

Technical data sheet

Safety hinge switch

Part no.: 63000421

S420-OS-CB2-LW

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Circuit diagrams
- Notes



Figure can vary



Technical data

Basic data

Series	S400
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Functions

Functions	Integration in control circuits up to category 4 in accordance with EN ISO 13849-1
	LED indicator
	Locking device without guard interlocking according to EN ISO 14119
	Mechanical hinge with integrated safety switch

Characteristic parameters

SIL	3, IEC 61508
SILCL	3, IEC/EN 62061
Performance Level (PL)	e, EN ISO 13849-1
Mission time T_M	20 years, EN ISO 13849-1
Category	4, EN ISO 13849
$B10_d$	5,000,000 number of cycles

Electrical data

Protective circuit	Overvoltage protection
	Short circuit protected
Usage category at DC 13	Ue 24 V, Ie 2 A, EN 60947-5-1
Usage category at AC 15	Ue 24 V, Ie 2 A, EN 60947-5-1
Contact allocation	OSSDs
Short circuit protected	500 V, 2 A, type gG, IEC 60269-1

Performance data

Supply voltage U_B	24 V, DC, -15 ... 10 %
Rated insulation voltage	30 V AC, 36 V DC
Conventional thermal current, max.	2 A

Inputs

Number of digital switching inputs	2 Piece(s)
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Switching inputs

Type	Digital switching input
Switching voltage, typ.	24 V
Voltage type	DC
Switching current, typ.	5 mA
Current consumption, max.	5 mA

Outputs

Number of safety-related switching outputs (OSSDs)	2 Piece(s)
Number of digital switching outputs	1 Piece(s)

Safety-related switching outputs

Type	Safety-related switching output OSSD
Voltage type	DC
Switchable load per OSSD, max.	6 V·A

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
Switching voltage, typ.	24 V
Voltage type	DC
Switching current, max.	0.1 mA

Switching output 1

Switching element	Transistor, PNP
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Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Contact connection
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PVC
Number of conductors	8 -wire

Mechanical data

Design	Cubic
Dimension (W x H x L)	76 mm x 31.5 mm x 126 mm
Housing material	Stainless steel
Stainless steel housing	AISI 316L
Electrical contact material	Silver alloy
Net weight	1,025 g
Housing color	Silver
Type of fastening	Mounting plate
	Mounting thread
Side of cable entry	Wall side
Switch type	Interlock device without guard interlocking, ISO 14119
Switching principle	Slow-action contact
Axial stress	2,000 N·m
Radial stress	2,000 N·m
Torsional stress	50 N·m
Mechanical life time	1,000,000 actuation cycles, IEC 6047-5-1
Actuation frequency, max.	1,200 per hour, IEC 6047-5-1
Internal actuator	Safety switch in hinge, encapsulated
Actuating path (angle) with forced separation	4 N
Actuation angle, max.	180 °
Actuating path (angle) with forced separation	From set switching point

Operation and display

Number of LEDs	4 Piece(s)
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Environmental data

Ambient temperature, operation	-25 ... 70 °C
Degree of contamination	3, EN 60947-1

Certifications

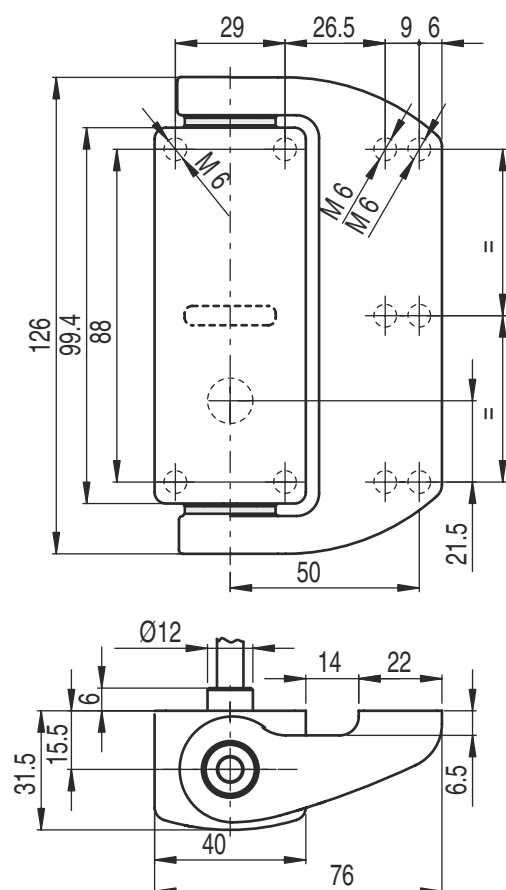
Degree of protection	IP 67
	IP 69K
Certifications	c UL US
	TÜV Süd

Technical data

Customs tariff number	85369095
eCl@ss 5.1.4	27272690
eCl@ss 8.0	27270609
eCl@ss 9.0	27270609
eCl@ss 10.0	27270609
eCl@ss 11.0	27270609
ETIM 5.0	EC002591
ETIM 6.0	EC002591
ETIM 7.0	EC002591

Dimensioned drawings

All dimensions in millimeters



Electrical connection

Connection 1

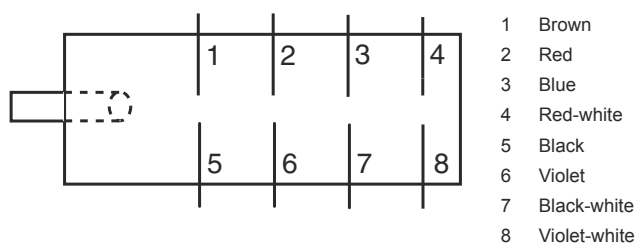
Function	Contact connection
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	8 -wire
Wire cross section	0.5 mm ²

Conductor color

Conductor assignment

Brown	A1
Red	IS1
Blue	A2
Red / White	OS1
Black	O3
Violet	IS2
Black / White	OS2
Violet / White	n.c.

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.
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