



Model number

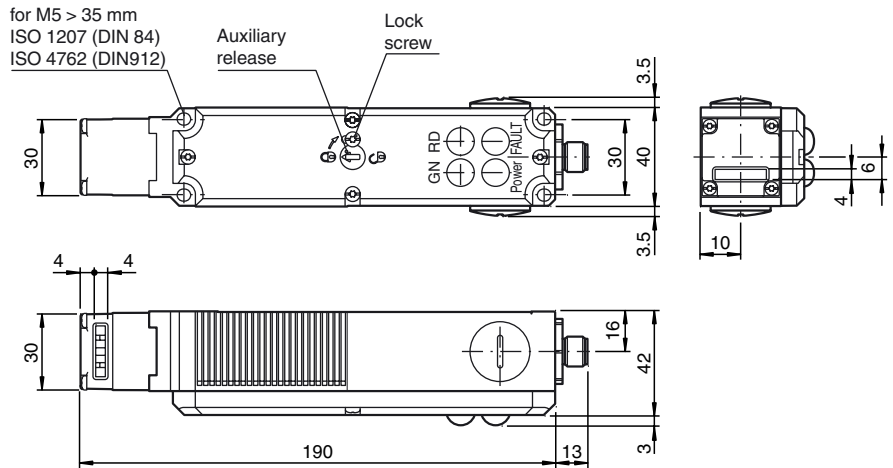
VAA-2E3A-LIM1-PU-J-S-V1

AS-Interface safety switch with guard locking and guard locking monitoring

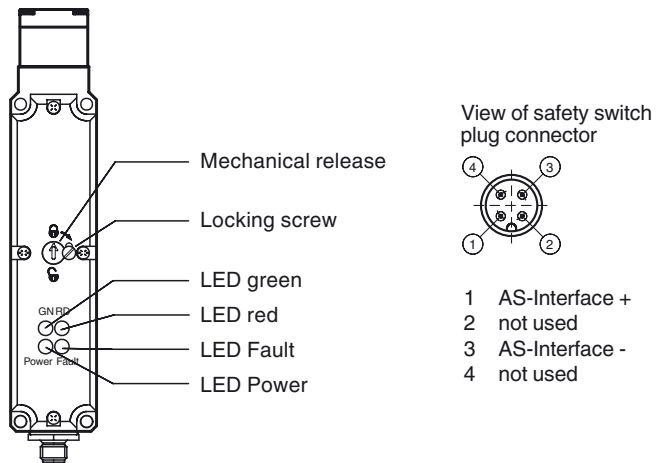
Features

- Applications up to PL_d
- 40 mm narrow construction, fixture dimensions compatible with all safety switches
- Rotating metal head
- Integrated guard locking up to 2500 N
- M12 plug connection
- Highly visible 4-way LED display
- Power supply from AS-Interface

Dimensions



Indicating / Operating means



Technical data

General specifications

Slave type	Safety-Slave
AS-Interface specification	V2.1
Required master specification	≥ V2.0
guard-locking mode	quiescent current

Functional safety related parameters

Performance level (PL)	PL d
B _{10d}	5 E+6

Indicators/operating means

LED FAULT	error display; LED red red: communication error
LED POWER	AS-Interface voltage; LED green

Electrical specifications

Auxiliary voltage	U _{AUX}	Guard locking magnet: 24 V DC +10/-15 % PELV
Rated operating voltage	U _e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I _e	≤ 45 mA
Rated insulation voltage		50 V

Input

Number/Type	2 safety-related inputs: 1 door-monitoring contact SK 1 Magnet-monitoring contact MC
Supply	from AS-Interface

Output

Number/Type	1 guard locking magnet, 1 LED red, 1 LED green
Supply	from AS-Interface
Current	300 mA

Directive conformity

Electromagnetic compatibility

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Directive 2014/30/EU	EN 62026-2:2013	
Standard conformity		
Degree of protection	EN 60529:2000	
AS-Interface	EN 62026-2:2013	
Functional safety	DIN EN 954-1, EN ISO 13849-1 (up to PL _d)	
Programming instructions		
Profile	S-7.B	
IO code	7	
ID code	B	
ID1 code	F	
ID2 code	E	
Data bits (function via AS-Interface)	input	output
D0	door-monitoring contact SK	guard locking magnet
D1	door-monitoring contact SK	LED red
D2	Magnet-monitoring contact MC	LED green
D3	Magnet-monitoring contact MC	-
Ambient conditions		
Ambient temperature	-20 ... 55 °C (-4 ... 131 °F)	
Mechanical specifications		
approach speed	≤ 20 m/min	
Operating force	35 N	
Extraction force	30 N (not interlocked)	
retention force	20 N	
locking force	≤ 2500 N 2000 N , F _{Zh} as per inspection policy GS-ET-19	
insertion depth	detected min. distance	permissible caster
approach direction lateral	24.5 mm	5 mm
approach direction from above	24.5 mm	5 mm
Degree of protection	IP67	
Connection	M12 x 1 connector	
Material		
Housing	Fiberglass-reinforced thermoplastic	
actuating head	metal	
cam	stainless steel	
Mass	approx. 0.5 kg	
Life span	10 ⁶ switching cycles	

Function

The VAA-2E3A-LIM1-PU-J-S-V1 safety switch with mechanical interlock and separate actuator is a safety switch with 2 inputs and 3 outputs. The contact monitoring and the solenoid monitoring are available via the inputs. Evaluation takes place via a safety monitor. The outputs control the solenoid and the red and green LEDs.

Connection is via an M12 plug. The safety switch is supplied via the AS-Interface. The mechanical interlock functions according to the standby current principle. The interlock release is activated by triggering the D0 AS-Interface output. Mechanical interlock takes place through tension.

The mechanical override serves to unlock the safety switch with the use of tools. To protect against manipulation, the mechanical override is sealed by locking varnish.

The Power LED indicates operating voltage, the Fault LED indicates a device or communication error. For example, via the controller, contact monitoring can be displayed with the red LED and solenoid monitoring with the green LED.

A simple connection to the AS-Interface network is sufficient for process protection. For personal protection, the 24 V connection can be switched securely.

Depending on the application, 4 different models of mechanical actuators can be ordered separately.

Accessories

VAZ-IM1-90°-BOLT-S

Right-angled actuator for AS-Interface safety switches

VAZ-IM1-BOLT-S

Straight actuator for AS-Interface safety switches

VAZ-IM1-LR-RADIUS-BOLT-S

Hinged actuator for right/left mounted doors, for AS-Interface safety switches

VAZ-IM1-TD-RADIUS-BOLT-S

Hinged actuator for top/bottom mounted doors, for AS-Interface safety switches

VAZ-IM1-BASE-BOLT-S

Latches for mechanical safety switches (LIM1 and IM1)

VAZ-IM1-BASE-S

Switch mount for mechanical safety switches (LIM1 and IM1)

VAZ-2T1-FK-1M-PUR-V1-G

Splitter box AS-Interface and auxiliary voltage to 1 x M12 round connector

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