

Series 04

22.5mm 30.5mm IP65 10A 500VAC



Choose one component from each of the coloured sections to assemble a complete switch.

Product Profile

The Series 04 is a high quality switch range that includes pushbuttons, indicators, selectors, mushroom headed switches, key switches, and Emergency-stops.

Options include self cleaning, slow-make and snap-action switching elements.

Technical data see page 25

- IP65 Protection
- Switch Rating:
Maximum Voltage, 500VAC
Maximum Thermal Current, I_{th} = 10A
230VAC/6A, 24VDC/10A
- Raised Mounting into 22.5 mm cut out
- Flush Mounting into 30.5 mm cut out
- Illumination using Ba9s Lamps or LED's
- All standard lenses are transparent with translucent diffuser
- Screw terminal or plug-in connections

Indicator



Indicator, round, full face, 22.5mm mounting

| Colour | Part No. |
|----------|-----------|
| ● Red | 704.000.2 |
| ● Yellow | 704.000.4 |
| ● Green | 704.000.5 |
| ● Blue | 704.000.6 |
| ○ Clear | 704.000.7 |



Indicator, flush mount, aluminium bezel, 30.5mm mounting

| Colour | Part No. |
|----------|-------------|
| ● Red | 704.006.218 |
| ● Yellow | 704.006.418 |
| ● Green | 704.006.518 |
| ● Blue | 704.006.618 |
| ○ Clear | 704.006.718 |

For complete switch also order

For complete switch also order

Indicator



Indicator, flush mount, silver plastic bezel, 30x30mm mounting

| Colour | Part No. |
|----------|-------------|
| ● Red | 704.202.208 |
| ● Yellow | 704.202.408 |
| ● Green | 704.202.508 |
| ● Blue | 704.202.608 |
| ○ Clear | 704.202.708 |

Non-Illuminated pushbutton



Non-Illuminated raised pushbutton, grey plastic bezel, 22.5mm mounting

| Colour | Part No., Momentary | Part No., Maintained |
|----------|---------------------|----------------------|
| ● Red | 704.010.2 | 704.040.2 |
| ● Yellow | 704.010.4 | 704.040.4 |
| ● Green | 704.010.5 | 704.040.5 |
| ● Blue | 704.010.6 | 704.040.6 |
| ○ Clear | 704.010.7 | 704.040.7 |
| ● Black | 704.010.0 | 704.040.0 |



Non-Illuminated raised pushbutton, aluminium bezel, 22.5mm mounting

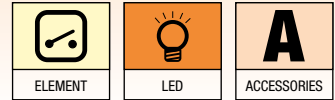
| Colour | Part No., Momentary | Part No., Maintained |
|----------|---------------------|----------------------|
| ● Red | 704.012.2 | 704.042.2 |
| ● Yellow | 704.012.4 | 704.042.4 |
| ● Green | 704.012.5 | 704.042.5 |
| ● Blue | 704.012.6 | 704.042.6 |
| ○ Clear | 704.012.7 | 704.042.7 |
| ● Black | 704.012.0 | 704.042.0 |

For complete switch also order

For complete switch also order **A**

For complete switch also order **A**

Choose one component from each of the coloured sections to assemble a complete switch.
For other options or further information please contact your local sales office.



Non-Illuminated pushbutton | **Illuminated pushbutton**



Non-Illuminated flush mount pushbutton, aluminium bezel, 30.5 mm mounting



Non-Illuminated flush mount pushbutton, silver plastic bezel, 30x30 mm mounting



Illuminated raised pushbutton, grey plastic bezel, 22.5 mm mounting

| Colour | Part No., Momentary | Part No., Maintained | Colour | Part No., Momentary | Part No., Maintained | Colour | Part No., Momentary | Part No., Maintained |
|--------|---------------------|----------------------|--------|---------------------|----------------------|--------|---------------------|----------------------|
| Red | 704.012.218 | 704.042.218 | Red | 704.210.208 | 704.240.208 | Red | 704.030.2 | 704.060.2 |
| Yellow | 704.012.418 | 704.042.418 | Yellow | 704.210.408 | 704.240.408 | Yellow | 704.030.4 | 704.060.4 |
| Green | 704.012.518 | 704.042.518 | Green | 704.210.508 | 704.240.508 | Green | 704.030.5 | 704.060.5 |
| Blue | 704.012.618 | 704.042.618 | Blue | 704.210.608 | 704.240.608 | Blue | 704.030.6 | 704.060.6 |
| Clear | 704.012.718 | 704.042.718 | Clear | 704.210.708 | 704.240.708 | Clear | 704.030.7 | 704.060.7 |
| Black | 704.012.018 | 704.042.018 | Black | 704.210.008 | 704.240.008 | | | |

For complete switch also order **A**

For complete switch also order **A**

For complete switch also order **A**

Illuminated pushbutton



Illuminated raised pushbutton, aluminium bezel, 22.5 mm mounting



Illuminated flush mount pushbutton, aluminium bezel, 30.5 mm mounting



Illuminated flush mount pushbutton, silver plastic bezel, 30x30 mm mounting

| Colour | Part No., Momentary | Part No., Maintained | Colour | Part No., Momentary | Part No., Maintained | Colour | Part No., Momentary | Part No., Maintained |
|--------|---------------------|----------------------|--------|---------------------|----------------------|--------|---------------------|----------------------|
| Red | 704.032.2 | 704.062.2 | Red | 704.032.218 | 704.062.218 | Red | 704.230.208 | 704.260.208 |
| Yellow | 704.032.4 | 704.062.4 | Yellow | 704.032.418 | 704.062.418 | Yellow | 704.230.408 | 704.260.408 |
| Green | 704.032.5 | 704.062.5 | Green | 704.032.518 | 704.062.518 | Green | 704.230.508 | 704.260.508 |
| Blue | 704.032.6 | 704.062.6 | Blue | 704.032.618 | 704.062.618 | Blue | 704.230.608 | 704.260.608 |
| Clear | 704.032.7 | 704.062.7 | Clear | 704.032.718 | 704.062.718 | Clear | 704.230.708 | 704.260.708 |

For complete switch also order **A**

For complete switch also order **A**

For complete switch also order **A**



Choose one component from each of the coloured sections to assemble a complete switch.

