



**EN** Operating instructions. . . . . pages 1 to 10  
Original

**Content**

**1 About this document**

1.1 Function. . . . . 1

1.2 Target group: authorised qualified personnel . . . . . 1

1.3 Explanation of the symbols used. . . . . 1

1.4 Appropriate use. . . . . 1

1.5 General safety instructions . . . . . 1

1.6 Warning about misuse. . . . . 2

1.7 Exclusion of liability . . . . . 2

**2 Product description**

2.1 Ordering code . . . . . 2

2.2 Special versions . . . . . 2

2.3 Comprehensive quality insurance to 2006/42/EC . . . . . 2

2.4 Purpose . . . . . 2

2.5 Technical data . . . . . 2

2.6 Safety classification . . . . . 3

**3 Mounting**

3.1 General mounting instructions. . . . . 3

3.2 Dimensions . . . . . 4

**4 Electrical connection**

4.1 General information for electrical connection . . . . . 4

4.2 Cable. . . . . 4

**5 Operating principle and actuator coding**

5.1 Mode of operation of the safety outputs . . . . . 4

5.2 Actuator teaching / actuator detection. . . . . 4

**6 Diagnostic functions**

6.1 Diagnostic-LEDs . . . . . 5

6.2 Safety switch with conventional diagnostic output . . . . . 5

6.3 Safety switch with serial diagnostic function SD . . . . . 6

**7 Set-up and maintenance**

7.1 Functional testing . . . . . 6

7.2 Maintenance . . . . . 6

**8 Disassembly and disposal**

8.1 Disassembly . . . . . 6

8.2 Disposal. . . . . 6

**9 Appendix**

9.1 Wiring examples . . . . . 7

9.2 Wiring configuration and accessories . . . . . 8

**10 EU Declaration of conformity**

**1. About this document**

**1.1 Function**

This operating instructions manual provides all the information you need for the mounting, set-up and commissioning to ensure the safe operation and disassembly of the safety switchgear. The operating instructions must be available in a legible condition and a complete version in the vicinity of the device.

**1.2 Target group: authorised qualified personnel**

All operations described in this operating instructions manual must be carried out by trained specialist personnel, authorised by the plant operator only.

Please make sure that you have read and understood these operating instructions and that you know all applicable legislations regarding occupational safety and accident prevention prior to installation and putting the component into operation.

The machine builder must carefully select the harmonised standards to be complied with as well as other technical specifications for the selection, mounting and integration of the components.

**1.3 Explanation of the symbols used**



**Information, hint, note:**

This symbol indicates useful additional information.



**Caution:** Failure to comply with this warning notice could lead to failures or malfunctions.

**Warning:** Failure to comply with this warning notice could lead to physical injury and/or damage to the machine.

**1.4 Appropriate use**

The products described in these operating instructions are developed to execute safety-related functions as part of an entire plant or machine. It is the responsibility of the manufacturer of a machine or plant to ensure the correct functionality of the entire machine or plant.

The safety switchgear must be exclusively used in accordance with the versions listed below or for the applications authorised by the manufacturer. Detailed information regarding the range of applications can be found in the chapter "Product description".

**1.5 General safety instructions**

The user must observe the safety instructions in this operating instructions manual, the country specific installation standards as well as all prevailing safety regulations and accident prevention rules.



Further technical information can be found in the Schmersal catalogues or in the online catalogue on the Internet: [products.schmersal.com](http://products.schmersal.com).

The information contained in this operating instructions manual is provided without liability and is subject to technical modifications.

There are no residual risks, provided that the safety instructions as well as the instructions regarding mounting, commissioning, operation and maintenance are observed.

### 1.6 Warning about misuse



In case of improper use or manipulation of the safety switch-gear, personal hazards or damages to machinery or plant components cannot be excluded. The relevant requirements of the standard ISO 14119 must be observed.

### 1.7 Exclusion of liability

We shall accept no liability for damages and malfunctions resulting from defective mounting or failure to comply with this operating instructions manual. The manufacturer shall accept no liability for damages resulting from the use of unauthorised spare parts or accessories.

For safety reasons, invasive work on the device as well as arbitrary repairs, conversions and modifications to the device are strictly forbidden, the manufacturer shall accept no liability for damages resulting from such invasive work, arbitrary repairs, conversions and/or modifications to the device.

