

Technical data sheet

Safety relay

Part no.: 50133030

MSI-SR-SM42OS-01

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Circuit diagrams
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Figure can vary



Technical data

Basic data

Series	MSI-SR-SM42OS
Application	Zero-speed relays

Functions

Restart	Automatic
	Manual

Characteristic parameters

SIL	3, IEC 61508
SILCL	3, IEC/EN 62061
Performance Level (PL)	e, EN ISO 13849-1
PFH _D	0.000000011 per hour
Mission time T _M	20 years, EN ISO 13849-1
Category	4, EN ISO 13849

Electrical data

Supply circuit

Nominal voltage U _N	24 V DC
Max. rated control supply voltage at DC	30 V
Min. rated control supply voltage at DC	16.8 V
Rated power DC	1.8 W
Galvanic isolation between supply and control circuit	No

Output circuit

Number of outputs, signaling function, undelayed, contact-based	2 Piece(s)
Release current paths	Semiconductor (PNP), safety-oriented
Signaling current paths	Semiconductor (PNP), not safety-oriented
Short circuit protection (NO contact)	Short-circuit proof
Nominal switching voltage, release current paths DC	30 V
Max. thermal continuous current I _{th} , release current paths	2 A
Max. total current I ² of all current paths	4 A ²

Control circuit

Nominal output voltage DC	24 V
Input current at the control inputs (safety circuit/reset circuit)	3 mA
Max. peak current at the control inputs (safety circuit/reset circuit)	3.8 mA
Minimum switch-on time	100 ms

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	16 -pin

Cable properties

Connection cross sections	1 x 0.2 to 2.5 mm ² , wire
	1 x 0.2 to 2.5 mm ² , wire
	1 x 0.25 to 2.5 mm ² , wire with wire-end sleeve
	2 x 0.2 to 1.0 mm ² , wire
	2 x 0.2 to 1.0 mm ² , wire
	2 x 0.25 to 1.0 mm ² , wire with wire-end sleeve

Mechanical data

Dimension (W x H x L)	22.5 mm x 96.5 mm x 121 mm
Net weight	160 g
Housing color	Gray
Type of fastening	Snap-on mounting

Certifications

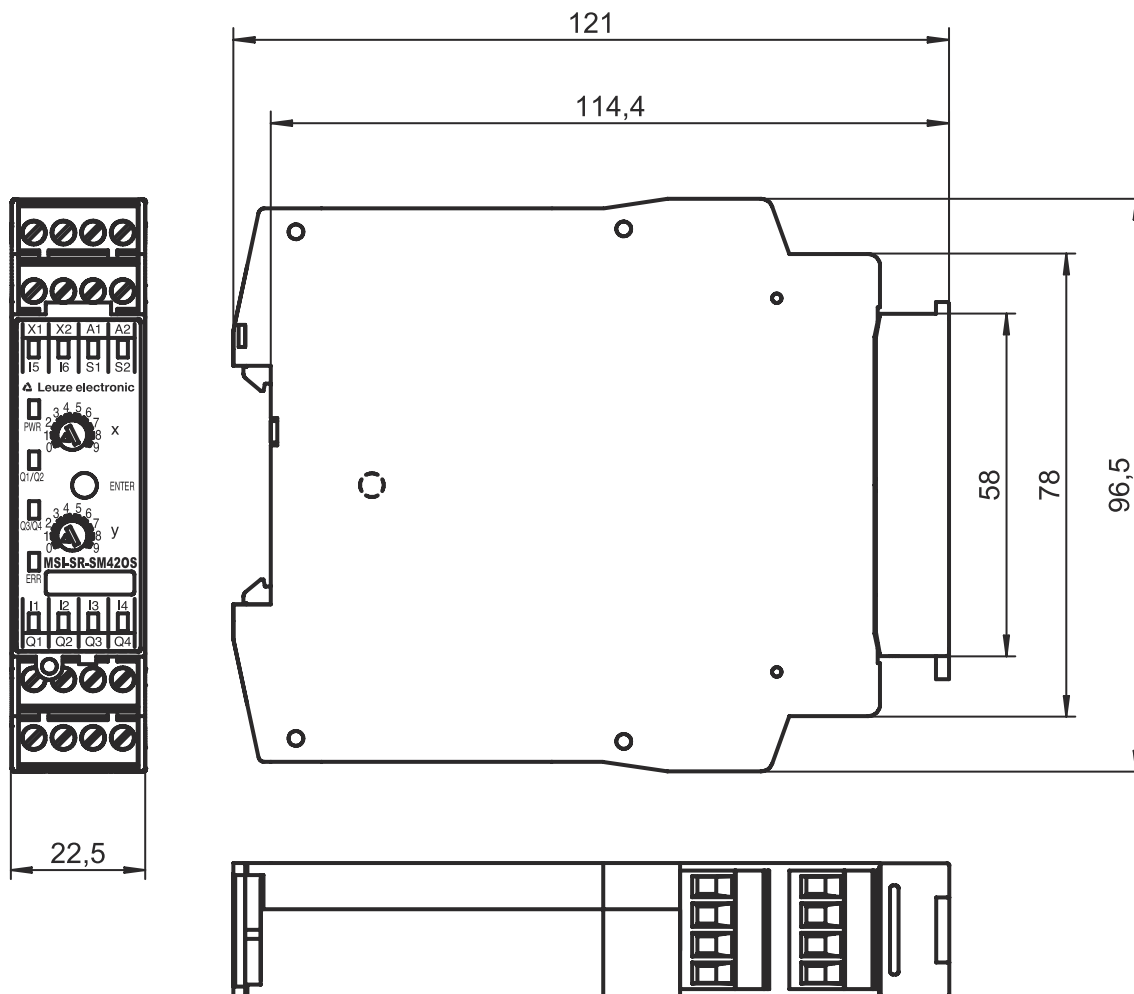
Certifications	c UL US TÜV Rheinland
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Classification

