



Part no.: 50142116
L300-B1-M31C3-SLM24-UCA
Safety locking device



Figure can vary

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Technical data

Basic data	
Series	L300-B1
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	
Protective circuit	
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	3 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	IE1 activation input: electromagnet
Digital switching input 2	
Function	IE1 activation input: electromagnet
Digital switching input 3	
Function	I3 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	
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 ² , wire with welded-on wire-end sleeve, 1 x 0.34 to 1.5 mm ² , wire with wire-end sleeve

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_{ao}	2 mm
Assured cut-out distance S_{ar}	10 mm (actuator locked) 4 mm (actuator not locked)
Nominal switching distance S_n	2.5 mm
Repeatability	≤ 10 % S_n

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Max. switching frequency	1 Hz
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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

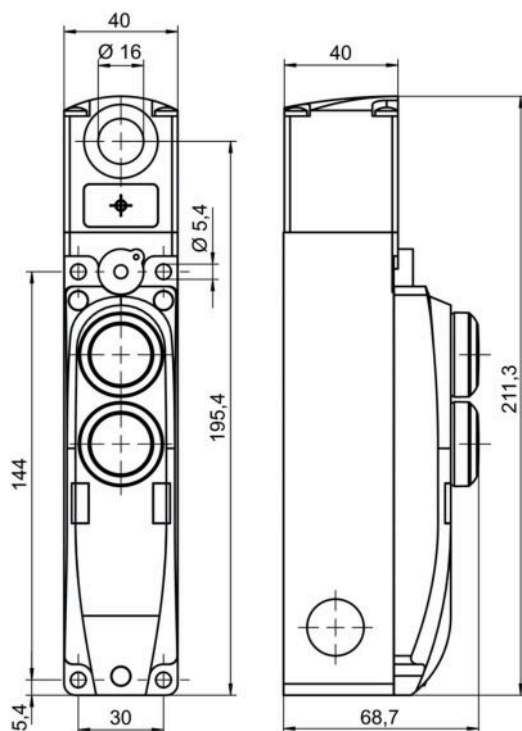
Degree of protection	IP 65
Certifications	c UL US ECOLAB TÜV Süd

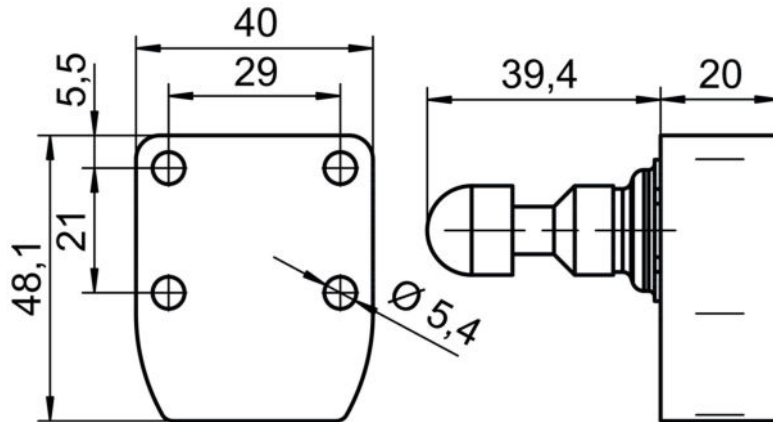
Classification

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
	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.