



Part no.: 50142203
L300-B1-M41C3-MLM24-SCA
Safety locking device



Figure can vary

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Part no.: 50142203 – L300-B1-M41C3-MLM24-SCA – 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	Open circuit current principle – Actuator locked if electromagnet is 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	Low, 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	IE2 activation input: electromagnet	
Digital switching input 3		
Function	I3 programming / 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	

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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

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

Differential travel ≤ 20 % 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

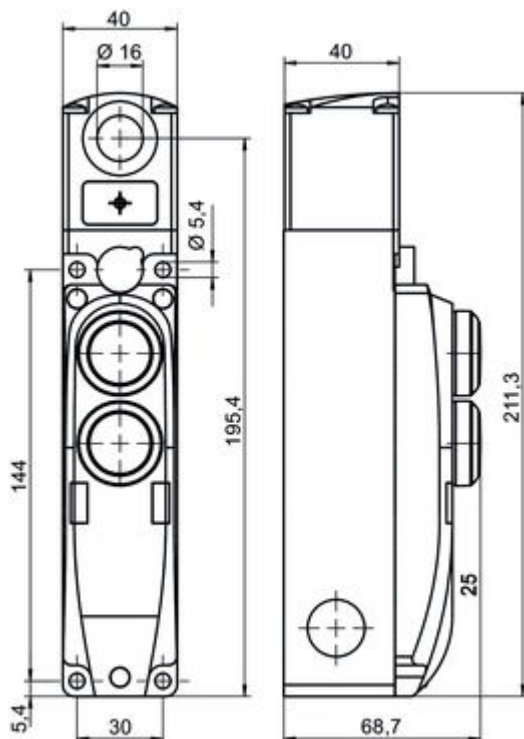
Degree of protection	IP 65
Certifications	c UL US TÜV Süd

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



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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

** Included in delivery contents

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