

# Safety Switch with Lock Function

## Electromechanic, Power to Lock Principle

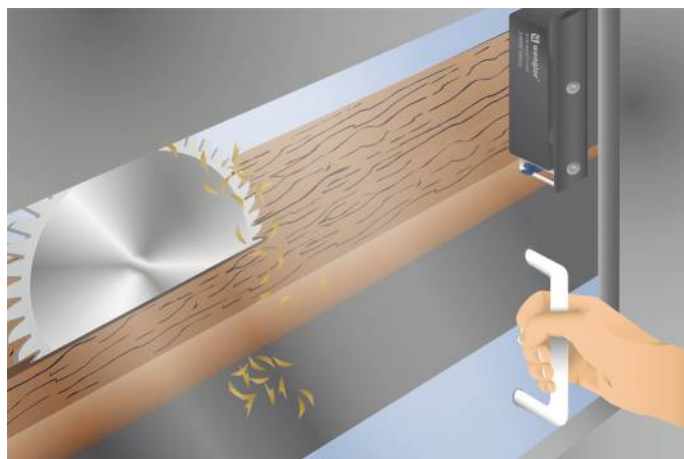
# S2FP104

Part Number



- Locking force of 1150 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 1150 N. This means that only one safety switch with locking function is required to attain the Cat. 4 PL e safety level (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.

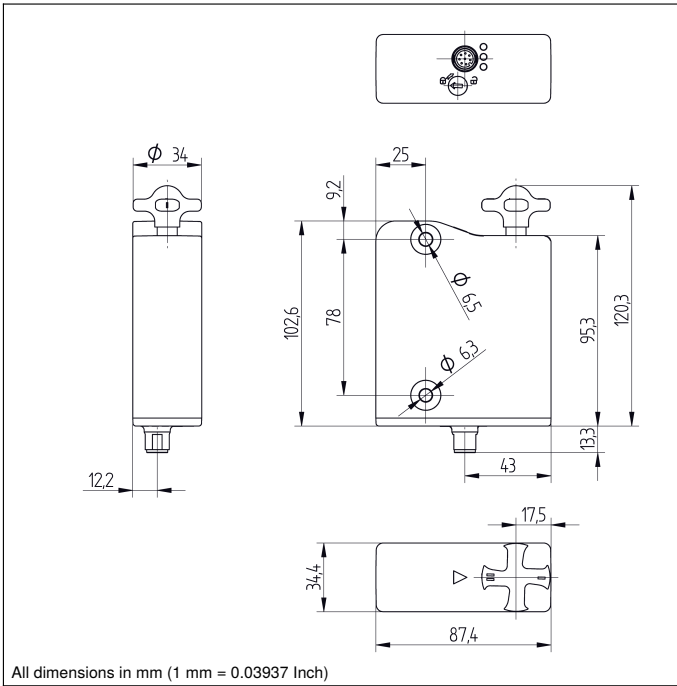


## Technical Data

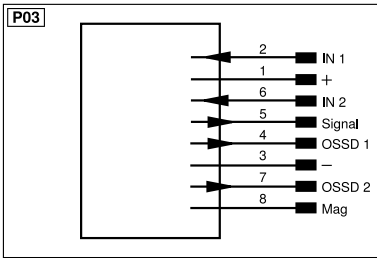
Electrical Data	
Sensor Type	Locking unit
Supply Voltage	20,4...26,4 V DC
Response Time	≤ 100 ms
Risk time	≤ 200 ms
Temperature Range	0...60 °C
Storage temperature	-10...90 °C
Safety Output	OSSD
Number of safety outputs (OSSDs)	2
PNP Safety Output/Switching Current	250 mA
Number of Signal Outputs	1
PNP signal output switching current	50 mA
Short Circuit Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Plastic
Degree of Protection	IP66/IP67/IP69
Connection	M12 × 1; 8-pin
Latching 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
Locking Device	Power to lock principle
Locking force F (Zh)	1150 N
Function	
Series Connection	yes
Actuator monitored	yes
Mechanical Detent Mechanism	yes
Detent Mechanism	yes
Auxiliary release	yes
Applicable actuator	S2FP200
Connection Diagram No.	<b>P03</b>
Suitable Connection Equipment No.	<b>89</b>
Suitable Mounting Technology No.	<b>850</b>

## Complementary Products

Safety Relay SR4B3B01S, SR4D3B01S  
Software



All dimensions in mm (1 mm = 0.03937 Inch)



Legend			
+	Supply Voltage +	nc	Not connected
-	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ā	Switching Output (NC)	W-	Ground for the Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	Amv	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	SY-	Ground for the Synchronization
RDY	Ready	E+	Receiver-Line
GND	Ground	S+	Emitter-Line
CL	Clock	±	Grounding
E/A	Output/Input programmable	SnR	Switching Distance Reduction
IO-Link		Rx+/-	Ethernet Receive Path
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
OSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contactor Monitoring
PT	Platinum measuring resistor	ENARs422	Encoder A/Ā (TTL)
		ENBRs422	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
		rsv	Reserved
		Wire Colors according to DIN IEC 60757	
		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

