

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures

General data

Overview



Enclosed pushbuttons and indicator lights are used as hand operated control devices for separately allocated control units and cabinets.

Enclosures with handle are available for suspension (e. g. for crane control units).

The enclosed pushbuttons and indicator lights are available with conventional controls as well as for connection to the AS-Interface bus system.

The following versions are available:

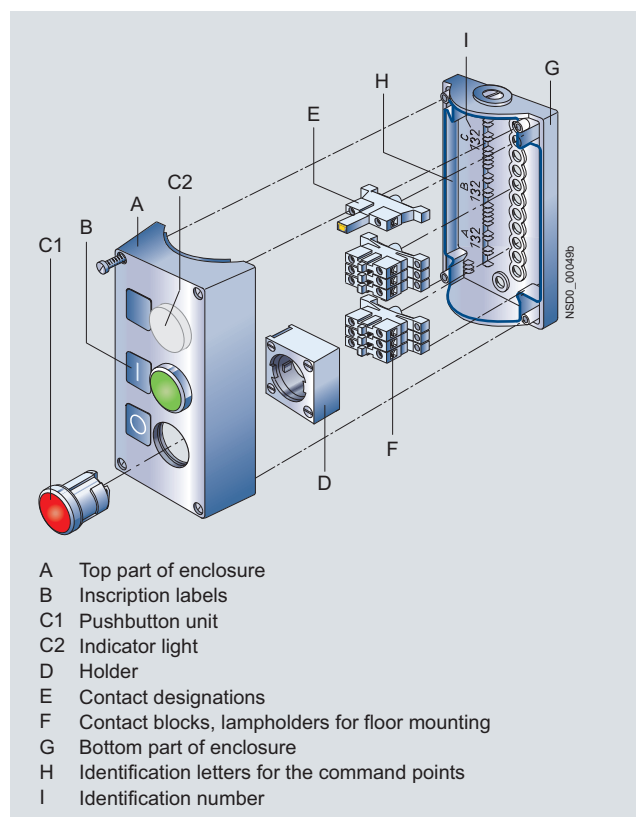
- Enclosure with standard fittings with 1 to 3 command points
- Enclosure with customized equipment with 1 to 6 command points
- Empty enclosures (individual parts must be ordered separately).

Customer-specific enclosures

On request enclosures with more than 6 command points can also be supplied with AS-Interface connection.

For AS-Interface enclosures see page 9/93.

Enclosures with standard fittings



Standards

IEC 60947-5-1, EN 60947-5-1

Application

The devices are climate-proof (KTW 24) according to EN ISO 6270-2 and suitable for stationary use (weather-protected) and for use in marine applications.

More information

Type	3SB38 0.-0, 3SB38 0.-1	3SB38 0.-2, 3SB38 0.-3
Enclosures		
Enclosure material	Plastic	Metal
Actuators and indicators	Plastic, round	Metal, round
Degree of protection acc. to IEC 60529	IP65	IP67 and NEMA Type 4
Climatic withstand capability acc. to EN ISO 6270-2	KTW 24	
Shock resistance acc. to IEC 60068-2-27 for half-sine shock type, 11 ms shock duration		
• Devices without incandescent lamp	≤ 50 g	
• Devices with incandescent lamp	≤ 30 g	
Vibration resistance acc. to IEC 60068-2-6		
• Acceleration at frequency 20 ... 200 Hz	5 g	

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures

Enclosures with standard fittings

Overview

Enclosures with standard fittings are available with:

- 1 to 3 command points
- Operational voltage up to 400 V
- Vertical mounting type
- Plastic enclosures are equipped with plastic actuators and indicators, metal enclosures are equipped with metal actuators and indicators
- Contact blocks and lampholders for floor mounting (are snapped into the enclosure base). Screw terminals (box terminals) as standard; some versions also with spring-type terminals (Order No. ends with -OCC0).

The actuators/indicators are fixed with an enclosure nut. If required it can be disassembled with a 27 mm socket wrench or with a 3SX17 07 ring nut wrench.


Color of enclosure cover:

- Gray, RAL 7035, or
- Yellow, RAL 1004

Color of enclosure base:

- Black, RAL 9005

Selection and ordering data

Equipment	Contact block function	Number of command points	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU				kg

Plastic enclosures with standard fittings

Cable entry top and bottom each 1 x M20



3SB38 01-0DA3







3SB38 01-0.F3



3SB38 02-0DA3



3SB38 03-0DA3

A = Pushbutton green, label "I"	1 NO	1	B	3SB38 01-0DA3		1	1 unit	102	0.210
A = Pushbutton red, label "O"	1 NC	1	B	3SB38 01-0DB3		1	1 unit	102	0.209
A = Pushbutton white, label "I"	1 NO	1	B	3SB38 01-0DD3		1	1 unit	102	0.205
A = Pushbutton black, label "O"	1 NC	1	B	3SB38 01-0DE3		1	1 unit	102	0.205
A = EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with positive latching acc. to ISO 13850 and rotate-to-unlatch mechanism									
• With yellow top part, without protective collar	1 NC 	1	B	3SB38 01-0DG3		1	1 unit	102	0.242
	2 NC 	1	B	3SB38 01-0EG3		1	1 unit	102	0.250
• With yellow top part, with protective collar ¹⁾	1 NC 	1	B	3SB38 01-0DF3		1	1 unit	102	0.270
	2 NC 	1	B	3SB38 01-0EF3		1	1 unit	102	0.270
B = Pushbutton green, label "I", A = Pushbutton red, label "O"	1 NO, 1 NC	2	B	3SB38 02-0DA3		1	1 unit	102	0.261
B = Pushbutton white, label "I", A = Pushbutton black, label "O"	1 NO, 1 NC	2	B	3SB38 02-0DB3		1	1 unit	102	0.260
C = Indicator light clear, label without inscription, B = Pushbutton green, label "I", A = Pushbutton red, label "O"	BA 9s ³⁾ , 1 NO, 1 NC	3	B	3SB38 03-0DA3		1	1 unit	102	0.320
C = Pushbutton black, label "II", B = Pushbutton black, label "I", A = Pushbutton red, label "O"	1 NO, 1 NO, 1 NC	3	C	3SB38 03-0DB3		1	1 unit	102	0.324
C = Indicator light clear, label without inscription, B = Pushbutton white, label "I", A = Pushbutton black, label "O"	BA 9s ³⁾ , 1 NO, 1 NC	3	C	3SB38 03-0DC3		1	1 unit	102	0.328

¹⁾ The protective collar must only be used to protect against inadvertent actuating and must be fitted to allow unimpeded access to the EMERGENCY-STOP mushroom pushbutton.

²⁾ Positive opening according to IEC 60947-5-1, Appendix K.

³⁾ Only lampholder; order lamp separately.

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Enclosures with standard fittings

Equipment	Contact block function	Number of command points	DT	Screw terminals	Spring-type terminals ³⁾	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU				kg

Metal enclosures with standard fittings

Cable entry top and bottom each 1 x M20



3SB38 01-2DB3



3SB38 01-2.F3



3SB38 01-2EB30










3SB38 02-2DA3



3SB38 03-2DA3



3SB38 03-2DB3

A = Pushbutton green, label "I"	1 NO	1	B	3SB38 01-2DA3	1	1 unit	102	0.532	
A = Pushbutton red, label "O"	1 NC	1	B	3SB38 01-2DB3	1	1 unit	102	0.535	
A = Pushbutton white, label "I"	1 NO	1	B	3SB38 01-2DD3	1	1 unit	102	0.538	
A = Pushbutton black, label "O"	1 NC	1	B	3SB38 01-2DE3	1	1 unit	102	0.530	
A = EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with positive latching acc. to ISO 13850 and rotate-to-unlatch mechanism									
• With yellow top part, without protective collar - With M12 socket • With yellow top part, with protective collar ¹⁾	1 NC	 ²⁾	1	B	3SB38 01-2DG3	1	1 unit	102	0.591
	2 NC	 ²⁾	1	B	3SB38 01-2EG3	1	1 unit	102	0.590
	2 NC	 ²⁾³⁾	1	C	3SB38 01-2EG10-0CC0	1	1 unit	102	0.590
	1 NC	 ²⁾	1	B	3SB38 01-2DF3	1	1 unit	102	0.684
	2 NC	 ²⁾	1	B	3SB38 01-2EF3	1	1 unit	102	0.680
A = EMERGENCY-STOP mushroom pushbuttons, Ø 60 mm, with positive latching acc. to ISO 13850 and rotate-to-unlatch mechanism									
• With yellow top part, with protective collar for 5 padlocks	2 NC	 ²⁾	1	B	3SB38 01-2EA30	1	1 unit	102	0.590
	2 NC	 ²⁾³⁾	1	B	3SB38 01-2EA30-0CC0	1	1 unit	102	0.591
A = mushroom pushbutton, Ø 60 mm, black, with positive latching and rotate-to-unlatch mechanism									
• With gray top part, with protective collar for 5 padlocks	2 NC ³⁾		1	B	3SB38 01-2EB30-0CC0	1	1 unit	102	0.591
B = Pushbutton green, label "I", A = Pushbutton red, label "O"	1 NO, 1 NC	2	B	3SB38 02-2DA3	1	1 unit	102	0.675	
B = Pushbutton white, label "I", A = Pushbutton black, label "O"	1 NO, 1 NC	2	B	3SB38 02-2DB3	1	1 unit	102	0.667	
C = Indicator light clear, label without inscription, B = Pushbutton green, label "I", A = Pushbutton red, label "O"	BA 9s ⁴⁾ , 1 NO, 1 NC	3	B	3SB38 03-2DA3	1	1 unit	102	0.840	
C = Pushbutton black, label "II", B = Pushbutton black, label "I", A = Pushbutton red, label "O"	1 NO, 1 NO, 1 NC	3	B	3SB38 03-2DB3	1	1 unit	102	0.856	
C = Indicator light clear, label without inscription, B = Pushbutton white, label "I", A = Pushbutton black, label "O"	BA 9s ⁴⁾ , 1 NO, 1 NC	3	B	3SB38 03-2DC3	1	1 unit	102	0.844	

¹⁾ The protective collar must only be used to protect against inadvertent actuating and must be fitted to allow unimpeded access to the EMERGENCY-STOP mushroom pushbutton.

