



## AS-Interface safety switch

### VAA-2E-IM1-J-S-V1

- Applications up to PL<sub>d</sub>
- Rotating metal head
- 40 mm narrow construction, fixture dimensions compatible with all safety switches
- M12 plug connection

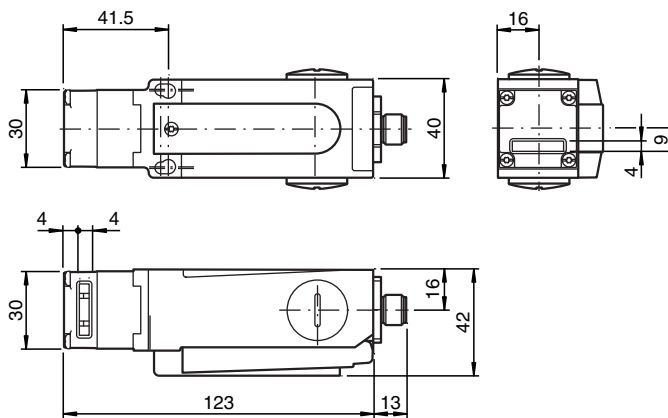
#### AS-Interface safety switch



#### Function

The VAA-2E-LIM1-S-V1 safety switch with a separate actuator is a mechanical safety switch with 2 inputs. NC contacts 1 and 2 are monitored via the inputs. Evaluation takes place via a safety monitor. Connection is via an M12 plug. The safety switch is supplied via the AS-Interface. Depending on the application, 4 different models of mechanical actuators can be ordered separately.

#### Dimensions



#### Technical Data

##### General specifications

|                                |             |
|--------------------------------|-------------|
| Node type                      | Safety node |
| AS-Interface specification     | V3.0        |
| Required gateway specification | ≥ V2.0      |
| Profile                        | S-7.B       |
| IO code                        | 7           |
| ID code                        | B           |
| ID1 code                       | F           |
| ID2 code                       | E           |
| UL File Number                 | E179102     |

##### Electrical specifications

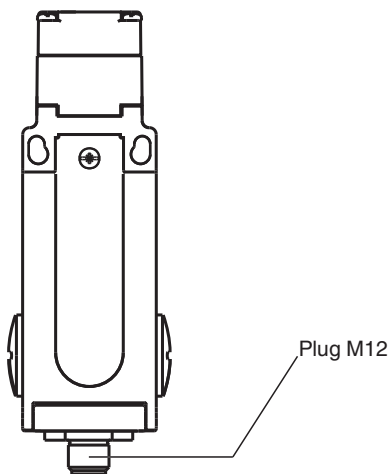
|                         |                |                                   |
|-------------------------|----------------|-----------------------------------|
| Rated operating voltage | U <sub>e</sub> | 26.5 ... 31.6 V from AS-Interface |
|-------------------------|----------------|-----------------------------------|

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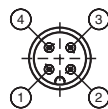
## Technical Data

|                                  |       |  |
|----------------------------------|-------|--|
| Rated operating current          | $I_e$ | ≤ 45 mA  |
| Rated insulation voltage         |       | 50 V   |
| <b>Input</b>                     |       |  |
| Number/Type                      |       | 2 safety-related inputs:<br>normally-closed contact 1<br>normally-closed contact 2 |
| Supply                           |       | from AS-Interface  |
| <b>Directive conformity</b>      |       |  |
| Electromagnetic compatibility    |       |  |
| Directive 2014/30/EU             |       | EN 62026-2:2013+A1:2019<br>IEC 60947-5-3:1999                                      |
| <b>Standard conformity</b>       |       |  |
| Degree of protection             |       | EN 60529:2000  |
| AS-Interface                     |       | EN 62026-2:2013+A1:2019  |
| Functional safety                |       | DIN EN 954-1, EN ISO 13849-1 (up to PL <sub>d</sub> )                              |
| <b>Ambient conditions</b>        |       |  |
| Ambient temperature              |       | -20 ... 55 °C (-4 ... 131 °F)  |
| <b>Mechanical specifications</b> |       |  |
| approach speed                   |       | max. 20 m/min  |
| Operating force                  |       | 25 N   |
| Extraction force                 |       | 25 N   |
| retention force                  |       | 10 N   |
| insertion depth                  |       |  |
| approach direction lateral       |       | detected min. distance: 24.5 mm<br>permissible caster: 5 mm                        |
| approach direction from above    |       | detected min. distance: 24.5 mm<br>permissible caster: 5 mm                        |
| Degree of protection             |       | IP67   |
| Connection                       |       | connector M12 x 1  |
| Material                         |       |  |
| Housing                          |       | Fiberglass-reinforced thermoplastic  |
| actuating head                   |       | metal  |
| cam                              |       | stainless steel  |
| Mass                             |       | approx. 0.16 kg  |
| Life span                        |       | 2 x 10 <sup>6</sup> switching cycles   |

## Assembly



View of safety switch  
plug connector










- 1 AS-Interface +
- 2 not used
- 3 AS-Interface -
- 4 not used

## Programming

**Data bit safety node**  
(function via AS-Interface)

| Data bit | Input                     |
|----------|---------------------------|
| D0       | normally-closed contact 1 |
| D1       | normally-closed contact 1 |
| D2       | normally-closed contact 2 |
| D3       | normally-closed contact 2 |

## Accessories

|   |                                 |  |
|---|---------------------------------|--|
|    | <b>VAZ-IM1-90°-BOLT-S</b>       | Right-angled actuator for AS-Interface safety switches                         |
|    | <b>VAZ-IM1-BOLT-S</b>           | Straight actuator for AS-Interface safety switches                             |
|    | <b>VAZ-IM1-LR-RADIUS-BOLT-S</b> | Hinged actuator for right/left mounted doors, for AS-Interface safety switches |
|    | <b>VAZ-IM1-TD-RADIUS-BOLT-S</b> | Hinged actuator for top/bottom mounted doors, for AS-Interface safety switches |
|    | <b>VAZ-IM1-BASE-BOLT-S</b>      | Latches for mechanical safety switches (LIM1 and IM1)                          |
|   | <b>VAZ-IM1-BASE-S</b>           | Switch mount for mechanical safety switches (LIM1 and IM1)                     |
|  | <b>VAZ-T1-FK-1M-PUR-V1-G</b>    | Splitter box AS-Interface to 1x M12 round connector                            |