Emergency-stop switch **Mushroom head pushbutton**



Emergency-stop, twist release, 37 mm diameter, foolproof to EN 60947-5-1 and DIN EN ISO 13850



Emergency-stop, key release, 37 mm diameter, foolproof to EN 60947-5-1 and DIN EN ISO 13850



Mushroom head pushbutton, plastic bezel and aluminium bezel, 22.5 mm mounting, function momentary

| Part No. | Part No. | Colour | Part No., Plastic | Part No., Aluminium |
|--|-----------|--------|-------------------|---------------------|
| 704.064.2 | 704.066.2 | Red | 704.070.2 | 704.071.2 |
| | | Yellow | 704.070.4 | 704.071.4 |
| | | Green | 704.070.5 | 704.071.5 |
| | | Black | 704.070.0 | 704.071.0 |
| Please use slow make switch element only | | | | |
| Part No. 704.91X | | | | |

For complete switch also order **A**

For complete switch also order **A**

For complete switch also order **A**

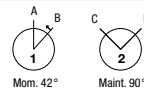
Mushroom head stop switch **Keylock switch**



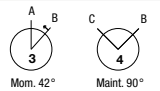
Stop switch, twist release, mushroom head, 40 mm diameter, 22.5 mm mounting



Keylock switch 2 position, raised, 22.5 mm mounting



Keylock switch 2 position, flush mount, 30.5 mm mounting

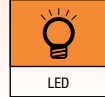


| Part.No | Front Ring | Markings | Graphic | Part No. | Function | Key out | Graphic | Part No. | Function | Key out |
|-----------|--------------------|--------------------|---------|-----------|------------|---------|---------|-------------|------------|---------|
| 704.074.2 | Gray plastic | Directional arrows | 1 | 704.123.0 | Momentary | A | 3 | 704.123.018 | Momentary | A |
| 704.075.2 | Anodized aluminium | Directional arrows | 2 | 704.121.0 | Maintained | C | 4 | 704.121.018 | Maintained | C |
| | | | 2 | 704.122.0 | Maintained | C + B | 4 | 704.122.018 | Maintained | C + B |

For complete switch also order **A**

For complete switch also order **A**

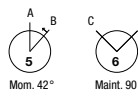
Choose one component from each of the coloured sections to assemble a complete switch.
For other options or further information please contact your local sales office.



Keylock switch



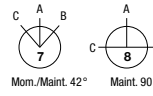
Keylock switch 2 position, flush mount, 30x30 mm mounting



| Graphic | Part No. | Function | Key out |
|---------|-------------|------------|---------|
| 5 | 704.343.008 | Momentary | A |
| 6 | 704.341.008 | Maintained | C |
| 6 | 704.342.008 | Maintained | C + B |



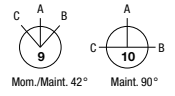
Keylock switch 3 position, raised, 22.5 mm mounting



| Graphic | Part No. | Function | Key out |
|---------|-----------|------------|-----------|
| 7 | 704.115.0 | Momentary | A |
| 7 | 704.114.0 | Maintained | A |
| 7 | 704.116.0 | Maintained | C + B |
| 8 | 704.113.0 | Maintained | C + A + B |



Keylock switch 3 position, flush mount, 30.5 mm mounting



| Graphic | Part No. | Function | Key out |
|---------|-------------|------------|-----------|
| 10 | 704.113.018 | Maintained | C + A + B |
| 9 | 704.115.018 | Momentary | A |
| 9 | 704.114.018 | Maintained | A |
| 9 | 704.116.018 | Maintained | C + B |

For complete switch also order **A**

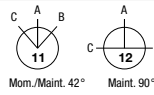
For complete switch also order **A**

For complete switch also order **A**

Keylock switch



Keylock switch 3 position, flush mount, 30x30 mm mounting

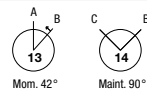


| Graphic | Part No. | Function | Key out |
|---------|-------------|------------|-----------|
| 11 | 704.335.008 | Momentary | A |
| 11 | 704.334.008 | Maintained | A |
| 11 | 704.336.008 | Maintained | C + B |
| 12 | 704.333.008 | Maintained | C + A + B |

Selector switch



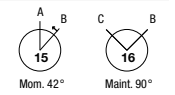
Selector switch short lever 2 position, raised, 22.5 mm mounting



| Graphic | Part No. | Function | Bezel |
|---------|-----------|------------|--------------|
| 13 | 704.412.0 | Momentary | Grey plastic |
| 13 | 704.413.0 | Momentary | Aluminium |
| 14 | 704.410.0 | Maintained | Grey plastic |
| 14 | 704.411.0 | Maintained | Aluminium |



Selector switch short lever 2 position, flush mount, 30.5 mm mounting



| Graphic | Part No. | Function | Bezel |
|---------|-------------|------------|-----------|
| 15 | 704.413.018 | Momentary | Aluminium |
| 16 | 704.411.018 | Maintained | Aluminium |

For complete switch also order **A**

For complete switch also order **A**

For complete switch also order **A**



Choose one component from each of the coloured sections to assemble a complete switch.

Selector switch

| <p>Selector switch short lever 2 position, flush mount, 30 x 30 mm mounting</p> | | | | <p>Selector switch short lever 3 position, raised, 22.5 mm mounting</p> | | | | <p>Selector switch short lever 3 position, flush mount, 30.5 mm mounting</p> | | | | | | | |
|---|-------------|------------|----------------|---|-----------|------------|--------------|--|-------------|------------|-----------|---------|----------|----------|-------|
| | | | | | | | | | | | | | | | |
| Graphic | Part No. | Function | Bezel | Graphic | Part No. | Function | Bezel | Graphic | Part No. | Function | Bezel | Graphic | Part No. | Function | Bezel |
| 17 | 704.512.008 | Momentary | Silver plastic | 19 | 704.404.0 | Momentary | Grey plastic | 20 | 704.405.018 | Momentary | Aluminium | | | | |
| 18 | 704.510.008 | Maintained | Silver plastic | 19 | 704.405.0 | Momentary | Aluminium | 20 | 704.403.018 | Maintained | Aluminium | | | | |
| | | | | 19 | 704.402.0 | Maintained | Grey plastic | | | | | | | | |
| | | | | 19 | 704.403.0 | Maintained | Aluminium | | | | | | | | |

For complete switch also order **A**

For complete switch also order **A**

For complete switch also order **A**

Selector switch

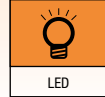
| <p>Selector switch short lever 3 position, flush mount, 30 x 30 mm mounting</p> | | | | <p>Selector switch long lever 2 position, raised, 22.5 mm mounting</p> | | | | <p>Selector switch long lever 2 position, flush mount, 30.5 mm mounting</p> | | | | | | | | | |
|---|-------------|------------|----------------|--|-----------|------------|--------------|---|-------------|------------|-----------|---------|----------|----------|-------|--|--|
| | | | | | | | | | | | | | | | | | |
| Graphic | Part No. | Function | Bezel | Graphic | Part No. | Function | Bezel | Graphic | Part No. | Function | Bezel | Graphic | Part No. | Function | Bezel | | |
| 21 | 704.504.008 | Momentary | Silver plastic | 22 | 704.102.0 | Momentary | Grey plastic | 24 | 704.103.018 | Momentary | Aluminium | | | | | | |
| 21 | 704.502.008 | Maintained | Silver plastic | 22 | 704.103.0 | Momentary | Aluminium | 25 | 704.101.018 | Maintained | Aluminium | | | | | | |
| | | | | 23 | 704.100.0 | Maintained | Grey plastic | | | | | | | | | | |
| | | | | 23 | 704.101.0 | Maintained | Aluminium | | | | | | | | | | |

