



**Part no.: 50142095**  
**L300-B1-M31C3-SLM24-SCA**  
**Safety locking device**



Figure can vary

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## Technical data

<b>Basic data</b>	
Series	L300-B1
<b>Functions</b>	
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
<b>Characteristic parameters</b>	
SIL	3 , IEC 61508
SILCL	3 , IEC/EN 62061
Performance Level (PL)	Up to and including e , EN ISO 13849-1
MTTF <sub>d</sub>	2,725 years , EN ISO 13849-1
PFH <sub>D</sub>	1.17E-9 per hour
Mission time T <sub>M</sub>	20 years , EN ISO 13849-1
Category	4 , EN ISO 13849-1
DC	High
Encoding level	Low , EN ISO 14119
<b>Electrical data</b>	
Protective circuit	
Type of wiring	Series connection Single connection
External safeguarding for supply circuit	2A type Gg (or equivalent)
<b>Performance data</b>	
Supply voltage U <sub>B</sub>	24 V , DC , -10 ... 10 %
Current consumption, max.	1,200 mA
<b>Inputs</b>	
Number of safety-related switching inputs	2 Piece(s)
Number of digital switching inputs	3 Piece(s)
<b>Switching inputs</b>	
Type	Digital switching input
Switching voltage, typ.	24 V
Voltage type	DC
Current consumption, typ.	5 mA
<b>Digital switching input 1</b>	
Function	IE1 activation input: electromagnet
<b>Digital switching input 2</b>	
Function	IE1 activation input: electromagnet
<b>Digital switching input 3</b>	
Function	I3 control input for reset
<b>Safety-related switching inputs</b>	
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
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**Safety-related switching output 2**

Switching element	Transistor , PNP
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**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 cable entries	3 Piece(s)
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**Connection 1**

Type of connection	Terminal
Function	Connection with PLC Contact connection Voltage supply
Type of terminal	Spring-cage terminal

**Cable properties**

Connection cross sections	1 x 0.34 to 0.75 mm <sup>2</sup> , wire with welded-on wire-end sleeve, 1 x 0.34 to 1.5 mm <sup>2</sup> , wire with wire-end sleeve
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**Mechanical data**

Housing material	Metal ,
Housing color	Gray Red
Type of fastening	Through-hole mounting
Type of cable entry	M20 x 1.5
Side of cable entry	left, right, below
Release device	Auxiliary release
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 <sub>ao</sub>	2 mm
Assured cut-out distance S <sub>ar</sub>	10 mm (actuator locked) 4 mm (actuator not locked)
Nominal switching distance S <sub>n</sub>	2.5 mm

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Repeatability	≤ 10 % S <sub>n</sub>
Max. switching frequency	1 Hz

**Operation and display**

Type of display	LED
Number of LEDs	5 Piece(s)
Operational controls	2 command devices
Function of the operational control	Button illuminates with icon "Acknowledge", blue Button illuminates with icon "Request", white

**Environmental data**

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

**Certifications**

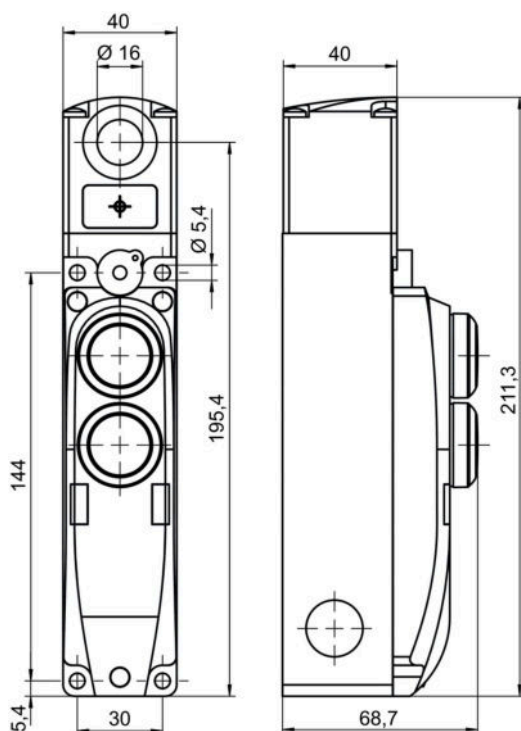
Degree of protection	IP 65
Certifications	c UL US ECOLAB TÜV Süd

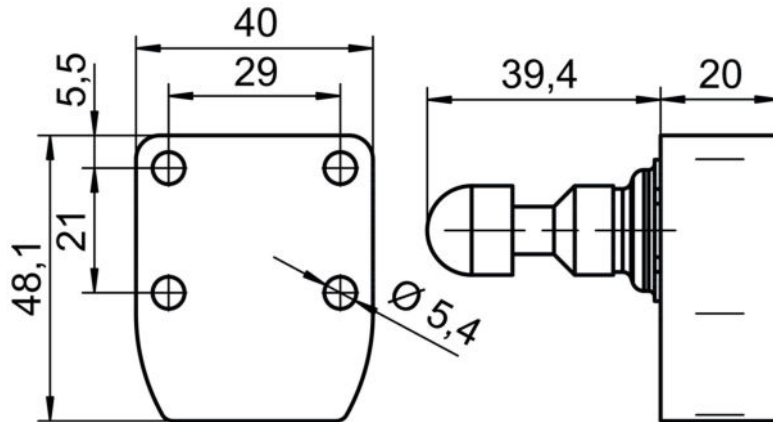
**Classification**

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	Terminal
Function	Connection with PLC Contact connection Voltage supply
Type of terminal	Spring-cage terminal

Pin	Conductor color
1	White
2	Brown
3	Green
4	Yellow
5	Gray
6	Pink
7	Blue
8	Red

## Accessories

### Actuator

	Part no.	Designation	Article	Description
	50132061 **	AC-L300-SCA	Actuator	Code type: Standard code Encoding level: low, 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.