

# 3SB5

Indicating lamps and push buttons



Answers for industry.

**SIEMENS**

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# Commanding and Signalling Devices



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# 3SB5 Commanding and Signalling Devices

## Introduction

### Overview



3SB5

### Pushbutton units and indicator lights

#### Designs

Nominal diameter	22 mm
Version	Plastic, round

#### Actuators

Pushbutton actuators - opaque	✓
Pushbutton actuators - illuminated	✓
Selector actuators - opaque	✓
Selector actuators - illuminated	✓
Key actuators	✓
E-stop mushroom actuators	✓
Twin push buttons - opaque	✓
Twin push buttons - illuminated	✓

#### Indicators

Compact indicators - LED	✓
Compact indicators - Filament	✓
Wide voltage band indicators - LED	✓
Modular indicators	✓

#### Contact blocks

Compact	✓
Regular	✓

#### Illumination Modules

Integrated LED	✓
BA9S LED	✓
BA9S Filament	✓

#### Connections

Screw terminals	✓
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3SB5

**Enclosures**

**Enclosures**

- Plastic ✓
- Metal ✓

**Actuators**

- Pushbuttons and switches ✓
- Illuminated pushb. and switches ✓
- Mushroom pushbuttons ✓
- Push-pull buttons ✓
- EMERGENCY-STOP mushroom pushbuttons ✓
- Selector switches ✓
- Locks ✓

**Indicators**

- Indicator lights ✓

**Contact blocks**

- Single-pole ✓
- Two-pole —

**Terminals**

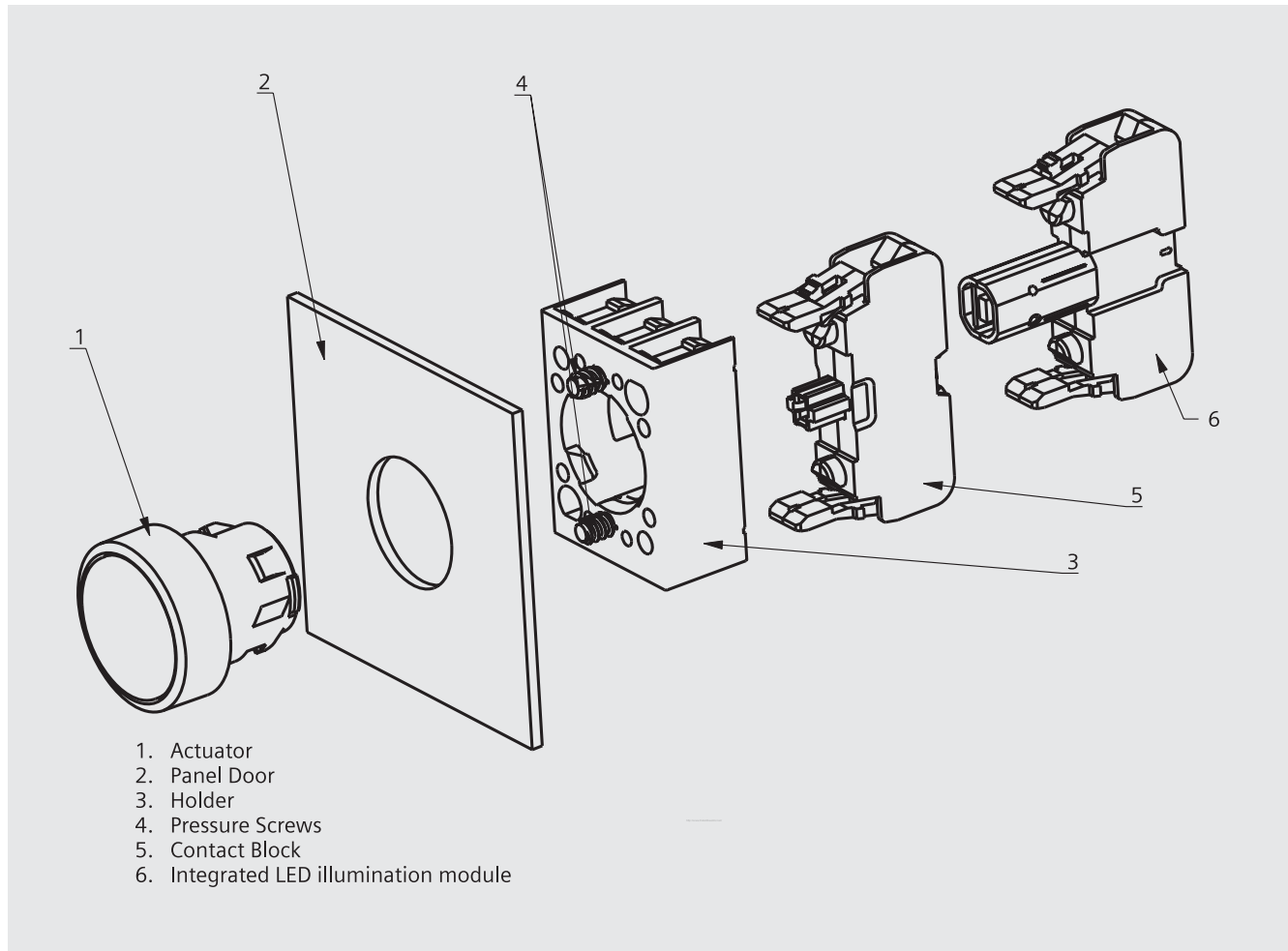
- Screw terminals ✓

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

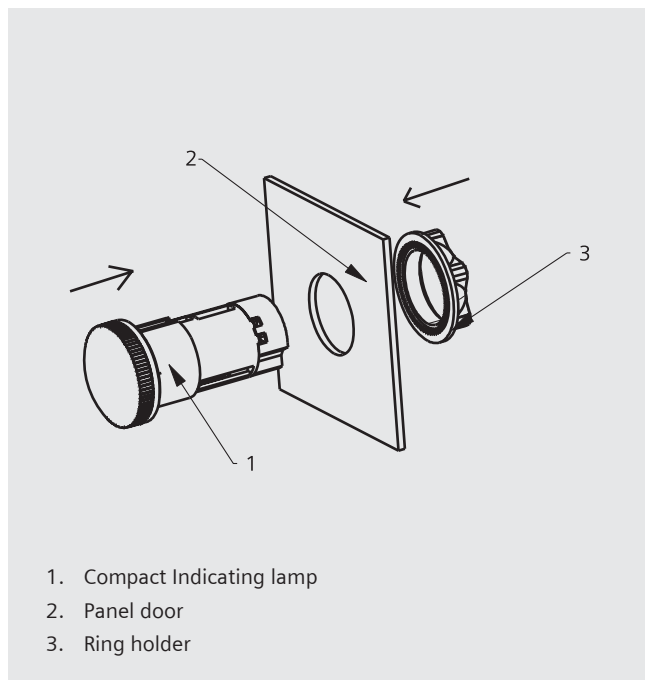
## General data

### Overview

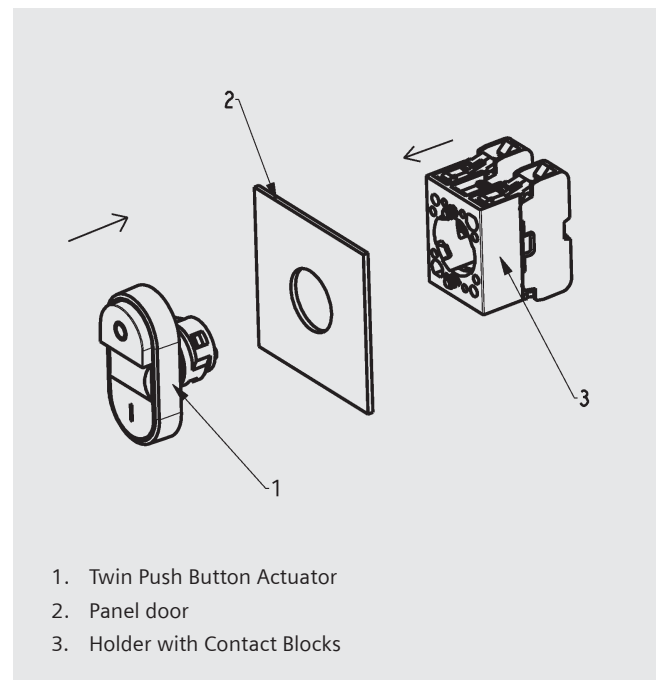
#### Panel door



#### 3SB5 compact pilot light



#### 3SB5 twin push button



### Actuator

#### Design

The 3SB5 series is a modular range of commanding and signalling devices for front panel mounting and rear conductor connection.