For complete switch also order **A**

For complete switch also order **A**

For complete switch also order **A**

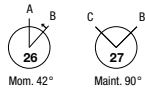
Choose one component from each of the coloured sections to assemble a complete switch.
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Selector switch



Selector switch long lever
2 position, flush mount,
30x30mm mounting



| Graphic | Part No. | Function | Bezel |
|---------|-------------|------------|----------------|
| 26 | 704.302.008 | Momentary | Silver plastic |
| 27 | 704.300.008 | Maintained | Silver plastic |



Selector switch long lever
3 position, raised,
22.5mm mounting



| Graphic | Part No. | Function | Bezel |
|---------|-----------|------------|--------------|
| 28 | 704.094.0 | Momentary | Grey plastic |
| 28 | 704.095.0 | Momentary | Aluminium |
| 28 | 704.092.0 | Maintained | Grey plastic |
| 28 | 704.093.0 | Maintained | Aluminium |



Selector switch long lever
3 position, flush mount,
30.5mm mounting



| Graphic | Part No. | Function | Bezel |
|---------|-------------|------------|-----------|
| 29 | 704.095.018 | Momentary | Aluminium |
| 29 | 704.093.018 | Maintained | Aluminium |

For complete switch also order **A**

For complete switch also order **A**

For complete switch also order **A**

Selector switch



Selector switch long lever
3 position, flush mount,
30x30mm mounting



| Graphic | Part No. | Function | Bezel |
|---------|-------------|------------|---------------|
| 30 | 704.294.008 | Momentary | Black plastic |
| 30 | 704.292.008 | Maintained | Black plastic |

Buzzer



Buzzer, raised, 22.5mm mounting, IP65, 24VDC, 95dB ±8
at a distance of 0.1m

| Part No. | Front finish |
|------------|---------------------|
| 14-810.002 | Black plastic |
| 14-810.902 | Nickel-plated brass |



Buzzer, flush mount, 30.5mm mounting, IP40,
24VDC, 95dB ±8 at a distance of 0.1m

| Part No. | Front finish |
|------------|-------------------|
| 14-810.910 | Black aluminium |
| 14-810.918 | Natural aluminium |

For complete switch also order **A**

Series 04

22.5mm 30.5mm IP65 10A 500VAC



Choose one component from each of the coloured sections to assemble a complete switch.

Switching element



Switching element, screw terminal, snap-action with silver self-cleaning contacts

| Part No. | Contact type |
|---|--------------|
| 704.900.1 | 1NO |
| 704.900.2 | 1NC |
| 704.900.3 | 2NO |
| 704.900.4 | 2NC |
| 704.900.5 | 1NO/1NC |
| Other contact materials and terminals available. Please contact us. | |



Switching element, plug-in terminal, 6.3 mm, snap-action with self-cleaning silver contacts

| Part No. | Contact type |
|---|--------------|
| 704.905.1 | 1NO |
| 704.905.2 | 1NC |
| 704.905.3 | 2NO |
| 704.905.4 | 2NC |
| 704.905.5 | 1NO/1NC |
| Other contact materials and terminals available. Please contact us. | |



Switching element, screw terminal, snap-action with silver self-cleaning contacts

| Part No. | Contact type |
|---|--------------|
| 704.910.1 | 1NO |
| 704.910.2 | 1NC |
| 704.910.3 | 2NO |
| 704.910.4 | 2NC |
| 704.910.5 | 1NO/1NC |
| Other contact materials and terminals available. Please contact us. | |

Switching element



Switching element, plug-in terminal, 6.3 mm, slow-make with forced opening silver contacts

| Part No. | Contact type |
|---|--------------|
| 704.915.1 | 1NO |
| 704.915.2 | 1NC |
| 704.915.3 | 2NO |
| 704.915.4 | 2NC |
| 704.915.5 | 1NO/1NC |
| Other contact materials and terminals available. Please contact us. | |

LED



LED, Ba9s, single chip, 6 Volt and 12 Volt

| Colour | Part No. | Voltage |
|--------|--------------|----------------|
| Red | 10-2506.1082 | 6VDC, 10/17mA |
| Yellow | 10-2506.1084 | 6VDC, 10/17mA |
| Green | 10-2506.1085 | 6VDC, 10/17mA |
| Blue | 10-2506.1086 | 6VDC, 10/17mA |
| White | 10-2506.1089 | 6VDC, 10/17mA |
| Red | 10-2509.1142 | 12VAC/DC, 15mA |
| Yellow | 10-2509.1144 | 12VAC/DC, 15mA |
| Green | 10-2509.1145 | 12VAC/DC, 15mA |
| Blue | 10-2509.1146 | 12VAC/DC, 15mA |
| White | 10-2509.1149 | 12VAC/DC, 15mA |



LED, Ba9s, single chip, 24 Volt and 28 Volt

| Colour | Part No. | Voltage |
|--------|--------------|----------------|
| Red | 10-2512.1142 | 24VAC/DC, 15mA |
| Yellow | 10-2512.1144 | 24VAC/DC, 15mA |
| Green | 10-2512.1145 | 24VAC/DC, 15mA |
| Blue | 10-2512.1146 | 24VAC/DC, 15mA |
| White | 10-2512.1149 | 24VAC/DC, 15mA |
| Red | 10-2513.1142 | 28VAC/DC, 15mA |
| Yellow | 10-2513.1144 | 28VAC/DC, 15mA |
| Green | 10-2513.1145 | 28VAC/DC, 15mA |
| Blue | 10-2513.1146 | 28VAC/DC, 15mA |
| White | 10-2513.1149 | 28VAC/DC, 15mA |

Series 04

22.5mm 30.5mm IP65 10A 500VAC



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A Accessories



Lens cap, round, aluminium anodised for raised and flush mount pushbutton actuators

Protective cover, raised pushbutton

Protective front ring with silicon membrane for raised or flush mount pushbutton

| Colour | Part No. | Comment | Part No. | Part No. | Size |
|----------|------------|-------------------------|-----------|----------|--|
| ● Red | 704.601.2 | | 704.925.0 | 1 | 704.600.3 29 mm Ø for raised pushbutton |
| ● Yellow | 704.601.4 | | | 2 | 704.955.3 35 mm Ø for flush mount pushbutton |
| ● Blue | 704.601.6 | | | | |
| ● Silver | 704.601.8 | | | | |
| ● Silver | 704.601.81 | Illuminated central dot | | | |
| ● Black | 704.601.0 | | | | |
| ● Black | 704.601.01 | Illuminated central dot | | | |
| ● Silver | 704.601.9 | Stainless steel | | | |

A Accessories



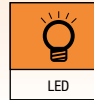
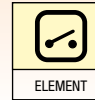
Emergency-stop protective shroud, yellow painted aluminium with 22.5 mm mounting hole

