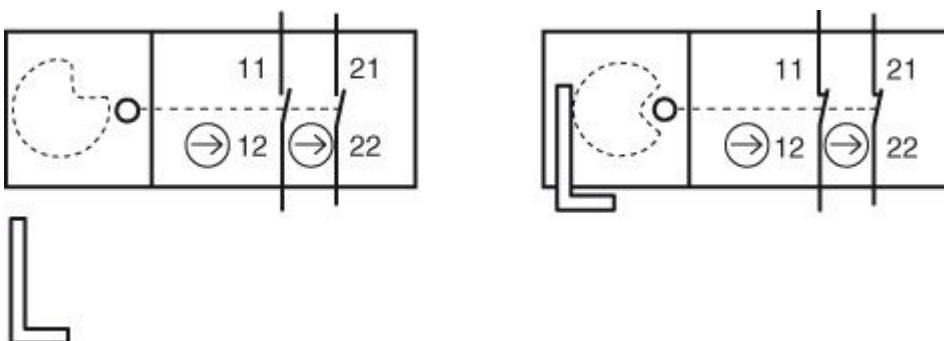


**Electrical connection**

| Connection 1       |                    |
|--------------------|--------------------|
| Type of connection | Terminal           |
| Function           | Contact connection |
| Type of terminal   | Screw terminal     |
| No. of pins        | 4 -pin             |

| Terminal | Assignment |
|----------|------------|
| 11       | NC(1)      |
| 12       | NC(1)      |
| 21       | NC(2)      |
| 22       | NC(2)      |

**Circuit diagrams**







Part no.: 63000100 – S20-P3C1-M20-FH – Safety switch


11/12 NC contact, forced  
21/22 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<br>Connection 2: Open end<br>Shielded: Yes<br>Cable length: 5,000 mm<br>Sheathing material: PUR  |
|    | 50135129 | KD S-M12-8A-P1-100 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin<br>Connection 2: Open end<br>Shielded: Yes<br>Cable length: 10,000 mm<br>Sheathing material: PUR |
|   | 50135130 | KD S-M12-8A-P1-150 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin<br>Connection 2: Open end<br>Shielded: Yes<br>Cable length: 15,000 mm<br>Sheathing material: PUR |
|  | 50135131 | KD S-M12-8A-P1-250 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin<br>Connection 2: Open end<br>Shielded: Yes<br>Cable length: 25,000 mm<br>Sheathing material: PUR |

### Connection technology - Connectors

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

### 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<br>Type of fastening: Through-hole mounting<br>Design: Angled<br>Area of application: Normal duty<br>Mounting bore holes: In key direction<br>Material: Stainless steel   |
|    | 63000705 | AC-AN-AL    | Actuator | Dimensions: 20.6 mm x 41.7 mm x 42.7 mm<br>Type of fastening: Through-hole mounting<br>Design: Angled<br>Area of application: Normal duty<br>Mounting bore holes: In key direction<br>Material: Stainless steel   |
|    | 63000707 | AC-AN-ASH   | Actuator | Dimensions: 53 mm x 14 mm x 29 mm<br>Type of fastening: Through-hole mounting<br>Design: Angled<br>Area of application: Normal duty<br>Mounting bore holes: In key direction<br>Material: Stainless steel   |
|    | 63000706 | AC-AN-F1J2  | Actuator | Dimensions: 56 mm x 16 mm x 35 mm<br>Type of fastening: Through-hole mounting<br>Design: Straight<br>Area of application: Normal duty<br>Mounting bore holes: In key direction<br>Material: Plastic, Stainless steel<br>Functions: Flexible, 1 direction, Adjustable, 2 directions      |
|   | 63000703 | AC-AN-F2J2  | Actuator | Dimensions: 30 mm x 22 mm x 44 mm<br>Type of fastening: Through-hole mounting<br>Design: Straight<br>Area of application: Normal duty<br>Mounting bore holes: 90° to key direction<br>Material: Plastic, Stainless steel<br>Functions: Flexible, 2 directions, Adjustable, 2 directions |
|  | 63000702 | AC-AN-F4    | Actuator | Dimensions: 30 mm x 16 mm x 48 mm<br>Type of fastening: Through-hole mounting<br>Design: Straight<br>Area of application: Normal duty<br>Mounting bore holes: 90° to key direction<br>Material: Plastic, Stainless steel<br>Functions: Flexible, 4 directions                           |
|  | 63000700 | AC-AN-S     | Actuator | Dimensions: 28 mm x 9 mm x 39.8 mm<br>Type of fastening: Through-hole mounting<br>Design: Straight<br>Area of application: Normal duty<br>Mounting bore holes: 90° to key direction<br>Material: Stainless steel  |
|  | 63000704 | AC-AN-SL    | Actuator | Dimensions: 20.6 mm x 9 mm x 64 mm<br>Type of fastening: Through-hole mounting<br>Design: Straight<br>Area of application: Normal duty<br>Mounting bore holes: 90° to key direction<br>Material: Stainless steel  |

## 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.