## 2. Product description

### 2.1 Ordering code

This operating instructions manual applies to the following types:

#### AZ201-①-②-T-③

No.	Option	Description
①	I1	Standard coding
	I2	Individual coding
	I2	Individual coding, re-teaching enabled
②	SK	Screw terminals
	CC	Cage clamps
	ST2	Connector plug M12, 8-pole
③	1P2P	1 p-type diagnostic output and 2 p-type safety outputs
	SD2P	serial diagnostic output and 2 p-type safety outputs

Actuator	suitable for
AZ/AZM 201-B1-...	Sliding safety guards
AZ/AZM 201-B30-...	Hinged safety guards



Only if the information described in this operating instructions manual are realised correctly, the safety function and therefore the compliance with the Machinery Directive is maintained.

### 2.2 Special versions

For special versions, which are not listed in the order code below 2.1, these specifications apply accordingly, provided that they correspond to the standard version.

### 2.3 Comprehensive quality insurance to 2006/42/EC

Schmersal is a certified company to appendix X of the Machinery Directive. As a result, Schmersal is entitled to autonomously conduct the conformity assessment procedure for the products listed in Appendix IV of the MD without involving a notified body. The prototype test certificates are available upon request or can be downloaded from the Internet at [products.schmersal.com](http://products.schmersal.com).

### 2.4 Purpose

The non-contact, electronic safety switch is designed for application in safety circuits and is used for monitoring the position of movable safety guards.



The safety switchgears are classified according to ISO 14119 as type 4 interlocking devices. Designs with individual coding are classified as highly coded.

The safety function consists of safely switching off the safety outputs when the safety guard is opened and maintaining the safe switched off condition of the safety outputs for as long as the safety guard is open.

### Series-wiring

Series-wiring can be set up. The reaction and risk times increase by up to 1.5 ms per additional device when connected in series. The quantity of devices is only limited by the cable drops and the external cable fuse protection, according to the technical data.

Series-wiring of up to 31 AZ201...-SD components with serial diagnostics is possible. In devices with the serial diagnostics function (ordering suffix -SD), the serial diagnostics connections are wired in series and connected to a SD-Gateway for evaluation purposes.

Wiring examples for series-wiring, refer to appendix.



The user must evaluate and design the safety chain in accordance with the relevant standards and the required safety level. If multiple safety switchgears are involved in the same safety function, the PFH values of the individual components must be added.



The entire concept of the control system, in which the safety component is integrated, must be validated to the relevant standards.

### 2.5 Technical data

Standards:	EN 60947-5-3, ISO 14119, EN ISO 13849-1, EN 61508
Enclosure:	glass-fibre reinforced thermoplastic, self-extinguishing
Active principle:	RFID
Frequency band:	125 kHz
Transmitter output:	max. -6 dBm
Coding level according to ISO 14119:	
- I1-version:	high
- I2-version:	high
- Standard coding version:	low
Reaction time, switching off outputs Y1, Y2 via:	
- Actuator:	≤ 100 ms
- Inputs X1,X2:	≤ 1.5 ms
Duration of risk:	< 200 ms
Time to readiness:	< 4 s
Series-wiring:	Unlimited number of components, please observe external cable protection, max. 31 components in case of serial diagnostics
Cable length:	max. 200 m (cable length and cable section alter the voltage drop depending on the output current)

### Mechanical data

Latching force:	30 N
Termination:	Screw terminals or cage clamps, Connector plug M12
Cable entry:	M20
Cable type:	rigid single-wire, rigid multi-wire or flexible
Cable section:	min. 0.25 mm <sup>2</sup> , max. 1.5 mm <sup>2</sup> (including conductor ferrules)
Tightening torque for the cover screws:	0.7 ... 1 Nm (Torx T10)
Actuating speed:	max. 0.2 m/s
Mechanical life:	≥ 1,000,000 operations
<b>Switching distances to EN 60947-5-3</b>	
Assured switching distance $s_{30}$ :	4 mm
Assured switch-off distance $s_{ar}$ :	30 mm
Hysteresis:	≤ 1.5 mm
Repeat accuracy:	< 0.5 mm
Switching frequency:	≤ 1 Hz

