COMPARISON LIST

Product information

Product type description	AZM300Z-ST-1P2P	AZM300Z-ST-1P2P-DU
Item number	103001435	103045791
Image		

Product features

Ordering data

Product type description	AZM300Z-ST-1P2P	AZM300Z-ST-1P2P-DU
Article number (order number)	103001435	103045791
EAN (European Article Number)	4030661426051	4030661565965
eCl@ss number, version 12.0	27-27-26-03	27-27-26-03
eCl@ss number, version 11.0	27-27-26-03	27-27-26-03
eCl@ss number, version 9.0	27-27-26-03	27-27-26-03
ETIM number, version 7.0	EC002593	EC002593
ETIM number, version 6.0	EC002593	EC002593

Note (Delivery capacity)	-	Not available!

Approvals - Standards

Certificates	TÜV cULus ECOLAB FCC IC ANATEL	TÜV cULus ECOLAB FCC IC ANATEL

General data

Standards	EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-3 EN IEC 61508	EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-3 EN IEC 61508
Coding	Universal coding	Universal coding
Coding level according to EN ISO 14119	Low	Low
Working principle	RFID	RFID
Frequency band RFID	125 kHz	125 kHz
Transmitter output RFID, maximum	-6 dB/m	-6 dB/m
Housing material	Glass-fibre, reinforced thermoplastic	Glass-fibre, reinforced thermoplastic
Duration of risk, maximum	200 ms	200 ms
Reaction time, switching off safety outputs via actuator, maximum	100 ms	100 ms
Reaction time, switching off safety outputs via safety inputs, maximum	1.5 ms	1.5 ms
Gross weight	610 g	597 g

General data - Features

Power to unlock	Yes	Yes
Solenoid interlock monitored	Yes	Yes
Latching	Yes	Yes
Manual release	Yes	Yes
Short circuit detection	Yes	Yes
Cross-circuit detection	Yes	Yes
Series-wiring	Yes	Yes
Safety functions	Yes	Yes
Integral system diagnostics, status	Yes	Yes
Number of actuating directions	3	3
Number of fail-safe digital outputs	2	2

Safety classification

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

Safety classification - Interlocking function

Performance Level, up to	e	e
Category	4	4
PFH value	5.20 x 10^{-10} /h	5.20 x 10^{-10} /h
PFD value	4.50 x 10^{-5}	4.50 x 10^{-5}
Safety Integrity Level (SIL), suitable for applications in	3	3
Mission time	20 Year(s)	20 Year(s)

Safety classification - Guard locking function

Performance Level, up to	d	d
Category	2	2
PFH value	2.00 x 10^{-9} /h	2.00 x 10^{-9} /h
PFD value	1.80 x 10^{-4}	1.80 x 10^{-4}
Safety Integrity Level (SIL), suitable for applications in	2	2
Mission time	20 Year(s)	20 Year(s)

Mechanical data

Mechanical life, minimum	1,000,000 Operations	1,000,000 Operations
Note (Mechanical life)	When using as door stop: ≥ 50.000 operations (door mass ≤ 5 kg and actuating speed ≤ 0.5 m/s)	When using as door stop: ≥ 50.000 operations (door mass ≤ 5 kg and actuating speed ≤ 0.5 m/s)
Angular misalignment between solenoid interlock and actuator, maximum	2 °	2 °
Holding force F_{Zh} in accordance with EN ISO 14119	1,150 N	1,150 N
Holding force F_{max}, maximum	1,500 N	1,500 N
Latching force, adjustable, position 1	25 N	25 N
Latching force, adjustable, position 2	50 N	50 N
Type of the fixing screws	2x M6	2x M6
Tightening torque of the fixing screws, minimum	6 Nm	6 Nm

Tightening torque of the fixing screws, maximum	7 Nm	7 Nm

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

Switch distance, typical	2 mm	2 mm
Assured switching distance "ON" S_{ao}	1 mm	1 mm
Assured switching distance "OFF" S_{ar}	20 mm	20 mm

Mechanical data - Connection technique

Length of sensor chain, maximum	200 m	200 m
Note (length of the sensor chain)	Cable length and cross-section change the voltage drop dependiing on the output current	Cable length and cross-section change the voltage drop dependiing on the output current
Note (series-wiring)	Unlimited number of devices, oberserve external line fusing, max. 31 devices in case of serial diagnostic SD	Unlimited number of devices, oberserve external line fusing, max. 31 devices in case of serial diagnostic SD
Termination	Connector M12, 8-pole, A-coded	Connector M12, 8-pole, A-coded

Mechanical data - Dimensions

Length of sensor	120 mm	120 mm
Width of sensor	87.5 mm	87.5 mm
Height of sensor	35 mm	35 mm