Emergency-stop switch label, 60 mm Ø

Emergency-stop switch enclosure 94 mm (w) x 94 mm (h) x 81 mm (d), anti twist hole. Cable gland M20, IP66

| Part No. | Part No. | Markings | Part No. |
|-----------|-----------|-----------------|-------------|
| 704.927.4 | 704.963.5 | NOT-AUS | 1 704.945.0 |
| | 704.963.6 | EMERGENCY-STOP | 2 704.945.6 |
| | 704.963.7 | ARRET D'URGENCE | |
| | 704.963.8 | NOT-HALT | |

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A Accessories



Emergency-stop switch enclosure with 22.5 mm Ø mounting hole, 65 mm (w) x 65 mm (h) x 81 mm (d), anti twist hole. Cable gland M20, IP66

| | Part No. |
|---|-----------|
| 1 | 704.945.7 |
| 2 | 704.945.6 |
| | |
| | |
| | |
| | |
| | |
| | |



Emergency-stop switch enclosure, with 22.5 mm Ø mounting hole, 94 mm (w) x 65 mm (h) x 81 mm (d), anti twist hole. Cable gland M20, IP66

| | Part No. |
|---|-----------|
| 1 | 704.945.8 |
| 2 | 704.945.6 |
| | |
| | |
| | |
| | |
| | |
| | |



Blanking plate

| Part No. | Mounting hole |
|-----------|---------------|
| 704.960.7 | 22.5 mm Ø |
| 704.964.8 | 30.5 mm Ø |
| 704.964.9 | 30x30 mm |
| | |
| | |
| | |
| | |
| | |

A Accessories



Flush mount bezel for 30.5 Ø mounting

| | Part No. | Product description |
|---|-----------|---------------------------------|
| 1 | 704.955.0 | Aluminium, black anodised |
| 2 | 704.955.1 | Aluminium, natural anodised |
| 3 | 704.955.9 | Stainless steel |
| 4 | 704.955.3 | Alu, natural anodised with seal |
| | | |
| | | |
| | | |
| | | |



Lens remover for round pushbuttons and indicators. LED and lamp remover for round and square pushbuttons and indicators

| | Part No. |
|--|-----------|
| | 700.006.0 |
| | |
| | |
| | |
| | |
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| | |



Lens remover for square pushbuttons and indicators

| | |
|--|--------|
| | 98-968 |
| | |
| | |
| | |
| | |
| | |
| | |
| | |



Choose one component from each of the coloured sections to assemble a complete switch.

A Accessories

|  |  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|-----------|-------|-----------|---------|---|-------|----------|---------------------|---|-----------|-------------------------------|---|-----------|------------------------|---|-----------|---------------------------------------|---|-------|----------|------|--------|---|-----------|----------|-------|---|-----------|----------|-------|
| <p>Mounting flange</p> | <p>Diffuser for raised indicator, diffuser for flat lens indicator and pushbutton, diffuser for raised pushbutton</p> | <p>Marking plate selfadhesive, aluminium finish or black, for raised and flush mount push buttons</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Part No.</th> <th>Material</th> </tr> </thead> <tbody> <tr> <td>704.960.5</td> <td>Metal</td> </tr> <tr> <td>704.950.5</td> <td>Plastic</td> </tr> </tbody> </table> | Part No. | Material | 704.960.5 | Metal | 704.950.5 | Plastic | <table border="1"> <thead> <tr> <th>Image</th> <th>Part No.</th> <th>Product description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>704.608.9</td> <td>Diffuser for raised indicator</td> </tr> <tr> <td>2</td> <td>704.609.9</td> <td>Diffuser for flat lens</td> </tr> <tr> <td>3</td> <td>704.610.9</td> <td>Diffuser for raised illum. pushbutton</td> </tr> </tbody> </table> | Image | Part No. | Product description | 1 | 704.608.9 | Diffuser for raised indicator | 2 | 704.609.9 | Diffuser for flat lens | 3 | 704.610.9 | Diffuser for raised illum. pushbutton | <table border="1"> <thead> <tr> <th>Image</th> <th>Part No.</th> <th>Size</th> <th>Colour</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>704.968.2</td> <td>22.5mm Ø</td> <td>Black</td> </tr> <tr> <td>2</td> <td>704.968.3</td> <td>30.5mm Ø</td> <td>Black</td> </tr> </tbody> </table> | Image | Part No. | Size | Colour | 1 | 704.968.2 | 22.5mm Ø | Black | 2 | 704.968.3 | 30.5mm Ø | Black |
| Part No. | Material | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 704.960.5 | Metal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 704.950.5 | Plastic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Image | Part No. | Product description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 704.608.9 | Diffuser for raised indicator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 704.609.9 | Diffuser for flat lens | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 704.610.9 | Diffuser for raised illum. pushbutton | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Image | Part No. | Size | Colour | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 704.968.2 | 22.5mm Ø | Black | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 704.968.3 | 30.5mm Ø | Black | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

A Accessories

|  |  | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-------------|-----------|--------|---|-----------|-------------|-----------|---|-----------|-------------|-------|---|-------|----------|------|--------|---|-----------|---------|-----------|---|-----------|---------|-------|
| <p>Engraving Label for Marking plate, selfadhesive, natural anodised or black aluminium</p> | <p>Engraving Label for flat square products, selfadhesive natural anodised or black aluminium</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Image</th> <th>Part No.</th> <th>Size</th> <th>Colour</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>704.968.0</td> <td>23.5x14.5mm</td> <td>Aluminium</td> </tr> <tr> <td>2</td> <td>704.968.1</td> <td>23.5x14.5mm</td> <td>Black</td> </tr> </tbody> </table> | Image | Part No. | Size | Colour | 1 | 704.968.0 | 23.5x14.5mm | Aluminium | 2 | 704.968.1 | 23.5x14.5mm | Black | <table border="1"> <thead> <tr> <th>Image</th> <th>Part No.</th> <th>Size</th> <th>Colour</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>704.968.4</td> <td>35x18mm</td> <td>Aluminium</td> </tr> <tr> <td>2</td> <td>704.968.5</td> <td>35x18mm</td> <td>Black</td> </tr> </tbody> </table> | Image | Part No. | Size | Colour | 1 | 704.968.4 | 35x18mm | Aluminium | 2 | 704.968.5 | 35x18mm | Black |
| Image | Part No. | Size | Colour | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 704.968.0 | 23.5x14.5mm | Aluminium | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 704.968.1 | 23.5x14.5mm | Black | | | | | | | | | | | | | | | | | | | | | | |
| Image | Part No. | Size | Colour | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 704.968.4 | 35x18mm | Aluminium | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 704.968.5 | 35x18mm | Black | | | | | | | | | | | | | | | | | | | | | | |

Snap-action switching element

Switching system

The double-break, snap-action switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. The snap-action switching element is fitted with self-cleaning contacts.

Up to 3 switching elements can be snapped to each actuator.

Snap-action switching elements are not permissible for emergency-stop pushbuttons!