²⁾ Positive opening according to IEC 60947-5-1, Appendix K.

³⁾ **-0CC0**: Contact blocks with spring-type terminals.

⁴⁾ Only lampholder; order lamp separately.

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures

Empty enclosures

Selection and ordering data

Version	Number of command points	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
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Empty enclosures, plastic



3SB38 02-0AA3

Cable entry top and bottom
each 1 x M20 for 1 to 3 command points,
each 1 x M25 for 4 and 6 command points

For contact blocks, lampholders and accessories with snap-on floor mounting, also single-pole front plate blocks can be used (switching state is maintained upon opening)

1
2
3
4
6

B
B
B
B
B

3SB38 01-0AA3
3SB38 02-0AA3
3SB38 03-0AA3
3SB38 04-0AA3
3SB38 06-0AA3

1
1
1
1
1

1 unit
1 unit
1 unit
1 unit
1 unit

102
102
102
102
102

0.185
0.214
0.258
0.301
0.427



3SB38 01-0AB3

For EMERGENCY-STOP, for contact blocks, lampholders and accessories with snap-on floor mounting, also single-pole front plate blocks can be used (switching state is maintained upon opening)

• With yellow top part, without protective collar

1

B

3SB38 01-0AB3

1

1 unit

102

0.185

• With yellow top part, with protective collar¹⁾

1

B

3SB38 01-0AD3

1

1 unit

102

0.213

Empty enclosures, metal



3SB38 04-2AA3

Cable entry top and bottom
each 1 x M20 for 1 to 3 command points,
each 1 x M25 for 4 and 6 command points

For contact blocks, lampholders and accessories with snap-on floor mounting, also single-pole front plate blocks can be used (switching state is maintained upon opening)

1
2
3
4
6

B
B
B
B
B

3SB38 01-2AA3
3SB38 02-2AA3
3SB38 03-2AA3
3SB38 04-2AA3
3SB38 06-2AA3

1
1
1
1
1

1 unit
1 unit
1 unit
1 unit
1 unit

102
102
102
102
102

0.445
0.524
0.634
0.735
0.985



3SB38 01-2AB3

For EMERGENCY-STOP, for contact blocks, lampholders and accessories with snap-on floor mounting, also single-pole front plate blocks can be used (switching state is maintained upon opening)

• With yellow top part, without protective collar

1

B

3SB38 01-2AB3

1

1 unit

102

0.447

• With yellow top part, with protective collar¹⁾

1

B

3SB38 01-2AD3

1

1 unit

102

0.551



3SB38 01-2AD3

• With gray top part, with protective collar

1

B

3SB38 01-2AE3

1

1 unit

102

0.551

• With yellow top part, with protective collar for 3 padlocks, for mushroom Ø 40 mm, can be locked (BKS, CES, O.M.R.)

1

B

3SB38 01-2EC3

1

1 unit

102

0.551



3SB38 01-2EC3

¹⁾ The protective collar must only be used to protect against inadvertent actuating and must be fitted to allow unimpeded access to the EMERGENCY-STOP mushroom pushbutton.

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures

Customer-specific enclosures

Overview

Customized enclosures are available with:

- 1 to 6 command points
- Operational voltage up to 400 V.

One command point comprises:

- 1 actuator or indicator
- Up to 3 contact blocks or up to 2 contact blocks + 1 lampholder
- 1 inscription label

For plastic enclosures the command points are equipped as standard with plastic actuators and indicators, for metal enclosures they are equipped with metal actuators and indicators.

For routing the cable in, one hole for M20 (for 1 to 3 command points) or for M25 (for 4 or 6 command points) is provided at the top and bottom.

Ordering notes (selection by configurator)

To order customized enclosures with the 3SB3 control devices, use the 3SB configurator to select the blocks for equipping. An electronic order form will be generated for the additional options. The configurator is available in the electronic catalog CA 01 on DVD or in the Industry Mall:

www.siemens.com/automation/mall




Supplement the Order No. with the order code **"K0Y"** (as already listed in the selection table).

The list price of the complete enclosure is generated in the configurator for the customized equipment.

Please send the resulting electronic order form along with your order by e-mail to our Competence Center at sirius-attach.aud@siemens.com

If you are unable to access either catalog, please contact our Technical Assistance.

Selection and ordering data

Version	Number of command points	DT	Order No.	Price per PU ¹⁾	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Plastic enclosures								
	With contact blocks and lampholders for floor mounting	1	C	3SB38 01-0AZK0Y	1	1 unit	102	
		2	C	3SB38 02-0AZK0Y	1	1 unit	102	
		3	C	3SB38 03-0AZK0Y	1	1 unit	102	
		4	B	3SB38 04-0AZK0Y	1	1 unit	102	
		6	B	3SB38 06-0AZK0Y	1	1 unit	102	
	With single-pole contact blocks and lampholders for front plate mounting	1	C	3SB38 01-1AZK0Y	1	1 unit	102	
		2	C	3SB38 02-1AZK0Y	1	1 unit	102	
		3	C	3SB38 03-1AZK0Y	1	1 unit	102	
		4	B	3SB38 04-1AZK0Y	1	1 unit	102	
		6	B	3SB38 06-1AZK0Y	1	1 unit	102	
Metal enclosures								
	With contact blocks and lampholders for floor mounting	1	C	3SB38 01-2AZK0Y	1	1 unit	102	
		2	C	3SB38 02-2AZK0Y	1	1 unit	102	
		3	C	3SB38 03-2AZK0Y	1	1 unit	102	
		4	C	3SB38 04-2AZK0Y	1	1 unit	102	
		6	C	3SB38 06-2AZK0Y	1	1 unit	102	
	With single-pole contact blocks and lampholders for front plate mounting	1	C	3SB38 01-3AZK0Y	1	1 unit	102	
		2	C	3SB38 02-3AZK0Y	1	1 unit	102	
		3	C	3SB38 03-3AZK0Y	1	1 unit	102	
		4	C	3SB38 04-3AZK0Y	1	1 unit	102	
		6	C	3SB38 06-3AZK0Y	1	1 unit	102	
Suspended pushbuttons								
With holding plate and handle, customized equipment		max. 6	D	3SB38 87-1AZK0Y	1	1 unit	102	
								




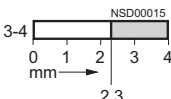


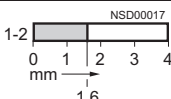

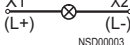
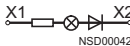

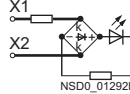
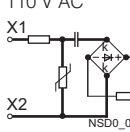

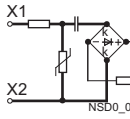

¹⁾ The prices depend on the equipment selected in the configurator.

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures

Contact blocks and lampholders

Selection and ordering data

For self-equipping of the enclosures

Version	Rated voltage/ Diagram	Operating travel/color ■ Contact closed □ Contact open	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU	kg			
Contact blocks for floor mounting									
	Contact blocks with one contact								
	1 NO 1 NO with gold-plated contacts			▶	3SB34 20-0B 3SB34 20-0BA	1 1	1 unit 1 unit	102 102	0.012 0.015
	1 NC 1 NC with gold-plated contacts			▶	3SB34 20-0C 3SB34 20-0CA	1 1	1 unit 1 unit	102 102	0.012 0.015
	BA 9s lampholders								
	Without lamp	Acc. to lamp 	▶	3SB34 20-1A		1	1 unit	102	0.012
	With integrated voltage reducer and with 130 V lamp (3SX1 731) ²⁾	230/240 V AC 	Clear	B	3SB34 20-1C		1	1 unit	102
	Lampholders with integrated LED	24 V AC/DC 	Yellow Red Green Blue White	B ▶ ▶ ▶ B ▶	3SB34 20-1PA 3SB34 20-1PB 3SB34 20-1PC 3SB34 20-1PD 3SB34 20-1PE	1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit	102 102 102 102 102	0.011 0.011 0.011 0.011 0.011
	110 V AC 	Yellow Red Green Blue White	B B B D B	3SB34 20-1QA 3SB34 20-1QB 3SB34 20-1QC 3SB34 20-1QD 3SB34 20-1QE	1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit	102 102 102 102 102	0.012 0.012 0.012 0.012 0.012	
	230 V AC 	Yellow Red Green Blue White	B B B B B	3SB34 20-1RA 3SB34 20-1RB 3SB34 20-1RC 3SB34 20-1RD 3SB34 20-1RE	1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit	102 102 102 102 102	0.012 0.012 0.012 0.012 0.012	
	Fixpoint terminals								
		Black	B	3SB39 01-0AG		1	1 unit	102	0.012
		Blue	B	3SB39 01-0AH		1	1 unit	102	0.012
		Green/Yellow	B	3SB39 01-0AJ		1	1 unit	102	0.012

3SB39 01-0AH

1) Positive opening according to IEC 60947-5-1, Appendix K.