The devices are of modern industrial design and can be mounted rapidly by a single person. The operating surfaces of the pushbuttons and illuminated pushbuttons are concave. The lenses of the indicator lights are convex.

One command position comprises:

- An actuator or lens assembly in front of the control panel
- A holder for mounting behind the control panel
- A comprehensive range of accessories for inscription

Two contact blocks can be snapped onto the actuator in the standard version.

- Holder for 3 contact blocks or for 2 contact blocks and 1 lampholder
- Thrust pad for actuating a central contact block when using selector actuator and key actuator
- Thrust cap for actuating a central contact block when using push button actuator

For all executions the holder is included as standard.

#### Standards

IEC 60947-5-1, IS 13947-5-1

#### Connection methods

The devices are available with screw terminals.

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

## Actuators, Plastic, 22 mm

### Actuators

#### Selection and ordering data







Version	Colour	Order No.	Weight per PU approx. kg				
<b>Pushbuttons with holder</b>							
	<b>Opaque normal</b>	Red Green Blue White Yellow Black	3SB50 00-0AC01 3SB50 00-0AE01 3SB50 00-0AF01 3SB50 00-0AG01 3SB50 00-0AD01 3SB50 00-0AB01	0.0215 0.0215 0.0215 0.0215 0.0215 0.0215			
		<b>Opaque raised</b>	Red Green Blue White Yellow Black	3SB50 00-0LC01 3SB50 00-0LE01 3SB50 00-0LF01 3SB50 00-0LG01 3SB50 00-0LD01 3SB50 00-0LB01	0.0215 0.0215 0.0215 0.0215 0.0215 0.0215		
			<b>Illuminated normal</b>	Red Green Amber Blue White Yellow Clear	3SB50 01-0AC01-0PQ0 3SB50 01-0AE01-0PQ0 3SB50 01-0AL01-0PQ0 3SB50 01-0AF01-0PQ0 3SB50 01-0AG01-0PQ0 3SB50 01-0AD01-0PQ0 3SB50 01-0AH01-0PQ0	0.023 0.023 0.023 0.023 0.023 0.023 0.023	
				<b>Illuminated raised</b>	Red Green Amber Blue White Yellow Clear	3SB52 18-0LC01-0PQ0 3SB52 18-0LE01-0PQ0 3SB52 18-0LL01-0PQ0 3SB52 18-0LF01-0PQ0 3SB52 18-0LG01-0PQ0 3SB52 18-0LD01-0PQ0 3SB52 18-0LH01-0PQ0	0.023 0.023 0.023 0.023 0.023 0.023 0.023
				<b>Twin pushbutton with holder</b>			
					<b>Opaque twin pushbutton with 1NO &amp; 1NC</b>		3SB52 01-7EC01
				<b>Illuminated twin<sup>1)</sup> pushbutton with 1NO &amp; 1NC</b>		3SB52 34-7EC01	0.04662

1) Use illumination module with integrated LED only



# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Actuators, Plastic, 22 mm

## Actuators

Version	Colour	Order No.	Weight per PU approx. kg	
<b>Mushroom pushbuttons with holder</b>				
	Mushroom pushbuttons, Ø 40 mm momentary	Black Red	3SB50 00-1NB01 3SB50 00-1NC01	0.029 0.029
		Mushroom pushbuttons, Ø 40 mm push to trip, turn to release	Black	3SB50 00-1CB01
<b>Mushroom pushbuttons for emergency stop</b>				
	Mushroom pushbuttons with 1NC push to trip, turn to release	Red	3SB52 03-0UC01	0.050
	Mushroom pushbuttons, Ø 40 mm push to trip, turn to release	Red	3SB50 00-0UC01	0.050
	Mushroom pushbuttons, Ø 40 mm push to trip, pull to release	Red	3SB50 00-0VC01	0.050
	Mushroom pushbuttons, Ø 40 mm push to trip, key to release	Red	3SB50 00-0TC01	0.050

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

## Actuators, Plastic, 22 mm

### Actuators

Version	Version	Colour	Order No.	Weight per PU approx. kg
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#### Selector switches with holder

##### 2 position

##### Selector switches with 2 switch positions



Switching sequence O-I,  
100° operating angle

**Opaque Maintained**

Black  
Red

3SB50 00-2AB01  
3SB50 00-0AC01

0.024  
0.024

Switching sequence O-I,  
50° operating angle

**Opaque Momentary**

Black  
Red

3SB50 00-2BB01  
3SB50 00-2BC01

0.024  
0.024



Switching sequence O-I,  
100° operating angle

**Illuminated Maintained**

Red  
Green  
Blue  
Yellow  
Clear

3SB50 01-2AC01  
3SB50 01-2AE01  
3SB50 01-2AF01  
3SB50 01-2AD01  
3SB50 01-2AH01

0.024  
0.024  
0.024  
0.024  
0.024

Switching sequence O-I,  
50° operating angle

**Illuminated Momentary**

Red  
Green  
Blue  
Yellow  
Clear

3SB50 01-2BC01  
3SB50 01-2BE01  
3SB50 01-2BF01  
3SB50 01-2BD01  
3SB50 01-2BH01

0.024  
0.024  
0.024  
0.024  
0.024

##### 3 position

##### Selector switches with 3 switch positions



Switching sequence I-O-II,  
2 x 50° operating angle

**Opaque Maintained**

Black  
Red

3SB50 00-2DB01  
3SB50 00-2DC01

0.024  
0.024

Switching sequence I-O-II,  
2 x 50° operating angle

**Opaque Momentary**

Black  
Red

3SB50 00-2EB01  
3SB50 00-2EC01

0.024  
0.024



2 x 50° operating angle

**Illuminated Maintained**

Red  
Green  
Blue  
Yellow  
Clear

3SB50 01-2DC01  
3SB50 01-2DE01  
3SB50 01-2DF01  
3SB50 01-2DD01  
3SB50 01-2DH01

0.024  
0.024  
0.024  
0.024  
0.024

Switching sequence I-O-II,  
2 x 50° operating angle,

**Illuminated Momentary**

Red  
Green  
Blue  
Yellow  
Clear

3SB50 01-2EC01  
3SB50 01-2EE01  
3SB50 01-2EF01  
3SB50 01-2ED01  
3SB50 01-2EH01

0.024  
0.024  
0.024  
0.024  
0.024

Version	Key removal position	Order No.	Weight per PU approx. kg
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#### Key-operated switches with holder

##### Key-operated switches with 2 keys & 2 switch positions

Switching sequence O-I,  
100° operating angle, maintained

L - KR



3SB50 00-4AC01

0.057

KL - R



3SB50 00-4AA01

0.057

KL - KR



3SB50 00-4AB01

0.057

Switching sequence O-I,  
50° operating angle, momentary

KL < R



3SB50 00-4TA01

0.057

L > KR



3SB50 00-4TC01

0.057



##### Key-operated switches with 2 keys & 3 switch positions

Switching sequence I-O-II,  
2 x 50° operating angle, maintained

L - KC - R



3SB50 00-4HA01

0.057

KL - C - KR



3SB50 00-4HC01

0.057

KL - KC - KR



3SB50 00-4HB01

0.057

Switching sequence O-I,  
2 x 50° operating angle, momentary

L > KC < R



3SB50 00-4JA01

0.057

\* Key removable position

L - Left, R - Right, C - Centre, KL - Key at Left, KR - Key at Right, KC - Key at Centre

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Components for Actuators

## Contact blocks

### Selection and ordering data

Version	Symbols	Operating travel	Order No.	Weight per PU approx.
		 Contact closed Contact open		kg

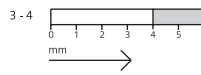
### Contact blocks for front plate mounting



#### Contact blocks with one contact

- Mounting depth: 50 mm

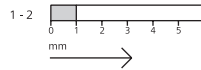
1 NO



3SB54 00-0B

0.011

1 NC



3SB54 00-0C

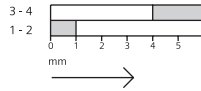
0.011



#### Contact blocks with 2 contacts

Mounting depth 63 mm (including unit labeling plate)

