

## Pilot devices, 22 mm

## Short Form Catalogue

1SFC151002C0201, December 2003, Supersedes 1SFC261009-en of June 2001



# Pushbuttons - Compact range

## Non-illuminated



| Designation, design and function                                                                            | Type        | Order Code         | Weight, kg |
|-------------------------------------------------------------------------------------------------------------|-------------|--------------------|------------|
| <b>Pushbutton with flush button</b> Momentary<br>Contacts included:                                         |             |                    |            |
| 1 NO                                                                                                        | CP1-10■-10  | 1SFA 619 100 R101□ | 0.018      |
| 2 NO                                                                                                        | CP1-10■-20  | 1SFA 619 100 R102□ | 0.022      |
| 1 NC                                                                                                        | CP1-10■-01  | 1SFA 619 100 R104□ | 0.018      |
| 2 NC                                                                                                        | CP1-10■-02  | 1SFA 619 100 R105□ | 0.022      |
| 1 NO +1 NC                                                                                                  | CP1-10■-11  | 1SFA 619 100 R107□ | 0.022      |
| <b>Pushbutton with flush button</b> Maintained<br>Contacts included:                                        |             |                    |            |
| 1 NO                                                                                                        | CP2-10■-10  | 1SFA 619 101 R101□ | 0.018      |
| 2 NO                                                                                                        | CP2-10■-20  | 1SFA 619 101 R102□ | 0.022      |
| 1 NC                                                                                                        | CP2-10■-01  | 1SFA 619 101 R104□ | 0.018      |
| 2 NC                                                                                                        | CP2-10■-02  | 1SFA 619 101 R105□ | 0.022      |
| 1 NO +1 NC                                                                                                  | CP2-10■-11  | 1SFA 619 101 R107□ | 0.022      |
| <b>Pushbutton with extended button</b> Momentary<br>Contacts included:                                      |             |                    |            |
| 1 NO                                                                                                        | CP3-10■-10  | 1SFA 619 102 R101□ | 0.019      |
| 2 NO                                                                                                        | CP3-10■-20  | 1SFA 619 102 R102□ | 0.022      |
| 1 NC                                                                                                        | CP3-10■-01  | 1SFA 619 102 R104□ | 0.019      |
| 2 NC                                                                                                        | CP3-10■-02  | 1SFA 619 102 R105□ | 0.022      |
| 1 NO +1 NC                                                                                                  | CP3-10■-11  | 1SFA 619 102 R107□ | 0.022      |
| <b>Pushbutton with extended button</b> Maintained<br>Contacts included:                                     |             |                    |            |
| 1 NO                                                                                                        | CP4-10■-10  | 1SFA 619 103 R101□ | 0.019      |
| 2 NO                                                                                                        | CP4-10■-20  | 1SFA 619 103 R102□ | 0.022      |
| 1 NC                                                                                                        | CP4-10■-01  | 1SFA 619 103 R104□ | 0.019      |
| 2 NC                                                                                                        | CP4-10■-02  | 1SFA 619 103 R105□ | 0.022      |
| 1 NO +1 NC                                                                                                  | CP4-10■-11  | 1SFA 619 103 R107□ | 0.022      |
| <b>Pushbutton with flush button</b> Momentary<br>White button with black I<br>Contacts included: 1 NO       | CP11-10W-10 | 1SFA 619 110 R1015 | 0.018      |
| <b>Pushbutton with flush button</b> Momentary<br>White button with black II<br>Contacts included: 1 NO      | CP12-10W-10 | 1SFA 619 120 R1015 | 0.018      |
| <b>Pushbutton with extended button</b> Momentary<br>Black button with white 0<br>Contacts included:<br>1 NC | CP33-10B-01 | 1SFA 619 132 R1046 | 0.018      |

<sup>1)</sup> For bezel in metal replace '1' in the Type CPX-1 0X- XX with the figure '3'.

### Color code for pushbuttons

|        | Type       | Order Code         |
|--------|------------|--------------------|
|        | CPX-10■-XX | 1SFA 619 1XX R10X□ |
|        | ■          | □                  |
| Red    | R          | 1                  |
| Green  | G          | 2                  |
| Yellow | Y          | 3                  |
| Blue   | L          | 4                  |
| White  | W          | 5                  |
| Black  | B          | 6                  |
| Grey   | U          | 7                  |

### Ordering example – Pushbutton

Requested: A compact pushbutton, momentary, with red extended button and one NO contact.

Order: 10 pieces of **CP3-10R-10**

**Minimum order quantity: 10 pieces**  
**Packing: 10 pieces/plastic bag. 10 bags/box**



### Ordering example – Selector switch

Requested: A red compact selector switch with three positions, Momentary, spring return from A to B and maintained position in C.