2) Only use with this lamp.

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures

Contact blocks and lampholders

Version	Rated voltage/ Diagram	Operating travel/color <div style="display: inline-block; width: 10px; height: 10px; background-color: #ccc; border: 1px solid #000; margin-right: 5px;"></div> Contact closed <div style="display: inline-block; width: 10px; height: 10px; background-color: #fff; border: 1px solid #000; margin-right: 5px;"></div> Contact open	DT	Spring-type terminals	<div style="display: inline-block; width: 10px; height: 10px; background-color: #fff; border: 1px solid #000; margin-right: 5px;"></div>	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU				kg

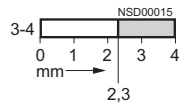
Contact blocks for floor mounting



3SB34 23-0B

Contact blocks with one contact

1 NO
1 NO with
gold-plated
contacts

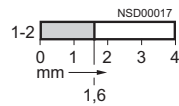
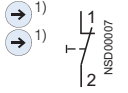


B
D

3SB34 23-0B
3SB34 23-0BA

1 1 unit 102 0.011
1 1 unit 102 0.015

1 NC
1 NC with
gold-plated
contacts

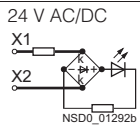


B
B

3SB34 23-0C
3SB34 23-0CA

1 1 unit 102 0.011
1 1 unit 102 0.015

Lampholders with integrated LED

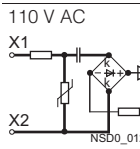


Yellow
Red
Green
Blue
White

B
B
B
B
B

3SB34 23-1PA
3SB34 23-1PB
3SB34 23-1PC
3SB34 23-1PD
3SB34 23-1PE

1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011

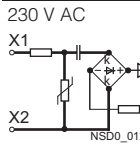


Yellow
Green
Red
Blue
White

B
D
D
D
D

3SB34 23-1QA
3SB34 23-1QC
3SB34 23-1QB
3SB34 23-1QD
3SB34 23-1QE

1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011



Yellow
Blue
Green
Red
White

D
B
B
B
B

3SB34 23-1RA
3SB34 23-1RD
3SB34 23-1RC
3SB34 23-1RB
3SB34 23-1RE

1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011
1 1 unit 102 0.011

Fixpoint terminals

Black
Blue
Green/Yellow

B
B
B

3SB34 23-2F
3SB34 23-2G
3SB34 23-2H

1 1 unit 102 0.011
1 1 unit 102 0.010
1 1 unit 102 0.010



3SB34 23-2G

¹⁾ Positive opening according to IEC 60947-5-1, Appendix K.

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
							kg

Accessories



3SB39 01-0AW

**Pressure plates for selector
switches and key-operated switches**
For actuating the central contact block
of 3 contact blocks

B

3SB39 01-0AW

100 10 units 102 0.100

3SB3 Pushbuttons and Indicator Lights, 22 mm

Enclosures

Inscription labels for enclosures

Overview

Black labels

The inscription labels (black with white inscription or silver-colored with black print) have an adhesive layer on the back. The size of the labels is 22 mm × 22 mm.

Inscriptions

The inscriptions have upper case initial letters. The typeface is Arial. Graphic symbols, including those not listed in the catalog, are according to ISO 7000 or IEC 60417 (see page 9/91).

Selection and ordering data

PU (UNIT) = 1

PS* = 10 units (customized inscription: 1 unit)

PG = 102

Inscriptions	DT	Black	Weight per PU approx.	DT	Silver-colored	Weight per PU approx.
		Order No.	Price per PU		Order No.	Price per PU
			kg			kg

Inscription labels, self-adhesive, 22 mm × 22 mm



For self-inscription

Blank ▶ **3SB39 06-1AA** 0.100 B **3SB19 01-3AA** 0.100



With inscription

Ein B **3SB39 06-1AB** 0.001 B **3SB19 01-3AB** 0.001
 On B **3SB39 06-1EB** 0.001 B **3SB19 01-3EB** 0.001
 Aus B **3SB39 06-1AC** 0.001 B **3SB19 01-3AC** 0.001
 Off B **3SB39 06-1EC** 0.001 B **3SB19 01-3EC** 0.001



Auf B **3SB39 06-1AD** 0.001 B **3SB19 01-3AD** 0.001
 Up B **3SB39 06-1ED** 0.001 B **3SB19 01-3ED** 0.001
 Ab B **3SB39 06-1AE** 0.001 B **3SB19 01-3AE** 0.001
 Down B **3SB39 06-1EE** 0.001 B **3SB19 01-3EE** 0.001

Auf B **3SB39 06-1AD** 0.001 B **3SB19 01-3AD** 0.001
 Open B **3SB39 06-1EP** 0.001 B **3SB19 01-3EP** 0.001
 Zu B **3SB39 06-1AL** 0.001 B **3SB19 01-3AL** 0.001
 Close B **3SB39 06-1EQ** 0.001 B **3SB19 01-3EQ** 0.001

Vor B **3SB39 06-1AF** 0.001 B **3SB19 01-3AF** 0.001
 Forward B **3SB39 06-1EF** 0.001 B **3SB19 01-3EF** 0.001
 Zurück B **3SB39 06-1AG** 0.001 B **3SB19 01-3AG** 0.001
 Reverse B **3SB39 06-1EG** 0.001 B **3SB19 01-3EG** 0.001

Rechts B **3SB39 06-1AH** 0.001 B **3SB19 01-3AH** 0.001
 Right B **3SB39 06-1EH** 0.001 B --
 Links B **3SB39 06-1AJ** 0.001 B **3SB19 01-3AJ** 0.001
 Left B **3SB39 06-1EJ** 0.001 B --

Schnell B **3SB39 06-1AM** 0.001 B **3SB19 01-3AM** 0.001
 Fast B **3SB39 06-1ER** 0.001 B --
 Langsam B **3SB39 06-1AN** 0.001 B **3SB19 01-3AN** 0.001
 Slow B **3SB39 06-1ES** 0.001 B --

Betrieb B **3SB39 06-1AP** 0.001 B **3SB19 01-3AP** 0.001
 Running B **3SB39 06-1EV** 0.001 B **3SB19 01-3EV** 0.001
 Störung B **3SB39 06-1AQ** 0.001 B **3SB19 01-3AQ** 0.001
 Fault B **3SB39 06-1EW** 0.001 B --

Einrichten B **3SB39 06-1AR** 0.001 B **3SB19 01-3AR** 0.001
 Start B **3SB39 06-1EL** 0.001 B **3SB19 01-3EL** 0.001
 Reset B **3SB39 06-1EM** 0.001 B **3SB19 01-3EM** 0.001
 Test B **3SB39 06-1EN** 0.001 B **3SB19 01-3EN** 0.001

Halt B **3SB39 06-1AK** 0.001 B **3SB19 01-3AK** 0.001
 Stop B **3SB39 06-1EK** 0.001 B **3SB19 01-3EK** 0.001
 NOT-HALT B **3SB39 06-1AS** 0.001 B **3SB19 01-3AT** 0.001
 NOT-AUS B **3SB39 06-1AV** 0.001 B **3SB19 01-3AS** 0.001
 EMERGENCY STOP B **3SB39 06-1EY** 0.001 B **3SB19 01-3EY** 0.001

Lüfter B **3SB39 06-1CA** 0.001 B --
 Pumpe B **3SB39 06-1CB** 0.001 B **3SB19 01-3CB** 0.001
 Kühlung B **3SB39 06-1CC** 0.001 B --
 Heizung B **3SB39 06-1CD** 0.001 B --

Beleuchtung B **3SB39 06-1CE** 0.001 B **3SB19 01-3CE** 0.001
 Filter B **3SB39 06-1CF** 0.001 B --
 Motor C **3SB39 06-1CG** 0.001 B --
 Kompressor C **3SB39 06-1CH** 0.001 X **3SB19 01-3CH** 0.001

With graphic symbol

O B **3SB39 06-1MB** 0.001 B **3SB19 01-3MB** 0.001
 I B **3SB39 06-1MC** 0.001 B **3SB19 01-3MC** 0.001
 II B **3SB39 06-1MD** 0.001 B **3SB19 01-3MD** 0.001
 III B **3SB39 06-1ME** 0.001 B **3SB19 01-3ME** 0.001


