

Technical data sheet Safety hinge switch

Part no.: 63000421

S420-OS-CB2-LW

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

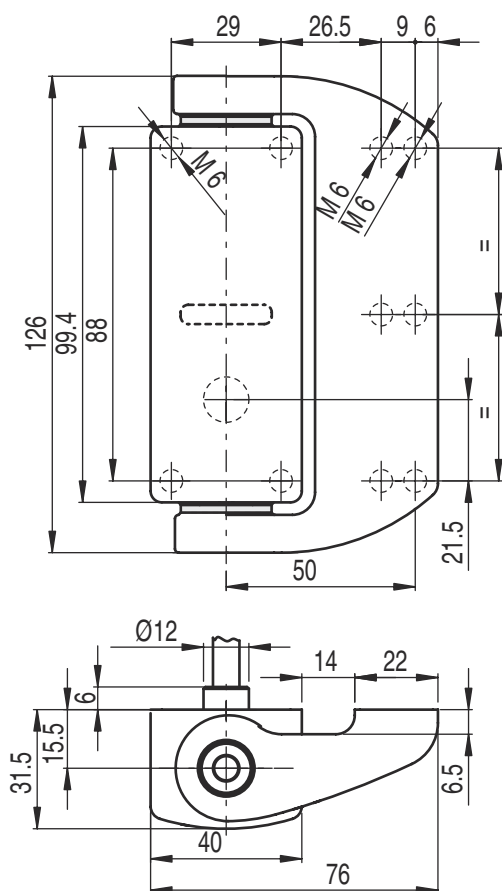
Degree of protection	IP 67
	IP 69K
Certifications	c UL US
	TÜV Süd

Technical data

Customs tariff number	85369095
eCl@ss 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

Dimensioned drawings

All dimensions in millimeters



Electrical connection

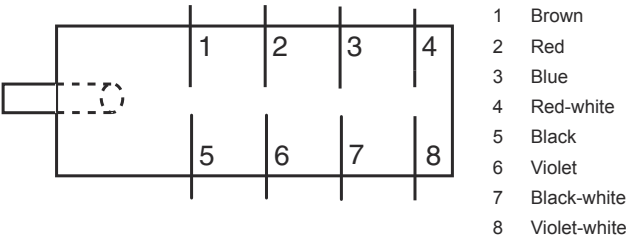
Connection 1

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 mm²

Electrical connection

Conductor color	Conductor assignment
Brown	A1
Red	IS1
Blue	A2
RedWhite	OS1
Black	O3
Violet	IS2
BlackWhite	OS2
VioletWhite	n.c.

Circuit diagrams



Notes



Observe intended use!





The product may only be put into operation by competent persons.



Only use the product in accordance with its intended use.