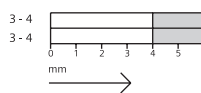
1 NO + 1 NC



3SB54 00-0A

0.018

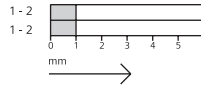
2 NO



3SB54 00-0E

0.018

2 NC




3SB54 00-0F

0.018

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Indicating Lamps

## Indicating lamps

### Selection and ordering data

Version	Rated Voltage V	Colour	Order No.	Weight per PU approx. kg			
<b>Compact LED indicating lamp</b>							
    	Compact LED indicating lamp	24 V AC/DC	Red Green Amber Blue White Yellow Clear	3SB52 85-6HC01 3SB52 85-6HE01 3SB52 85-6HL01 3SB52 85-6HF01 3SB52 85-6HG01 3SB52 85-6HD01 3SB52 85-6HH01	0.017 0.017 0.017 0.017 0.017 0.017 0.017		
	30 V DC®	Red Green Amber Blue White Yellow Clear	3SB52 85-6HC13 3SB52 85-6HE13 3SB52 85-6HL13 3SB52 85-6HF13 3SB52 85-6HG13 3SB52 85-6HD13 3SB52 85-6HH13	0.017 0.017 0.017 0.017 0.017 0.017 0.017			
	110 V AC 50/60 Hz	Red Green Amber Blue White Yellow Clear	3SB52 85-6HC02 3SB52 85-6HE02 3SB52 85-6HL02 3SB52 85-6HF02 3SB52 85-6HG02 3SB52 85-6HD02 3SB52 85-6HH02	0.017 0.017 0.017 0.017 0.017 0.017 0.017			
	110 V DC®	Red Green Amber Blue White Yellow Clear	3SB52 85-6HC04 3SB52 85-6HE04 3SB52 85-6HL04 3SB52 85-6HF04 3SB52 85-6HG04 3SB52 85-6HD04 3SB52 85-6HH04	0.017 0.017 0.017 0.017 0.017 0.017 0.017			
	220/240 V AC 50/60 Hz	Red Green Amber Blue White Yellow Clear	3SB52 85-6HC03 3SB52 85-6HE03 3SB52 85-6HL03 3SB52 85-6HF03 3SB52 85-6HG03 3SB52 85-6HD03 3SB52 85-6HH03	0.017 0.017 0.017 0.017 0.017 0.017 0.017			
	220 V DC®	Red Green Amber Blue White Yellow Clear	3SB52 85-6HC05 3SB52 85-6HE05 3SB52 85-6HL05 3SB52 85-6HF05 3SB52 85-6HG05 3SB52 85-6HD05 3SB52 85-6HH05	0.017 0.017 0.017 0.017 0.017 0.017 0.017			
	<b>Compact BA9s filament indicating lamp</b>						
	  	Compact BA9s filament indicating lamp	24 V AC/DC	Red Green Amber Blue Clear	3SB52 86-6HC01 3SB52 86-6HE01 3SB52 86-6HL01 3SB52 86-6HF01 3SB52 86-6HH01	0.175 0.175 0.175 0.175 0.175	
		110 V AC/DC	Red Green Amber Blue Clear	3SB52 86-6HC11 3SB52 86-6HE11 3SB52 86-6HL11 3SB52 86-6HF11 3SB52 86-6HH11	0.175 0.175 0.175 0.175 0.175		
		230 V AC/DC	Red Green Amber Blue Clear	3SB52 86-6HC12 3SB52 86-6HE12 3SB52 86-6HL12 3SB52 86-6HF12 3SB52 86-6HH12	0.175 0.175 0.175 0.175 0.175		
		<b>Compact indicating lamp without lamp<sup>5</sup></b>					
			To be used with BA9s filament lamp of appropriate voltage		Red Green Amber Blue Clear	3SB52 86-6HC00 3SB52 86-6HE00 3SB52 86-6HL00 3SB52 86-6HF00 3SB52 86-6HH00	0.175 0.175 0.175 0.175 0.175

@ Use of bridge rectified DC source (filtered O/P) recommended

\$ To be used with BA9s filament lamp at appropriate / required voltage. Bulb will be at an additional charge

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

## Indicating Lamps

### Indicating lamps

Version	Rated Voltage V	Colour	Order No.	Weight per PU approx. kg	
<b>Indicators</b>					
	Wide band LEDs	42 V to 240 V AC	Red	3SB52 35-6HC10	0.060
		50/60 Hz &	Green	3SB52 35-6HE10	0.060
			Amber	3SB52 35-6HL10	0.060
			Blue	3SB52 35-6HF10	0.060
		42 V to 220 V DC	White	3SB52 35-6HG10	0.060
			Yellow	3SB52 35-6HD10	0.060
			Clear	3SB52 35-6HH10	0.060
<b>Modular indicating lamps</b>					
	Lens assembly with holder	Red	3SB52 01-6BC00	0.019	
		Green	3SB52 01-6BE00	0.019	
		Amber	3SB52 01-6BL00	0.019	
		Blue	3SB52 01-6BF00	0.019	
		White	3SB52 01-6BG00	0.019	
		Yellow	3SB52 01-6BD00	0.019	
		Clear	3SB52 01-6BH00	0.019	
		<b>Illumination module with integrated LED</b>			
	Lamp holder with integrated LED	24 V AC/DC	Red	3SB54 00-7CC	0.0125
			Green	3SB54 00-7CE	0.0125
			Amber	3SB54 00-7CL	0.0125
			Blue	3SB54 00-7CF	0.0125
			White	3SB54 00-7CG*	0.0125
			Yellow	3SB54 00-7CD	0.0125
		110 V AC	Red	3SB54 00-7EC	0.0125
			Green	3SB54 00-7EE	0.0125
			Amber	3SB54 00-7EL	0.0125
			Blue	3SB54 00-7EF	0.0125
			White	3SB54 00-7EG*	0.0125
			Yellow	3SB54 00-7ED	0.0125
	110 V DC®	Red	3SB54 00-7DC	0.0125	
		Green	3SB54 00-7DE	0.0125	
		Amber	3SB54 00-7DL	0.0125	
		Blue	3SB54 00-7DF	0.0125	
		White	3SB54 00-7DG*	0.0125	
		Yellow	3SB54 00-7DD	0.0125	
	230 V AC	Red	3SB54 00-7TC	0.0125	
		Green	3SB54 00-7TE	0.0125	
		Amber	3SB54 00-7TL	0.0125	
		Blue	3SB54 00-7TF	0.0125	
		White	3SB54 00-7TG*	0.0125	
		Yellow	3SB54 00-7TD	0.0125	
	220 V DC®	Red	3SB54 00-7HC	0.0125	
		Green	3SB54 00-7HE	0.0125	
		Amber	3SB54 00-7HL	0.0125	
		Blue	3SB54 00-7HF	0.0125	
White		3SB54 00-7HG*	0.0125		
Yellow		3SB54 00-7HD	0.0125		
<b>Illumination module with BA9s LED</b>					
	Lamp holder with BA9s LED	24 V AC/DC	Red	3SB54 00-8CC	0.015
			Green	3SB54 00-8CE	0.015
			Blue	3SB54 00-8CF	0.015
			Yellow	3SB54 00-8CD	0.015
	110 V AC/DC#	Red	3SB54 00-8FC	0.25	
		Green	3SB54 00-8FE	0.25	
		Blue	3SB54 00-8FF	0.25	
		Yellow	3SB54 00-8FD	0.25	
	240 V AC#	Red	3SB54 00-8SC	0.25	
		Green	3SB54 00-8SE	0.25	
		Blue	3SB54 00-8SF	0.25	
		Yellow	3SB54 00-8SD	0.25	
<b>Illumination module with BA9s filament lamp</b>					
	Lamp holder with BA9s filament lamp	24 V AC/DC (24 V lamp)	3SB54 00-6CC	0.0135	
		110 V AC/DC (130 V lamp)	3SB54 00-6FH	0.0135	
		230 V AC/DC (230 V lamp)	3SB54 00-6LH	0.0135	

\* Can be used with clear lens

@ Use of rectified DC source (filtered O/P) recommended

# With voltage reducer






Note: All illumination modules can be used along with illuminated push buttons, illuminated selector actuators and modular indicating lamps.



# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm


## Accessories and Spare Parts

### Accessories and spare parts

#### Selection and ordering data

Version	Colour	Order No.	Weight per PU approx. kg					
<b>Pusher caps and lenses</b>								
	<b>Normal opaque</b> For opaque pushbuttons	Red Green Blue White Yellow Black	3SB59 10-0AC 3SB59 10-0AE 3SB59 10-0AF 3SB59 10-0AG 3SB59 10-0AD 3SB59 10-0AB	0.001 0.001 0.001 0.001 0.001 0.001				
		<b>Raised opaque</b> For opaque pushbuttons	Red Green Blue White Yellow Black	3SB59 10-0BC 3SB59 10-0BE 3SB59 10-0BF 3SB59 10-0BG 3SB59 10-0BD 3SB59 10-0BB	0.002 0.002 0.002 0.002 0.002 0.002			
			<b>Normal illuminated</b> For illuminated pushbuttons	Red Green Amber Blue White Yellow Clear	3SB59 10-0CC 3SB59 10-0CE 3SB59 10-0CR 3SB59 10-0CF 3SB59 10-0CG 3SB59 10-0CD 3SB59 10-0CH	0.001 0.001 0.001 0.001 0.001 0.001 0.001		
				<b>Raised illuminated</b> For illuminated pushbuttons raised	Red Green Amber Blue White Yellow Clear	3SB59 10-0DC 3SB59 10-0DE 3SB59 10-0DR 3SB59 10-0DF 3SB59 10-0DG 3SB59 10-0DD 3SB59 10-0DH	0.002 0.002 0.002 0.002 0.002 0.002 0.002	
					<b>Lenses</b> For indicator lamps	Red Green Amber White Yellow Clear	3SB59 10-1PC 3SB59 10-1PE 3SB59 10-1PR 3SB59 10-1PG 3SB59 10-1PD 3SB59 10-1PH	0.006 0.006 0.006 0.006 0.006 0.006







Version	Rated Voltage V	Colour	Order No.	Weight per PU approx. kg		
<b>Lamps</b>						
	BA9s filament lamp	24V/2W 130V/2.5W 230V/2.7W	3SB59 02-6C 3SB59 02-6D 3SB59 02-6E	0.0015 0.0015 0.0015		
		BA9s LED	24V AC/DC	Red Green Blue Yellow	3SB59 02-3FK 3SB59 02-3GK 3SB59 02-3JK 3SB59 02-3HK	0.002 0.002 0.002 0.002

Version	Use	Colour	Order No.	Weight per PU approx. kg	
<b>Protective caps<sup>1)</sup>, degree of protection IP67</b>					
	<b>Protective caps</b>	Flat button (plastic)	Clear	3SB59 02-0AK	0.0013
	<b>Protective caps</b>	Raised button (plastic)	Clear	3SB59 02-0AN	0.0085

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Accessories and Spare Parts

## Accessories and spare parts







### Selection and ordering data

Version		Order No.	Weight per PU approx. kg
<b>Holders for commanding and signalling elements</b>			
	Holders For plastic version, round	3SB59 12-0BA	0.013
	Holders Metallic for front connection	3SB59 11-1AA	0.009
<b>Inscription labels</b>			
	E-stop yellow dia. 75 mm with "EMERGENCY STOP" printing (yellow contrast label)	3SB59 21-0AD	
	E-stop yellow dia. 75 mm for mushroom blank (yellow contrast label)	3SB59 21-0AB	
<b>Inscription plates</b>			
	Inscription plates	Start Stop ON OFF Up Down Forward Slow Fast Reverse Black Trip	3SB59 01-2EL 3SB59 01-2EK 3SB59 01-2EB 3SB59 01-2EC 3SB59 01-2ED 3SB59 01-2EE 3SB59 01-2EF 3SB59 01-2ES 3SB59 01-2ER 3SB59 01-2EG 3SB59 01-2AA 3SB59 01-2EA
<b>Twin push button spares and accessories</b>			
	Lens	3SB59 12-0BB	0.001

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

## Accessories and Spare Parts

### Accessories and spare parts

Version	Order No.	Weight per PU approx. kg
<b>Other accessories</b>		
	Adapter plate for replacing 30 mm by 22 mm	3SB59 21-0AE 0.007
	<b>Lamp extractors</b> For lamps with BA 9s lamps and LEDs	3SB59 02-2AD 0.0085
	Plastic front ring	3SB59 11-1BA 0.0016
	Thrust cap for pushbuttons for actuating middle module	3SB59 02-0AA 0.0005
	Thrust pad for selector actuators for actuating middle module	3SB59 12-0AN 0.0001
	Blanking plug for empty enclosures	3SB59 12-0BC 0.0150



# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Enclosures

General data

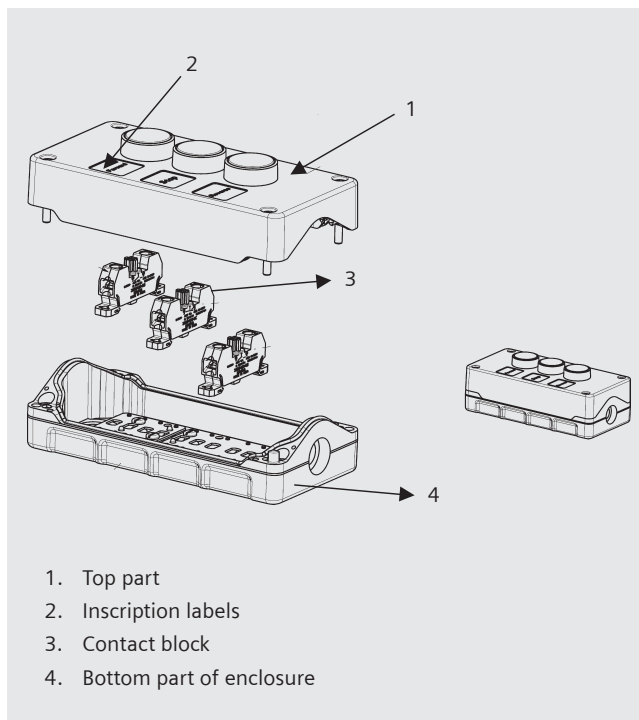
## Overview



Enclosed pushbutton units and indicating lamps are used as hand operated control devices for separately allocated control units and cabinets. The devices are suitable for use in any climate.

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

## Enclosures with standard fittings



## Standards

IEC 60947-5-1, IS 13947-5-1

## Overview

Enclosures with standard fittings are available with:

- 1 to 3 command positions in metal / plastic enclosures
- 1 way is available in 2 colours, grey & yellow
- Operational voltage up to 440 V
- Vertical mounting type
- Empty plastic enclosures are available in 6 and 4 way
- Contact blocks for base mounting (are snapped into the enclosure base). Screw terminals as standard.

Colour of enclosure cover:

- Gray, RAL 7035, or
- Yellow, RAL 1004 (1 way only)

Colour of enclosure base:

- Black, RAL 9005

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Enclosures

## Customer-specific enclosures

### Overview

- Operational voltage up to 400 V
- One command position comprises:
  - 1 actuator or indicator
  - Up to 3 contact blocks or up to 2 contact blocks + 1 lampholder
  - 1 inscription label

For plastic and metal enclosures the command positions are equipped as standard with actuators.

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

### Selection and ordering data

Version	Number of command positions	Order No.	Weight per PU approx. kg	
<b>Metal enclosures</b>				
	Normal opaque push button - Green with 1NO contact block, "START"	1	3SB58 01-8AA3	0.423
	Red mushroom momentary actuator, with 1NC contact block, "STOP"	1	3SB58 01-8AN3	0.430
	Red maintained mushroom actuator, turn to release, with 1NC contact block, "E-STOP"	1	3SB58 01-8AM3	0.440
	Normal opaque push button - Green with 1NO contact block, "START" + Normal opaque push button - Red with 1NC contact block, "STOP"	2	3SB58 02-8AC3	0.520
	Normal opaque push button - Green with 1NO contact block, "START" + Red mushroom-maintained with 1NC contact block, "STOP"	2	3SB58 02-0AE3	
Normal opaque push button - Green with 1NO contact block, "FORWARD" + Normal opaque push button - Red with 1NC contact block, "STOP" + Normal opaque push button - Black with 1NO contact block, "REVERSE"	3	3SB58 03-8AH3	0.441	
<b>Plastic enclosures</b>				
	Normal opaque push button - Green with 1NO contact block, "START"	1	3SB58 01-7AA3	0.196
	Red mushroom momentary actuator, with 1NC contact block, "STOP"	1	3SB58 01-7AN3	0.203
	Red maintained mushroom actuator, turn to release, with 1NC contact block, "E-STOP"	1	3SB58 01-7AM3	0.213
	Normal opaque push button - Green with 1NO contact block, "START" + Normal opaque push button - Red with 1NC contact block, "STOP"	2	3SB58 02-7AC3	0.285
	Normal opaque push button - Green with 1NO contact block, "START" + Red mushroom-maintained with 1NC contact block, "STOP"	2	3SB58 02-7AE3	0.302
	Normal opaque push button - Green with 1NO contact block, "FORWARD" + Normal opaque push button - Red with 1NC contact block, "STOP" + Normal opaque push button - Black with 1NO contact block, "REVERSE"	3	3SB58 04-7AG3	0.300

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Enclosures

## Customer-specific enclosures

Version	Number of command positions	Order No.	Weight per PU approx. kg
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### Pendant mounting: Metal



Normal opaque push button - Green with 1NO contact block, "START"  
+ Normal opaque push button - Red with 1NC contact block, "STOP"

2

3SB58 22-8AC3

0.810

Normal opaque push button - Green with 1NO contact block, "FORWARD"  
+ Normal opaque push button - Red with 1NC contact block, "STOP"  
+ Normal opaque push button - Black with 1NO contact block, "REVERSE"