Order: 10 pieces of **C3SS7-10R-02**

**Minimum order quantity: 10 pieces**  
**Packing: 10 pieces/plastic bag. 10 bags/box**



# Selector switches - Compact range

## Non-illuminated



| Designation, design and function                                                            | Type         | Order Code         | Weight, kg |
|---------------------------------------------------------------------------------------------|--------------|--------------------|------------|
| <b>Selector switch, short handle. Two pos.</b><br>Maintained<br><u>Contacts included:</u>   |              |                    |            |
| 1 NO                                                                                        | C2SS1-10■-10 | 1SFA 619 200 R101□ | 0.020      |
| 2 NO                                                                                        | C2SS1-10■-20 | 1SFA 619 200 R102□ | 0.024      |
| 1 NC                                                                                        | C2SS1-10■-01 | 1SFA 619 200 R104□ | 0.020      |
| 2 NC                                                                                        | C2SS1-10■-02 | 1SFA 619 200 R105□ | 0.024      |
| 1 NO + 1 NC                                                                                 | C2SS1-10■-11 | 1SFA 619 200 R107□ | 0.024      |
| <b>Selector switch, short handle. Two pos.</b><br>Maintained<br><u>Contacts included:</u>   |              |                    |            |
| 1 NO                                                                                        | C2SS2-10■-10 | 1SFA 619 201 R101□ | 0.020      |
| 2 NO                                                                                        | C2SS2-10■-20 | 1SFA 619 201 R102□ | 0.024      |
| 1 NC                                                                                        | C2SS2-10■-01 | 1SFA 619 201 R104□ | 0.020      |
| 2 NC                                                                                        | C2SS2-10■-02 | 1SFA 619 201 R105□ | 0.024      |
| 1 NO + 1 NC                                                                                 | C2SS2-10■-11 | 1SFA 619 201 R107□ | 0.024      |
| <b>Selector switch, short handle. Two pos.</b><br>Momentary<br><u>Contacts included:</u>    |              |                    |            |
| 1 NO                                                                                        | C2SS3-10■-10 | 1SFA 619 202 R101□ | 0.020      |
| 2 NO                                                                                        | C2SS3-10■-20 | 1SFA 619 202 R102□ | 0.024      |
| 1 NC                                                                                        | C2SS3-10■-01 | 1SFA 619 202 R104□ | 0.020      |
| 2 NC                                                                                        | C2SS3-10■-02 | 1SFA 619 202 R105□ | 0.024      |
| 1 NO + 1 NC                                                                                 | C2SS3-10■-11 | 1SFA 619 202 R107□ | 0.024      |
| <b>Selector switch, short handle. Three pos.</b><br>Maintained<br><u>Contacts included:</u> |              |                    |            |
| 2 NO                                                                                        | C3SS1-10■-20 | 1SFA 619 210 R102□ | 0.024      |
| 2 NC                                                                                        | C3SS1-10■-02 | 1SFA 619 210 R105□ | 0.024      |
| 1 NO + 1 NC                                                                                 | C3SS1-10■-11 | 1SFA 619 210 R107□ | 0.024      |
| <b>Selector switch, short handle. Three pos.</b><br>Momentary<br><u>Contacts included:</u>  |              |                    |            |
| 2 NO                                                                                        | C3SS2-10■-20 | 1SFA 619 211 R102□ | 0.024      |
| 2 NC                                                                                        | C3SS2-10■-02 | 1SFA 619 211 R105□ | 0.024      |
| 1 NO + 1 NC                                                                                 | C3SS2-10■-11 | 1SFA 619 211 R107□ | 0.024      |
| <b>Selector switch, short handle. Three pos.</b><br>Momentary<br><u>Contacts included:</u>  |              |                    |            |
| 2 NO                                                                                        | C3SS3-10■-20 | 1SFA 619 212 R102□ | 0.024      |
| 2 NC                                                                                        | C3SS3-10■-02 | 1SFA 619 212 R105□ | 0.024      |
| 1 NO + 1 NC                                                                                 | C3SS3-10■-11 | 1SFA 619 212 R107□ | 0.024      |
| <b>Selector switch, short handle. Three pos.</b><br>Momentary<br><u>Contacts included:</u>  |              |                    |            |
| 2 NO                                                                                        | C3SS7-10■-20 | 1SFA 619 216 R102□ | 0.024      |
| 2 NC                                                                                        | C3SS7-10■-02 | 1SFA 619 216 R105□ | 0.024      |
| 1 NO + 1 NC                                                                                 | C3SS7-10■-11 | 1SFA 619 216 R107□ | 0.024      |

<sup>1)</sup> For bezel in metal replace '1' in the Type CXSSX-1 0X- XX with the figure '3'.

