



Part no.: 50142119
L300-B2-M41M23B19-SLM24-PB-UCA
Safety locking device



Figure can vary

Contents

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Technical data

| Basic data | |
|---|---|
| Series | L300-B2 |
| Functions | |
| Functions | Locking device with guard interlocking in acc. with EN ISO 14119 (type 4) |
| Activation mode of safety outputs | Safety outputs active if safety door is closed and locked |
| Operating principle | Quiescent current principle – Actuator locked if electromagnet is deactivated |
| Characteristic parameters | |
| SIL | 3 , IEC 61508 |
| SILCL | 3 , IEC/EN 62061 |
| Performance Level (PL) | Up to and including e , EN ISO 13849-1 |
| MTTF _d | 2,725 years , EN ISO 13849-1 |
| PFH _D | 1.17E-9 per hour |
| Mission time T _M | 20 years , EN ISO 13849-1 |
| Category | 4 , EN ISO 13849-1 |
| DC | High |
| Encoding level | High , EN ISO 14119 |
| Electrical data | |
| Type of wiring | Series connection Single connection |
| External safeguarding for supply circuit | 2A type Gg (or equivalent) |
| Performance data | |
| Supply voltage U _B | 24 V , DC , -10 ... 10 % |
| Current consumption, max. | 1,200 mA |
| Inputs | |
| Number of safety-related switching inputs | 2 Piece(s) |
| Number of digital switching inputs | 2 Piece(s) |
| Switching inputs | |
| Type | Digital switching input |
| Switching voltage, typ. | 24 V |
| Voltage type | DC |
| Current consumption, typ. | 5 mA |
| Digital switching input 1 | |
| Function | I4 activation input: electromagnet |
| Digital switching input 2 | |
| Function | I3 programming input / control input for reset |
| Safety-related switching inputs | |
| Type | Safety switching input |
| Voltage type | DC |
| Switching voltage, typ. | 24 V |
| Current consumption, typ. | 5 mA |

Outputs

Number of safety-related switching outputs (OSSDs) 2 Piece(s)

Number of digital switching outputs 2 Piece(s)

Safety-related switching outputs

Type Safety-related switching output OSSD

Voltage type DC

Safety-related switching output 1

Switching element Transistor , PNP

Safety-related switching output 2

Switching element Transistor , PNP

Switching outputs

Type Digital switching output

Voltage type DC

Switching output 1

Switching element Transistor , PNP

Function O3 signal output: protective-device closed

Switching output 2

Switching element Transistor , PNP

Function O4 signal output: protective-device locked

Connection

Number of connections 1 Piece(s)

Connection 1

Type of connection Connector

 Function Connection with PLC
Contact connection
Voltage supply

Thread size M23

Type Male

Material Metal

No. of pins 19 -pin

Encoding A-coded

Mechanical data

Housing material Metal ,

 Housing color Gray
Red

Type of fastening Through-hole mounting

Side of cable entry From below

 Release device Auxiliary release
Escape release button

Approach speed 0.001 ... 0.5 m/s

Locking force, max. 9,750 N

Mechanical life time 1,000,000 actuation cycles , IEC 60947-5-1 switching cycles

Actuation frequency, max. 600 per hour , IEC 60947-5-1

Extraction force, unlocked actuator 30 N

RFID sensor data

 Assured operating distance S_{ao} 2 mm

 Assured cut-out distance S_{ar} 10 mm (actuator locked)
4 mm (actuator not locked)

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| | |
|----------------------------------|------------------|
| Nominal switching distance S_n | 2.5 mm |
| Repeatability | $\leq 10 \% S_n$ |
| Max. switching frequency | 1 Hz |

Operation and display

| | |
|-------------------------------------|--|
| Type of display | LED |
| Number of LEDs | 5 Piece(s) |
| Operational controls | 3 command devices |
| Function of the operational control | Button illuminates with icon "Acknowledge", blue Button illuminates with icon "Request", white E-Stop button, not illuminated, with rotary release |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -20 ... 50 °C |
| Ambient temperature, storage | -40 ... 75 °C |