Material

Material of contact

Hard Silver, Gold/Silver, Silver/Palladium (for aggressive atmospheres)

Switch housing

Polycarbonate (PC)

Mechanical characteristics

Terminals

Screw terminals

Plug-in terminals 6.3x0.8mm

max. wire cross-section 2x2.5mm²

max. wire cross-section of stranded cable 2x1.5mm²

For switches with plug-in terminals it is necessary to provide insulation sleeves and to maintain a spacing of 65 mm between rows (mounting dimensions)

Tightening torque

Screws at the mounting flange max. 25Ncm

Screws at switching element max. 50Ncm

Actuating force

1 Normally closed 1.9N

1 Normally open 2N

Actuating travel

5.8mm ±0.2mm

Rebound time

≤3ms

Mechanical lifetime

(with 1 switching element)

Pushbutton, maintained action 1.5 million Cycles of operation

Pushbutton momentary action 3 million Cycles of operation

Selector switch maintained action 1.25 million Cycles of operation

Selector switch momentary action 2.5 million Cycles of operation

Keylock switch maintained action 25 000 Cycles of operation

Keylock switch momentary action 50 000 Cycles of operation

Electrical characteristics

Standards

The switches comply with the „Standards for low-voltage switching devices“ EN IEC 60947-5-1

Rated Insulation Voltage Ui

500 VAC/600VDC, as per EN IEC 60947-5-1

Contact resistance

New state ≤50mΩ as per DIN IEC 60512-2-4

Conventional free air thermal current Ith

10A, as per EN IEC 60947-5-1

the maximum current in continuous operation and at ambient temperature must not exceed the quoted maximum values.

Isolation resistance

≥10MΩ between open contacts at 500VDC, as per DIN IEC 60512-2-10

Switch rating

At switch rating AC for Gold/Silver, Silver/Palladium and Hard Silver contacts service category AC-15, as per EN IEC 60947-5-1 (cosφ 0.3)

| | | | |
|---------|--------|--------|--------|
| Voltage | 230VAC | 400VAC | 500VAC |
| Current | 6A | 4A | 2.5A |

At switch rating DC for Gold-, Silver- and Hard Silver contacts service category DC-13, as per EN IEC 60947-5-1

| | | | |
|---------|-------|-------|--------|
| Voltage | 24VDC | 60VDC | 110VDC |
| Current | 10A | 3A | 1A |

Recommended minimum operational data

Gold/Silver contacts:

| | | | |
|---------|------|-------|--------|
| Voltage | 5VDC | 24VDC | 110VDC |
| Current | 15mA | 5mA | 2mA |

Hard Silver contacts:

| | | |
|---------|-------|--------|
| Voltage | 24VDC | 110VDC |
| Current | 50mA | 10mA |

Protection class

Indicators and switches, fit for mounting into devices with protection class II

Environmental conditions

Storage temperature

-40°C ... +85°C

Operating temperature

-25°C ... +55°C

Shock resistance

(single impacts, semi-sinusoidal)

300m/s²puls width 11ms, as per EN IEC 60068-2-27

Vibration resistance

(sinusoidal)

100m/s² at 10Hz ... 500Hz, amplitude 0.75mm, as per EN IEC 60068-2-6

Approvals

Approbations

CB (IEC 60947)

CCC

CSA

Germanischer Lloyd

GOST

SEV

UL

Declaration of conformity

CE

NF F16-102

Slow-make switching element

Switching system

The double-break, slow-make switching element is equipped with one or two independent contact systems, acting as normally open or normally closed contact. The normally closed contact has forced opening.

Slow-make contacts with forced action are ideal for high switch ratings.

Up to 3 switching elements can be snapped to each actuator.

For the emergency-stop pushbutton use the slow-make switching element (max. 2).

Material

Material of contact

Hard Silver, Gold/Silver, Silver/Palladium (for aggressive atmospheres)

Switch housing

Polycarbonate (PC)

Mechanical characteristics

Terminals

Screw terminals

Plug-in terminals 6.3x0.8mm

max. wire cross-section 2x2.5mm²

max. wire cross-section of stranded cable 2x1.5mm²

For switches with plug-in terminals it is necessary to provide insulation sleeves and to maintain a spacing of 65mm between rows (mounting dimensions)

Tightening torque

Screws at the mounting flange max. 25Ncm

Screws at switching element max. 50Ncm

Actuating force

1 Normally closed 2N

1 Normally open 3.1N

Actuating travel

5.8mm ±0.2mm

Rebound time

≤1ms

Mechanical lifetime

(with 1 switching element)

Pushbutton, maintained action 1.5 million Cycles of operation

Pushbutton momentary action 3 million Cycles of operation

Selector switch maintained action 1.25 million Cycles of operation

Selector switch momentary action 2.5 million Cycles of operation

Emergency-stop switch 50 000 Cycles of operation

Keylock switch maintained action 25 000 Cycles of operation

Keylock switch momentary action 50 000 Cycles of operation

Electrical characteristics

Standards

The switches comply with the „Standards for low-voltage switching devices“ EN IEC 60947-5-1

Rated Insulation Voltage Ui

500VAC/600VDC, as per EN IEC 60947-5-1

Contact resistance

New state ≤50mΩ as per DIN IEC 60512-2-4

Isolation resistance

≥10MΩ between open contacts at 500VDC, as per DIN IEC 60512-2-10

Conventional free air thermal current Ith

10A, as per EN IEC 60947-5-1

the maximum current in continuous operation and at ambient temperature must not exceed the quoted maximum values.

Switch rating

At switch rating AC for Gold/Silver, Silver/Palladium and Hard Silver contacts service category AC-15, as per EN IEC 60947-5-1 (cosφ 0.3)

| | | | |
|---------|--------|--------|--------|
| Voltage | 230VAC | 400VAC | 500VAC |
| Current | 7A | 5A | 4A |

At switch rating DC for Gold-, Silver- and Hard Silver contacts service category DC-13, as per EN IEC 60947-5-1

| | | | | |
|---------|-------|-------|--------|--------|
| Voltage | 24VDC | 60VDC | 110VDC | 250VDC |
| Current | 10A | 5A | 2.5A | 0.6A |

Recommended minimum operational data

Gold/Silver contacts:

| | | |
|---------|-------|--------|
| Voltage | 24VDC | 110VDC |
| Current | 10mA | 2mA |

Hard Silver contacts:

| | | |
|---------|-------|--------|
| Voltage | 24VDC | 110VDC |
| Current | 50mA | 10mA |

Protection class

Indicators and switches, fit for mounting into devices with protection class II

Environmental conditions

Storage temperature

-40°C ... +85°C

Operating temperature

-40°C ... +55°C

Shock resistance

(single impacts, semi-sinusoidal)

300m/s² puls width 11ms, as per EN IEC 60068-2-27

Vibration resistance

(sinusoidal)

100m/s² at 10Hz ... 500Hz, amplitude 0.75mm, as per EN IEC 60068-2-6

Approvals

Approbations

CB (IEC 60947)

CCC

CSA

Germanischer Lloyd

GOST

SEV

UL

Declaration of conformity

CE

NF F16-102

Buzzer

Buzzer system

System

Piezo disc

Material

Alarm buzzer case

Polyamide

Front cap

Plastic Polyamide

Metal Nickel-plated brass (sea-water proof)