3

3SB58 23-8AH3

0.820

### Pendant Mounting: Plastic



Normal opaque push button - Green with 1NO contact block, "START"

1

3SB5821-7AA3

0.19678

Normal opaque push button - Green with 1NO contact block, "START"  
+ Normal opaque push button - Red with 1NC contact block, "STOP"

2

3SB5822-7AC3

0.28938

Normal opaque push button - Green with 1NO contact block, "FORWARD"  
+ Normal opaque push button - Red with 1NC contact block, "STOP"  
+ Normal opaque push button - Black with 1NO contact block, "REVERSE"



3

3SB5823-7AH3

0.61525

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Enclosures

## Empty enclosures

Version	Number of command positions	Colour	Order No.	Weight per PU approx. kg
<b>Empty enclosures, plastic</b>				
	<i>1 to 3 command positions, 4 and 6 command positions</i>			
	1	Grey	3SB58 01-0AC3	0.187
	2	Grey	3SB58 02-0AC3	0.267
	3	Grey	3SB58 03-0AC3	0.273
	4	Grey	3SB58 04-0AC3	0.310
	6	Grey	3SB58 06-0AC3	0.400
	1	Yellow	3SB58 01-0AD3	0.187
<b>Empty enclosures, metal</b>				
	<i>1 to 3 command positions</i>			
	1		3SB58 01-4AC3	0.414
	2		3SB58 02-4AC3	0.502
	3		3SB58 03-4AC3	0.623

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Enclosures

## Lampholders and contact blocks

### Selection and ordering data

Version	Rated Voltage V	Screw terminals	Weight per PU approx.
		Order No.	kg

#### BA9s lampholder



BA 9s lampholders  
Without lamp

110 V AC/DC  
230 V AC/DC

3SB54 20-2PF0  
3SB54 20-2PL0

0.013  
0.013

#### Contact blocks with one contact



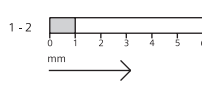
Contact blocks with one contact  
1 NO



3SB54 20-0B

0.0105

1 NC



3SB54 20-0C

0.0105

Version	Order No.	Weight per PU approx.
		kg

#### Accessories



Set of 11 labels  
Start, Stop, ON, OFF, Up, Down, Open, Close  
Forward, Reverse, Emergency Off

3SB59 01-3EA

0.001



Inscription label  
With set of 10  
(Right, Left, Test, Reset, Auto Man,  
Inch, Trip, Slow, Fast)

3SB59 01-3CH



Tool for fitting actuator on metal enclosure

3SB59 02-2BX

0.150

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# Commanding and Signalling Devices



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## 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

23 General data

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## 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

### Enclosures

25 General data

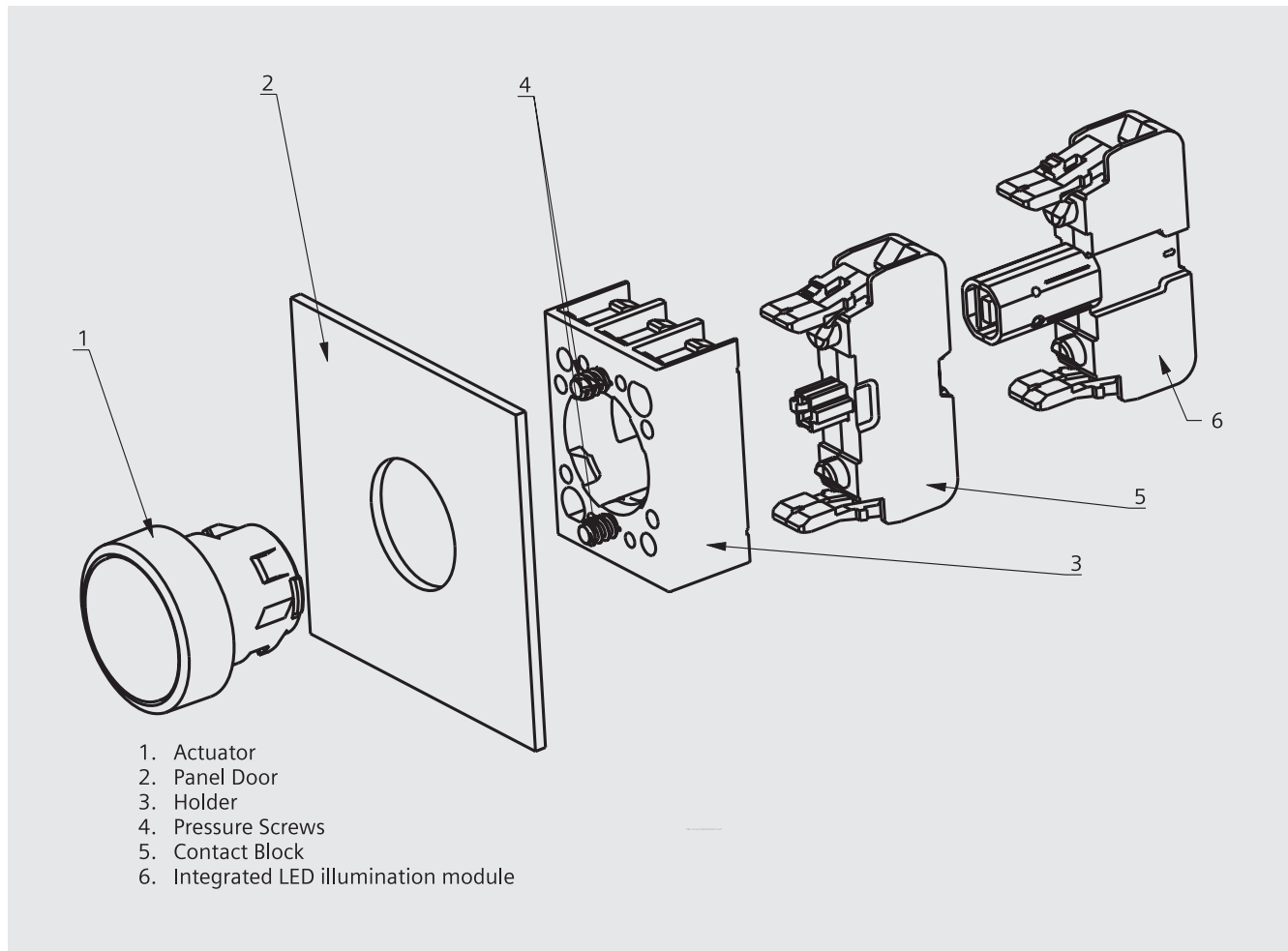
27 Project planning aids

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

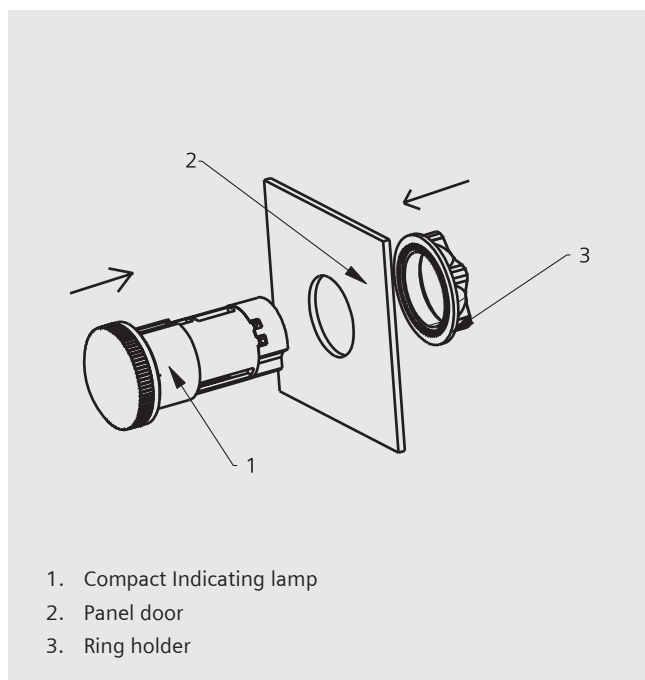
Technical data  
General data

## Overview

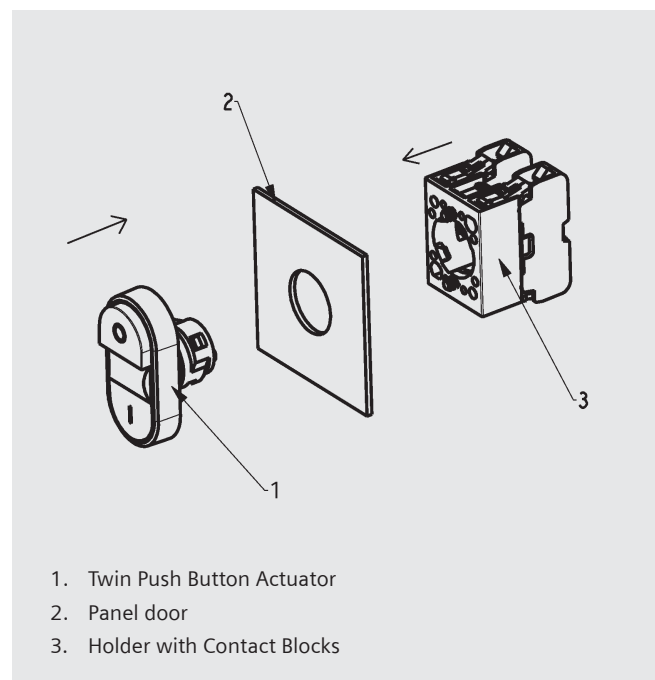
### Front plate mounting



### 3SB5 compact pilot light



### 3SB5 twin push button





## Design

### Holders

The holders are used for mounting the actuating or signalling elements and are plugged into the rear of the panel door.