*Ordering example – see page 10*

### Color code

|       | Type         | Order Code         |
|-------|--------------|--------------------|
|       | CXSSX-10■-XX | 1SFA 619 2XX R10X□ |
| Red   | ■            |                    |
| Black | ■            |                    |
| Grey  | ■            |                    |
|       | R            | 1                  |
|       | B            | 6                  |
|       | U            | 7                  |

### Contacts actuated

| Two position selector switch |    |    |    | Three position selector switch |    |    |    |
|------------------------------|----|----|----|--------------------------------|----|----|----|
| Contacts included,           |    |    |    | Contacts included,             |    |    |    |
| actuated in position C       |    |    |    | actuated in position:          |    |    |    |
| 1NO                          | 11 | 13 | 21 | 23                             | 11 | 13 | 21 |
| 2NO                          | 12 | 14 | 22 | 24                             | 12 | 14 | 22 |
| 1NC                          | 1  | 1  | 1  | 1                              | 1  | 1  | 1  |
| 2NC                          | 1  | 1  | 1  | 1                              | 1  | 1  | 1  |
| 1NO + 1NC                    | 1  | 1  | 1  | 1                              | 1  | 1  | 1  |

# Pilot lights - Compact range

## Illuminated



| Designation, design and function                                           | Type    | Order Code         | Weight, kg |
|----------------------------------------------------------------------------|---------|--------------------|------------|
| <b>Pilot light</b> Ba 9s base, bulb not included.<br>See page 15<br>Color: |         |                    |            |
| Red                                                                        | CL-100R | 1SFA 619 402 R1001 | 0.018      |
| Green                                                                      | CL-100G | 1SFA 619 402 R1002 | 0.018      |
| Yellow                                                                     | CL-100Y | 1SFA 619 402 R1003 | 0.018      |
| Blue                                                                       | CL-100L | 1SFA 619 402 R1004 | 0.018      |
| White                                                                      | CL-100W | 1SFA 619 402 R1005 | 0.018      |
| Clear                                                                      | CL-100C | 1SFA 619 402 R1008 | 0.018      |

