



SSP

Safety System Products

ATM-100A5-A

ATOM Solenoid interlock, normally closed (PTU), one connection, standard wiring

Your advantages

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we simplify safety

ATM-100A5-A

General data

Item number	ITM-0
Functional type	ATOM Solenoid interlock, normally closed (PTU), one connection, standard wiring
Type designation	ATM-100A5-A

Safety data

Diagnostic coverage DC	Maximum 99% with appropriate monitoring
PFHd (EN ISO 13849)	4,16 x 10 ⁻⁹
Construction type (acc. to ISO 14119)	Type 2
Demand rate (acc. to IEC 62061)	High
Type of coding (according to EN ISO 14119)	High
Standards	ISO 14119, EN ISO 13849, IEC 61508, EN 60947-5-2, BS EN 62061
Category (EN ISO 13849-1:2015)	up to Category 4
SIL (acc. IEC 62061)	up to SIL3 CL3

Environmental conditions

operating environment	Indoor
Contamination level	2
Max. operating temperature	-20°C bis +55°C (-4°F bis +131°F) °C
Relative humidity	50% at 70°C
Altitude	2.000 m
Vibration resistance	Tested according to GS-ET-19 and EN 60947-5-2

Electrical data

Rated operating voltage U _e	24V DC (+10%, -15%) V
Rated insulation voltage U _i	60 V
Rated impulse withstand voltage U _{imp}	0,5 kV
Voltage drop U _d	< 3,5 V
Rated current (on 24 VDC)	400 mA
Current consumption	min. 100 mA

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Rated conditional short-circuit	100 A
Power consumption when switched off	< 0,5 mA
Overvoltage category	Type 2
Electromagnetic Compatibility (EMC)	Complies with EN 60947-5-3
Compliance with UL requirements	The unit must be operated on an energy-limited circuit. The power supply requires a 4 A fuse.
Design / Connections	1 x M12 8-pin male connector
Function type safety outputs	2 x OSSD

pin assignment with SSP accessories cable

1	White - Safety input 1
2	Brown - UB
3	Green - Safety output 1
4	Yellow - Safety output 2
5	Grey - Diagnostic output On (door open)
6	Pink - safety entrance 2
7	Blue - GND
8	Red - Solenoid On (guard locking unlocked)

Response times

Safe response time	< 200 ms
Safe input "low" to safe output "low"	< 25 ms
Guard locking unlocked until safe output "low"	< 200 ms

Safety functions

Safety function 1	Secure inputs on
Safety function 2	Protective device closed
Safety function 3	Safety guard kept closed
Safe state 1	1 OSSD output off
Safe state 2	Protective device closed

Mechanical data

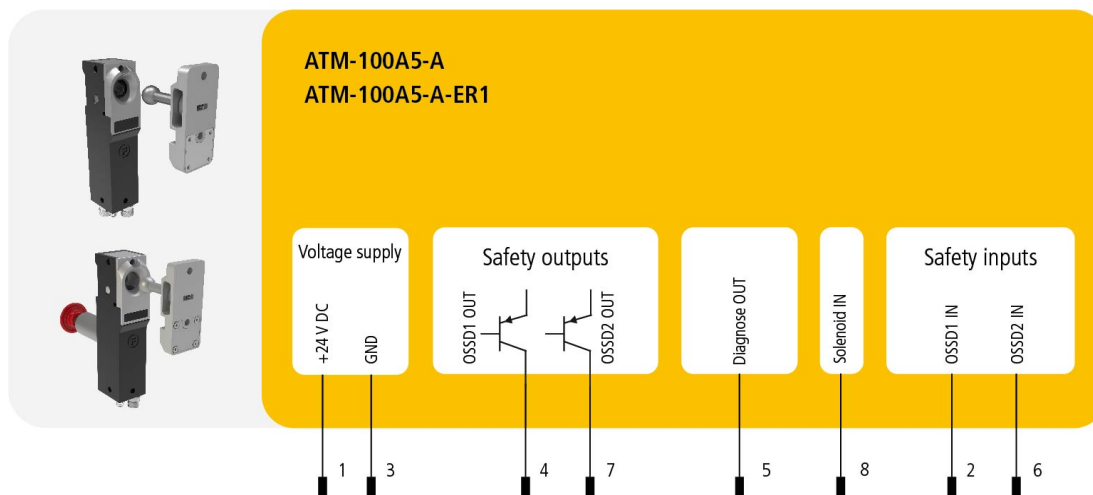
Housing material	Passivated and painted zinc alloy to BSEN12844 ZA3 and stainless steel acc. to BS3146-2:1975 (ANC4B)
Mechanical service life	1.000.000 switching cycles
Locking force Fmax	5.000 N