The holder for the round versions is set to a switchboard thickness of 1 to 6 mm.

When label holders, protective caps or similar accessories are used, the greatest permissible panel thickness must be reduced by the wall thickness of the accessory part.

### Contact blocks and lampholders

The contact blocks are fitted with (1 NO contact or 1 NC contact) with double operating contacts. These ensure a high switching reliability even with small voltages and currents, such as 5 V/1 mA.

The switch contacts of the NC contact are positively driven.

For illuminated elements, lampholders with an integrated LED or with a base for replaceable bulbs can be supplied.

For indicating lamps holder, ring holder helps in faster assembly thus reducing installation time.

Wider voltage range 3SB5 wide band indicating lamps are supplied with integrated LEDs. This would help in reducing the inventory cost.

### Mounting

The 3SB5 devices can be easily and quickly mounted:

- Actuators or indicator lights are positioned in the opening of the front panel from the front
- Position the holder from the rear
- Tighten the screw on the holder
- Snap on the contact block or the lampholder directly onto the actuator from the back

### Connection methods

The following devices are available:

- Screw terminal (SIGUT termination)

The devices with screw terminals have open terminals, screws that cannot be lost, funnel-shaped cable entries and screwdriver fed openings, all of which saves time when connecting and enables the use of motorized screwdrivers.

### Enclosures

Plastic enclosures are available with 1, 2, 3, 4 or 6 command positions. Metal enclosures are available in 1, 2 or 3 command positions.

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

## Technical data General data

### Pushbuttons and indicating lamps

Rated insulation voltage $U_i$	All executions except lamp holder	AC 690V, 50Hz
	BA9s lamp holder	AC 250V, 50Hz; DC 250V
	Illumination module with integrated LED / Compact Pilot Light	AC 440V, 50Hz; DC 250V
Rated operational voltage $U_e$	For contact blocks	660V, 50Hz
	For Illumination modules with integrated LED	24V AC/DC, 110V AC, 110V DC, 230V AC, 220V DC
	For Illumination modules with BA9s LED lamp	24V AC/DC, 110V AC/DC, 240V AC
	For Illumination modules with BA9s filament lamp	24V AC/DC, 110V AC/DC, 230V AC/DC
	For Compact LED indicating lamps	24V AC/DC, 110V AC, 110V DC, 220/240V AC, 220V DC
	For compact BA9s filament indicating lamp	24V AC/DC, 110V AC/DC, 230V AC/DC
Back-up HRC fuse rating	16A quick acting cartridge	
	10A delayed acting cartridge	
Mechanical life	All actuators (except the following)	$10 \times 10^6$ cycles
	Luminous actuators	$3 \times 10^6$ cycles
	Selector, key and latched mushroom actuator	$3 \times 10^5$ cycles
Electrical life	Depends on load current e.g. $10 \times 10^6$ cycles with 3TH30, 3TF30/31 contactors	
Voltage limits	+10% -15% nominal supply voltage	
Switching frequency	1200 cycles per hour	
Degree of protection	Pushbuttons & Indicating Lamps	Standard execution - IP65 With protective cover - IP67
	Terminals of contact blocks and illumination modules Key execution IP 54	Standard execution - IP20
Permissible service temperature range	-25°C to +60°C	
Terminal capacity	Finely stranded cable with end sleeves (end sealing ferrule)	$2 \times 0.5$ to $1.5 \text{ mm}^2$
	Solid conductor	$2 \times 1$ to $2.5 \text{ mm}^2$
	Solid conductor with end sleeves (end sealing ferrule)	$2 \times 0.5$ to $0.75 \text{ mm}^2$
	Finely stranded cable with end sleeves (end sealing ferrule)	$2 \times 1$ to $1.5 \text{ mm}^2$ (for compact variants)

### Continuous current, rated operational current $I_e$ , contact blocks

$I_e$ /AC-12	$I_e$ /AC-15	$U_e$ Volts (40-60 Hz)	$I_e$ /DC-12	$I_e$ /DC-13	$U_e$ Volts-DC
10 A	6 A	24V	10 A	6 A	24V
	6 A	110V	8 A	4 A	48V
	6 A	220/230V	3.5 A	1.2 A	110V
	4 A	380/400V	1 A	0.4 A	220V

### Contact block / Illumination module configuration

Actuator - Illuminated Push button and selector	Voltage	Max. possible lamp holders (lamp holder always in middle position)	Max. possible contact blocks (1st block-left, 2nd-right, 3rd-middle)		Accessory to operate middle contact block (Order separately & snap-fit on actuator)
			Rear connection	Front connection	
With BA9s LED	24V AC/DC	1	2	2	Not applicable
	110V AC/DC,	1	1	1	
	240V AC	1	1	1	
With BA9s Filament lamp	24V AC/DC	1	2	2	Not applicable
	110V AC/DC,				
	230V AC				
Integrated LED	24V AC/DC, 110V AC	1	2	-	Not applicable
	230V AC, 100V DC, 220V DC				
Actuator / Opaque					
Push button	-	-	3	3	Thrust cap
Selector	-	-	3	3	Thrust pad
Key	-	-	3	3	Thrust pad
Mushroom - momentary	-	-	3	3	Thrust cap

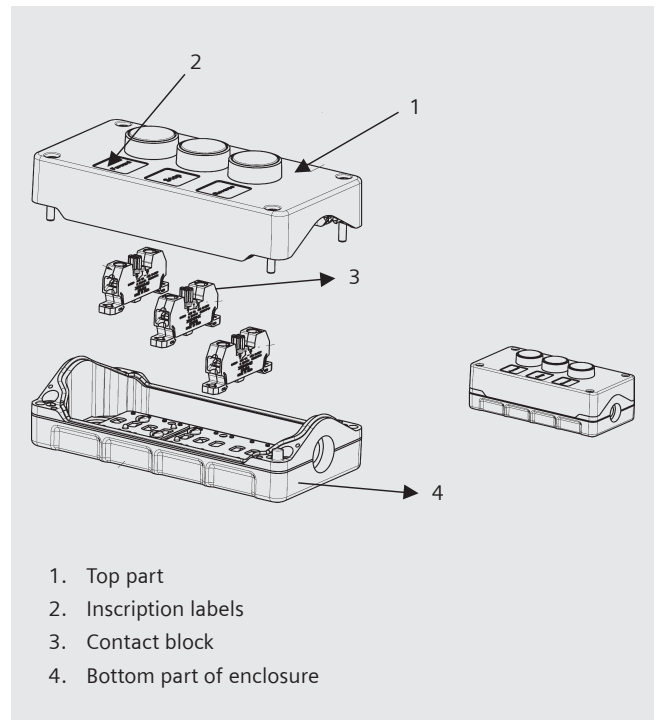
# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Enclosures

Technical data  
General data

## Overview



## Enclosures with standard fittings



Enclosed pushbutton units and indicator lights are used as hand operated control devices for separately allocated control units and cabinets. The devices are suitable for use in any climate.

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

The following versions are available:

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

## Standards

IEC 60947-5-1, IS 13947-5-1

# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm Enclosures

## Technical data General data

### Design

#### Enclosures

Plastic enclosures with 1, 2, 3, 4 or 6 command positions are available. Metal enclosures with 1, 2 or 3 command positions are available.

Cable routing: on the top and bottom narrow ends of the enclosure for an M20 or M25 metric cable gland.

Enclosure colour:

- Cover: RAL 7035 (light gray),
- For EMERGENCY-STOP: RAL 1004 (yellow),
- Base: RAL 9005 (black).

The plastic enclosures comply with the "total insulation" protective measure.

#### Actuators

Round actuators and lens assemblies for a nominal diameter of 22 mm can be used.

