

# Guard Locking Device

## Electromagnetic, Power to Lock Principle

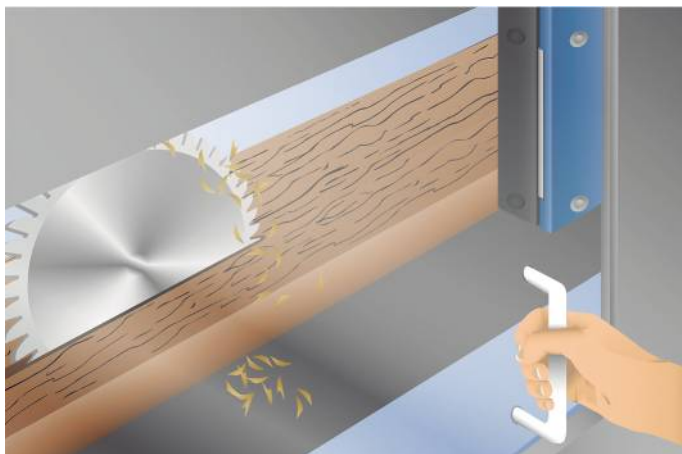
# SD4ICS03SE89

Part Number



- 500 N locking force (monitored)
- Adjustable locking force
- 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
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
Detent force, typical	30...100 N

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
Lock	Power to lock principle
Locking Force F, guaranteed	500 N
Locking Force Fmax, typical	750 N

Function	
Series connection	yes
Monitored lock	yes
Electrical locking	yes

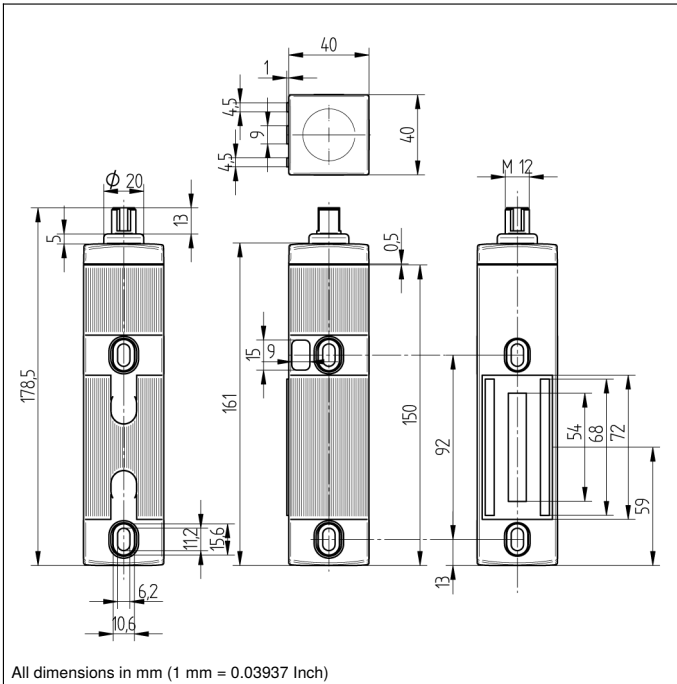
Applicable actuator	SD4ICA01
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Connection Diagram No.	<b>P03</b>
Suitable Connection Technology No.	<b>89</b>
Suitable Mounting Technology No.	<b>830</b>

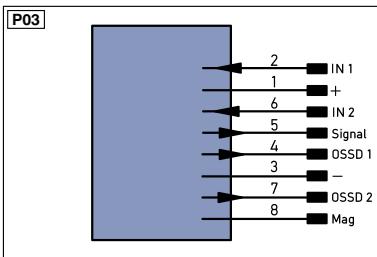
Adjusting Target must be ordered separately (not included in delivery)

## Complementary Products

Adjusting Target Z0048
Safety Relay SR4B3B01S, SR4D3B01S
Software



All dimensions in mm (1 mm = 0.03937 Inch)



### Legend

+	Supply Voltage +	PT	Platinum measuring resistor	ENa	Encoder A
-	Supply Voltage 0 V	nc	not connected	ENb	Encoder B
~	Supply Voltage (AC Voltage)	U	Test Input	AMIN	Digital output MIN
A	Switching Output (NO)	U	Test Input inverted	AMAX	Digital output MAX
Ā	Switching Output (NC)	W	Trigger Input	AOK	Digital output OK
V	Contamination/Error Output (NO)	O	Analog Output	SY In	Synchronization In
∇	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY OUT	Synchronization OUT
E	Input (analog or digital)	BZ	Block Discharge	Out	Brightness output
T	Teach Input	AW	Valve Output	M	Maintenance
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	E+	Receiver-Line		
RDY	Ready	S+	Emitter-Line		
GND	Ground	≡	Grounding		
CL	Clock	SnR	Switching Distance Reduction		
E/A	Output/Input programmable	Rx+/-	Ethernet Receive Path		
IO-Link	IO-Link	Tx+/-	Ethernet Send Path		
PoE	Power over Ethernet	Bus	Interfaces-Bus A(+)/B(-)		
IN	Safety Input	La	Emitted Light disengageable		
OSSD	Safety Output	Mag	Magnet activation		
Signal	Signal Output	RES	Input confirmation		
Bl..D+/-	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contacteur Monitoring		
EN0..R542Z	Encoder 0-pulse 0-0 (TTL)	ENAR542Z	Encoder A/Ā (TTL)		
		ENBR542Z	Encoder B/B̄ (TTL)		

### 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