### Environmental conditions

Ambient temperature:	-25 °C ... +70 °C
Storage and transport temperature:	-25 °C ... +85 °C
Relative humidity:	max. 93 %, non condensing, non icing
Degree of protection:	IP66, IP67 to EN 60529
Installation altitude above sea level:	max. 2,000 m
Protection class:	III
Resistance to shock:	30 g / 11 ms
Resistance to vibration:	10 ... 55 Hz, amplitude 1 mm
Insulation values to EN 60664-1:	
- Rated insulation voltage $U_i$ :	32 VDC
- Rated impulse withstand voltage $U_{imp}$ :	0.8 kV
- Over-voltage category:	III
- Degree of pollution:	3

### Electrical data

Operating voltage $U_B$ :	24 VDC -15% / +10% (stabilised PELV power supply)
No-load current $I_0$ :	max. 0.05 A
Required rated short-circuit current:	100 A
External cable and device fuse rating:	
- Screw terminals or cage clamps:	4 A gG when used in accordance with UL 508
- Connector plug M12:	2 A gG

### Electrical data – Safety inputs

Safety inputs:	X1 and X2
Switching thresholds:	- 3 V ... 5 V (Low), 15 V ... 30 V (High)
Current consumption per input:	typically 2 mA / 24 V
Accepted test pulse duration on input signal:	≤ 1.0 ms
- With test pulse interval of:	≥ 100 ms
Classification:	ZVEI CB24I

Sink:	C1	Source:	C1	C2	C3
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### Electrical data – Safety outputs

Safety outputs:	Y1 and Y2
Switching elements:	OSSD, p-type, short-circuit proof
Utilisation category:	DC-13
- Rated operating voltage $U_e$ :	24 VDC
- Rated operating current $I_e$ :	each max. 0.25 A
Leakage current $I_l$ :	≤ 0.5 mA
Voltage drop $U_d$ :	≤ 4 V
Cross-wire monitoring by device:	Yes
Test pulse duration:	≤ 0.5 ms
Test pulse interval:	1000 ms
Classification:	ZVEI CB24I

Source:	C2	Sink:	C1	C2
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### Electrical data – Diagnostic output

Diagnostic output:	OUT
Switching element:	p-type, short-circuit proof
Utilisation category:	DC-13
- Rated operating voltage $U_e$ :	24 VDC
- Rated operating current $I_e$ :	max. 0.05 A
Voltage drop $U_d$ :	≤ 4 V

### Serial diagnostic SD

Operating current:	0.15 A
Wiring capacitance:	max. 50 nF

### LED switching conditions display

green LED:	Supply voltage
yellow LED:	Device condition
red LED:	Internal device error



Use isolated power supply only. For use in NFPA 79 Applications only. Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.



This device complies with part 15 of the FCC Rules and contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s): Operation is subject to the following two conditions: (1) This device may not cause harmful interference, AND (2) this device must accept any interference received, including interference that may cause undesired operation. This device complies with the Nerve Stimulation Exposure Limits (ISED SPR-002) for direct touch operations. Changes or modifications not expressly approved by K.A. Schmersal GmbH & Co. KG could void the user's authority to operate the equipment.

### 2.6 Safety classification

Standards:	EN ISO 13849-1, EN 61508
PL:	up to e
Control Category:	4
PFH:	$1.9 \times 10^{-9}$ / h
PFD:	$1.6 \times 10^{-4}$
SIL:	suitable for SIL 3 applications
Mission time:	20 years

## 3. Mounting

### 3.1 General mounting instructions

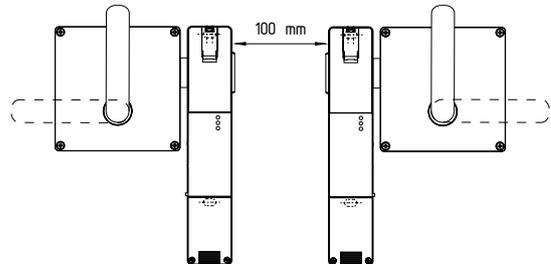


Please observe the relevant requirements of the standards ISO 12100, ISO 14119 and ISO 14120.

For fitting the safety switch and the actuator, two mounting holes for M6 screws with washers (washers included in delivery) are provided. The safety switch must not be used as end stop. Any mounting position. The mounting position however must be chosen so that the ingress of dirt and soiling in the used opening is avoided. The unused actuator opening must be sealed by means of the dust-proof flap (included in delivery).

### Minimum distance between two safety sensors

as well as other systems with same frequency (125 kHz): 100 mm.