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Locking force FZh	6000 N
Maximum locking force F1max	12000 N
Minimally actuation radius	150 mm (see figure 5)
Maximum actuation frequency	720 switching cycles per hour

Electrical drawings

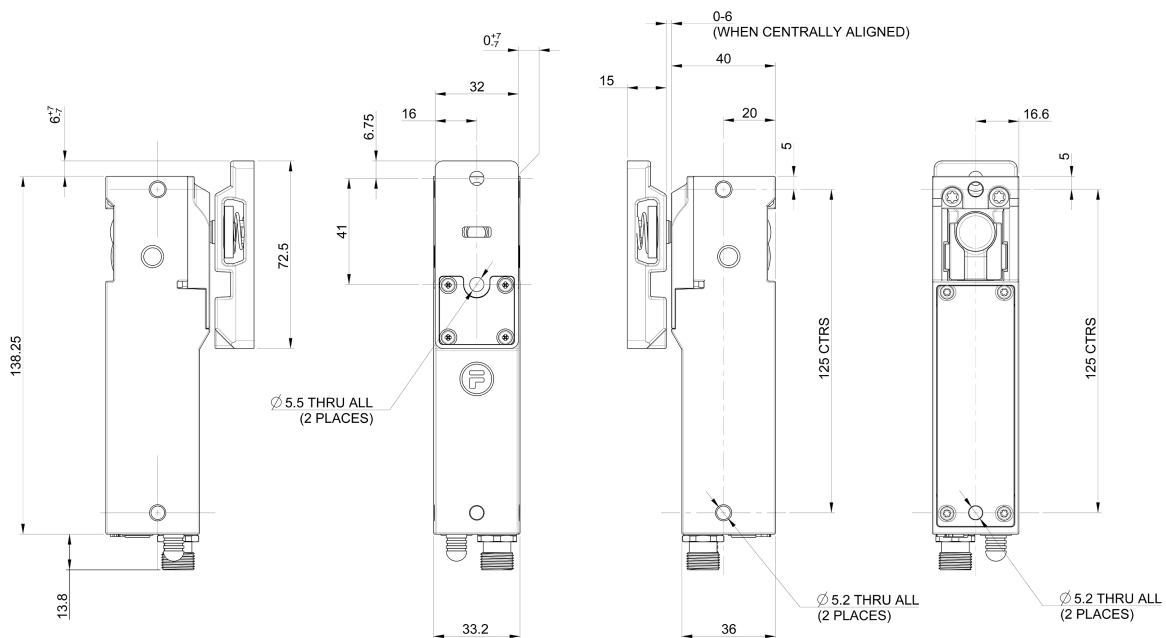
Pin assignment 1



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Drawings

Dimensions



Equipment

Safety switches

SP-R-13-501-50



Mounting set for sliding doors 1 x angle fitting

ATM-KB

ITM-00335522



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Mounting set for hinged doors 2 x angle fitting

ATM-KC

ITM-00344138



Mounting set for hinged doors with handle

ATM-KH

ITM-00344139



Mounting set for sliding doors with handle

ATM-KL

ITM-00335530



Mounting set for sliding bolt with return spring
without escape release

ATM-KS

ITM-00332039



Accessories

M12-female connector, 8 pin, 10 m

C8D10

SP-R-13-309-81



M12-female connector, 8 pin, 25 m

C8D25

SP-R-13-309-67



M12-female connector, 8 pin, 40 m

C8D40

SP-R-13-309-66



M12-female connector, 8 pin, 5 m

C8D5

SP-R-13-309-80



M12-connecting cable, 8 pin, 1 m

M12-M12-C813-G

SP-X-33-000-25



Wireless Safety

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Safety Simplifier for Atom	S14LDRB-H08-E2-I1-Q1A0-Q 2A0-Q3C0-Q4S0-W42	SP-X-89-100-11	
Safety Simplifier for Atom	S14LDRB-H09-E2-I1-I1-Q1A0- Q2A0-Q3C0-Q4S0-W43	SP-X-89-100-12	
Safety Simplifier for Atom	S14LDRB-H0A-E2-I1-I1-I1-Q1 A0-Q2A0-Q3C0-Q4S0-W44	SP-X-89-100-13	
Safety Simplifier for Atom	S14LDRB-H0A-E2-I1-I1-K4-Q1 A0-Q2A0-Q3C0-Q4S0-W45	SP-X-89-100-14	
Safe control technology			
Standard safety relay 1 safety function	S2 series	SP-K-70-001-00	
Time delay safety relay 1 safety function	T2 series	SP-K-70-001-02	
Multi-function safety relay 2 safety functions	X2 series	SP-K-70-001-03	

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Downloads

- CAD Data
- Certificate UL
- Certificate TUV