DATASHEET



AZM400Z-ST-1P2P-T

- Universal coding with RFID technology
- Connector M12, 8-pole
- Guard locking monitored
- 1 Diagnostic output
- Emergency exit
- Bistable, motor-driven system
- Clamping force 10.000
- Release possible against lateral forces up to 300 N
- PL e / cat. 4 / SIL 3 for interlocking and guard locking function
- Two-channel input signal of the guard locking function
- Operation on P/P- and P/N-switching outputs
- High tolerance to door misalignment

Data

Ordering data

Product type description	AZM400Z-ST-1P2P-T
Article number (order number)	103003593
EAN (European Article Number)	4030661472584
eCl@ss number, Version 9.0	27-27-26-03
eCl@ss number, Version 11.0	27-27-26-03

Approval - Standards

Certificates	TÜV cULus EAC FCC IC

General data

Standards	IEC 60947-5-1 EN ISO 13849-1 IEC 61508 EN ISO 14119
general information	Universal coding
Coding level according to ISO 14119	Low
Active principle	Magnetic field RFID
Enclosure material	Light alloy die-casting
Gross weight	846 g
Time to readiness, maximum	1,500 ms
Reaction time, maximum	100 ms

General data - Features

Guard locking monitored	Yes
Emergency exit	Yes
Short circuit detection	Yes
Short-circuit recognition	Yes
Safety functions	Yes
Integral System Diagnostics, status	Yes
Number of diagnostic signals	1
Number of safety contacts	2

Safety appraisal

Standards	IEC 61508 EN ISO 13849-1

Safety appraisal - Interlocking

Performance level, up to	e
Control category	4
PFH-value	1.00×10^{-9} /h
PFD value	9.00×10^{-5}
Safety Integrity Level (SIL), suitable for applications in	3
Mission Time	20 Year(s)

Safety appraisal - Guard locking

Performance level, up to	e
Control category	4
PFH-value	1.80 x 10^{-9} /h
PFD value	1.60 x 10^{-4}
Safety Integrity Level (SIL), suitable for applications in	3
Mission Time	20 Year(s)

Mechanical data

Interlocking principle	bistable
Mechanical life, minimum	1,000,000 Operations
Note (Mechanical lifetime)	Which have a lateral force Ftrans = 100 N: 100.000 operations
Minimum distance devices	30 mm
Clamping force in accordance with ISO14119 F_{zh}	10,000 N
Clamping force, maximum F_{max}	13,000 N
Lateral force at bolt return, maximal (against locked door)	300 N
Note (Lateral force at bolt return)	Does not apply to emergency exit, Bowden cable and manual release
Tightening torque of the screw	8 Nm

Mechanical data - Connection technique

Terminal Connector	Connector M12, 8-pole

Mechanical data - Dimensions

Length of sensor	65.3 mm
Width of sensor	77.8 mm
Height of sensor	166.7 mm

Ambient conditions

Degree of protection	IP66 to EN 60529 IP67 to EN 60529
Ambient temperature, minimum	-20 °C
Ambient temperature, maximum	+55 °C
Storage and transport temperature, minimum	-40 °C
Storage and transport temperature, maximum	+85 °C
Resistance to vibrations to EN 60068-2-6	10 … 150 Hz, amplitude 0.35 mm
Restistance to shock	30 g / 11 ms
Protection rating	III
TEMP_AMBIENT_MIN_GEN	-20

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

Operating Current	100 mA
Current consumption, maximum	600 mA
Current consumption at 24V, minimum	10 mA
Current consumption at 24V, maximum	15 mA
No-load supply current I_0	100 mA
Rated operating voltage	24 VDC
Rated operating voltage	24 VDC
Operating current	50 mA
Required rated short-circuit current to EN 60947-5-1	100 A
Switching frequency, approx.	0.3 Hz
Open / close cycle (Motor), minimum	3
Minimal average cycle time (with continuous operation)	20 s

Electrical data - Control inputs

Switching thresholds of the control inputs	−3 V ... 5 V (Low) 15 V ... 30 V (High)
Allowable discrepancy time (input), maximum	10 s
Classification ZVEI CB24I, Sink	C0
Classification ZVEI CB24I, Source	C1 C2 C3

Electrical data - Fail-safe digital inputs

Classification ZVEI CB24I, Sink	C1

Electrical data - Fail-safe digital outputs

Rated operating current (safety outputs)	250 mA
Voltage drop U_d, maximum	2 V
Current leakage I_r	1.5 mA
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.25 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.25 A
Classification ZVEI CB24I, Source	C2
Classification ZVEI CB24I, Sink	C1 C2

Electrical data - Diagnostic output

Versions	short-circuit proof, p-type
Voltage drop U_d, maximum	2 V
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.05 A
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 UB: LED green

Pin assignment

PIN 1	A1 Supply voltage UB
PIN 2	E1 Control input 1
PIN 3	A2 GND
PIN 4	Y1 Safety output 1
PIN 5	OUT Diagnostic output
PIN 6	E3 Control input 3
PIN 7	Y2 Safety output 2
PIN 8	E2 Control input 2

Scope of delivery

Included in delivery	Actuators must be ordered separately.
Delivery scope of Mounting material	2 x M6 (10.9)

Accessory

Recommendation (actuator)	AZM400-B1

Ordering code

Product type description:
AZM400Z(1)(2)(3)(4)(5)

(1)

ST	1 Connector plug M12, 8-pin
ST2	2 Connector plug M12, 8-pin / 5-pin

(2)

without	Standard coding
I1	Individual coding
I2	Individual coding, multiple teaching

(3)

1P2P	1 serial diagnostic output and 2 p-type safety outputs (only for ST)
2P2P	2 serial diagnostic output and 2 p-type safety outputs (only for ST2)

(4)

without	Manual release
T	Emergency exit
BOW	With securing holes for Bowden cable assembly

(5)

without	without electronic manual release (Only for ST)
E	with electronic manual release (Only for ST2)

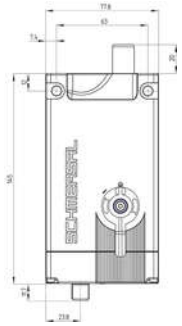
Pictures

Product picture (catalogue individual photo)



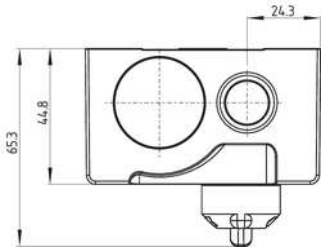
ID: kazm4f37
| 527.4 kB | .jpg | 352.778 x 235.303 mm - 1000 x 667 px - 72 dpi
| 31.2 kB | .png | 74.083 x 49.389 mm - 210 x 140 px - 72 dpi

Dimensional drawing basic component



ID: kazm4g19
| 236.7 kB | .ai | 210 x 297 mm - 595 x 841 px - 72 dpi
| 14.9 kB | .png | 74.083 x 137.583 mm - 210 x 390 px - 72 dpi
| 219.2 kB | .jpg | 352.778 x 655.108 mm - 1000 x 1857 px - 72 dpi

Dimensional drawing basic component



ID: kazm4g23
| 113.5 kB | .ai | 210 x 297 mm - 595 x 841 px - 72 dpi
| 5.0 kB | .png | 74.083 x 57.15 mm - 210 x 162 px - 72 dpi
| 120.1 kB | .jpg | 352.778 x 271.639 mm - 1000 x 770 px - 72 dpi

Schmersal Ltd., Sparrowhawk Close, WR14 1GL Malvern
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.
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