### Mounting of the actuators

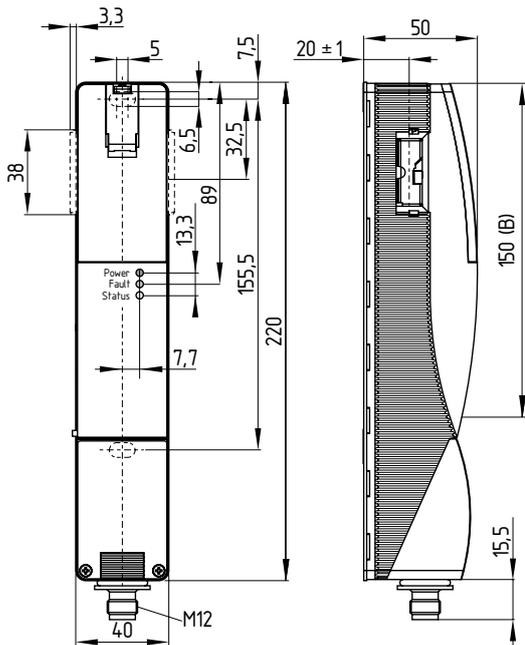
Refer to the mounting instructions manual for the corresponding actuator AZ/AZM201-B30... or AZ/AZM201-B1...



The actuator must be permanently fitted to the safety guards and protected against displacement by suitable measures (tamperproof screws, gluing, drilling of the screw heads).

### 3.2 Dimensions

All measurements in mm.



#### Key

B: Active RFID area



Metal parts and magnetic fields in the lateral RFID area of the safety switch and the actuator can influence the switching distance or lead to malfunctions.

## 4. Electrical connection

### 4.1 General information for electrical connection



The electrical connection may only be carried out by authorised personnel in a de-energised condition.

The power supply of the safety switch must provide protection against permanent overvoltage. To that effect, stabilised PELV supply units must be used. The required electrical cable and device fuse protection must be integrated in the installation.

The safety outputs can be directly integrated in the safety circuit of the control system. For applications up to PL e / control category 4 in accordance with EN ISO 13849-1, the safety outputs of the safety switch must have an assessment with the same control category (refer to wiring examples). Inductive loads (e.g. contactors, relays, etc.) are to be provided with suitable interference suppression circuitry.



The fitted 24V, X1, X2 bridge is included in the delivery of ...-1P2P and ...-SD2P.

#### Requirements for the connected safety-monitoring module:

- Dual-channel safety input, suitable for two p-type semi-conductor outputs



#### Configuration of the safety controller

If the safety switchgear is connected to electronic safety-monitoring modules, we recommend that you set a discrepancy time of 100 ms. The safety inputs of the safety-monitoring module must be able to blank a test impulse of approx. 1 ms.

The safety-monitoring module does not need to have a cross-wire short monitoring function, if necessary, the cross-wire short monitoring function must be disabled.



Information for the selection of suitable safety-monitoring modules can be found in the Schmersal catalogues or in the online catalogue on the Internet: [products.schmersal.com](http://products.schmersal.com).

If the safety component is wired to relays or to non-safety relevant control components, a new risk analysis must be carried out.



#### Accessories for the series-wiring

For convenient wiring and series-wiring of SD components, the SD junction boxes PFB-SD-4M12-SD (variant for the field) and PDM-SD-4CC-SD (variant for control cabinet on carrier rail) are available along with additional comprehensive accessories. Detailed information is available on the Internet, [products.schmersal.com](http://products.schmersal.com).



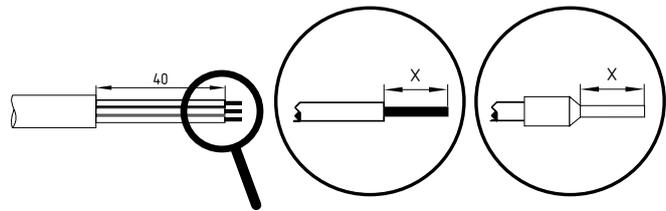
On wiring SD devices, please pay attention to the voltage drop on the cables and the current carrying capacity of the individual components.

### 4.2 Cable

The cable entry is realised by a metric M20 gland. This gland must be dimensioned by the user so that it is suitable for the cable used. A cable gland with strain relief and suitable IP protection class must be used.

