



AZM40Z-I1-ST-1P2P

- Compact, flat design
- 119,5 mm x 40 mm x 20 mm
- High holding force 2000
- Latching force 40 N
- RFID-technology for needs-based protection against tampering
- Only one version for hinged and sliding doors
- Actuator can approach interlock continuously within a 180 degree angle.
- Symmetrical mounting, can be bolted on either side

Data

Approvals - Standards

Certificates	cULus
	IC
	FCC
	ANATEL

General data

Standards	EN IEC 60947-5-3
	EN IEC 61508
	EN ISO 13849-1
	EN ISO 14119
Coding	Individual coding
Coding level according to EN ISO 14119	High
Working principle	RFID
Frequency band RFID	125 kHz
Transmitter output RFID, maximum	-6 dBm
Housing material	Light alloy die cast and plastic (glass-fibre reinforced thermoplastic)
Reaction time, maximum	100 ms
Duration of risk, maximum	200 ms

General data

Reaction time, switching off safety outputs via safety inputs, maximum	1.5 ms
Gross weight	270 g

General data - Features

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

Safety classification

Standards	EN IEC 61508
	EN ISO 13849-1

Safety classification - Interlocking function

Performance Level, up to	e
Category	4
PFH value	$1.10 \times 10^{-9} / \text{h}$
PFD value	8.90×10^{-5}
Safety Integrity Level (SIL), suitable for applications in	3
Mission time	20 Year(s)

Safety classification - Guard locking function

Performance Level, up to	d
Category	2
PFH value	$3.00 \times 10^{-9} / \text{h}$
PFD value	2.40×10^{-4}
Safety Integrity Level (SIL), suitable for applications in	2

Safety classification - Guard locking function

Mission time	20 Year(s)
--------------	------------

Mechanical data

Interlocking principle	bistable
Mechanical lifetime, locking cycles	1,000,000 Operations
Mechanical lifetime, actuator cycles	500,000 Operations
Note (Mechanical lifetime)	from device version V2 (V1 = 200.000 actuator cycles)
Holding force FZh in accordance with EN ISO 14119	2,000 N
Holding force Fmax, maximum	2,600 N
Latching force	40 N
Note (Latch force)	+/- 25%
Actuating speed, maximum	0.5 m/s
Mounting	mounting holes countersink
Type of the fixing screws	2x M5
Tightening torque of the fixing screws, minimum	4 Nm
Tightening torque of the fixing screws, maximum	6 Nm
Note	Observe the maximum tightening torque of the fixing screws used.

Mechanical data - Switching distances

Assured switching distance "ON" Sao	1 mm
Assured switching distance "OFF" Sar	8 mm
Note (switching distance)	All switching distances in accordance EN IEC 60947-5-3

Mechanical data - Connection technique

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

Mechanical data - Dimensions

Length of sensor	119.5 mm
------------------	----------

Mechanical data - Dimensions

Width of sensor	40 mm
Height of sensor	20 mm

Ambient conditions

IP Degree of protection	IP66
	IP69
	IP67
Ambient temperature	-20 ... +55 °C
Storage and transport temperature	-40 ... +85 °C
Relative humidity, maximum	93 %
Note (Relative humidity)	non-condensing
	non-icing
Resistance to vibrations	10 ... 55 Hz, amplitude 1 mm
Restistance to shock	30 g / 11 ms
Protection class	III
Permissible installation altitude above sea level, maximum	2,000 m

Ambient conditions - Insulation values

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

Electrical data

Operating voltage	24 VDC -15 % / +10 % (stabilised PELV power supply)
No-load supply current I_0 , typical	100 mA
Current consumption magnet at switching moment, peak	600 mA / 100 ms
Rated operating voltage	24 VDC
Operating current	1,200 mA
Required rated short-circuit current	100 A
External wire and device fuse rating	2 A gG
Time to readiness, maximum	4,000 ms
Switching frequency, maximum	0.25 Hz

Electrical data

Electrical fuse rating, maximum	2 A
---------------------------------	-----

Electrical data - Magnet control

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

Electrical data - Safety digital inputs

Designation, Safety inputs	X1 and X2
Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption at 24 V	5 mA
Test pulse duration, maximum	1 ms
Test pulse interval, minimum	100 ms
Classification ZVEI CB24I, Sink	C1
Classification ZVEI CB24I, Source	C1 C2 C3

Electrical data - Safety digital outputs

Designation, Safety outputs	Y1 and Y2
Rated operating current (safety outputs)	250 mA
Design of control elements	short-circuit proof, p-type
Voltage drop U_d , maximum	2 V
Leakage current I_r , maximum	0.5 mA

Electrical data - Safety digital outputs

Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	0.25 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	0.25 A
Test pulse interval, typical	1000 ms
Test pulse duration, maximum	0.5 ms
Classification ZVEI CB24I, Source	C2
Classification ZVEI CB24I, Sink	C1
	C2

