



## AZ 200ST2-T-1P2P

- Connector M12, 8-pole
- Thermoplastic enclosure
- Max. length of the sensor chain 200 m
- Self-monitoring series-wiring
- 3 LEDs to show operating conditions
- Sensor technology permits an offset between actuator and interlock of  $\pm 5$  mm vertically and  $\pm 3$  mm horizontally
- Intelligent diagnosis

## Data

### Ordering data

Note (Delivery capacity)	Phased-out product
EAN (European Article Number)	4030661370781
eCl@ss number, Version 9.0	27-27-26-02
eCl@ss number, Version 11.0	27-27-26-02
Available until	31.12.2020

### Approval - Standards

Certificates	TÜV cULus EAC
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### General data

Standards	IEC 61508 IEC 60947-5-3 EN ISO 13849-1
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Active principle	Non-contact
Enclosure material	Glass-fibre, reinforced thermoplastic
Gross weight	386 g
Time to readiness, maximum	4,000 ms
Reaction time, maximum	60 ms
Duration of risk, maximum	120 ms

## General data - Features

Actuator monitored	Yes
Short circuit detection	Yes
Short-circuit recognition	Yes
Series-wiring	Yes
Safety functions	Yes
Integral System Diagnostics, status	Yes
Number of safety contacts	2

## Safety appraisal

Standards	IEC 61508
Performance level, up to	e
Control category to EN13849	4
PFH-value	$4.00 \times 10^{-9}$ /h
Safety Integrity Level (SIL), suitable for applications in	3
Mission Time	20 Year(s)

## Mechanical data

Mechanical life, minimum	1,000,000 Operations
Hysteresis (Switch distance), maximum	1.5 mm
Repeat accuracy R R	0.5 mm

Latching force	30 N
Actuating speed, maximum	0.2 m/s

### Mechanical data - Switching distances according IEC 60947-5-3

Switch distance	6.5 mm
Ensured switch distance "ON" $S_{ao}$	4 mm
Ensured switch distance "OFF" $S_{ar}$	30 mm

### Mechanical data - Connection technique

Terminal Connector	Connector M12, 8-pole
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### Mechanical data - Dimensions

Length of sensor	50 mm
Width of sensor	40 mm
Height of sensor	220 mm

### Ambient conditions

Degree of protection	IP67 to EN 60529
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+70 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Relative humidity, minimum	30 %
Relative humidity, maximum	95 %
Note (Relative humidity)	non-condensing
Resistance to vibrations to EN 60068-2-6	10 ... 55 Hz, amplitude 1 mm
Resistance to shock	30 g / 11 ms
Protection rating	II

### Ambient conditions - Insulation value

Rated insulation voltage $U_i$	32 VDC
Rated impulse withstand voltage $U_{imp}$	0.8 kV
Overvoltage category	III
Degree of pollution to VDE 0100	3

### Electrical data

No-load supply current $I_0$	100 mA
Rated operating voltage, minimum	20.4 VDC
Rated operating voltage, maximum	26.4 VDC
Operating current	50 mA
Switching frequency, approx.	1 Hz

### Electrical data - Fail-safe digital inputs

Switching thresholds	−3 V ... 5 V (Low) 15 V ... 30 V (High)
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### Electrical data - Fail-safe digital outputs

Rated operating current (safety outputs)	250 mA
Versions	p-type
Voltage drop $U_d$ , maximum	4 V
Current leakage $I_r$	0.5 mA
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.25 A

### Electrical data - Digital Output

Versions	p-type
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## Electrical data - Diagnostic output

Voltage drop $U_d$ , maximum	4 V
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.05 A

## Status indication

Note (LED switching conditions display)	Operating condition: LED green Error / functional defect: LED red Supply voltage: LED green
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## Pin assignment

PIN 1	A1 Supply voltage UB
PIN 2	X1 Safety input 1
PIN 3	A2 GND
PIN 4	Y1 Safety output 1
PIN 5	OUT Diagnostic output
PIN 6	X2 Safety input 2
PIN 7	Y2 Safety output 2
PIN 8	IN serial diagnostic input

## Scope of delivery

Included in delivery	Actuators must be ordered separately.
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## Accessory

Recommendation (actuator)	AZ/AZM 200-B1
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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