Customs tariff number	85364190
eCl@ss 8.0	27371811
eCl@ss 9.0	27371811
ETIM 5.0	EC001448
ETIM 6.0	EC001448

Dimensioned drawings

All dimensions in millimeters



Electrical connection

Connection 1

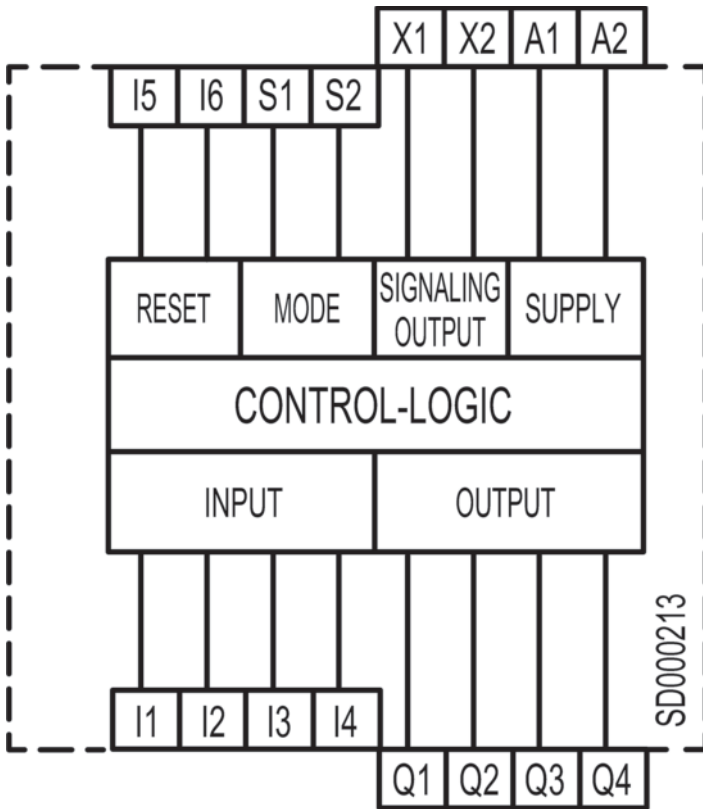
Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	16 -pin

Pin	Pin assignment
1	A1 +24V
2	A2 GND
3	I1 Input for sensor transmitter or function selection (operating mode)



Electrical connection

Pin	Pin assignment
	I2
4	Input for sensor transmitter or function selection (operating mode)
	I3
5	Input for sensor transmitter or function selection (operating mode)
	I4
6	Input for sensor transmitter or function selection (operating mode)
	I5
7	Input for reset function
	I6
8	Input for consent/start-up bridging
	Q1
9	Safe output
	Q2
10	Safe output
	Q3
11	Safe output (inverted)
	Q4
12	Safe output (inverted)
	S1
13	Input for function selection (operating mode)
	S2
14	Input for function selection (operating mode)
	X1
15	Signal output for the display and evaluation of operating and error states
	X2
16	Signal output for the display and evaluation of operating and error states

Circuit diagrams



Notes

	Observe intended use!
	<ul style="list-style-type: none"> ⌚ The product may only be put into operation by competent persons. ⌚ Only use the product in accordance with its intended use.