Mechanical characteristics

Terminals

Plug-in terminal 2.8x0.5mm

Electrical characteristics

Frequency (tone)

approx. 2.8kHz continuous tone only

Sound pressure

95 db (A) ±8 dB at a distance of 0.1 m

Operation Voltage/Current

Operation Voltage 24VDC ±10%

Operation Current ≤25 mA

Environmental conditions

Storage temperature

-35 °C ... +85 °C

Operating temperature

-25 °C ... +55 °C

Protection degree

as per EN IEC 60529, frontside

IP40, devices flush mounting

IP65, devices raised mounting

Approvals

Declaration of conformity

CE

NF F16-102

Actuator

Material

Front ring

Polyamide, Aluminium or Stainless steel

Mounting flange

Polyethylene terephthalate

Actuator housing

Polycarbonate, Polyamide

Mechanical characteristics

Actuating force

Mounting style square flush 6.2N

other Mounting styles 8N

Actuating travel

5.8mm ±0.2 mm

Mechanical lifetime

| | | |
|------------|------------|---------------------|
| Pushbutton | ≤3 million | Cycles of operation |
|------------|------------|---------------------|

| | | |
|-----------------|--------------|---------------------|
| Selector switch | ≤2.5 million | Cycles of operation |
|-----------------|--------------|---------------------|

| | | |
|-----------------|---------|---------------------|
| Stop pushbutton | ≤50 000 | Cycles of operation |
|-----------------|---------|---------------------|

| | | |
|---------------------|-------|---------------------|
| Fool proofed E-stop | ≥6050 | Cycles of operation |
|---------------------|-------|---------------------|

| | | |
|----------------|---------|---------------------|
| Keylock switch | ≤50 000 | Cycles of operation |
|----------------|---------|---------------------|

Electrical characteristics

Standards

The switches comply with the „Rules for low-voltage switching devices“ EN IEC 60947-5-1

