

Safety Switch

RFID

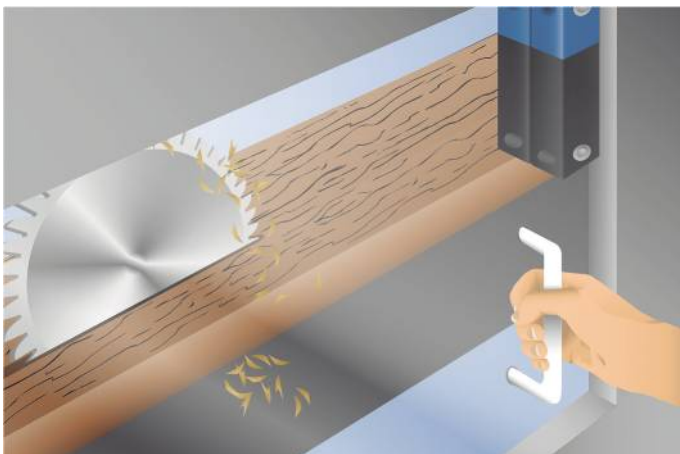
SD4RAS02SN89

Part Number



- Easy to clean
- High level of manipulation protection thanks to RFID coding
- Integrated locking
- Protection mode IP69K
- Universal fastening opportunities

Separating safety devices can be easily protected up to cat. 4 PL e using these contactless safety switches, even during series connection. Response and risk times remain unchanged at all times. Extensive diagnosis functions boost system availability and make installation and maintenance easier. The locking version can be used as a stop and does not secure any small doors or flaps.



Technical Data

Electrical Data

Sensor Type	Switch
Supply Voltage	20,4...26,4 V DC
Response Time	< 100 ms
Risk time	< 200 ms
Temperature Range	-25...70 °C
Storage temperature	-25...85 °C
Safety Output	OSSD
No. Safety Outputs (OSSDs)	2
PNP Safety Output/Switching Current	< 250 mA
Safety Output Voltage Drop	< 1 V
Number of Signal Outputs	1
PNP signal output switching current	50 mA
Short Circuit and Overload Protection	yes
Reverse Polarity Protection	yes
Protection Class	II

Mechanical Data

Switching Distance	12 mm
Protected Sao switching-off distance	10 mm
Protected Sar switching-off distance	16 mm
Housing Material	Plastic
Degree of Protection	IP65/IP67/IP69K
Connection	M12 × 1; 8-pin
Latching Force, typical	18 N

Safety-relevant Data

Operating principle	RFID
Coding	Standard
Performance Level (EN ISO 13849-1)	Cat. 4 PL e
PFHD	2,70 × E-10 1/h
Safety Integrity Level (EN 61508)	SIL3
Safety Integrity Level (EN 62061)	SILCL3
PDDb (EN 60947-5-3)	yes

Function

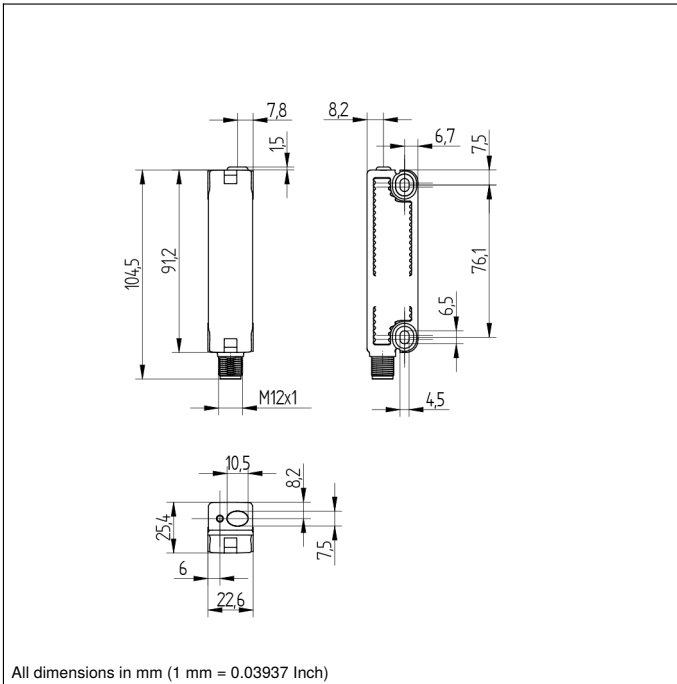
Series Connection	yes
Permanent magnet	yes

Applicable actuator	SD4RAA02
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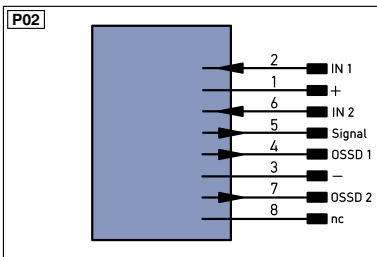
Connection Diagram No.	P02
Suitable Connection Equipment No.	89

Complementary Products

Safety Relay SR4B3B01S, SR4D3B01S
Seal Set Z0047
Software



All dimensions in mm (1 mm = 0.03937 Inch)


Legend

+ Supply Voltage +	nc not connected	EN^{A/RS422} Encoder A/Ā (TTL)
- Supply Voltage 0 V	U Test Input	EN^{B/RS422} Encoder B/B̄ (TTL)
~ Supply Voltage (AC Voltage)	Ū Test Input inverted	EN^A Encoder A
A Switching Output (NO)	W Trigger Input	EN^B Encoder B
Ā Switching Output (NC)	W- Ground for the Trigger Input	A^{MIN} Digital output MIN
V Contamination/Error Output (NO)	O Analog Output	A^{MAX} Digital output MAX
Ṽ Contamination/Error Output (NC)	O- Ground for the Analog Output	A^{OK} Digital output OK
E Input (analog or digital)	BZ Block Discharge	SYⁱⁿ Synchronization In
T Teach Input	A^{WV} Valve Output	SY^{OUT} Synchronization OUT
Z Time Delay (activation)	a Valve Control Output +	OL^T Brightness output
S Shielding	b Valve Control Output 0 V	M Maintenance
RxD Interface Receive Path	SY Synchronization	rsv reserved
TxD Interface Send Path	SY- Ground for the Synchronization	Wire Colors according to DIN IEC 757
RDY Ready	E+ Receiver-Line	BK Black
GND Ground	S+ Emitter-Line	BN Brown
CL Clock	± Grounding	RD Red
E/A Output/Input programmable	S_nR Switching Distance Reduction	OG Orange
IO-Link	Rx+/- Ethernet Receive Path	YE Yellow
PoE Power over Ethernet	Tx+/- Ethernet Send Path	GN Green
IN Safety Input	Bus Interfaces-Bus A(+)/B(-)	BU Blue
OSSD Safety Output	L_a Emitted Light disengageable	VT Violet
Signal Signal Output	Mag Magnet activation	GY Grey
Bl_D+/- Ethernet Gigabit bidirect. data line (A-D)	RES Input confirmation	WH White
EN^{0/RS422} Encoder 0-pulse 0-0̄ (TTL)	EDM Contactor Monitoring	PK Pink
		GNYE Green/Yellow