O I (horizontal) B **3SB39 06-1MF** 0.001 B **3SB19 01-3MF** 0.001
 I O II (horizontal) B **3SB39 06-1MG** 0.001 B **3SB19 01-3MG** 0.001
 I O (vertical) B **3SB39 06-1MH** 0.001 B **3SB19 01-3MH** 0.001
 II O I (vertical) B **3SB39 06-1MW** 0.001 C **3SB19 01-3MW** 0.001

→ B **3SB39 06-1NA** 0.001 B **3SB19 01-3NA** 0.001

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures

Inscription labels for enclosures

PU (UNIT) = 1
 PS* = 10 units (customized inscription: 1 unit)
 PG = 102

Inscriptions				DT	Black	Weight per PU approx. kg	DT	Silver-colored	Weight per PU approx. kg
					Order No.	Price per PU		Order No.	Price per PU
Inscription labels, self-adhesive, 22 mm × 22 mm									
					With customized inscription				
					For inscriptions or symbols see "Options"				
					• Text line(s) or symbol with No.				
					• Any inscription or symbol				
				C	3SB39 06-0XZ		C	3SB19 01-3XZ	
					K0Y	0.001		K0Y	0.001
				B	K1Y, K2Y, K3Y or K5Y	0.001	D	K1Y, K2Y, K3Y or K5Y	0.001
				B	K9Y	0.001	D	K9Y	0.001

Options

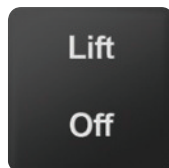
Customized inscriptions

The labels can be inscribed with text and symbols not listed in the ordering data.

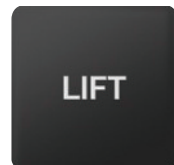
A letter height of 4 mm is used as standard for text inscriptions (1 to 3 lines)

Up to 11 characters per line are possible. The typeface used is Arial. Other letter heights and typefaces are possible, but must be specified when ordering.

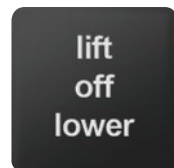
Examples for customized inscription



Two-line inscription in upper/lower case lettering (K0Y)



Single-line inscription in upper case lettering (K1Y)



Three-line inscription in lower case letters (K2Y)



Symbol number 5011 according to IEC 60417 (K3Y)



Any symbol according to order form supplement (K9Y)

Ordering notes

Append the following codes to the Order No.:

- Text line in upper/lower case, always upper case for beginning of line (e. g. "Lift out"): **K0Y**
- Text line(s) in upper case (e. g. "LIFT OUT"): **K1Y**
- Text line(s) in lower case (e. g. "lift out"): **K2Y**
- Text line(s) in upper/lower case, all words begin with upper case letters (e. g. "Lift Out"): **K5Y**
- Symbol with number according to ISO 7000 or IEC 60417: **K3Y**
- Any inscription or symbol according to order form supplement: **K9Y**

When ordering, specify the required inscription in plain text in addition to the order number and order code. In the case of special inscriptions with words in languages other than German, give the exact spelling and specify the language.

In the case of multi-line inscriptions, the text must be assigned to the respective line, e. g. "Z1 = Lift, Z2 = Lower". For long words you can also specify the end-of-line division (see ordering example 1).

Symbols can also be ordered with numbers according to ISO 7000 or IEC 60417 (see ordering example 2 and 3).

For special symbols (order code K9Y), a CAD drawing in DXF format can be submitted.

Ordering example 1

A label with 2 lines of text is required:

3SB39 06-0XZ
 K1Y
 Z1 = LIFT
 Z2 = LOWER

Ordering example 2

A label inscribed with symbol No. 5011 according to IEC 60417 is required:

3SB39 06-0XZ
 K3Y
 Z = 5011 IEC

Ordering example 3

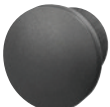










A label inscribed with symbol No. 1118 according to ISO 7000 is required:

3SB39 06-0XZ
 K3Y
 Z = 1118 ISO

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures

Accessories for enclosures

Selection and ordering data

Version	Color/ inscription	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Blanking plugs for spare command points								
 3SB39 21-0AA	Blanking plugs For plastic version, round	Black	▶ 3SB39 21-0AA		1	10 units	102	0.012
 3SB19 02-0AQ	Blanking plugs For metal version, round	Aluminized	B 3SB19 02-0AQ		1	10 units	102	0.081
Holders and pressure plates								
 3SB39 01-0AB	Holders for pushbuttons and switches For snapping on 3 blocks, ¹⁾ for front plate mounting		▶ 3SB39 01-0AB		100	20 units	102	0.100
 3SB39 01-0AC	Holders for selector switches and key-operated switches with pressure plate For actuating a central contact block, for front plate mounting		▶ 3SB39 01-0AC		100	10 units	102	0.200
 3SB39 01-0AW	Pressure plates for selector switches and key-operated switches For actuating a central contact block, for floor mounting	B	3SB39 01-0AW		100	10 units	102	0.100
Accessories for enclosures								
	Yellow name plates As backing plate for EMERGENCY-STOP, self-adhesive	Without inscription	B 3SB19 02-1AQ		1	1 unit	102	0.001
		With inscription	B 3SB19 02-2AQ		1	1 unit	102	0.001
		• NOT-HALT	B 3SB39 21-0CJ		1	1 unit	102	0.001
		• NOT-AUS	B 3SB39 21-0BV		1	1 unit	102	0.001
 3SB39 01-0CK	M20 cable gland including hexagonal nut	B	3SB39 01-0CK		1	1 unit	102	0.011
	M25 cable gland including hexagonal nut	B	3SB39 01-0CM		1	1 unit	102	0.014
 3SB39 01-0CL	M20 hexagonal nuts For cable glands	B	3SB39 01-0CL		100	10 units	102	0.100
	M25 hexagonal nuts For cable glands	B	3SB39 01-0CN		100	10 units	102	0.100
 3SB39 01-0C	Connecting pieces For connecting 2 plastic enclosures							
		• M20/M20	B 3SB39 01-0CS		1	1 unit	102	0.038
		• M20/M25	B 3SB39 01-0CT		1	1 unit	102	0.038
		• M25/M25	B 3SB39 01-0CU		1	1 unit	102	0.038
 3SB39 01-0C	Connecting pieces For connecting 2 metal enclosures							
		• M20/M20	B 3SB39 01-0CP		1	1 unit	102	0.038
 3SB39 01-0AB	Enclosure nuts For plastic version							
		• M20/M25	B 3SB39 01-0CQ		1	1 unit	102	0.040
			B 3SB39 31-0AB		1	10 units	102	0.007

¹⁾ The holder for illuminated commanding devices is included in the scope of supply.

3SB3 Pushbuttons and Indicator Lights, 22 mm

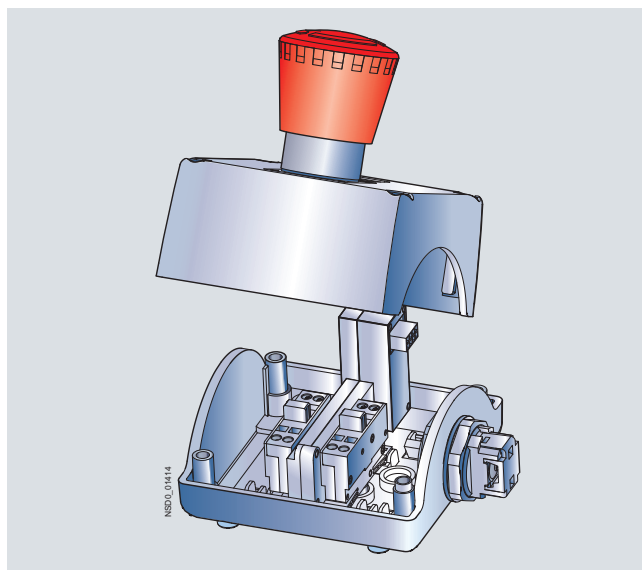
Enclosures for AS-Interface

General data

Overview



Distributed command devices of the 3SB3 series can be quickly connected to the AS-Interface using AS-Interface enclosures. Using suitable components you can make your own enclosures with integrated AS-Interface or flexibly modify existing enclosures.



EMERGENCY-STOP enclosures

Enclosures

Color of enclosure cover:

- Gray, RAL 7035, or
- Yellow, RAL 1004, for EMERGENCY-STOP.

Color of enclosure base:

- Black, RAL 9005

Installation of AS-Interface slaves

The following slave types are available for connecting the command points:

- Slave in A/B technology with 4 inputs and 3 outputs
- Slave with 4 inputs and 4 outputs
- F slave with 2 safe inputs for EMERGENCY-STOP

The following table shows the maximum number of equipable slaves:

Enclosures for	Number of slaves for enclosures without EMERGENCY-STOP	Number of slaves for enclosures with EMERGENCY-STOP
1 command point	Not available	1 x F slave
2 command points	1 x slave 4I/4O or 4I/3O	Not available
3 command points	1 x slave 4I/4O or 4I/3O	1 x slave 4I/4O or 4I/3O + 1 x F slave
4 command points	2 x slave 4I/4O or 4I/3O ¹⁾	2 x slave 4I/4O or 4I/3O + 1 x F slave ¹⁾
6 command points	2 x slave 4I/4O or 4I/3O	2 x slave 4I/4O or 4I/3O + 1 x F slave

¹⁾ For metal enclosures with 4 command points, only 1 x slave 4I/4O or 4I/3O is possible.