Environmental conditions

Storage temperature

-40 °C ... +85 °C

Operating temperature

-25 °C ... +55 °C

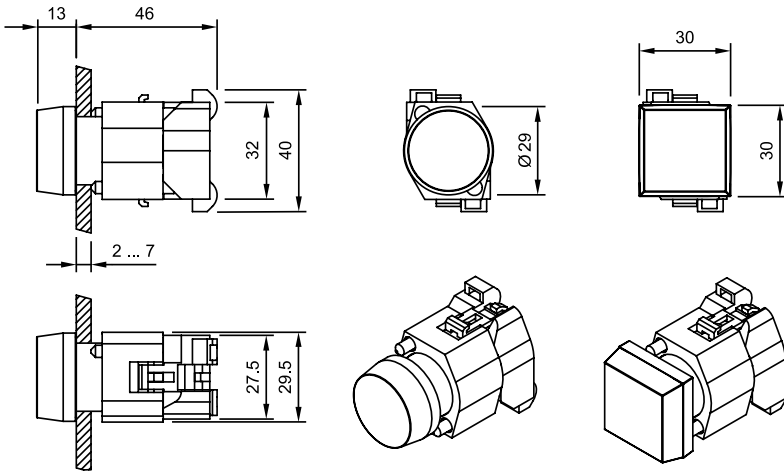
Protection degree

as per EN IEC 60529

Frontside IP65

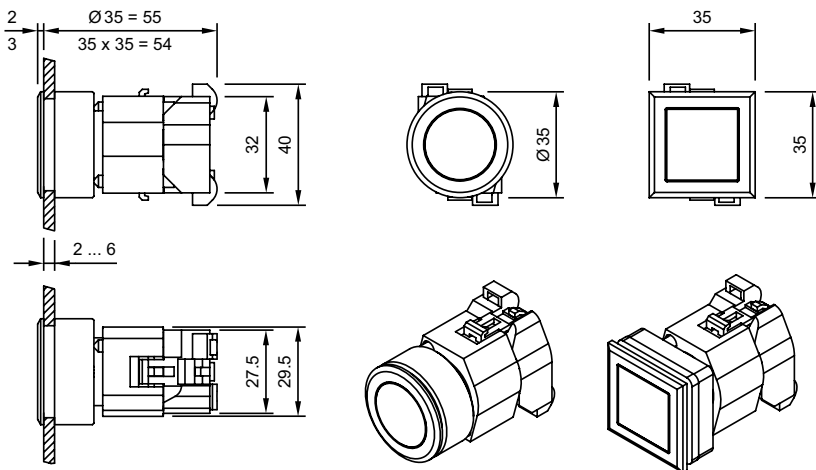
04 Indicator

Raised



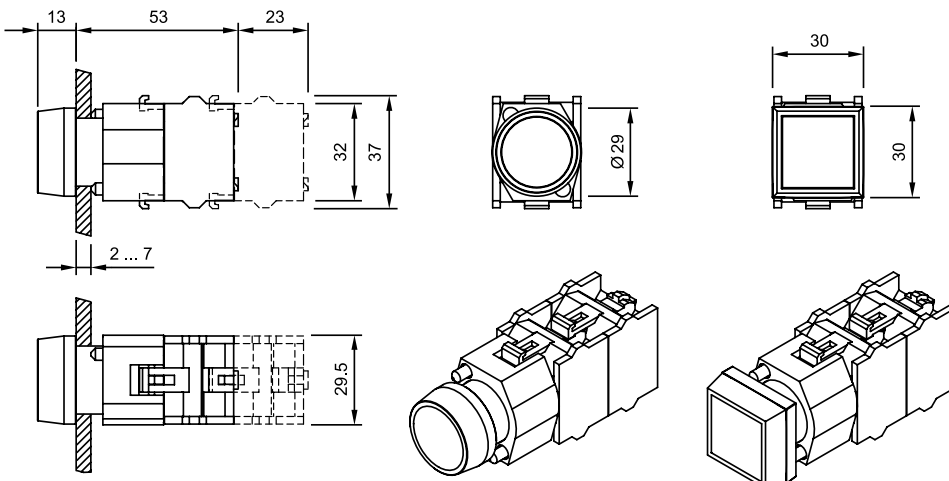
04 Indicator

Flush



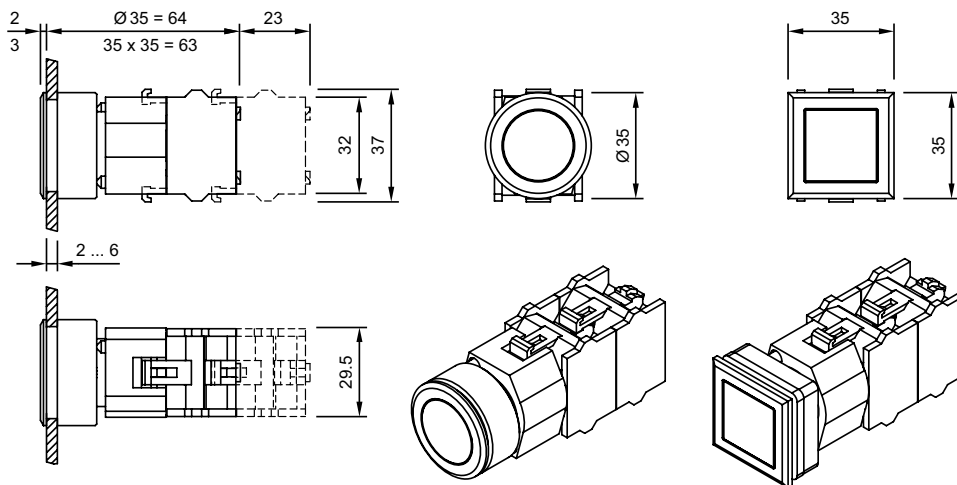
04 Non-Illuminated Pushbutton

Raised



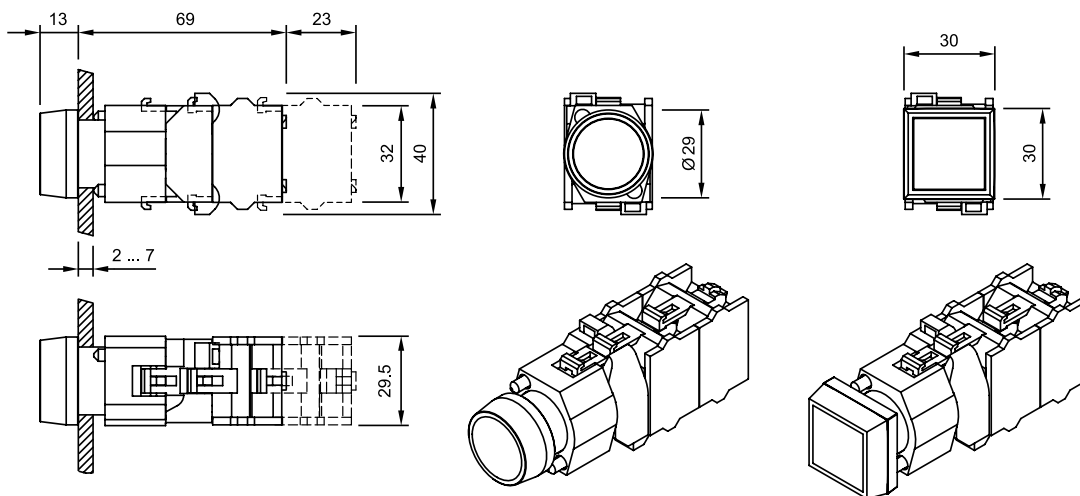
04 Non-Illuminated Pushbutton

Flush



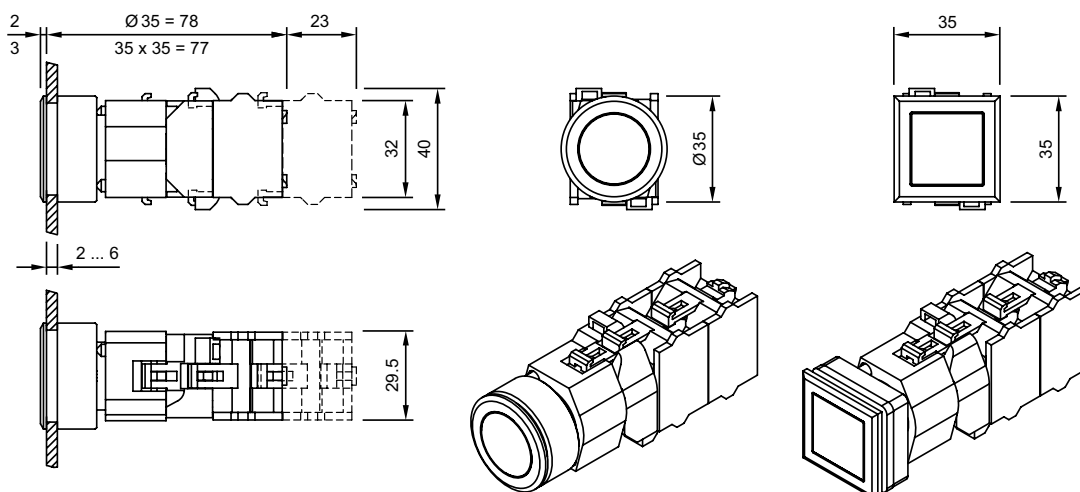
04 Illuminated Pushbutton

