

Datasheet - ZV1H 256 STL-AS 2S



AS interface safety at work / Safety switchgear / Safety switches / 256 AS 2S / AS - 256 2S
Roller lever 1H



(Minor differences between the printed image and the original product may exist!)

- with integrated AS-i Safety electronics and with M12-connector socket to connect a second position switch
- Lever angle adjustable in 10° steps
- AS-Interface M12 connector
- Thermoplastic enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 87 mm x 50,5 mm x 31 mm
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50047
- AS-Interface LED and status display
- Integrated AS-Interface
- Suitable for AS-i Power24

Ordering details

| | |
|--------------------------|--------------------|
| Product type description | ZV1H 256 STL-AS 2S |
| Article number | ZV1H 256 STL-AS 2S |
| EAN Code | |
| eCl@ss | 27-27-26-01 |

Approval

Approval



Classification

Application: Two position switches, dependent, on one safety guard:


| | |
|------------------|---|
| Standards | EN ISO 13849-1, IEC 61508 |
| PL | up e |
| Control category | up 4 |
| PFH | 2 x 10 ⁻⁸ / |
| - notice | up to max. 100000 switching cycles/year |
| SIL | up 3 |
| Mission time | 20 Years |

Application: Each time one position switch, independent, on two safety guards:

| | |
|-----------|---------------------------|
| Standards | EN ISO 13849-1, IEC 61508 |
|-----------|---------------------------|

| | |
|------------------|---|
| PL | up c |
| Control category | up 1 |
| PFH value | 1.14 x 10 ⁻⁶ / |
| - notice | up to max. 100000 switching cycles/year |
| SIL | up 1 |
| Mission time | 20 Years |

Global Properties

| | |
|--|---|
| Permanent light | AS - 256 2S Rollenschwenkhebel 1H |
| Standards | EN 50295, EN 60947-5-1, EN ISO 13849-1, IEC 61508 |
| Compliance with the Directives (Y/N)  | Yes |
| Suitable for safety functions (Y/N) | Yes |
| Actuator type | A to EN 50047 |
| Materials | |
| - Material of the housings | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| - Lever material | Plastic |
| - Roller material | Plastic |
| - Material of the connector | Plastic |
| - Material of the contacts | Silver |
| Housing coating | |
| Housing construction form | Norm construction design |
| Weight | |


Mechanical data

| | |
|--|--|
| Design of electrical connection | connector plug M12, 4-pole (AS-i connection) connector socket M12, 4-pole (2. switch) |
| connector | left () right (2. switch) |
| Mechanical life | 1.000.000 operations |
| Switching frequency | 5000 |
| Design of actuating element | Roller lever |
| actuating torque | 15 |
| restistance to shock | 30 / 11 |
| Resistance to vibration | 10 ... 150, Amplitude 0,35 / 5 |
| Positive break torque | 18.5 |
| Actuating speed for vertical actuation | |
| - Max. Actuating speed | 1 |

Ambient conditions

| | |
|--|----------------------|
| Ambient temperature | |
| - Min. environmental temperature | -25 |
| - Max. environmental temperature | +60 |
| - Min. Storage and transport temperature | -25 |
| - Max. Storage and transport temperature | +85 |
| Relative humidity | 30 ... 95 |
| - non-condensing | |
| - non-icing | |
| Protection class | IP67 to IEC/EN 60529 |
| Protection rating | II |

Electrical data

| | |
|---|--|
| Design of control element | Opener (NC) |
| Switching principle | Snap switch element |
| - positive break NC contact  | |
| Number of auxiliary contacts | 0 |
| Number of safety contacts | 2 |
| Rated impulse withstand voltage | 800 |
| Rated insulation voltage | 32 |
| Thermal test current | 10 A |
| Utilisation category | AC-15: 230 V / 4 A, DC-13: 24 V / 1 A |
| Max. fuse rating | 6 A gG D-fuse |

Electrical data - AS interface

| | |
|--|---|
| AS-i Supply voltage | 18 ... 31.6 VDC, Protection against polarity reversal |
| AS-i operating current | ≤ 50 |
| AS-i Device insulation | internally short-circuit proof |
| AS-i Specification | |
| - version | V 3.0 |
| - Profile | S-0.B.F.F |
| AS-i Inputs | |
| - Channel 1 | Data bits DI 0/DI 1= dynamic code transmission (Z/T 256 AS) |
| - Channel 2 | Data bits DI 2/DI 3= dynamic code transmission (2. switch) |
| AS-i Outputs | DO 0 ... DO 3 not used |
| AS-i Parameter bits | P1 ... P3 not used |
| - P0 | Channel 2 switched, switching condition 2. switch |
| AS-i input module address | 0 |
| - Default on address 0, programmable via the AS-Interface Master or Hand-held programming device | |

LED switching conditions display

| | |
|--|--|
| LED switching conditions display (Y/N) | Yes |
| AS-i LED switching conditions display | |
| (1) yellow LED | Channel 1 / AS-i SaW Bit 0,1 |
| (2) green/red LED (AS-i duo LED) | Supply voltage / Communication error / slave address = 0 |
| (3) yellow LED | Channel 2 / AS-i SaW Bit 2,3 |