Connection

One set of links is required in each case to connect a slave to contact blocks, to lampholders and to the connection element.

The connection elements are mounted in the front-end cable glands and are used for connection of the AS-Interface or for bringing unused inputs or outputs out of the enclosure.

For connection to the AS-Interface bus there is a choice of the following options:

- Terminal for shaped AS-Interface cable. The cable is contacted by the insulation piercing method and routed past the enclosure on the outside (possible only with plastic enclosure).
- Cable gland for the shaped AS-Interface cable or round cable. The cable is routed into the enclosure (preferable for metal enclosure).
- Connection using M12 plug.

If less than all inputs/outputs of the installed slaves in an enclosure are used for connecting the command devices, free inputs and outputs can be routed on request to the outside through an M12 socket on the top or bottom side of the enclosure.

To supply inputs with power, the S+ connection of the slave must be assigned to the socket, for outputs the OUT- connection must be assigned.

Addressing is performed using the AS-Interface connections or the integrated addressing socket. An external power supply is not required.

Customized enclosures (selection by configurator)

To order customized 3SF58 AS-Interface enclosures with the 3SB3 control devices, use the 3SB/3SF configurator to select the blocks for equipping. An electronic order form will be generated for the additional options.

For ordering notes see page 9/87.

3SB3 Pushbuttons and Indicator Lights, 22 mm Enclosures for AS-Interface

AS-Interface enclosures with standard fittings

Overview

Enclosures with standard fittings are available with:

- 1 to 3 command points
- Operational voltage through AS-Interface (approx. 30V)
- Vertical mounting type
- Plastic enclosures are equipped with plastic actuators and indicators, metal enclosures are equipped with metal actuators and indicators.

The actuators/indicators are fixed with an enclosure nut. If required it can be disassembled with a 27 mm socket wrench or with a 3SX17 07 ring nut wrench.

The enclosures without EMERGENCY-STOP each have one user module with 4I/3O; the enclosures with EMERGENCY-STOP have a safe AS-Interface slave integrated in the enclosure.

EMERGENCY-STOP enclosures are fitted with two NC contact blocks, which are wired to the safe slave. The contact blocks and lampholders (with spring-type terminals) of the control device, and the AS-Interface slaves, are mounted in the base of the enclosure and are cable-connected.

The plastic versions of the enclosures have a connection for the AS-Interface flat cable (the cable is routed past the enclosure on the outside); in the case of the metal versions the AS-Interface cable is routed into the enclosure.

The EMERGENCY-STOP enclosures can also be supplied with an M12 plug in place of the gland.

Selection and ordering data

Equipping options (A, B, C = identification letters of the command points)		Number of command points	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
AS-Interface enclosures, plastic									
<i>With M12 top connector</i>									
A = EMERGENCY-STOP mushroom pushbuttons, with rotate-to-unlatch mechanism, 1 NC, 1 NC, yellow enclosure top		1	B	3SF5 811-0AA10		1	1 unit	121	0.315
<i>With terminal for insulation piercing method at top</i>									
A = EMERGENCY-STOP mushroom pushbuttons, with rotate-to-unlatch mechanism, 1 NC, 1 NC									
• Yellow enclosure top		1	A	3SF5 811-0AA08		1	1 unit	121	0.315
• Yellow enclosure top, with protective collar		1	A	3SF5 811-0AB08		1	1 unit	121	0.415
B = Pushbutton green, label "I", 1 NO		2	A	3SF5 812-0DA00		1	1 unit	121	0.352
A = Pushbutton red, label "O", 1 NO									
B = Pushbutton white, label "I", 1 NO		2	A	3SF5 812-0DB00		1	1 unit	121	0.352
A = Pushbutton black, label "O", 1 NO									
C = Indicator lights clear, label without inscription		3	A	3SF5 813-0DA00		1	1 unit	121	0.420
B = Pushbutton green, label "I", 1 NO									
A = Pushbutton red, label "O", 1 NO									
C = Indicator lights clear, label without inscription		3	A	3SF5 813-0DC00		1	1 unit	121	0.415
B = Pushbutton white, label "I", 1 NO									
A = Pushbutton black, label "O", 1 NO									
C = Pushbutton black, label "II", 1 NO		3	A	3SF5 813-0DB00		1	1 unit	121	0.416
B = Pushbutton black, label "I", 1 NO									
A = Pushbutton red, label "O", 1 NO									
AS-Interface enclosures, metal									
<i>With M12 top connector</i>									
A = EMERGENCY-STOP mushroom pushbuttons, with rotate-to-unlatch mechanism, 1 NC, 1 NC									
• Yellow enclosure top		1	C	3SF58 11-2AA10		1	1 unit	121	0.315
• Yellow enclosure top, with protective collar		1	C	3SF58 11-2AB10		1	1 unit	121	0.315
<i>With cable gland at top</i>									
A = EMERGENCY-STOP mushroom pushbuttons, with rotate-to-unlatch mechanism, 1 NC, 1 NC									
• Yellow enclosure top		1	A	3SF5 811-2AA08		1	1 unit	121	0.415
• Yellow enclosure top, with protective collar		1	A	3SF5 811-2AB08		1	1 unit	121	0.415
B = Pushbutton green, label "I", 1 NO		2	A	3SF5 812-2DA00		1	1 unit	121	0.415
A = Pushbutton red, label "O", 1 NO									
B = Pushbutton white, label "I", 1 NO		2	A	3SF5 812-2DB00		1	1 unit	121	0.415
A = Pushbutton black, label "O", 1 NO									
C = Indicator lights clear, label without inscription		3	A	3SF5 813-2DA00		1	1 unit	121	0.415
B = Pushbutton green, label "I", 1 NO									
A = Pushbutton red, label "O", 1 NO									
C = Indicator lights clear, label without inscription		3	A	3SF5 813-2DC00		1	1 unit	121	0.415
B = Pushbutton white, label "I", 1 NO									
A = Pushbutton black, label "O", 1 NO									
C = Pushbutton black, label "II", 1 NO		3	A	3SF5 813-2DB00		1	1 unit	121	0.415
B = Pushbutton black, label "I", 1 NO									
A = Pushbutton red, label "O", 1 NO									







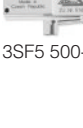







3SB3 Pushbuttons and Indicator Lights, 22 mm

Enclosures for AS-Interface

Components for AS-Interface enclosures

Selection and ordering data

For self-equipping of the enclosures

Version	Number of command points	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
For plastic enclosures								
 3SF5 500-0BA	AS-Interface slaves							
	F slave, 2 safe inputs, for plastic enclosure, EMERGENCY-STOP, without protective collar	1 ... 6	A	3SF5 500-0BA	1	1 unit	121	0.415
	F slave, 2 safe inputs, for plastic or metal enclosure, EMERGENCY-STOP, with protective collar	1	A	3SF5 500-0DA	1	1 unit	121	0.415
	A/B slave, 4I/3O for plastic enclosure	2 ... 6	A	3SF5 500-0BB	1	1 unit	121	0.001
 3SF5 500-0BB	Slave, 4I/4O, for plastic enclosure	2 ... 6	A	3SF5 500-0BC	1	1 unit	121	0.001
Sets of links								
 3SF5 900-0CA	For F slave		A	3SF5 900-0BA	1	1 unit	121	0.001
	For slave 4I/4O or A/B slave 4I(3O)		A	3SF5 900-0BB	1	1 unit	121	0.001
Connection elements								
 3SF5 900-0CC	For AS-Interface shaped cable, connection by insulation piercing method, for plastic enclosure	1 ... 3	A	3SF5 900-0CA	1	1 unit	121	0.001
		4 ... 6	B	3SF5 900-0CB	1	1 unit	121	0.001
 3SF5 900-0CC	For AS-Interface connection using M12 plug, for plastic enclosure	1 ... 3	B	3SF5 900-0CC	1	1 unit	121	0.001
		4 ... 6	B	3SF5 900-0CD	1	1 unit	121	0.001
 3SF5 900-0CG	For bringing out unused inputs/outputs through an M12 socket, for plastic enclosure	1 ... 3	B	3SF5 900-0CE	1	1 unit	121	0.001
		4 ... 6	B	3SF5 900-0CF	1	1 unit	121	0.001
 3SF5 900-0CH	For AS-Interface shaped cable, cable is routed into the enclosure, for plastic or metal enclosure	1 ... 3	A	3SF5 900-0CG	1	1 unit	121	0.001
		4 ... 6	A	3SF5 900-0CH	1	1 unit	121	0.001
 3SF5 900-0CJ	For round cable, cable is routed into the enclosure, for plastic or metal enclosure	1 ... 3	A	3SF5 900-0CJ	1	1 unit	121	0.001
		4 ... 6	A	3SF5 900-0CK	1	1 unit	121	0.001
For metal enclosures								
 3SF5 500-0CB	AS-Interface slaves							
	F slave, 2 safe inputs, for metal enclosure, EMERGENCY-STOP, without protective collar	1 ... 6	A	3SF5 500-0CA	1	1 unit	121	0.415
	F slave, 2 safe inputs, for plastic or metal enclosure, EMERGENCY-STOP, with protective collar	1	A	3SF5 500-0DA	1	1 unit	121	0.415
	A/B slave, 4I/3O for metal enclosure	2 ... 6	A	3SF5 500-0CB	1	1 unit	121	0.001
 3SF5 900-0CG	Slave, 4I/4O, for metal enclosure	2 ... 6	A	3SF5 500-0CC	1	1 unit	121	0.001
Sets of links								
 3SF5 900-0CB	For F slave		A	3SF5 900-0BA	1	1 unit	121	0.001
	For slave 4I/4O or A/B slave 4I(3O)		A	3SF5 900-0BB	1	1 unit	121	0.001
Connection elements								
 3SF5 900-0CJ	For AS-Interface connection using M12 plug, for metal enclosure	1 ... 3	B	3SF5 900-2CC	1	1 unit	121	0.001
		4 ... 6	B	3SF5 900-2CD	1	1 unit	121	0.001
 3SF5 900-0CJ	For bringing out unused inputs/outputs through an M12 socket, for metal enclosure	1 ... 3	B	3SF5 900-2CE	1	1 unit	121	0.001
		4 ... 6	B	3SF5 900-2CF	1	1 unit	121	0.001
 3SF5 900-0CH	For AS-Interface shaped cable, cable is routed into the enclosure, for plastic or metal enclosure	1 ... 3	A	3SF5 900-0CG	1	1 unit	121	0.001
		4 ... 6	A	3SF5 900-0CH	1	1 unit	121	0.001
 3SF5 900-0CJ	For round cable, cable is routed into the enclosure, for plastic or metal enclosure	1 ... 3	A	3SF5 900-0CJ	1	1 unit	121	0.001
		4 ... 6	A	3SF5 900-0CK	1	1 unit	121	0.001