#### Settle length x of the conductor:

- on screw terminals (SK): 8.0 mm
- on cage clamps (CC) of type s, r or f: 7.5 mm



## 5. Operating principle and actuator coding

### 5.1 Mode of operation of the safety outputs

The opening of the safety guard causes the safety outputs to be disabled within the risk time.

### 5.2 Actuator teaching / actuator detection

Safety switches with standard coding are ready to use upon delivery.

Individually coded safety switches and actuators will require the following "teach-in" procedure:

1. Switch the safety switch's voltage supply off and back on.
2. Introduce the actuator in the detection range. Teach-in is signalled on the safety switch, the green LED is switched off, the red LED illuminates and the yellow LED flashes (1 Hz).
3. After 10 seconds, brief cyclic yellow flashes (5 Hz) request the switch-off of the operating voltage of the safety switch. (If the voltage is not switched off within 5 minutes, the safety switch cancels the "teach-in" procedure and signals a false actuator by 5 red flashes.)
4. After the operating voltage is switched back on, the actuator must be detected once more in order to activate the taught actuator code. In this way, the activated code is definitively saved!

**For ordering suffix -I1, the executed allocation of safety switch and actuator is irreversible.**

For ordering suffix -I2, the "teach-in" procedure for a new actuator can be repeated an unlimited number of times. When a new actuator is taught, the code, which was applicable until that moment, becomes invalid. Subsequent to that, an enabling inhibit will be active for ten minutes, thus providing for an increased protection against tampering. The green LED will flash until the expiration of the time of the enabling inhibit and the detection of the new actuator. In case of power failure during the lapse of time, the 10-minutes tampering protection time will restart.

### 6. Diagnostic functions

#### 6.1 Diagnostic-LEDs

The safety switchgear signals the operational state as well as errors through three coloured LEDs installed on the front side of the device.

**green** (Power) Supply voltage on  
**yellow** (Status) Switching condition  
**red** (Fault) Fault (refer to table 2)

#### 6.2 Safety switch with conventional diagnostic output

The short-circuit proof diagnostic output can be used for central visualisation or control functions, e.g. in a PLC. The closed condition of the safety guard and the inserted condition of the actuator is indicated by means of a 24V signal.

**The diagnostic output is not a safety-relevant output!**

#### Error

Errors, which no longer guarantee the function of the safety switch (internal errors) cause the safety outputs to be switched off within the risk time. Any error that does not immediately affect the safe functionality of the solenoid interlock (e.g. excess ambient temperature, safety output to external potential, short circuit) will lead to a delayed shut-down (refer to table 2).

After fault rectification, the error message is reset by opening and re-closing the corresponding safety guard. The safety outputs enable and allow a restart.



Automatic, electronic locking takes place if more than one fault is detected at the safety outputs or a cross circuit is detected between Y1 and Y2. This means that normal fault acknowledgement is no longer possible. To reset this type of interlocking, the safety switch must be isolated from the power supply after elimination of the error causes.

#### Error warning

A fault has occurred, which causes the safety outputs to be disabled after 30 minutes. The safety outputs initially remain enabled. This signal combination, diagnostic output disabled and safety channels still enabled, can be used to stop the production process in a controlled manner. An error warning is deleted when the cause of error is eliminated.

**Table 1: The diagnostic function of the safety switchgear**

System condition	LED			Safety outputs Y1, Y2	Diagnostic output OUT -1P2P
	green	red	yellow		
Guard open	On	Off	Off	0 V	0 V
Door closed, <b>actuator not inserted</b>	On	Off	Off	0 V	0 V
Door closed, <b>actuator inserted</b>	On	Off	On	24 V	24 V
<b>Error warning</b> <sup>1)</sup> actuator inserted, shutdown approaching	On	Flashes <sup>2)</sup>	On	24 V <sup>1)</sup>	0 V
<b>Error</b>	On	Flashes <sup>2)</sup>	Off	0 V	0 V
<b>Additionally for variant I1/I2:</b>					
Teach-in procedure actuator started	Off	On	Flashes	0 V	0 V
Only I2: teach-in procedure actuator (release block)	Flashes	Off	Off	0 V	0 V

