

## Technical data sheet

### Safety switch

Part no.: 63000103

S20-P4C1-M20-FH

#### Contents

- Technical data
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For illustration purposes only



## Technical data

### Basic data

|        |     |
|--------|-----|
| Series | S20 |
|--------|-----|

### Functions

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

### Characteristic parameters

|                    |                            |
|--------------------|----------------------------|
| Mission time $T_M$ | 20 years, EN ISO 13849-1   |
| B10 <sub>d</sub>   | 2,000,000 number of cycles |

### Electrical data

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| 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                                         |

### 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 connection   |
| 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 |
|---------------------------|------------------------------------------------------------|

### 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<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         | 1 x top<br>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                                                 |

### Environmental data

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

### Certifications

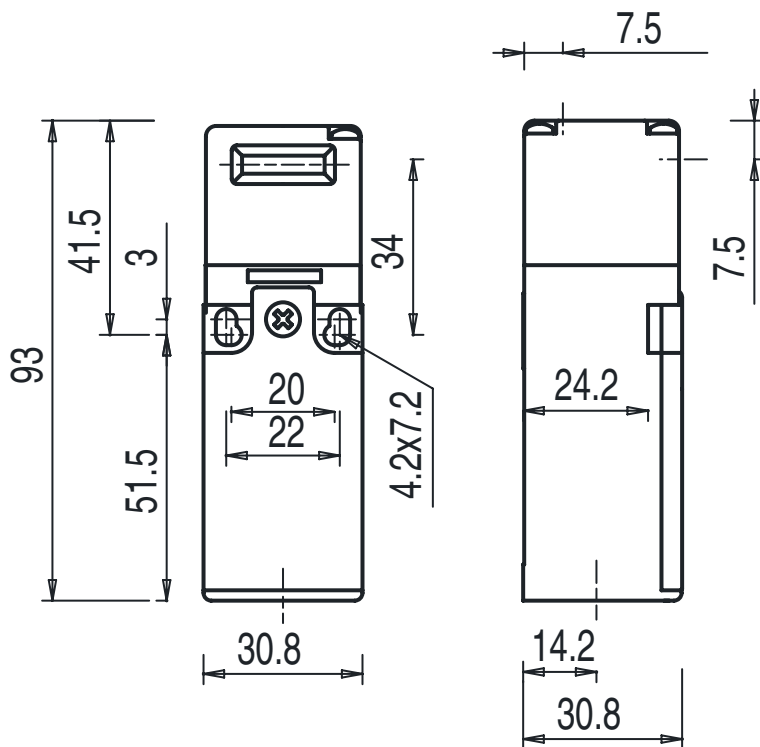
|                      |                |
|----------------------|----------------|
| Degree of protection | IP 67          |
| Approvals            | c UL US<br>IMQ |

### Classification

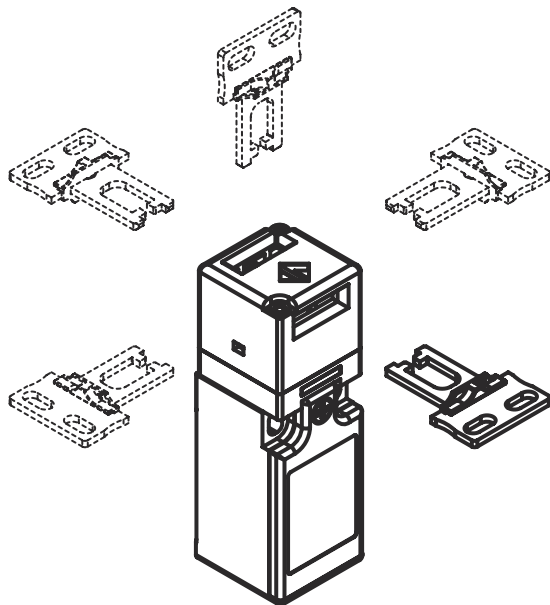
|                       |          |
|-----------------------|----------|
| Customs tariff number | 85369095 |
| ECLASS 5.1.4          | 27272602 |
| ECLASS 8.0            | 27272602 |
| ECLASS 9.0            | 27272602 |
| ECLASS 10.0           | 27272602 |
| ECLASS 11.0           | 27272602 |
| ECLASS 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 |

## Dimensioned drawings

All dimensions in millimeters



## Approach directions



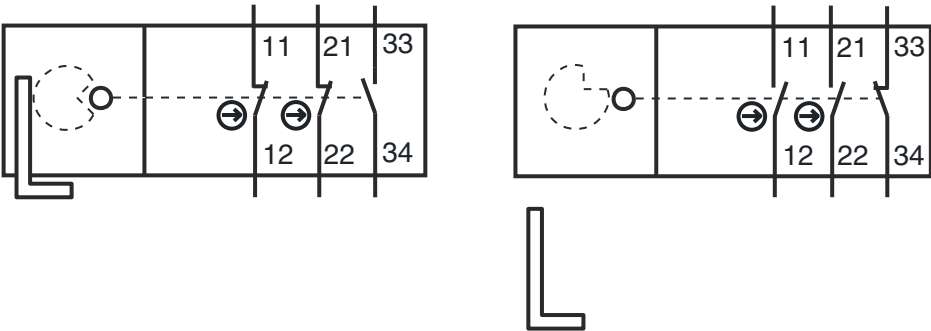
Electrical connection

Connection 1

|                    |                    |
|--------------------|--------------------|
| Function           | Contact connection |
| Type of connection | Terminal           |
| Type of terminal   | Screw connection   |
| 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

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> |