* You can order this quantity or a multiple thereof.

3SB3 Two-Hand Operation Consoles

Plastic and metal enclosures

Overview



Two-hand operation console with metal enclosure

Equipment

The two-hand operation consoles are pre-equipped with 3SB3 command devices. In the case of plastic enclosures the command points are equipped as standard with actuators and indicators made of plastic, in the case of metal enclosures they are equipped with actuators and indicators made of metal.

The standard equipment comprises:

- 2 black mushroom pushbuttons, Ø 40 mm, 1 NO + 1 NC, Order No. 3SB30 00-1GA11 or 3SB35 00-1GA11
- 1 red EMERGENCY-STOP mushroom pushbutton according to ISO 13850, Ø 40 mm, with positive latching, 2 NC, Order No. 3SB30 00-1HA20 or 3SB35 00-1HA20.

The plastic version can be retrofitted with up to 8 customized command points. The surface of the console has premachined breaking points for this purpose.

Application

The two-hand operation consoles are required for use with machines and systems that have hazardous areas, in order to direct both hands of the operator to one position.

Operator panels are primarily used on presses, stamping machines, printing presses and paper converting machines, in the chemical industry and in the rubber and plastics industries.




The control command is given by pressing the two mushroom pushbuttons on the sides simultaneously (within 0.5 s of each other) and must be maintained for as long as a hazard exists.

For the further processing of control commands, suitable evaluation units are used, e. g. 3TK28 3 safety relays (see Chapter 7 "Monitoring and Control Devices" --> "Safety Relays").

Standards

The two-hand operation consoles comply with the requirements of EN 574.

Selection and ordering data

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	
Metal enclosures, degree of protection IP65								
	Two-hand operation consoles, metal enclosure							
	• With standard fittings	B	3SB38 63-4BB	1	1 unit	102	4.800	
	• With standard fittings and 4 additional holes for 22.5 mm command devices ¹⁾	B	3SB38 63-4BA	1	1 unit	102	4.800	
	• Empty enclosure, unequipped	B	3SB38 63-4BC	1	1 unit	102	4.800	
Plastic enclosures, degree of protection IP65								
	Two-hand operation consoles, plastic enclosure		B	3SB38 63-1BB3	1	1 unit	102	2.300
	With standard fittings and premachined breaking points for 8 additional 22.5 mm ¹⁾ command devices, with holes for metric cable glands							
Accessories								
	Stands for two-hand operation consoles		B	3SB39 01-0AQ3	1	1 unit	102	4.500
	With holes for metric cable glands							

¹⁾ See 3SB3 Pushbuttons and Indicator Lights.

3SE7 metal enclosures

Overview



The cable-operated switches are used for monitoring or for EMERGENCY-STOP devices on particularly endangered system sections.

As the effective range of a cable-operated switch is only limited by the length of the trip-wire, large systems can also be protected. Cable-operated switches (requiring pulling at both ends) and conveyor belt unbalance trackers are used primarily for monitoring very long belt systems.

Contact blocks

The switches for bowden wire lengths up to 50 m are available with 1 NO + 1 NC or 2 NC contacts, and up to 75 m with 1 NO + 3 NC contacts. The switches for bowden wire lengths of 2 × 75 m and the conveyor belt unbalance trackers are supplied with 2 NO + 2 NC contacts.

The NC contacts of the cable-break or cable-pull signaling are positive opening. The NO contact can be used, for example, for signaling purposes.

Free position and indication

Cable-operated switches with one-side operation are held in free position by the pre-tension on the turnbuckle.

On switches with interlocking, with a pretensioned cable, the locking must be deactivated beforehand in order to return the cable-operated switch to its original position.

The cable-operated switch and the conveyor belt unbalance tracker can be supplied optionally with a factory-fitted LED (red, 24 V DC). This light in innovative chip-on-board technology allows the operating state of the switch to be visible at a distance of at least 50 m.

Application**Standards**

The switches are equipped with positive latching and positive NC contacts and are thus suitable for operation in EMERGENCY-STOP devices according to EN ISO 13850.

More information

Type		3SE7 120	3SE7 150	3SE7 140	3SE7 141	3SE7 160	3SE7 310
General data							
Standards		IEC 60947-5-1, EN 60947-5-1; IEC 60204-1, EN 60204-1; EN ISO 13850					
Approvals		UL/CSA					
Electrical design		Contacts electrically isolated from each other					
Electrical load							
• At AC-15		400 V AC, 6 A			250 V AC, 2 A	400 V AC, 6 A	
• Min.		24 V AC/DC, 10 mA					
Short-circuit protection		A	6 (slow)				
Mechanical endurance		> 1 million operating cycles					
Contact material		Fine silver					
Operation		By pulling or breaking of bowden wire					
Bowden wire length, maximum		m	10	25	50	75	2 × 75
Distance between wire supports, max.		m	2.5	3	5		–
Enclosures							
Enclosure material		GD Al alloy, coated (color), dark black RAL 9005					
Cover		Shock-resistant thermoplast					
Degree of protection acc. to EN 60529		IP65			IP67	IP65	
Ambient temperature		°C	–25 ... +70				
Mounting		Designed for M5					
Fixing spacing		mm	30 and 40				
Cable entry		2 × (M20 × 1.5)		1 × (M16 × 1.5)	3 × (M20 × 1.5)	2 × (M25 × 1.5)	
Connection type		Screw terminals M3.5, self-lifting clamp terminal					

3SE7, 3SF2 Cable-Operated Switches

3SE7 metal enclosures

Selection and ordering data

Version	Wire length	Contacts	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	m								kg
Cable-operated switches									
	Metal enclosures, IP65 (cover made of molded plastic)	10							
			1 NO + 1 NC → ¹⁾ A	3SE7 120-2DD01	1	1 unit	102	0.395	
		2 NC → ¹⁾ A	3SE7 120-1BF00	1	1 unit	102	0.410		
		Metal enclosures, IP65 (cover made of molded plastic), with dust protection and alignment window	25						
			1 NO + 1 NC → ¹⁾ A	3SE7 150-2DD00	1	1 unit	102	0.425	
		1 NO + 1 NC → ¹⁾ A	3SE7 150-1BD00	1	1 unit	102	0.445		
		2 NC → ¹⁾ A	3SE7 150-1BF00	1	1 unit	102	0.440		
	Metal enclosures, IP65 (cover made of molded plastic), with dust protection and alignment window, with LED, red, 24 V DC	25							
			1 NO + 1 NC → ¹⁾ A	3SE7 150-2DD04	1	1 unit	102	0.425	
		1 NO + 1 NC → ¹⁾ A	3SE7 150-1BD04	1	1 unit	102	0.450		
		Metal enclosures, IP65 (cover made of molded plastic), with dust protection	50						
			1 NO + 1 NC → ¹⁾ A	3SE7 140-1BD00	1	1 unit	102	0.790	
		2 NC → ¹⁾ A	3SE7 140-1BF00	1	1 unit	102	0.790		
		1 NO + 1 NC → ¹⁾ A	3SE7 140-1BD04	1	1 unit	102	0.820		
	Metal enclosures, IP65 (cover made of molded plastic), with dust protection and alignment window, with LED, red, 24 V DC								
			1 NO + 1 NC → ¹⁾ A	3SE7 140-1CD00	1	1 unit	102	0.835	
	Metal enclosures, IP67 (cover made of molded plastic), with EMERGENCY-STOP mushroom, rotate-to-unlatch mechanism	75	1 NO + 3 NC → ¹⁾ A	3SE7 141-1EG10	1	1 unit	102	0.790	
	Metal enclosures, IP65 with actuation on both sides	2 x 75							
			2 NO + 2 NC → ¹⁾ A	3SE7 160-1AE00	1	1 unit	102	1.270	
		1 NO + 1 NC → ¹⁾ A	3SE7 160-1BD00	1	1 unit	102	0.300		
		2 NO + 2 NC → ¹⁾ A	3SE7 160-1AE04	1	1 unit	102	1.200		
Conveyor belt unbalance protection devices									
	Metal enclosures, IP65								
			2 NO + 2 NC → ¹⁾ A	3SE7 310-1AE00	1	1 unit	102	1.805	
		2 NO + 2 NC → ¹⁾ A	3SE7 310-1AE04	1	1 unit	102	1.815		

¹⁾ Positive opening according to IEC 60947-5-1, Appendix K.