<sup>1)</sup> after 30 min: disabling due to fault

<sup>2)</sup> refer to flash code

**Table 2: Error messages / flash codes red diagnostic LED**

Flash codes	Designation	Autonomous switch-off after	Error cause
1 flash pulse	Error (warning) at output Y1	30 min	Fault in output test or voltage at output Y1, although the output is disabled.
2 flash pulses	Error (warning) at output Y2	30 min	Fault in output test or voltage at output Y2, although the output is disabled.
3 flash pulses	Error (warning) cross-wire short	30 min	Cross-wire short between the output cables or fault at both outputs
4 flash pulses	Error (warning) temperature too high	30 min	The temperature measurement reveals an internal temperature that is too high
5 flash pulses	Actuator fault	0 min	Incorrect or defective actuator
6 flash pulses	Error actuator combination	0 min	An invalid combination of actuators was detected (blocking bolt detection or tamper attempt).
Continuous red	Internal fault / overvoltage or undervoltage fault	0 min	Device defective / supply voltage not within specifications

### 6.3 Safety switch with serial diagnostic function SD

Safety switches with serial diagnostic cable have a serial input and output cable instead of the conventional diagnostic output. If safety switches are wired in series, the diagnostic data is transmitted through the series-wiring of the inputs and outputs.

Max. 31 safety switches can be wired in series. For the evaluation of the serial diagnostics line either the PROFIBUS-Gateway SD-I-DP-V0-2 or the Universal-Gateway SD-I-U-... are used. This serial diagnostic interface is integrated as slave in an existing field bus system. In this way, the diagnostic signals can be evaluated by means of a PLC.

The necessary software for the integration of the SD-Gateway is available for download at [products.schmersal.com](http://products.schmersal.com).

The response data and the diagnostic data are automatically and permanently written in an input byte of the PLC for each safety switch in the series-wired chain. The request data for each safety switch are transmitted to the component through an output byte of the PLC. In case of a communication error between the field bus gateway and the safety switch, the switching condition of the safety switch is maintained.

#### Error

A fault has occurred, which causes the safety outputs to be disabled. The fault is reset, when the cause is eliminated and bit 7 of the request byte changes from 1 to 0 or the safety guard is opened. Faults at the safety outputs are only deleted upon the next release, as the fault rectification cannot be detected sooner.



Automatic, electronic locking takes place if more than one fault is detected at the safety outputs or a cross circuit is detected between Y1 and Y2. This means that normal fault acknowledgement is no longer possible. To reset this type of interlocking, the safety switch must be isolated from the power supply after elimination of the error causes.

#### Error warning

A fault has occurred, which causes the safety outputs to be disabled after 30 minutes. The safety outputs initially remain enabled. This enables the shutdown of the process in a controlled manner. An error warning is deleted when the cause of error is eliminated.

#### Diagnostic error (warning)

If an error (warning) is signalled in the response byte, detailed fault information can be read out.



#### Accessories for the series-wiring

For convenient wiring and series-wiring of SD devices, the SD junction boxes PFB-SD-4M12-SD (variant for the field) and PDM-SD-4CC-SD (variant for control cabinet on carrier rail) are available along with additional comprehensive accessories. Detailed information is available on the Internet, [products.schmersal.com](http://products.schmersal.com).



When wiring SD devices, please observe the voltage drop on the cables and the current carrying capacity of the individual components.

**Table 3: I/O data and diagnostic data**

The described condition is reached, when Bit = 1

Bit n°	Request byte	Response byte	Diagnostic error warning	Diagnostic error
Bit 0:	---	Safety output activated	Error output Y1	Error output Y1
Bit 1:	---	Actuator detected	Error output Y2	Error output Y2
Bit 2:	---	---	Cross-wire short	Cross-wire short
Bit 3:	---	---	Temperature too high	Temperature too high
Bit 4:	---	Input condition X1 and X2	---	Incorrect or defective actuator
Bit 5:	---	Guard door detected	Internal device error	Internal device error
Bit 6:	---	Error warning <sup>1)</sup>	Communication error between the field bus Gateway and the safety switchgear	---
Bit 7:	Error reset	Error (enabling path switched off)	---	---

<sup>1)</sup> after 30 min: disabling due to fault

## 7. Set-up and maintenance

### 7.1 Functional testing

The safety function of the safety components must be tested. The following conditions must be previously checked and met:

1. Fitting of the safety switch and the actuator
2. Check the integrity of the cable entry and connections
3. Check the switch enclosure for damage

### 7.2 Maintenance

We recommend a regular visual inspection and functional test, including the following steps:

1. Check the fixing of the safety switch and the actuator
2. Check maximum axial offset of actuator unit and safety switch.
3. Remove particles of dust and soiling
4. Check cable entry and connections



Adequate measures must be taken to ensure protection against tampering either to prevent tampering of the safety guard, for instance by means of replacement actuators.

