Safety Switch with Lock Function

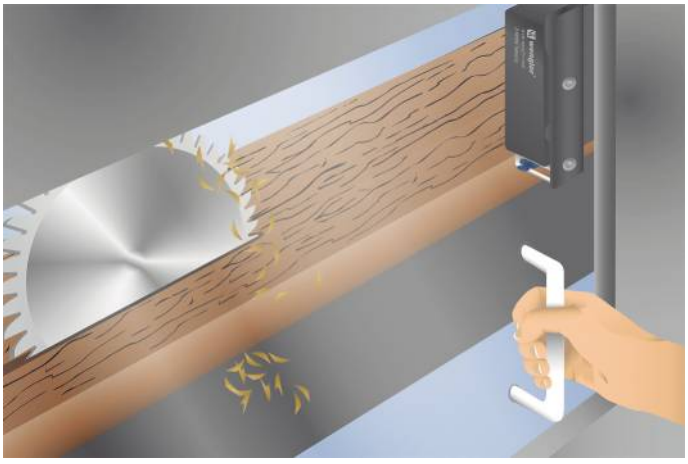
Electromechanic, Power to Lock Principle

S2FP104

Part Number

- **Locking force of 1000 N**
- **Performance Level: Cat. 4 PL e**
- **Power to lock principle**

The electromechanical safety switch with lock function is distinguished by a high locking force of 1000 N. As a result, only one safety switch with lock function is required in order to fulfill a safety level of category 4 PL e (EN ISO 13849-1). The safety level, as well as reaction time and risk time, remain unchanged when connected in series. Extensive diagnosis functions enhance system availability and simplify installation and maintenance. The unique star handle operating concept is especially well-suited for rotary and sliding doors. Thanks to RFID encoding and an actuator with teach-in function, the safety switch with lock function demonstrates high levels of protection against manipulation.

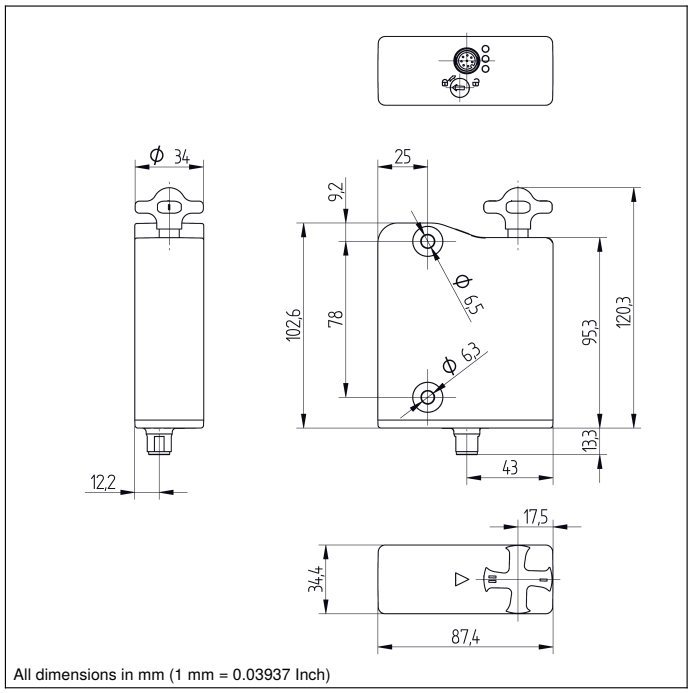


Technical Data

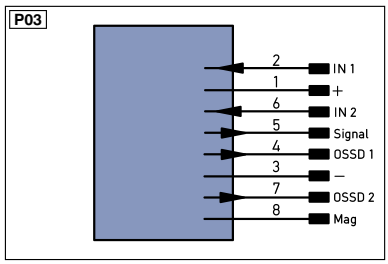
Electrical Data	
Sensor Type	Locking unit
Supply Voltage	20,4...26,4 V DC
Response Time	≤ 100 ms
Risk time	≤ 200 ms
Temperature Range	0...60 °C
Storage temperature	-10...90 °C
Safety Output	OSSD
No. Safety Outputs (OSSDs)	2
PNP Safety Output/Switching Current	250 mA
Signal Outputs	1
PNP signal output switching current	50 mA
Short Circuit Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Plastic
Degree of Protection	IP65/IP67/IP69
Connection	M12 × 1; 8-pin
Detent force, typical	25 / 50 N
Safety-relevant Data	
Operating principle	RFID
Coding	Individual, teachable
Performance Level (EN ISO 13849-1)	Cat. 4 PL e
PFHD	5,20 × E-10 1/h
Safety Integrity Level (EN 61508)	SIL3
Safety Integrity Level (EN 62061)	SILCL3
PDDB (EN 60947-5-3)	yes
Lock	Power to lock principle
Locking Force F, guaranteed	1000 N
Function	
Series connection	yes
Actuator monitored	yes
Mechanical lock	yes
Detent	yes
Auxiliary release	yes
Applicable actuator	S2FP200
Connection Diagram No.	P03
Suitable Connection Technology No.	89
Suitable Mounting Technology No.	850

Complementary Products

Safety Relay SR4B3B01S, SR4D3B01S
Software



All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+	Supply Voltage +
–	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
V̄	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)
EN0 RS422	Encoder 0-pulse 0-0̄ (TTL)
PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
O	Analog Output
O–	Ground for the Analog Output
BZ	Block Discharge
AMV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
E+	Receiver-Line
S+	Emitter-Line
⏚	Grounding
SnR	Switching Distance Reduction
Rx+/–	Ethernet Receive Path
Tx+/–	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(–)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contactor Monitoring
ENA RS422	Encoder A/Ā (TTL)
ENB RS422	Encoder B/B̄ (TTL)
ENA	Encoder A
ENB	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
OLT	Brightness output
M	Maintenance

Wire Colors according to DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green/Yellow