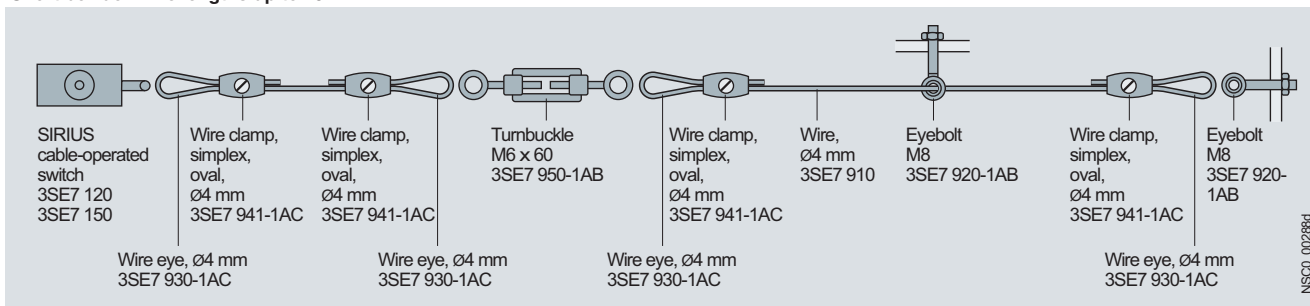
3SE7, 3SF2 Cable-Operated Switches

3SE7 metal enclosures

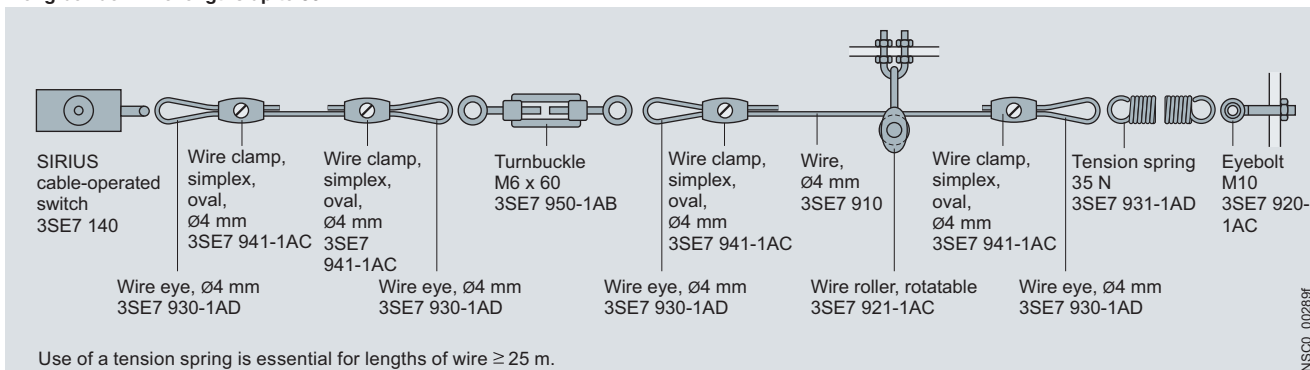
Accessories

Configuration of the cable-operated switches

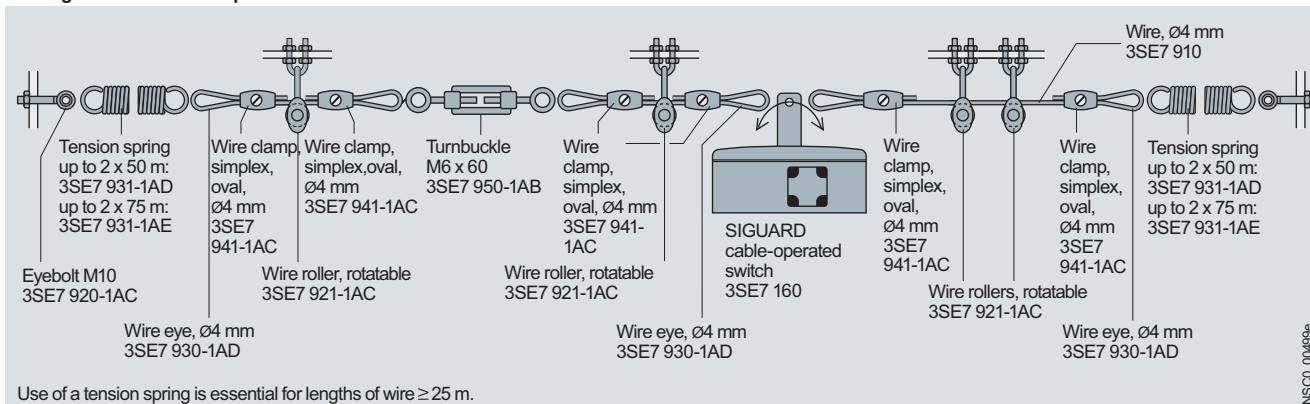
Short bowden wire lengths up to 25 m



Long bowden wire lengths up to 50 m



Pulling from both sides up to 2 x 75 m



Note:

Large temperature fluctuations require corresponding compensation springs. For reliable connection the PVC sheath must be removed from the clamping area of the steel bowden wire. Bowden wire supports must be used at the recommended intervals.

3SE7, 3SF2 Cable-Operated Switches

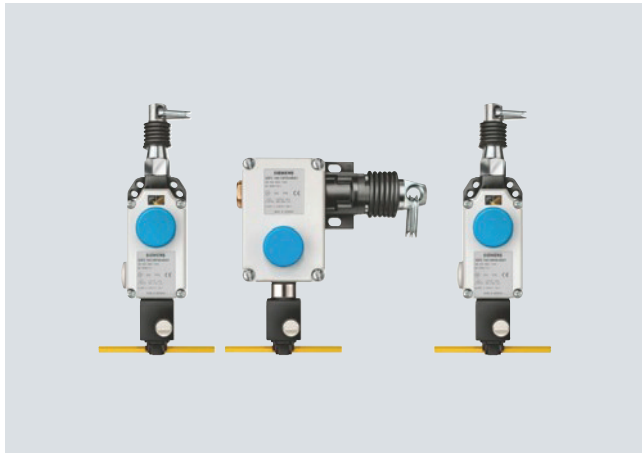
3SE7 metal enclosures

Version	Wire length/ diameter	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Trip-wire with fixing								
	Steel wires , with red plastic sheath, Ø 4 mm ¹⁾	10 m	A	3SE7 910-3AA	1	1 unit	102	0.420
		15 m	A	3SE7 910-3AB	1	1 unit	102	0.665
		20 m	A	3SE7 910-3AC	1	1 unit	102	0.865
		50 m	A	3SE7 910-3AH	1	1 unit	102	2.065
	Wire clamps , galvanized white							
	• Oval	2 × Ø 4 mm	A	3SE7 941-1AC	1	1 unit	102	0.040
	• Simplex (1 set = 4 units)	2 × Ø 4 mm	A	3SE7 943-1AC	1	4 units	102	0.010
	• Duplex (1 set = 4 units)	2 × Ø 4 mm	A	3SE7 944-1AC	1	4 units	102	0.020
	• Single (1 set = 4 units)	2 × Ø 4 mm	A	3SE7 942-1AA	1	4 units	102	0.025
	Tension springs (zinc-plated) to maintain the counter tension							
	• 13 N		A	3SE7 931-1AB	1	1 unit	102	0.150
	• 35 N, for bowden wires up to 50 m		A	3SE7 931-1AD	1	1 unit	102	0.340
	• > 35 N, for bowden wires up to 2 × 75 m		A	3SE7 931-1AE	1	1 unit	102	0.340
	Wire rollers for changing the direction of the wire, rotatable	Ø 4 mm	A	3SE7 921-1AC	1	1 unit	102	0.045
	Fixtures for the wire rollers (including fixing nuts)		A	3SE7 921-1AA	1	1 unit	102	0.015
	Wire eyes for changes in wire direction and improved power transmission at the fixing points (1 set = 4 units)	Ø 4 mm	A	3SE7 930-1AD	1	4 units	102	0.005
	Eyebolts for fixing the wire							
	• Including M8 nut		A	3SE7 920-1AB	1	1 unit	102	0.035
	• Including M10 nut		A	3SE7 920-1AC	1	1 unit	102	0.060
	Turnbuckles for precise adjustment of the pretension							
	• M6 x 60		A	3SE7 950-1AB	1	1 unit	102	0.055
	• M6 x 110		A	3SE7 950-1AD	1	1 unit	102	0.075
Spare parts								
	LED lamps , red 24 V DC 25 mm diameter; for M20 x 1.5 connection		A	3SX3 235	1	1 unit	102	0.015

¹⁾ Diameter including casing; the diameter of the steel wire is 3.2 mm.

