

Guard Locking Device

Electromagnetic, Power to Lock Principle

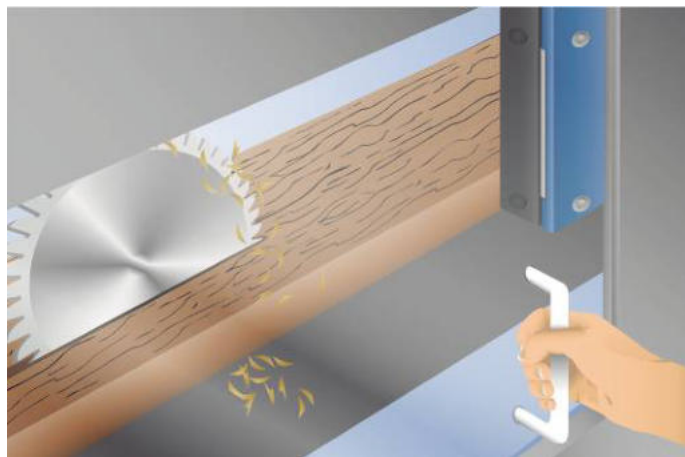
SD4ICS01SE89

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.

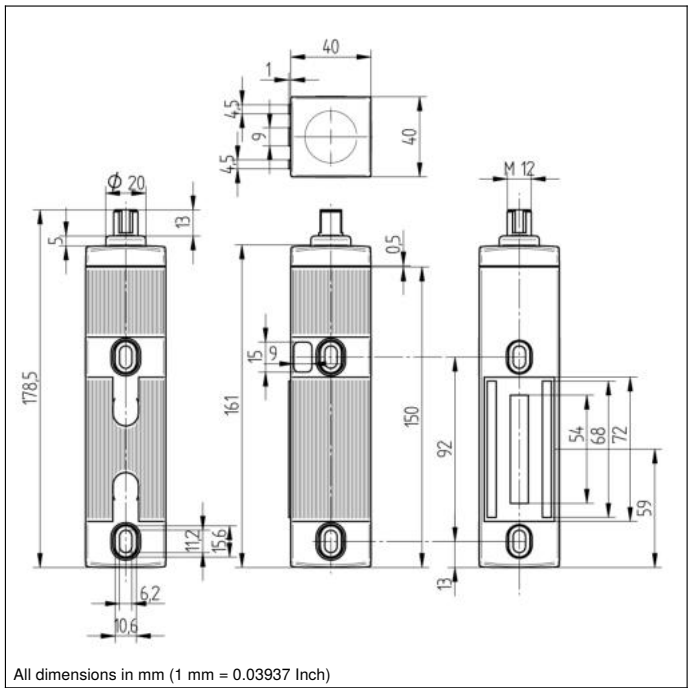


Technical Data

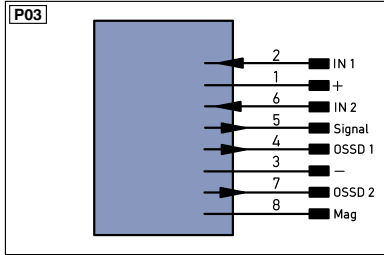
| Electrical Data | |
|-------------------------------------|-------------------------|
| Sensor Type | Locking unit |
| Supply Voltage | 20,4...26,4 V DC |
| Response Time | < 150 ms |
| Risk time | < 150 ms |
| Temperature Range | -25...55 °C |
| Storage temperature | -25...85 °C |
| Safety Output | 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 | ENAR5422 | Encoder A/Ä (TTL) |
| - | Supply Voltage 0 V | nc | not connected | ENB5422 | Encoder B/B (TTL) |
| ~ | Supply Voltage (AC Voltage) | U | Test Input | ENa | Encoder A |
| A | Switching Output (NO) | U | Test Input inverted | ENb | Encoder B |
| Ä | 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 |
| Ä | 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) | AWV | 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 | 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 |
| BL-D+/- | Ethernet Gigabit bidirect. data line (A-D) | Mag | Magnet activation | WH | White |
| EN0.5422 | Encoder 0-pulse 0-0 (TTL) | RES | Input confirmation | PK | Pink |
| | | EDM | Contacting Monitoring | GNYE | Green/Yellow |