Certifications

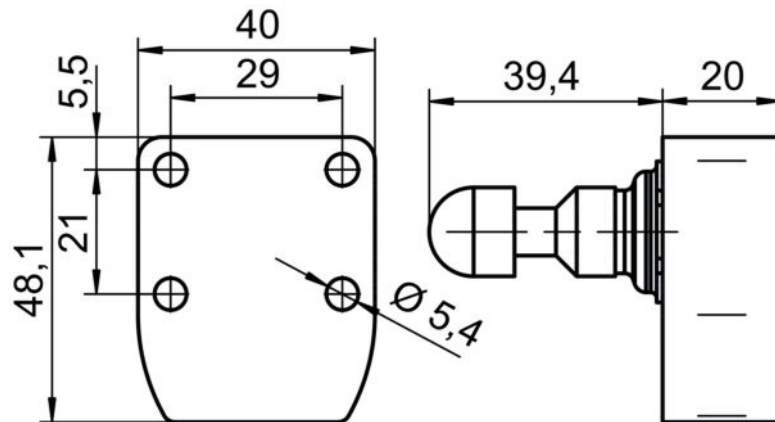
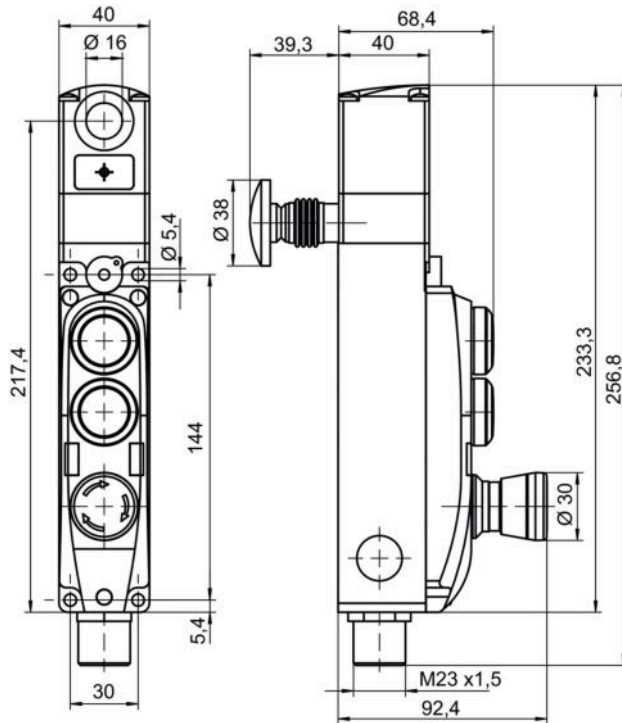
| | |
|----------------------|------------------------------|
| Degree of protection | IP 65 |
| Certifications | c UL US ECOLAB TÜV Süd |

Classification

| | |
|------------|----------|
| eCl@ss 8.0 | 27272603 |
| eCl@ss 9.0 | 27272603 |
| ETIM 5.0 | EC002593 |
| ETIM 6.0 | EC002593 |

Dimensioned drawings

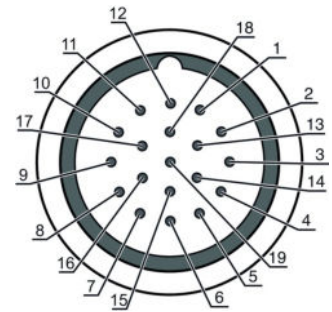
All dimensions in millimeters



Electrical connection




| Connection 1 | |
|--------------------|---|
| Type of connection | Connector |
| Function | Connection with PLC Contact connection Voltage supply |
| Thread size | M23 |
| Type | Male |
| Material | Metal |
| No. of pins | 19 -pin |
| Encoding | A-coded |

| Pin | Pin assignment | Conductor color |
|-----|--|-----------------|
| 1 | I4 activation input: electromagnet | Violet |
| 2 | IS1 safe input | Red |
| 3 | IS2 safe input | Gray |
| 4 | OS1 safe output | Blue Red |
| 5 | OS2 safe output | Green |
| 6 | A1 +24 V | Blue |
| 7 | I3 programming input / control input for reset | Gray Pink |
| 8 | O3 signal output: protective-device closed | Green White |
| 9 | O4 signal output: protective-device locked | White Yellow |
| 10 | Device 3, contact 1 | Gray White |
| 11 | Device 3, contact 1 | Black |
| 12 | n.c. | Green Yellow |
| 13 | Device 3, contact 2 | Brown Yellow |
| 14 | Device 3, contact 2 | Brown Green |
| 15 | Device 2, contact 1 | White |
| 16 | LED2 +24 V | Yellow |
| 17 | Device 1, contact 1 | Pink |
| 18 | LED1 +24 V | Brown Gray |
| 19 | A2 +0 V | Brown |




Accessories

Connection technology - Connection cables

| | Part no. | Designation | Article | Description |
|---|----------|--------------------|------------------|---|
|  | 50134971 | KD U-M23-JA-P1-050 | Connection cable | Connection 1: Connector, M23, Axial, Female, A-coded, 19 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PUR |
|  | 50134972 | KD U-M23-JA-P1-100 | Connection cable | Connection 1: Connector, M23, Axial, Female, A-coded, 19 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PUR |
|  | 50136636 | KD U-M23-JA-P1-150 | Connection cable | Connection 1: Connector, M23, Axial, Female, A-coded, 19 -pin Connection 2: Open end Shielded: No Cable length: 15,000 mm Sheathing material: PUR |

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Actuator

| | Part no. | Designation | Article | Description |
|---|-------------|-------------|----------|---|
|  | 50132062 ** | AC-L300-UCA | Actuator | Code type: Unique code Encoding level: high, EN ISO 14119 Dimensions: 40 mm x 48.1 mm x 59.4 mm Housing color: Red Type of fastening: Through-hole mounting |

** Included in delivery contents

Note

A list with all available accessories can be found on the Leuze electronic website in the Download tab of the article detailed page.