3SF2 AS-Interface cable-operated switches

Overview



AS-Interface cable-operated switches can now be directly connected via the standard AS-Interface with safety-oriented communication.

The safety functions no longer have to be conventionally wired up.

Application

SIRIUS cable-operated switches are used for monitoring or for EMERGENCY-STOP devices on particularly endangered system sections.

As the effective range of a cable-operated switch is only limited by the length of the trip-wire, large systems can also be protected.

Standards

The switches with positive latching are suitable for operation in EMERGENCY-STOP devices in according to ISO 13850. They can achieve up to category 4 according to EN ISO 13849-1 (EN 954-1) or SIL 3 according to IEC 61508.

Selection and ordering data

Version	Basic switches	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
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ASIsafe cable-operated switches

Metal enclosures, IP65

(cover made of molded plastic), with dust protection, latching acc. to ISO 13850, with button reset, 2 NC contacts

- For wire lengths up to 10 m, 3SE7 120-1BF00 → C

3SF2 120-1BF00-0BA1

1 1 unit 121 0.620



3SF2 120-1BF00-0BA1

- For wire lengths up to 25 m, 3SE7 150-1BF00 → C

3SF2 150-1BF00-0BA1

1 1 unit 121 0.630



3SF2 150-1BF00-0BA1

- For wire lengths up to 50 m, 3SE7 140-1BF00 → B

3SF2 140-1BF00-0BA1

1 1 unit 121 0.905



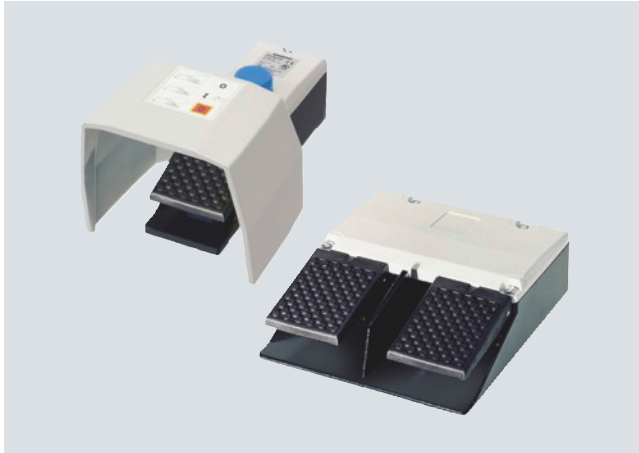
3SF2 140-1BF00-0BA1

→ Positive opening according to IEC 60947-5-1, Appendix K.

3SE2, 3SE3 Foot Switches

Plastic and metal enclosures

Overview



Foot switches with metal enclosures

Standard switches

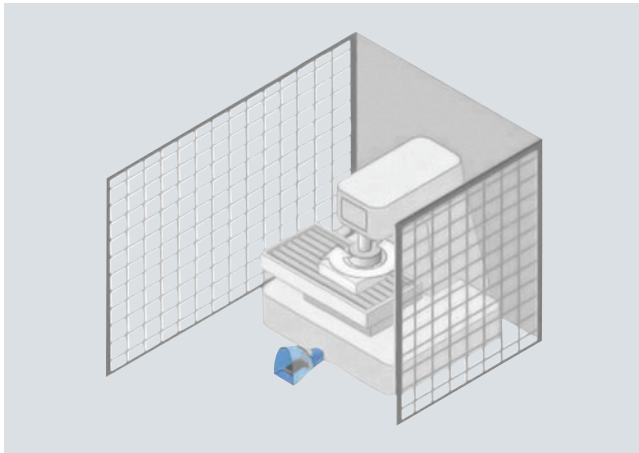
The 3SE2 9 and 3SE3 9 foot switch range encompasses versions in a metal enclosure for rugged applications as well as versions with plastic enclosure for less harsh environments. The devices can be supplied with or without a cover and have fixing holes for them to be screwed to the floor.

Depending on the particular application, the metal enclosures can be ordered in latching or momentary-contact versions. The momentary-contact pedal switch in the plastic enclosure has one microswitch (changeover contact) per actuating pedal.

Safety foot switches

The 3SE2 924-3AA20 single-pedal safety foot switches are used on machines and plants as OK switches when operation by hand is not possible and the EMERGENCY-STOP function must be available if a hazardous status arises. The switches are interlocked according to EN ISO 13850 and bear the CE mark in accordance with the machinery directive.

The safety foot switches are protected by a guard hood against accidental operation.



Application example

The switches have two contact blocks, each with one NO contact and one NC contact. The NO contacts and NC contacts of the two contact blocks are connected for easy connection of a single-phase motor. The normal workflow is initiated by pressing down the pedal as far as the pressure point so that the two NO contacts close and the motor starts to run.

If in the event of danger the pedal is pressed beyond the resistance of the pressure point, the positively driven NC contacts will open and the motor is stopped. At the same time the independent latching takes effect and holds the NC contacts in open position. This prevents the machine parts from continuing to run out of control or from being restarted.

After the hazard is eliminated, the machine can only be restarted after manually releasing the switch using a pushbutton on the top of the enclosure. The contacts are then released again and return to their initial position (the NO contacts are open and the NC contacts are closed).

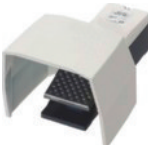
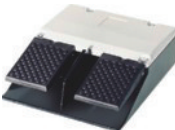


More information

Type	3SE29	3SE39
Metal and plastic enclosures		
Standards	IEC 60947-5-1	
Electrical load		
• At AC-15, 400 V	A 16 6 A for 3SE2903-1....	—
• At AC 250 V	A —	5
Short-circuit protection	A 16 (slow) A 6 (slow) for 3SE2903-1....	5 (slow)
Mechanical endurance	> 10 ⁶ operating cycles	
Material		
• Enclosures	Aluminum casting	Impact-resistant thermoplast, self-extinguishing acc. to UL 94 VO
• Cover	Thermoplast	—
• Guard hood	Aluminum casting	Metal
Degree of protection	IP65	IP65
Ambient temperature	°C -25 ... +80	-10 ... +75
Connection	Cable entry, metric	Cable AWG20, UL Style 2464, length 3 m

3SE2, 3SE3 Foot Switches

Plastic and metal enclosures

Selection and ordering data

Version	Slow-action contacts for each pedal	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Metal enclosures, degree of protection IP65								
 3SE2 90-.-AA20 3SE2 91-.-AA20	Momentary-contact foot switches, single pedal M20 x 1.5 cable entry							
	• Without hood	1 NO + 1 NC → ¹⁾ A	3SE2 902-0AB20	1	1 unit	102	0.655	
		2 NO + 2 NC → ¹⁾ A	3SE2 903-1AB20	1	1 unit	102	0.665	
	• With hood	1 NO + 1 NC → ¹⁾ A	3SE2 902-0AA20	1	1 unit	102	1.375	
		2 NO + 2 NC → ¹⁾ A	3SE2 903-1AA20	1	1 unit	102	1.370	
	Momentary-contact foot switches, single pedal M20 x 1.5 cable entry							
	• Without hood	1 NO + 1 NC → ¹⁾ C	3SE2 912-2AB20	1	1 unit	102	0.665	
	• With hood	1 NO + 1 NC → ¹⁾ C	3SE2 912-2AA20	1	1 unit	102	1.350	
 3SE2 932-.-AB20	Momentary-contact foot switches, two pedals M25 x 1.5 cable entry							
	• Without hood	1 NO + 1 NC → ¹⁾ B	3SE2 932-0AB20	1	1 unit	102	1.680	
		2 NO + 2 NC → ¹⁾ B	3SE2 932-1AB20	1	1 unit	102	1.870	
	• With hood	1 NO + 1 NC → ¹⁾ B	3SE2 932-0AA20	1	1 unit	102	2.550	
		2 NO + 2 NC → ¹⁾ B	3SE2 932-1AA20	1	1 unit	102	2.570	
	Safety foot switches, single pedal with hood , M20 x 1.5 cable entry, with interlock acc. to ISO 13850, NO closes as momentary contact type, NC opens with latching		2 NO + 2 NC → ¹⁾ C	3SE2 924-3AA20	1	1 unit	102	1.350
Plastic enclosures, degree of protection IP65								
 3SE3 902-4CA20	Momentary-contact pedal switches, 3 m cable							
	• Single pedal							
	- Without hood	1 CO	B	3SE3 902-4CB20	1	1 unit	102	0.355
	- With hood	1 CO	B	3SE3 902-4CA20	1	1 unit	102	1.100
	• Two pedals, without hood	2 x 1 CO	B	3SE3 934-5CB20	1	1 unit	102	0.800
	 3SE3 934-5CB20							

¹⁾ Positive opening according to IEC 60947-5-1, Appendix K.