Electrical data - Diagnostic outputs

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

Status indication

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

Pin assignment

PIN 1	A1 Supply voltage U_B
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 Solenoid control

Accessory

Recommendation (actuator)

AZM40-B1

Pictures

Product picture (catalogue individual photo)



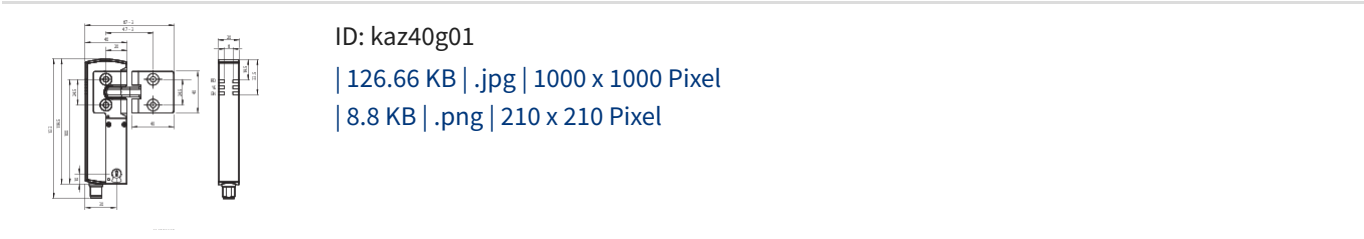
ID: kaz40f23

| 1.1 MB | .jpg | 1000 x 2456 Pixel

| 25.94 KB | .jpg | 142 x 350 Pixel

| 126.63 KB | .png | 210 x 515 Pixel

Dimensional drawing basic component

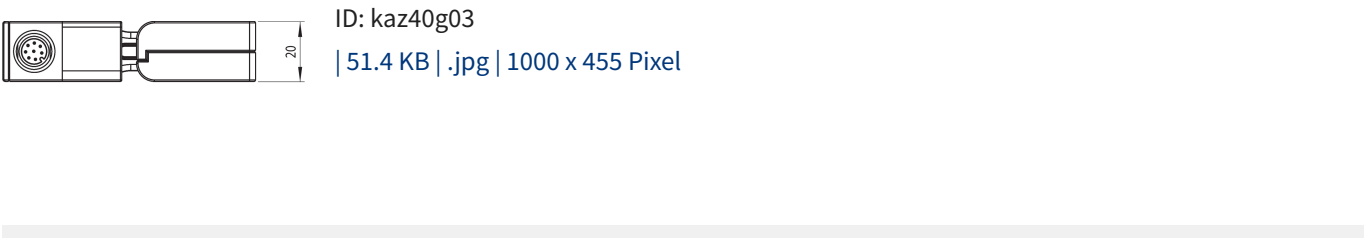


ID: kaz40g01

| 126.66 KB | .jpg | 1000 x 1000 Pixels

| 8.8 KB | .png | 210 x 210 Pixel

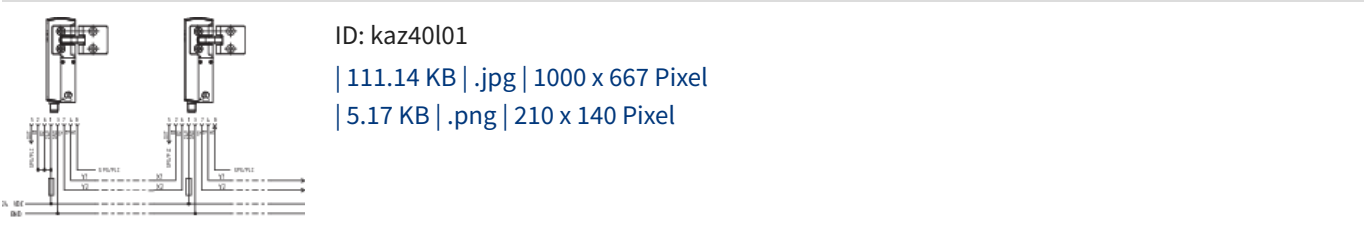
Dimensional drawing basic component



ID: kaz40g03

| 51.4 KB | .jpg | 1000 x 455 Pixel

Wiring example

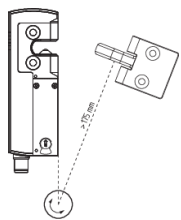


ID: kaz40l01

| 111.14 KB | .jpg | 1000 x 667 Pixel

| 5.17 KB | .png | 210 x 140 Pixel

Sample application general



ID: kaz40a30

| 145.56 KB | .jpg | 999 x 1241 Pixel

| 7.15 KB | .png | 209 x 260 Pixel

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.

Generated on: 12/06/2026, 10:26