ATEX

| | |
|---|------|
| Explosion protection categories for gases | None |
| Explosion protected category for dusts | None |

Dimensions

| | |
|--------------------------|------|
| Dimensions of the sensor | |
| - Width of sensor | 87 |
| - Height of sensor | 97.5 |
| - Length of sensor | 31 |

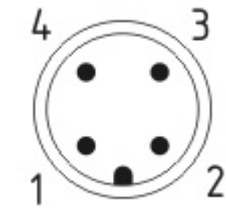
Pin assignment

Connector

| | |
|---|----------------|
| 1 | AS interface + |
| 2 | None |
| 3 | AS interface - |
| 4 | None |

connector socket 2. switch

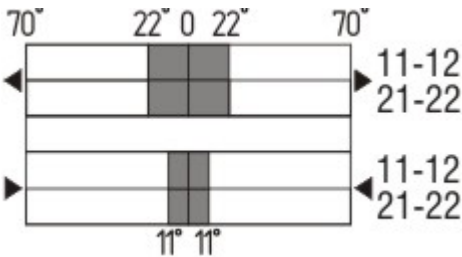
Diagram



Note Diagram

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

Switch travel diagram



Notes Switch travel diagram

- Contact closed
- Contact open
- Setting range
- Break point
- Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.
Order example: ZV1H 256 STL-AS 2S-FKL

...-FKL Connection for flat cable, left

...-Z Actuator head gasket

Ordering code

(1)(2) 256 (3)-AS 2S

(1)

Z Snap action

T Slow action

(2)

S Plunger S

R Roller plunger R

1R Offset roller lever 1R

K Angle roller lever K

3K Angle roller lever 3K

4K Angle roller lever 4K

K4 Angle roller lever K4

1H Roller lever 1H

12H Roller lever 12H

14H Roller lever 14H

7H Roller lever 7H

(3)

STL connector plug M12, left

FKL Flat plug-in connector, left

Documents

Operating instructions and Declaration of conformity (da) 331 kB, 30.01.2018

Code: mrl_zt-256-as-2s_da

Operating instructions and Declaration of conformity (cs) 345 kB, 30.01.2018

Code: mrl_zt-256-as-2s_cs

Operating instructions and Declaration of conformity (es) 331 kB, 26.01.2018

Code: mrl_zt-256-as-2s_es

Operating instructions and Declaration of conformity (it) 328 kB, 30.01.2018

Code: mrl_zt-256-as-2s_it

Operating instructions and Declaration of conformity (pt) 332 kB, 26.01.2018

Code: mrl_zt-256-as-2s_pt

Operating instructions and Declaration of conformity (nl) 331 kB, 30.01.2018

Code: mrl_zt-256-as-2s_nl

Operating instructions and Declaration of conformity (en) 328 kB, 22.11.2017

Code: mrl_zt-256-as-2s_en

Operating instructions and Declaration of conformity (pl) 345 kB, 30.01.2018

Code: mrl_zt-256-as-2s_pl

Operating instructions and Declaration of conformity (jp) 385 kB, 13.08.2012

Code: mrl_zt-256-as-2s_jp

Operating instructions and Declaration of conformity (fr) 334 kB, 30.01.2018

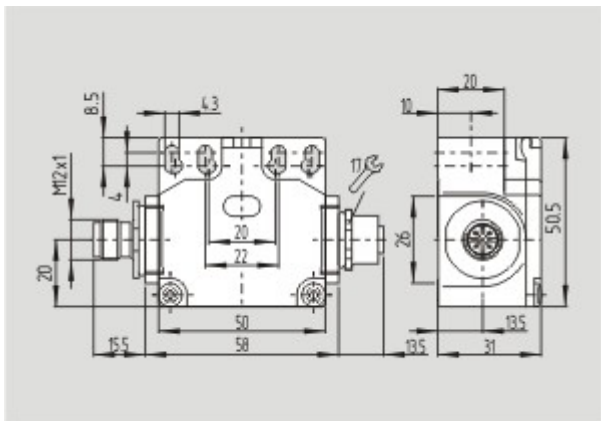
Code: mrl_zt-256-as-2s_fr

Operating instructions and Declaration of conformity (de) 303 kB, 22.11.2017

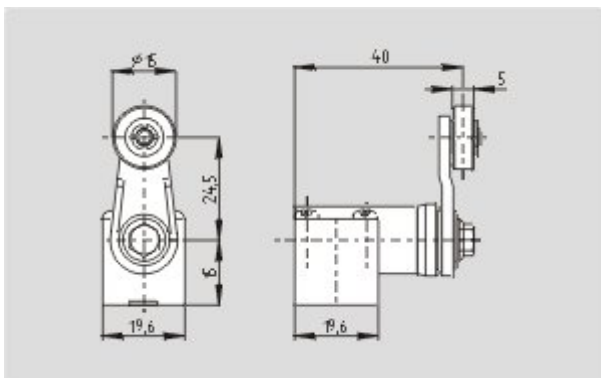
Images



Product photo



Dimensional drawing (basic component)



Dimensional drawing (actuator)