**Damaged or defective components must be replaced.**

## 8. Disassembly and disposal

### 8.1 Disassembly

The safety switchgear must be disassembled in a de-energised condition only.

### 8.2 Disposal

The safety switchgear must be disposed of in an appropriate manner in accordance with the national prescriptions and legislations.

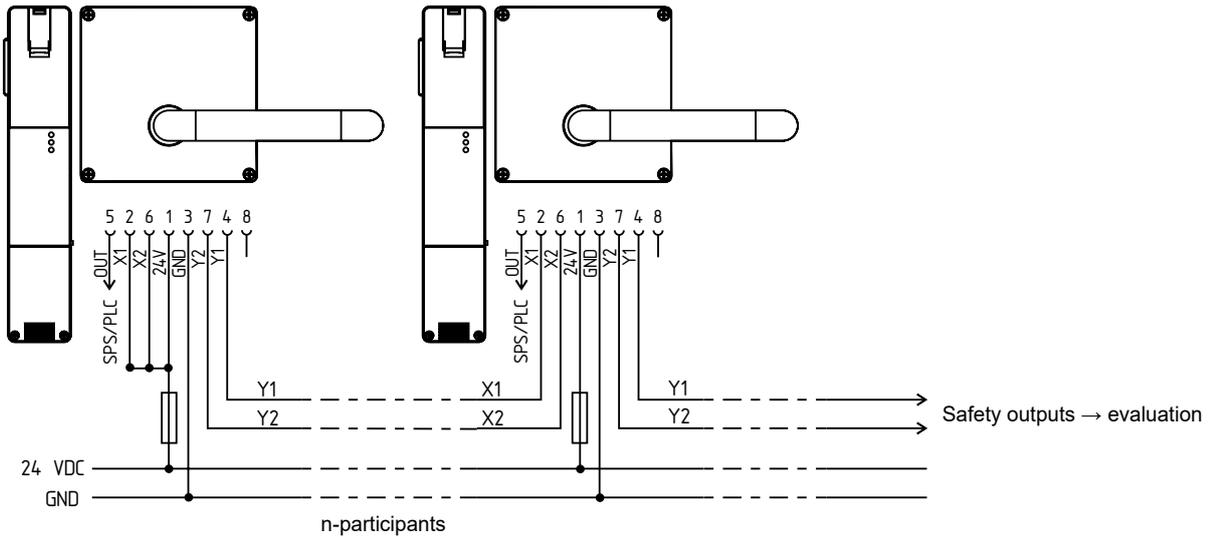
9. Appendix

9.1 Wiring examples

The application examples shown are suggestions. They however do not release the user from carefully checking whether the switchgear and its set-up are suitable for the individual application.

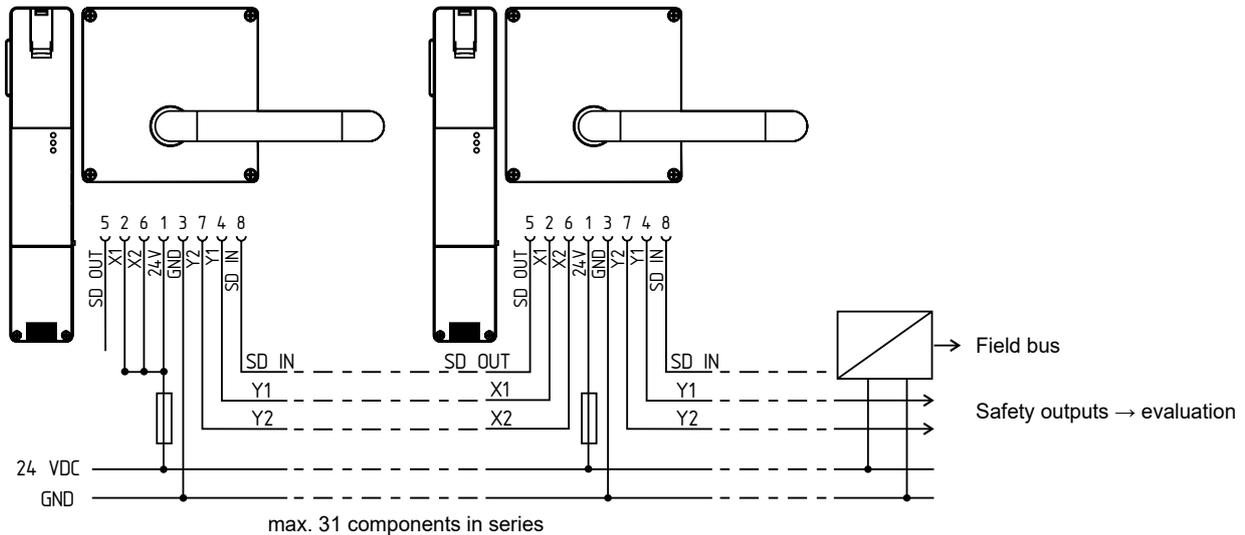
**Wiring example 1: Series-wiring of the AZ201 with conventional diagnostic output**