### Pilot light with integrated LED Service life >50 000 hours

| Rated voltage<br>V | Rated current<br>(mA) | Type of current | Color  | Lumi-<br>nance<br>(mcd) | Wave-<br>length<br>(nm) | Type    | Order Code         | Weight, kg |
|--------------------|-----------------------|-----------------|--------|-------------------------|-------------------------|---------|--------------------|------------|
| 12 <sup>1)</sup>   | 30                    | DC              | Red    | 60                      | 625                     | CL-501R | 1SFA 619 402 R5011 | 0.023      |
| 12 <sup>1)</sup>   | 15                    | DC              | Green  | 126                     | 520                     | CL-501G | 1SFA 619 402 R5012 | 0.023      |
| 12 <sup>1)</sup>   | 30                    | DC              | Yellow | 60                      | 590                     | CL-501Y | 1SFA 619 402 R5013 | 0.023      |
| 12 <sup>1)</sup>   | 30                    | DC              | Blue   | 22                      | 470                     | CL-501L | 1SFA 619 402 R5014 | 0.023      |
| 12 <sup>1)</sup>   | 30                    | DC              | White  | 88                      | x=3<br>y=3              | CL-501W | 1SFA 619 402 R5015 | 0.023      |
| 24                 | 15                    | AC/DC           | Red    | 60                      | 625                     | CL-502R | 1SFA 619 402 R5021 | 0.023      |
| 24                 | 15                    | AC/DC           | Green  | 126                     | 520                     | CL-502G | 1SFA 619 402 R5022 | 0.023      |
| 24                 | 15                    | AC/DC           | Yellow | 60                      | 590                     | CL-502Y | 1SFA 619 402 R5023 | 0.023      |
| 24                 | 15                    | AC/DC           | Blue   | 22                      | 470                     | CL-502L | 1SFA 619 402 R5024 | 0.023      |
| 24                 | 15                    | AC/DC           | White  | 88                      | x=3<br>y=3              | CL-502W | 1SFA 619 402 R5025 | 0.023      |
| 48                 | 15                    | AC/DC           | Red    | 60                      | 625                     | CL-504R | 1SFA 619 402 R5041 | 0.023      |
| 48                 | 15                    | AC/DC           | Green  | 126                     | 520                     | CL-504G | 1SFA 619 402 R5042 | 0.023      |
| 48                 | 15                    | AC/DC           | Yellow | 60                      | 590                     | CL-504Y | 1SFA 619 402 R5043 | 0.023      |
| 48                 | 15                    | AC/DC           | Blue   | 22                      | 470                     | CL-504L | 1SFA 619 402 R5044 | 0.023      |
| 48                 | 15                    | AC/DC           | White  | 88                      | x=3<br>y=3              | CL-504W | 1SFA 619 402 R5045 | 0.023      |
| 60                 | 15                    | AC/DC           | Red    | 60                      | 625                     | CL-505R | 1SFA 619 402 R5051 | 0.023      |
| 60                 | 15                    | AC/DC           | Green  | 126                     | 520                     | CL-505G | 1SFA 619 402 R5052 | 0.023      |
| 60                 | 15                    | AC/DC           | Yellow | 60                      | 590                     | CL-505Y | 1SFA 619 402 R5053 | 0.023      |
| 60                 | 15                    | AC/DC           | Blue   | 22                      | 470                     | CL-505L | 1SFA 619 402 R5054 | 0.023      |
| 60                 | 15                    | AC/DC           | White  | 88                      | x=3<br>y=3              | CL-505W | 1SFA 619 402 R5055 | 0.023      |
| 110-130            | 15                    | AC              | Red    | 60                      | 625                     | CL-513R | 1SFA 619 402 R5131 | 0.023      |
| 110-130            | 15                    | AC              | Green  | 126                     | 520                     | CL-513G | 1SFA 619 402 R5132 | 0.023      |
| 110-130            | 15                    | AC              | Yellow | 60                      | 590                     | CL-513Y | 1SFA 619 402 R5133 | 0.023      |
| 110-130            | 15                    | AC              | Blue   | 22                      | 470                     | CL-513L | 1SFA 619 402 R5134 | 0.023      |
| 110-130            | 15                    | AC              | White  | 88                      | x=3<br>y=3              | CL-513W | 1SFA 619 402 R5135 | 0.023      |
| 110-130            | 15                    | DC              | Red    | 60                      | 625                     | CL-515R | 1SFA 619 402 R5151 | 0.023      |
| 110-130            | 15                    | DC              | Green  | 126                     | 520                     | CL-515G | 1SFA 619 402 R5152 | 0.023      |
| 110-130            | 15                    | DC              | Yellow | 60                      | 590                     | CL-515Y | 1SFA 619 402 R5153 | 0.023      |
| 110-130            | 15                    | DC              | Blue   | 22                      | 470                     | CL-515L | 1SFA 619 402 R5154 | 0.023      |
| 110-130            | 15                    | DC              | White  | 88                      | x=3<br>y=3              | CL-515W | 1SFA 619 402 R5155 | 0.023      |
| 230                | 15                    | AC              | Red    | 60                      | 625                     | CL-523R | 1SFA 619 402 R5231 | 0.023      |
| 230                | 15                    | AC              | Green  | 126                     | 520                     | CL-523G | 1SFA 619 402 R5232 | 0.023      |
| 230                | 15                    | AC              | Yellow | 60                      | 590                     | CL-523Y | 1SFA 619 402 R5233 | 0.023      |
| 230                | 15                    | AC              | Blue   | 22                      | 470                     | CL-523L | 1SFA 619 402 R5234 | 0.023      |
| 230                | 15                    | AC              | White  | 88                      | x=3<br>y=3              | CL-523W | 1SFA 619 402 R5235 | 0.023      |

<sup>1)</sup> Care should be taken for 12 V version where + and - must be correctly installed  
(this is marked on the product, X1 (+) and X2 (-)).

*Ordering example – see page 10*

*Ordering*

**Minimum order quantity: 10 pieces**

**Packing: 10 pieces/plastic bag. 10 bags/box**

Compact range

# Pilot devices, Ø 22 mm

## Technical data

### General

#### Standards

IEC 73, 529, 947-5-1,  
EN 50 013, 60 947-5-1, 947-5-5  
UL 508  
CSA C22.2 No. 14  
For detailed information please contact ABB

