



Figure can vary

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



Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Accessories

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

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 de-activated
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

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

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 mm², wire with welded-on wire-end sleeve, 1 x 0.34 to 1.5 mm², 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

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

Differential travel	$\leq 20 \% S_{\text{sub}n\text{sub}}$
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

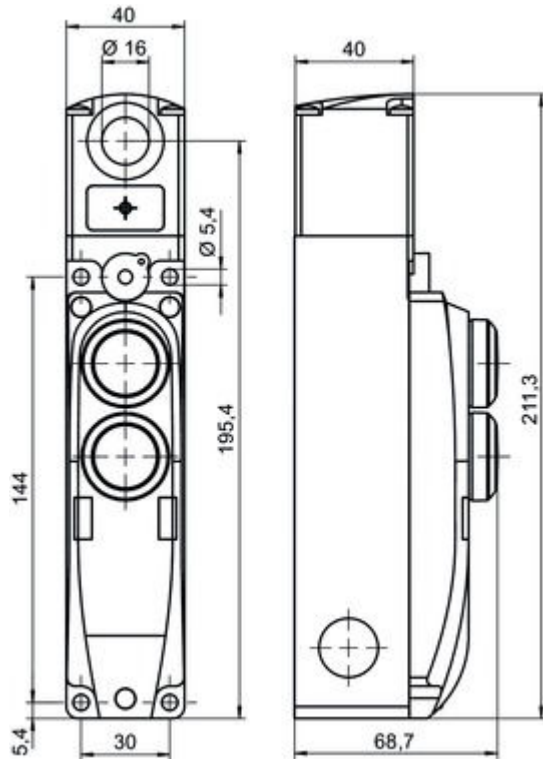
Degree of protection	IP 65
Certifications	c UL US TÜV Süd

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

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
	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

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

General

	Part no.	Designation	Article	Description
	50133288	AC-L300-SH-LCK0-B3-P	Safety door handle	LOCK OUT mechanism: No Door handle material: Plastic Mounting on the door post: Short plate Mounting on the door: 3 adjustable plates
	50133287	AC-L300-SH-LCK1-A3-P	Safety door handle	LOCK OUT mechanism: Yes Door handle material: Plastic Mounting on the door post: Long plate Mounting on the door: 3 adjustable plates