The series-wiring of multiple AZ201 solenoid interlocks is realised by wiring in the control cabinet or in on-site junction boxes. In the example, 2 AZ 201 safety switches are wired in series. The diagnostic output ("OUT") is wired separately for each device to a conventional PLC for evaluation. The maximum cable length of the safety circuits must not exceed 200 m. In the series-wiring, the 24V-X1-X2 bridge must be removed from all components up to the last component. The voltage is supplied at both safety inputs of the terminal safety component of the chain (considered from the safety-monitoring module). The safety outputs of the first safety component are wired to the safety-monitoring module.



**Wiring example 2: Series-wiring of the AZ201 with serial diagnostic function**

The safety outputs of the first safety component are wired to the safety-monitoring module. The serial Diagnostic Gateway is connected to the serial diagnostic input of the first safety component.



9.2 Wiring configuration and accessories

	Safety switch function		Pin configuration of the connector <b>ST2 M12, 8-pole</b>	Configuration of the removable terminal blocks	Colour code of the Schmersal connector to DIN 47100	Possible colour code of other commercially available connectors according to EN 60947-5-2
	with conventional diagnostic output	with serial diagnostic function				
						
<b>24V</b>	U <sub>e</sub>		1	1	WH	BN
<b>X1</b>	Safety input 1		2	2	BN	WH
<b>GND</b>	GND		3	5	GN	BU
<b>Y1</b>	Safety output 1		4	7	YE	BK
<b>OUT</b>	Diagnostic output	SD output	5	9	GY	GY
<b>X2</b>	Safety input 2		6	3	PK	PK
<b>Y2</b>	Safety output 2		7	8	BU	VT
<b>IN</b>	without function	SD input	8	4	RD	OR
	without function		–	6		

24V	24V	X1	X2	IN
AZ201-...-T-1P2P				
GND		Y1	Y2	OUT

Terminal block  
-SK or -CC

24V	24V	X1	X2	IN
AZ201-...-T-SD2P				
GND		Y1	Y2	OUT

Terminal block  
-SK or -CC

1	2	3	4
AZ201-...-T-1P2P			
5	6	7	8

Removable terminal block

Accessories: Pre-wired cables

Connecting cables with coupling (female)  
IP67, M12, 8-pole - 8 x 0.25 mm<sup>2</sup>

Cable length	Ordering code
2.5 m	103011415
5.0 m	103007358
10.0 m	103007359

Further versions in other lengths and with angled cable exit are available upon request.

10. EU Declaration of conformity

EU Declaration of conformity



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We hereby certify that the hereafter described components both in their basic design and construction conform to the applicable European Directives.

**Name of the component:** AZ201

**Type:** See ordering code

**Description of the component:** Safety Switch for safety functions

**Relevant Directives:** 2006/42/EG Machinery Directive  
2014/53/EU RED-Directive  
2011/65/EU RoHS-Directive

**Applied standards:** EN 60947-5-3:2013  
ISO 14119:2013  
EN 300 330 V2.1.1:2017  
EN ISO 13849-1:2015  
EN 61508 parts 1-7:2010

**Notified body for the prototype test:** TÜV Rheinland Industrie Service GmbH  
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**EC-prototype test certificate:** 01/205/5608.00/17

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AZ201-B-EN



The currently valid declaration of conformity can be downloaded from the internet at [products.schmersal.com](http://products.schmersal.com).



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