Ambient conditions

Degree of protection	IP66 IP67 IP69	IP66 IP67 IP69
Ambient temperature	+0 ... +60 °C	+0 ... +60 °C

Storage and transport temperature	-10 ... +90 °C	-10 ... +90 °C
Relative humidity, maximum	93 %	93 %
Note (Relative humidity)	non-condensing non-icing	non-condensing non-icing
Resistance to vibrations	10 ... 150 Hz, amplitude 0.35 mm	10 ... 150 Hz, amplitude 0.35 mm
Restistance to shock	30 g / 11 ms	30 g / 11 ms
Protection class	III	III
Permissible installation altitude above sea level, maximum	2,000 m	2,000 m

Ambient conditions - Insulation values

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

Electrical data

Operating voltage	24 VDC -15 % / +10 % (stabilised PELV power supply)	24 VDC -15 % / +10 % (stabilised PELV power supply)
No-load supply current I_0, typical	100 mA	100 mA
Current consumption with magnet ON, average	200 mA	200 mA
Current consumption with magnet ON, peak	350 mA / 200 ms	350 mA / 200 ms
Rated operating voltage	24 VDC	24 VDC
Required rated short-circuit current	100 A	100 A

External wire and device fuse rating	2 A gG	2 A gG
Time to readiness, maximum	5,000 ms	5,000 ms
Switching frequency, maximum	0.5 Hz	0.5 Hz
Utilisation category DC-12	24 VDC / 0.05 A	24 VDC / 0.05 A
Electrical fuse rating, maximum	2 A	2 A

Electrical data - Magnet control

Designation, Magnet control	IN	IN
Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption at 24 V	10 mA	10 mA
Magnet switch-on time	100 %	100 %
Test pulse duration, maximum	5 ms	5 ms
Test pulse interval, minimum	40 ms	40 ms
Classification ZVEI CB24I, Sink	C0	C0
Classification ZVEI CB24I, Source	C1 C2 C3	C1 C2 C3

Electrical data - Safety digital inputs

Designation, Safety inputs	X1 and X2	X1 and X2
Switching thresholds	−3 V ... 5 V (Low) 15 V ... 30 V (High)	−3 V ... 5 V (Low) 15 V ... 30 V (High)

Current consumption at 24 V	5 mA	5 mA
Test pulse duration, maximum	1 ms	1 ms
Test pulse interval, minimum	100 ms	100 ms
Classification ZVEI CB24I, Sink	C1	C1
Classification ZVEI CB24I, Source	C1 C2 C3	C1 C2 C3

Electrical data - Safety digital outputs

Designation, Safety outputs	Y1 and Y2	Y1 and Y2
Design of control elements	short-circuit proof, p-type	short-circuit proof, p-type
Voltage drop U_d, maximum	2 V	2 V
Leakage current I_r, maximum	0.5 mA	0.5 mA
Voltage, Utilisation category DC-12	24 VDC	24 VDC
Current, Utilisation category DC-12	0.25 A	0.25 A
Voltage, Utilisation category DC-13	24 VDC	24 VDC
Current, Utilisation category DC-13	0.25 A	0.25 A
Test pulse interval, typical	1000 ms	1000 ms
Test pulse duration, maximum	0.5 ms	0.5 ms
Classification ZVEI CB24I, Source	C2	C2
Classification ZVEI CB24I, Sink	C1 C2	C1 C2

Electrical data - Diagnostic outputs

Designation, Diagnostic outputs	OUT	OUT
Design of control elements	short-circuit proof, p-type	short-circuit proof, p-type
Voltage drop U_d, maximum	2 V	2 V
Voltage, Utilisation category DC-12	24 VDC	24 VDC
Current, Utilisation category DC-12	0.05 A	0.05 A
Voltage, Utilisation category DC-13	24 VDC	24 VDC
Current, Utilisation category DC-13	0.05 A	0.05 A

Status indication

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

Pin assignment

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

Scope of delivery

Scope of delivery	Actuator must be ordered separately.	Actuator must be ordered separately.

Accessory

Recommendation (actuator)	AZ/AZM300-B1	AZ/AZM300-B1

Note

Note (General)	For doors that are flush with the door frame, the optional mounting plate MP-AZ/AZM300-1 can be used. For glass and Makrolon doors, the optional mounting kit MS-AZ/AZM300-B1-1 can be used. As long as the actuating unit remains inserted in the solenoid interlock, the unlocked safety guard can be relocked. In this case, the safety outputs are re-enabled, so that the safety guard must not be opened.	For doors that are flush with the door frame, the optional mounting plate MP-AZ/AZM300-1 can be used. For glass and Makrolon doors, the optional mounting kit MS-AZ/AZM300-B1-1 can be used. As long as the actuating unit remains inserted in the solenoid interlock, the unlocked safety guard can be relocked. In this case, the safety outputs are re-enabled, so that the safety guard must not be opened.

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