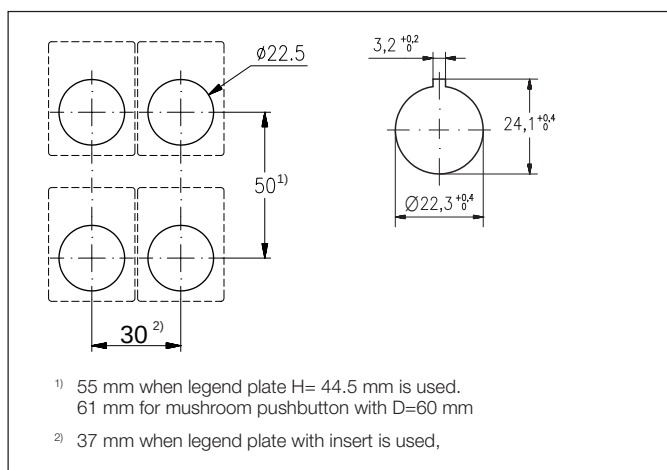
#### Temperature

Ambient temperature during operation -25 to +70 °C  
Exception: All pilot devices with 2 W  
continuously lit filament bulb -25 to +40 °C  
Storage temperature -30 to +85 °C

#### Tightening torque

Locking nut, M22 Min. 2 Nm  
Max. 2.3 Nm

### Drilling plan for pushbuttons, switches and pilot lights



### Compact range

#### Degrees of protection

| Pilot device                                          | IP   | UL                   |
|-------------------------------------------------------|------|----------------------|
| Compact pushbutton,<br>type <b>CP1, CP2, CP3, CP4</b> | IP66 | 1, 3R, 4, 4X, 12, 13 |
| Compact selector switch,<br>type <b>C2SS, C3SS</b>    | IP66 | 1, 3R, 4, 4X, 12, 13 |
| Compact pilot light, type <b>CL</b>                   | IP66 | 1, 3R, 4, 4X, 12, 13 |
| <b>Electrical functions</b>                           | IP20 |                      |

### Contacts - Compact Pilot devices

#### Ratings as per UL, CSA, NEMA C300, R300

|                           |        |
|---------------------------|--------|
| Rated insulation voltage  | 250 V  |
| Rated thermal current     | 2.5 A  |
| Rated operational current |        |
| at 120 V                  | 1.5 A  |
| 240 V                     | 0.75 A |

#### Ratings as per IEC 947-5-1

|                                                                 |       |
|-----------------------------------------------------------------|-------|
| Rated insulation voltage, $U_i$                                 | 300 V |
| Rated thermal current, $I_{th}$                                 | 5 A   |
| Rated operational current, $I_e$<br>utilisation category AC 15  |       |
| at 120 V                                                        | 1.5 A |
| 240 V                                                           | 1 A   |
| Rated operational current, $I_e$<br>utilisation category DC 13, |       |
| at 24 V                                                         | 0.3 A |
| 125 V                                                           | 0.2 A |

#### Short circuit protection

|                   |                               |
|-------------------|-------------------------------|
| Max. fuse at 1 kA | 16 A ordinary<br>10 A delayed |
|-------------------|-------------------------------|

#### Max. number of contacts per operator

|                                                       |                        |
|-------------------------------------------------------|------------------------|
| Compact pushbutton,<br>type <b>CP1, CP2, CP3, CP4</b> | 2                      |
| Compact selector switch,<br>type <b>C2SS, C3SS</b>    | 2                      |
| Compact pilot light, type <b>CL</b>                   | 1 LB, Ba9s lamp holder |

#### Tightening torque

|                                      |               |
|--------------------------------------|---------------|
| compact pushbutton & selector switch | 0.8 Nm (M3)   |
| compact pilot light                  | 0.9 Nm (M3.5) |

#### Terminals

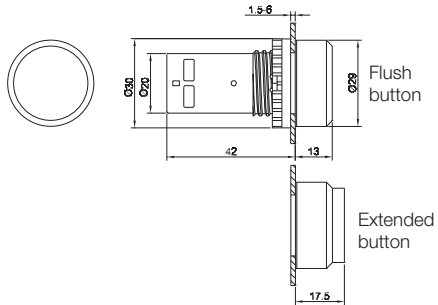
|                                |                                                                             |
|--------------------------------|-----------------------------------------------------------------------------|
| Plus-minus Pozidrive Size 2    |                                                                             |
| Connectable area               | min. 1 x 0.5 mm <sup>2</sup><br>max. 2 x 1.5 mm <sup>2</sup> /<br>2 x AWG14 |
| Connectable area (Pilot Light) | min. 1 x 0.5 mm <sup>2</sup><br>max. 2 x 2.5 mm <sup>2</sup>                |

# Pilot devices, Ø 22 mm

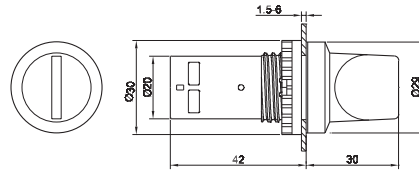
## Dimensions

### Compact range

#### Pilot light



#### Pushbutton



#### Selector switch