The actuators are fitted through the hole in the cover of the enclosure and are connected to the holder supplied with the actuator and secured in position.

Plastic and metal enclosures are equipped as standard with actuators and indicators made of plastic.

#### Contact blocks and lampholders

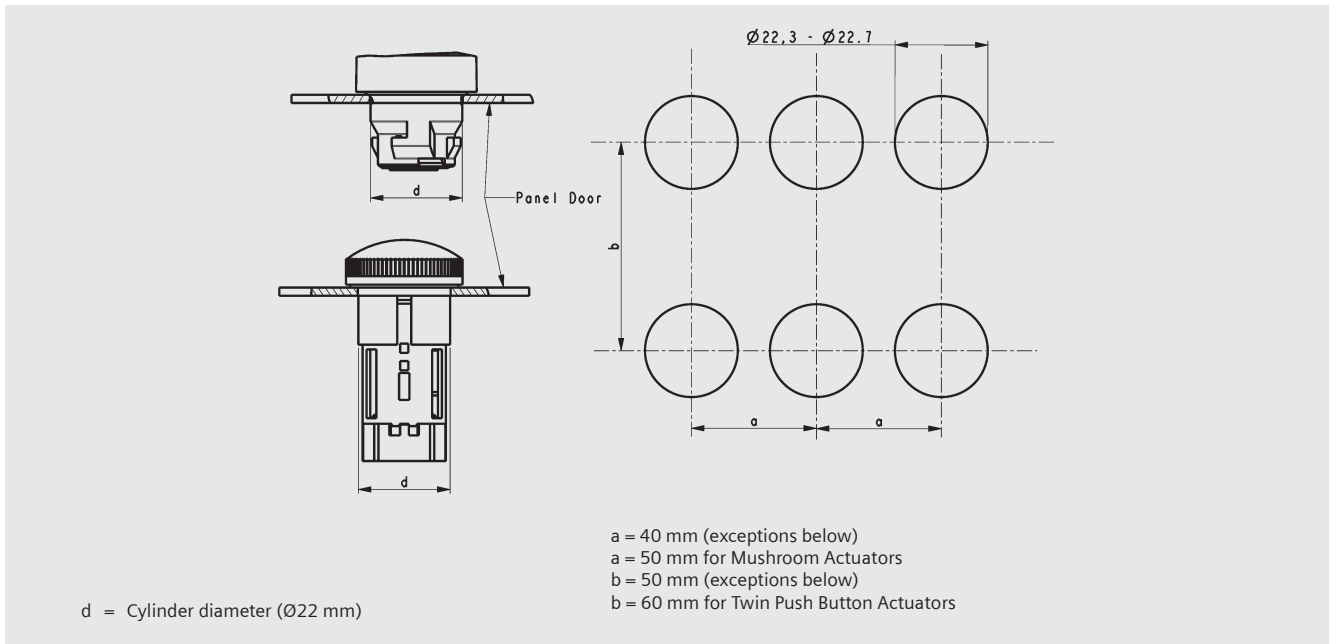
Contact blocks and lampholders for base mounting are snapped into the bottom part of the enclosure. For each command positions, the following components can be fitted:

- 3 contact blocks or
- 2 contact blocks + 1 lampholder

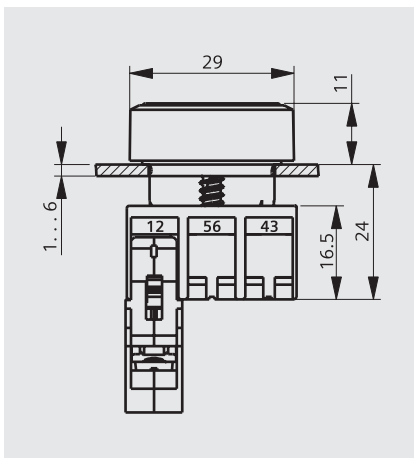
The contact blocks have moving double-break contacts and therefore a high contact.

## Dimensional drawings

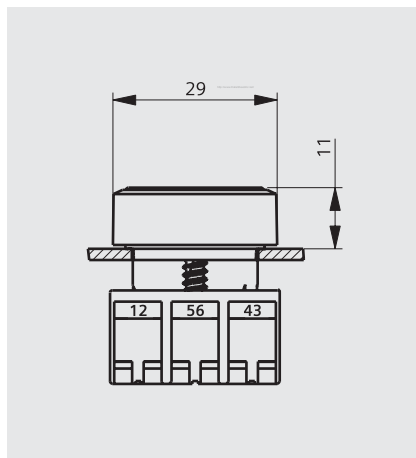
### Mounting details for cylinder Ø22 mm



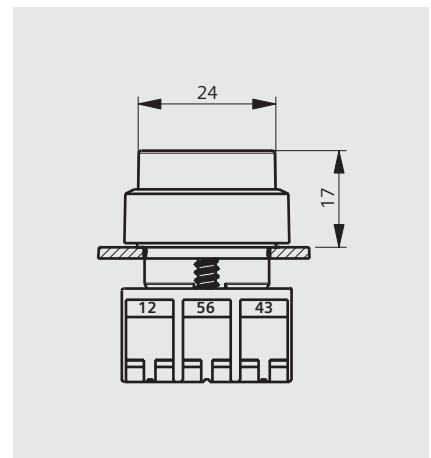
Normal Push Button Actuator with Holder and 1NC Contact Block



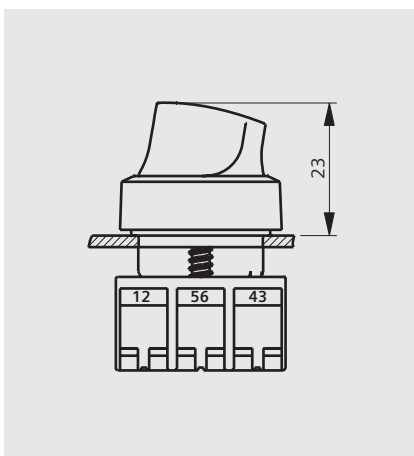
Normal Push Button Actuator with Holder



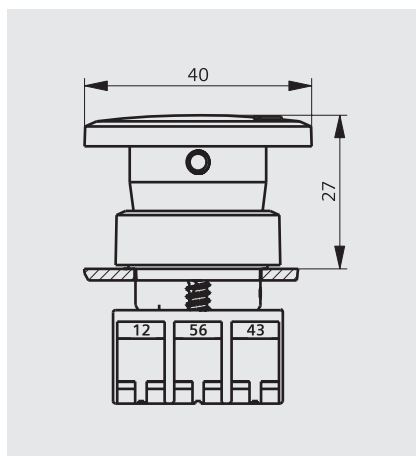
Raised Push Button Actuator with Holder



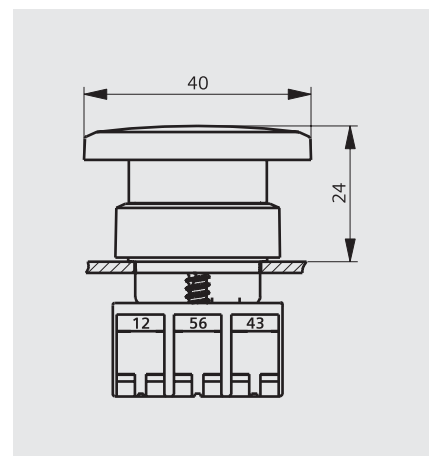
Selector Actuator with Holder



Mushroom Twist to release Actuator with Holder



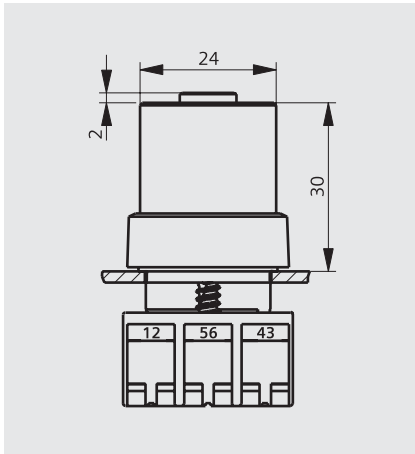
Mushroom Momentary Actuator with Holder



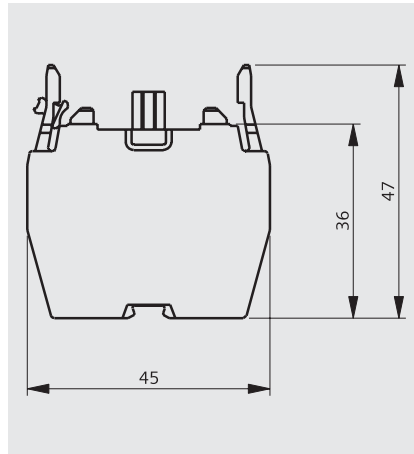
# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

