

Guard Locking Device

Electromagnetic, Power to Lock Principle

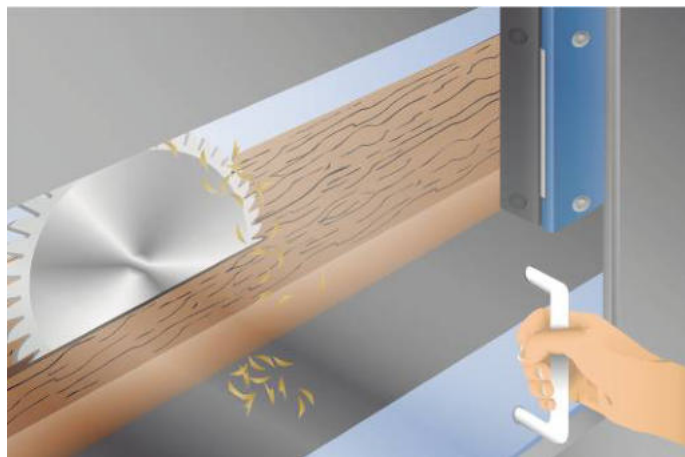
SD4ICS02SE89

Part Number



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

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
Latching Force, typical	15 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
Locking Device	Power to lock principle
Locking Force F, guaranteed	500 N
Locking Force Fmax, typical	750 N

Function

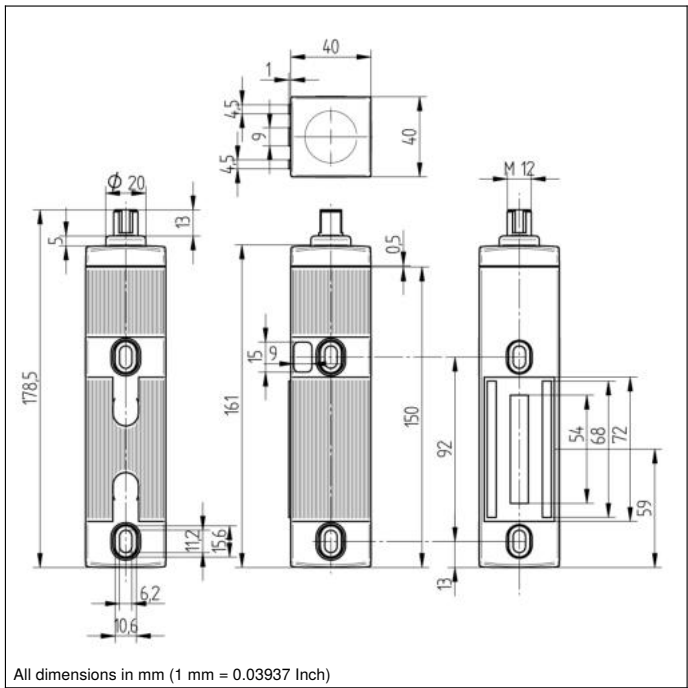
Series Connection	yes
Monitored lock	yes
Permanent magnet	yes

Applicable actuator	SD4ICA01
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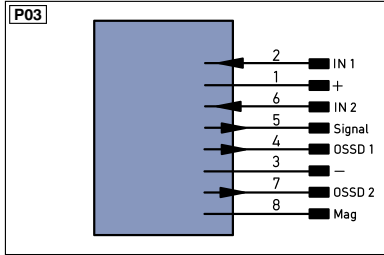
Connection Diagram No.	P03
Suitable Connection Equipment No.	89
Suitable Mounting Technology No.	830

Complementary Products

Safety Relay SR4B3B01S, SR4D3B01S
Software



All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+	Supply Voltage +
-	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
Ṽ	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)
EN0.5A2Z	Encoder 0-pulse 0-0 (TTL)

PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
W-	Ground for the Trigger Input
O	Analog Output
O-	Ground for the Analog Output
BZ	Block Discharge
AWV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
SY-	Ground for the Synchronization
E+	Receiver-Line
S+	Emitter-Line
±	Grounding
S _n R	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	Contacting Monitoring

ENAR5A2Z	Encoder A/Ā (TTL)
ENB5A2Z	Encoder B/B̄ (TTL)
ENa	Encoder A
ENb	Encoder B
A _{MIN}	Digital output MIN
A _{MAX}	Digital output MAX
A _{OK}	Digital output OK
SY _{in}	Synchronization In
SY _{OUT}	Synchronization OUT
OL _T	Brightness output
M	Maintenance
rsv	reserved
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

