

# Technical data sheet

## Safety hinge switch

Part no.: 63000401

S400-M4M12-B



For illustration purposes only

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Technical data

Basic data

|        |      |
|--------|------|
| Series | S400 |
|--------|------|

Functions

|           |                                                                                                                                                                                                             |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Functions | Integration in control circuits up to category 4 in accordance with EN ISO 13849-1<br>Locking device without guard interlocking according to EN ISO 14119<br>Mechanical hinge with integrated safety switch |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Characteristic parameters

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

Electrical data

|                         |                                  |
|-------------------------|----------------------------------|
| Usage category at DC 13 | Ue 24 V, Ie 2 A, EN 60947-5-1    |
| Usage category at AC 15 | Ue 24 V, Ie 2 A, EN 60947-5-1    |
| Contact allocation      | 2NC + 1NO                        |
| Contact opening         | Force-fit                        |
| Short circuit protected | 500 V, 2 A, type gG, IEC 60269-1 |

Performance data

|                                    |                  |
|------------------------------------|------------------|
| Rated insulation voltage           | 30 V AC, 36 V DC |
| Conventional thermal current, max. | 2 A              |

Connection

|                       |            |
|-----------------------|------------|
| Number of connections | 1 Piece(s) |
|-----------------------|------------|

Connection 1

|                    |                    |
|--------------------|--------------------|
| Function           | Contact connection |
| Type of connection | Connector          |
| Thread size        | M12                |
| Material           | Metal              |
| No. of pins        | 8 -pin             |

Mechanical data

|                                               |                                                        |
|-----------------------------------------------|--------------------------------------------------------|
| Design                                        | Cubic                                                  |
| Dimension (W x H x L)                         | 49 mm x 22.5 mm x 100.6 mm                             |
| Housing material                              | Metal                                                  |
| Metal housing                                 | ZAMAK                                                  |
| Electrical contact material                   | Silver alloy                                           |
| Net weight                                    | 300 g                                                  |
| Housing color                                 | Silver                                                 |
| Type of fastening                             | Mounting plate<br>Mounting thread                      |
| Side of cable entry                           | From below (with left installation)                    |
| Switch type                                   | Interlock device without guard interlocking, ISO 14119 |
| Switching principle                           | Slow-action contact                                    |
| Axial stress                                  | 1,500 N·m                                              |
| Radial stress                                 | 1,000 N·m                                              |
| Torsional stress                              | 25 N·m                                                 |
| Mechanical life time                          | 1,000,000 actuation cycles, IEC 6047-5-1               |
| Actuation frequency, max.                     | 1,200 per hour, IEC 6047-5-1                           |
| Internal actuator                             | Safety switch in hinge, encapsulated                   |
| Actuating path (angle) with forced separation | 4 N                                                    |
| Actuation angle, max.                         | 180 °                                                  |
| Actuating path (angle) with forced separation | From set switching point                               |

Environmental data

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

Certifications

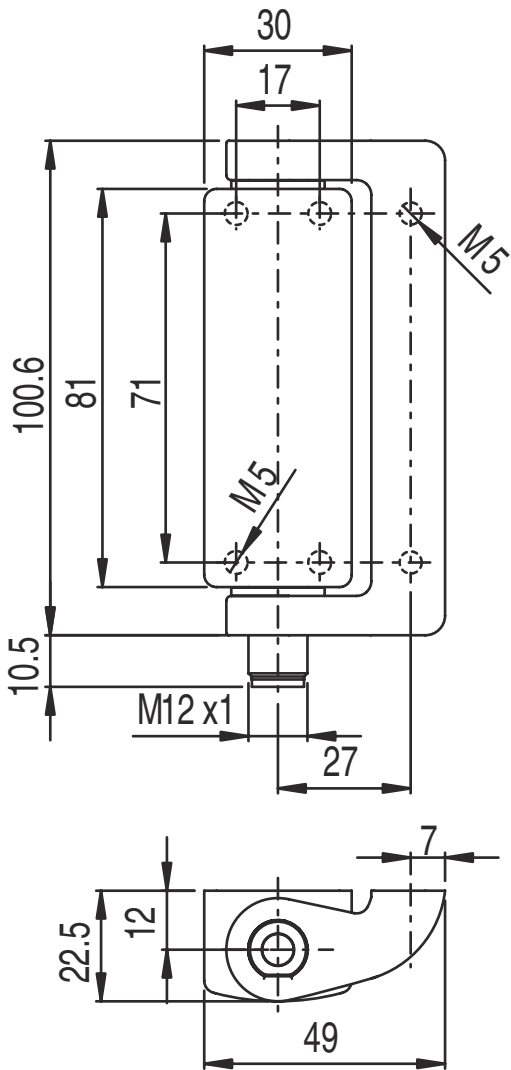
|                      |                 |
|----------------------|-----------------|
| Degree of protection | IP 67<br>IP 69K |
| Approvals            | c UL US<br>IMQ  |

Classification

|                       |          |
|-----------------------|----------|
| Customs tariff number | 85369095 |
| ECLASS 5.1.4          | 27272690 |
| ECLASS 8.0            | 27270609 |
| ECLASS 9.0            | 27270609 |
| ECLASS 10.0           | 27270609 |
| ECLASS 11.0           | 27270609 |
| ECLASS 12.0           | 27272608 |
| ECLASS 13.0           | 27272608 |
| ECLASS 14.0           | 27272608 |
| ECLASS 15.0           | 27272608 |
| ETIM 5.0              | EC002591 |
| ETIM 6.0              | EC002591 |
| ETIM 7.0              | EC002591 |
| ETIM 8.0              | EC002591 |
| ETIM 9.0              | EC002591 |
| ETIM 10.0             | EC002591 |

Dimensioned drawings

All dimensions in millimeters



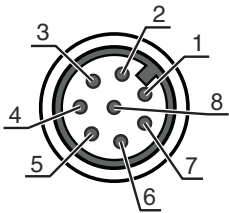
Electrical connection

Connection 1

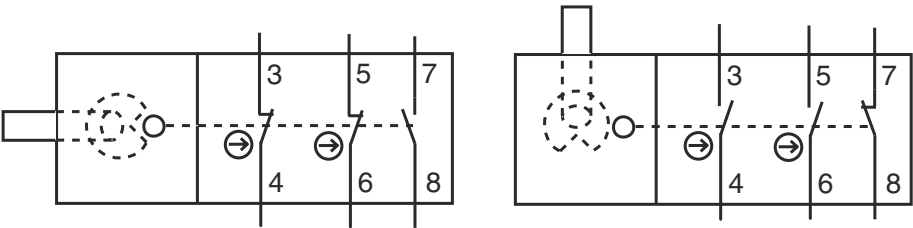
|                    |                    |
|--------------------|--------------------|
| Function           | Contact connection |
| Type of connection | Connector          |
| Thread size        | M12                |
| Type               | Male               |
| Material           | Metal              |
| No. of pins        | 8 -pin             |
| Encoding           | A-coded            |

Electrical connection

| Pin | Pin assignment |
|-----|----------------|
| 1   | GND            |
| 2   | n.c.           |
| 3   | NC(1)          |
| 4   | NC(1)          |
| 5   | NC(2)          |
| 6   | NC(2)          |
| 7   | NO(1)          |
| 8   | NO(1)          |



Circuit diagrams



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.