## Technical data Project planning aids

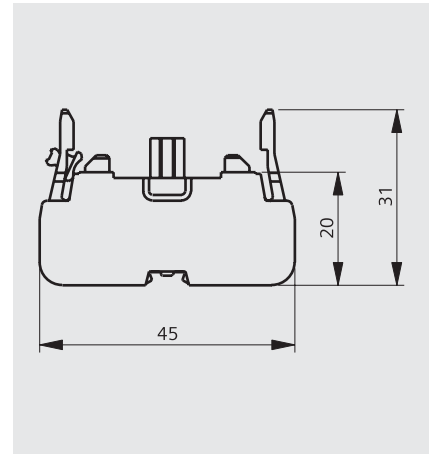
Key Actuator with Holder



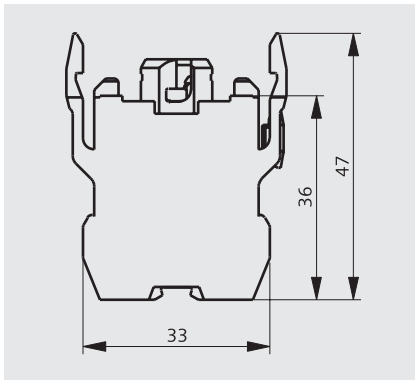
2NO/2NC/1NO+1NC Contact Block  
(Front Mounting)



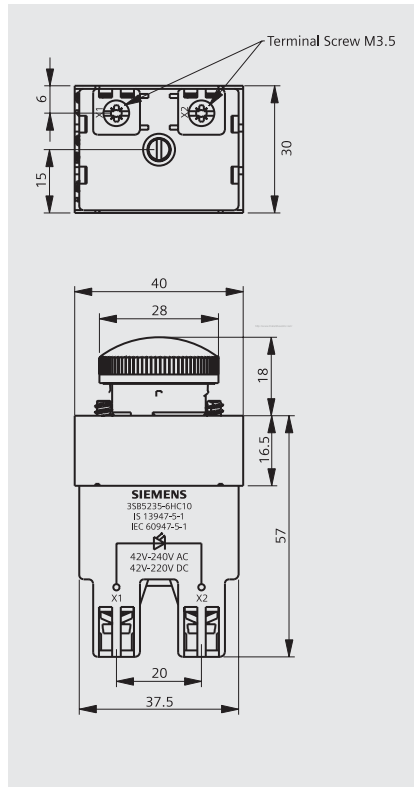
1NO/1NC Contact Block  
(Front Mounting)



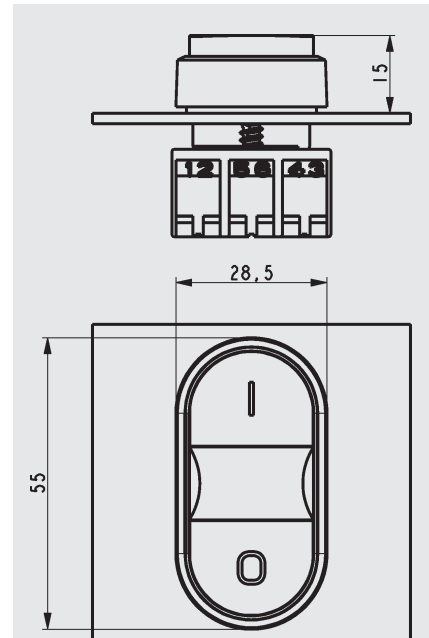
BA9s Lamp Holder



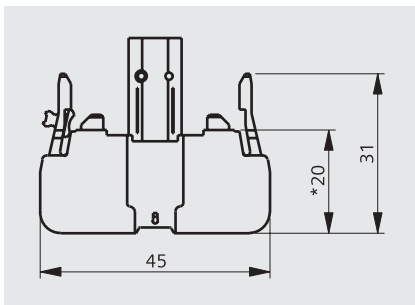
Wide Band LED with Holder and Lens Assembly



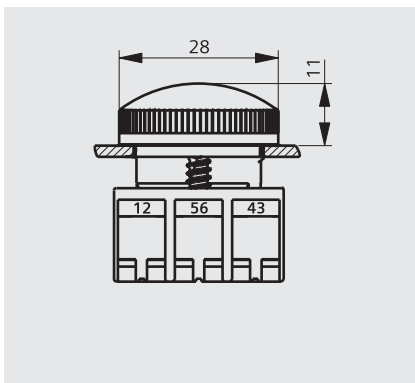
Twin Push Button Actuator with Holder



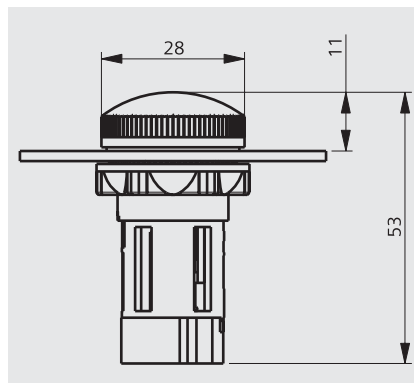
Integrated LED



Lens assembly with Holder



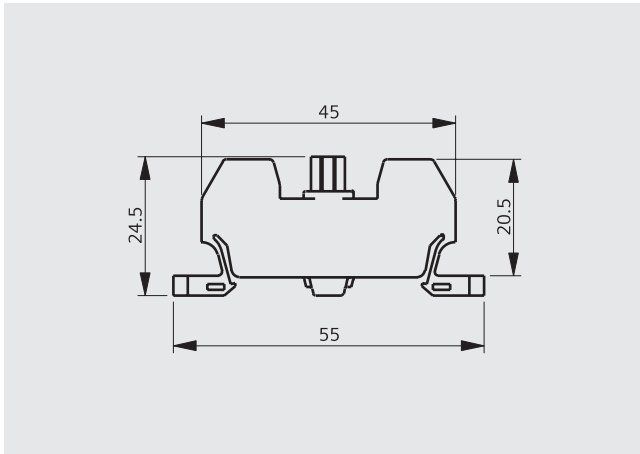
Compact LED/BA9s Pilot Light



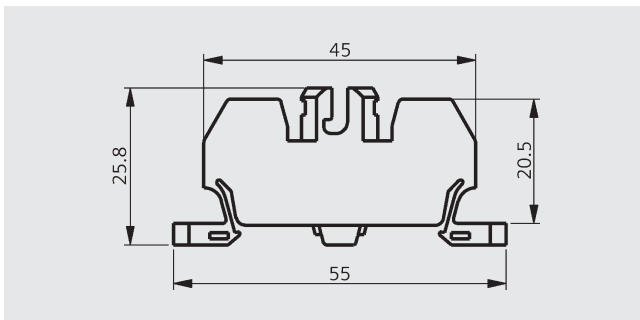
# 3SB5 Pushbutton Units and Indicating Lamps, 22 mm

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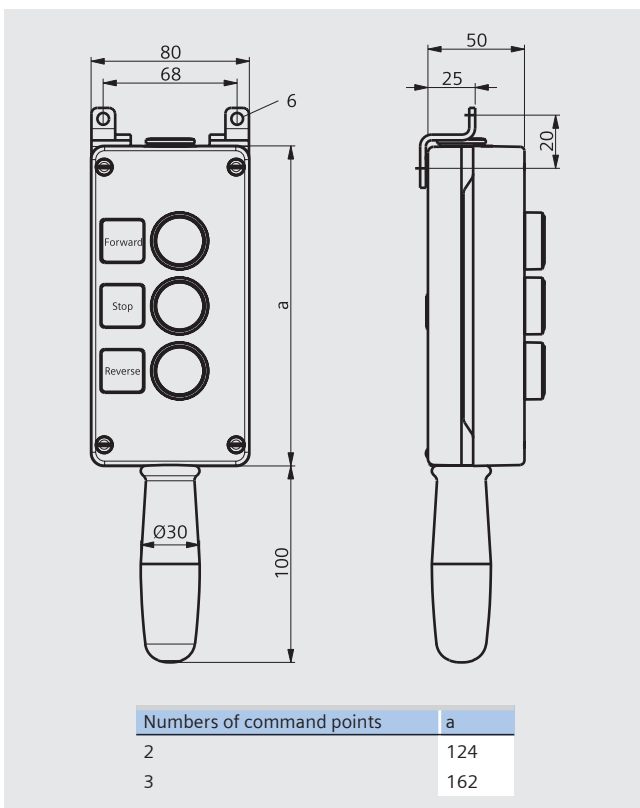
1NC/1NO Contact Block (Base Mounting)



Lamp holder front connection



Pendant Push Button Enclosures (Metal and plastic)



Push Button Enclosures (Plastic & Metal)

