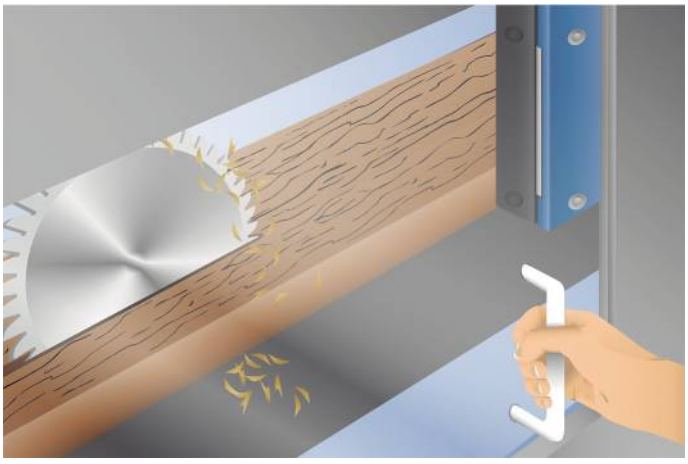
Guard Locking Device
Electromagnetic, Power to Lock Principle

SD4ICS01SE89
Part Number

- **500 N locking force (monitored)**
- **Easy to clean**
- **Extensive diagnosis**

This innovative guard locking device is suitable for process safety thanks to the constantly monitored locking force. Also, the safety level cat. 4 PL e (EN ISO 13849-1) can be achieved with just one guard locking device and is retained even during series connection. Response and risk times remain unchanged during series connection. Extensive diagnosis functions boost system availability and make installation and maintenance easier. Thanks to the electrical locking, no touching components whatsoever are used and therefore wear, the guard door clattering (and rattling) loudly and laborious cleaning work are avoided.

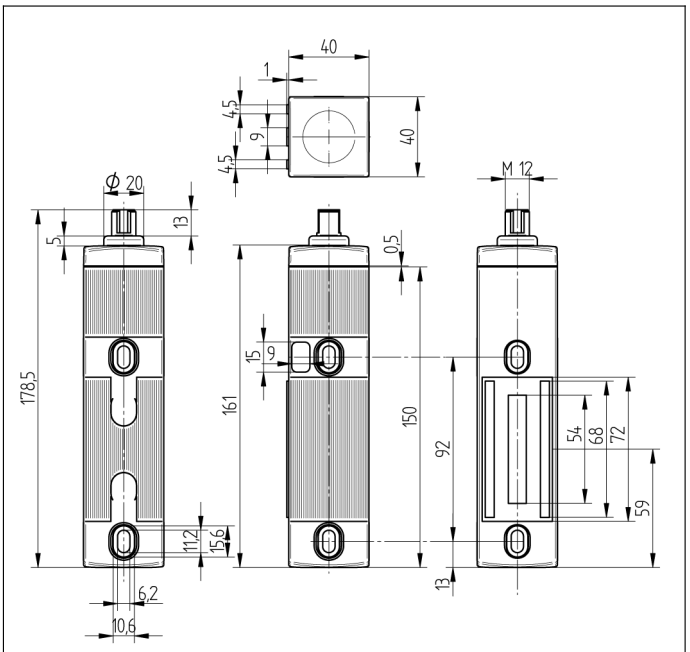


Technical Data

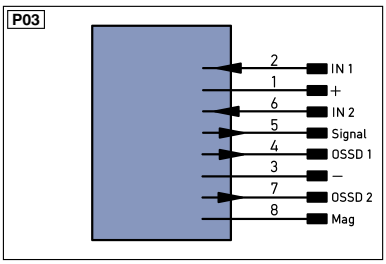
Electrical Data	
Sensor Type	Locking unit
Supply Voltage	20,4...26,4 V DC
Response Time	< 150 ms
Risk time	< 150 ms
Temperature Range	-25...55 °C
Storage temperature	-25...85 °C
Safety Output	OSSD
No. Safety Outputs (OSSDs)	2
PNP Safety Output/Switching Current	< 250 mA
Number of Signal Outputs	1
PNP signal output switching current	< 50 mA
Short Circuit Protection	yes
Protection Class	II
Mechanical Data	
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 8-pin
Safety-relevant Data	
Operating principle	Inductively coded
Coding	Standard
Performance Level (EN ISO 13849-1)	Cat. 4 PL e
PFHD	3,50 × E-9 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, guaranteed	500 N
Locking Force Fmax, typical	750 N
Function	
Series Connection	yes
Monitored lock	yes
Applicable actuator	SD4ICA01
Connection Diagram No.	P03
Suitable Connection Equipment No.	89
Suitable Mounting Technology No.	830

Complementary Products

Safety Relay SR4B3B01S, SR4D3B01S
Software



All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+	Supply Voltage +		PT	Platinum measuring resistor		ENARS422	Encoder A/Ā (TTL)
–	Supply Voltage 0 V		nc	not connected		ENBRS422	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)		U	Test Input		ENA	Encoder A
A	Switching Output	(NO)	Ū	Test Input inverted		ENB	Encoder B
Ā	Switching Output	(NC)	W	Trigger Input		AMIN	Digital output MIN
V	Contamination/Error Output	(NO)	W–	Ground for the Trigger Input		AMAX	Digital output MAX
V̄	Contamination/Error Output	(NC)	O	Analog Output		AOK	Digital output OK
E	Input (analog or digital)		O–	Ground for the Analog Output		SY In	Synchronization In
T	Teach Input		BZ	Block Discharge		SY OUT	Synchronization OUT
Z	Time Delay (activation)		AMV	Valve Output		OLT	Brightness output
S	Shielding		a	Valve Control Output +		M	Maintenance
RxD	Interface Receive Path		b	Valve Control Output 0 V		rsv	reserved
TxD	Interface Send Path		SY	Synchronization		Wire Colors according to DIN IEC 757	
RDY	Ready		SY–	Ground for the Synchronization		BK	Black
GND	Ground		E+	Receiver-Line		BN	Brown
CL	Clock		S+	Emitter-Line		RD	Red
E/A	Output/Input programmable		⏚	Grounding		OG	Orange
	IO-Link		SnR	Switching Distance Reduction		YE	Yellow
PoE	Power over Ethernet		Rx+/–	Ethernet Receive Path		GN	Green
IN	Safety Input		Tx+/–	Ethernet Send Path		BU	Blue
OSSD	Safety Output		Bus	Interfaces-Bus A(+)/B(–)		VT	Violet
Signal	Signal Output		La	Emitted Light disengageable		GY	Grey
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)		Mag	Magnet activation		WH	White
ENORS422	Encoder 0-pulse 0-0̄ (TTL)		RES	Input confirmation		PK	Pink
			EDM	Contactor Monitoring		GNYE	Green/Yellow