Raised



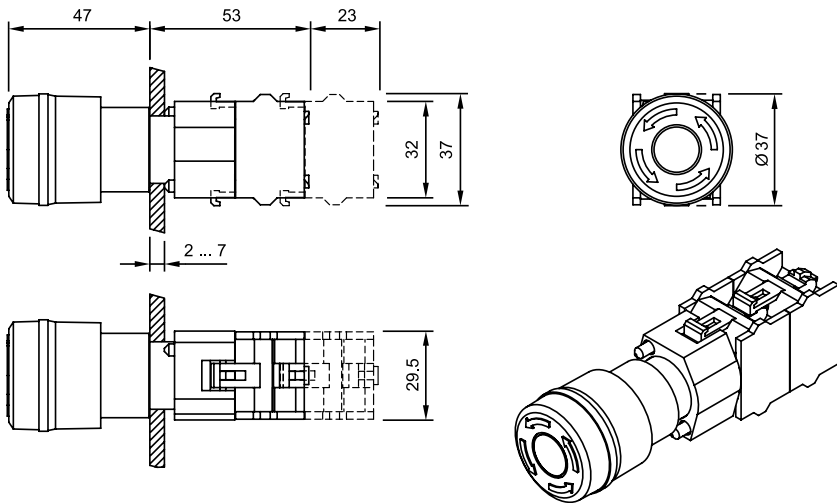
04 Illuminated Pushbutton

Flush



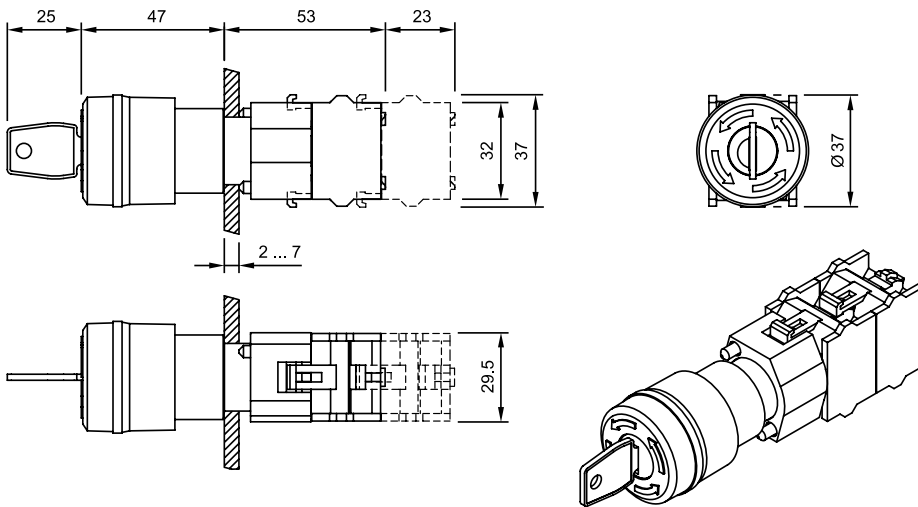
04 Emergency-stop switch

ISO 13850, Twist to release

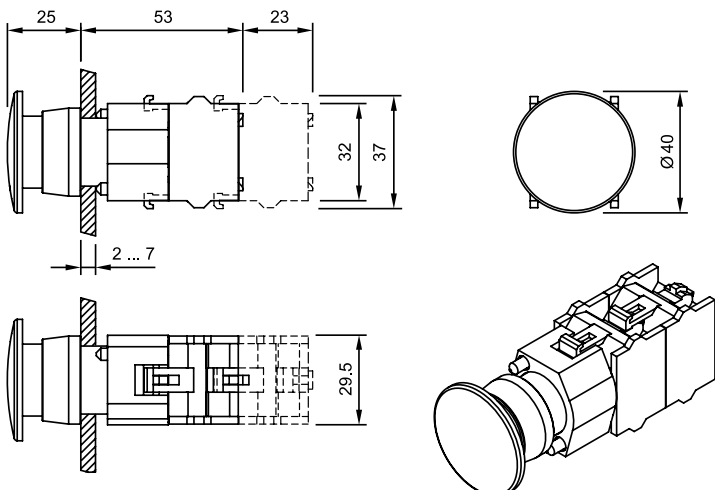


04 Emergency-stop switch

ISO 13850, Key to release

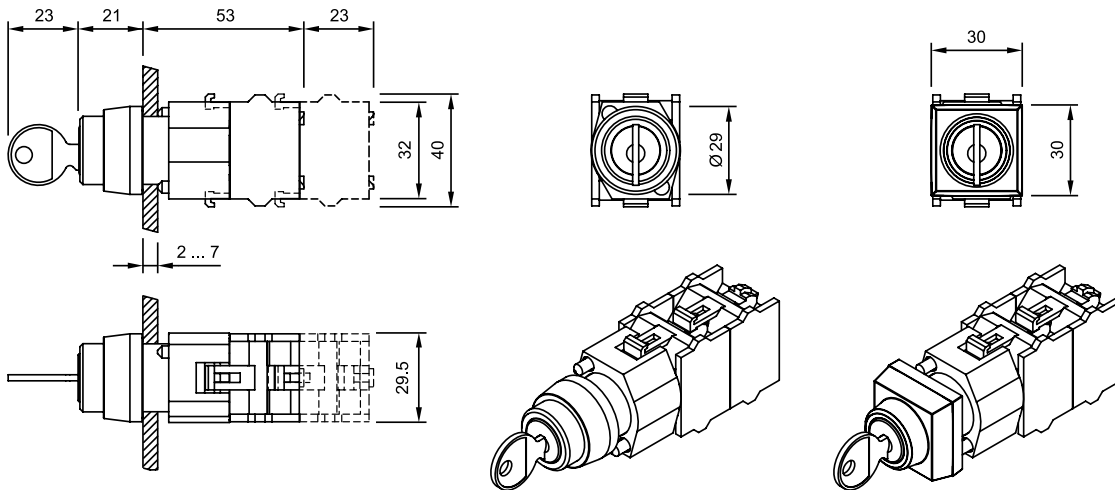


04 Head Pushbutton Mushroom



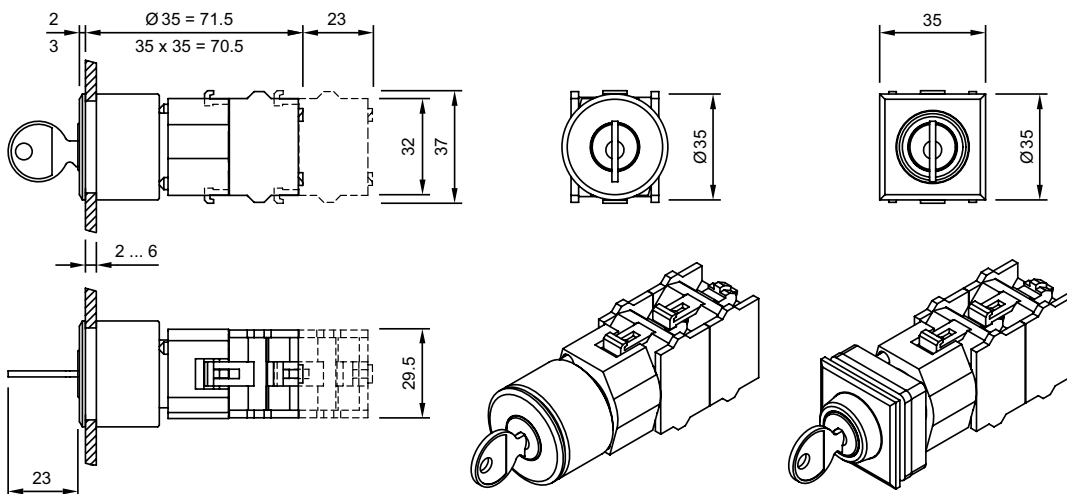
04 Keylock switch

2-Position, 3-Position, Raised



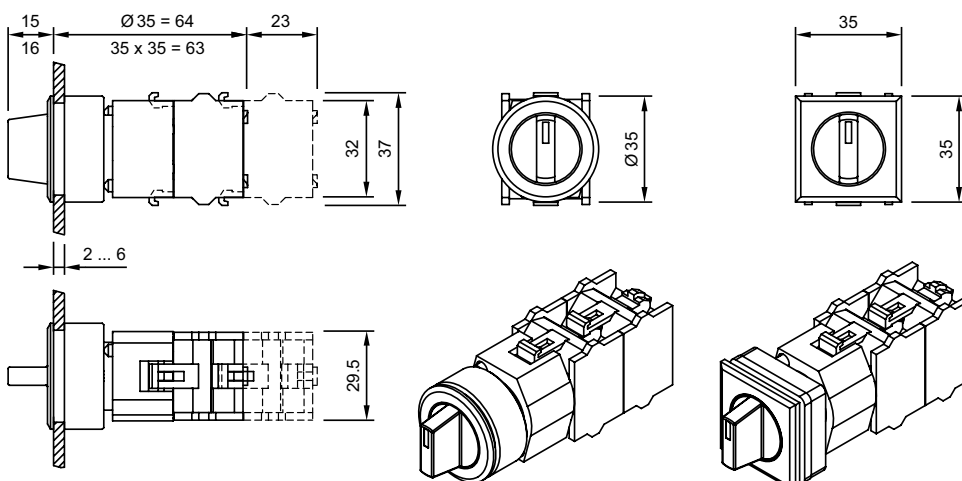
04 Keylock switch

2-Position, 3-Position, Flush



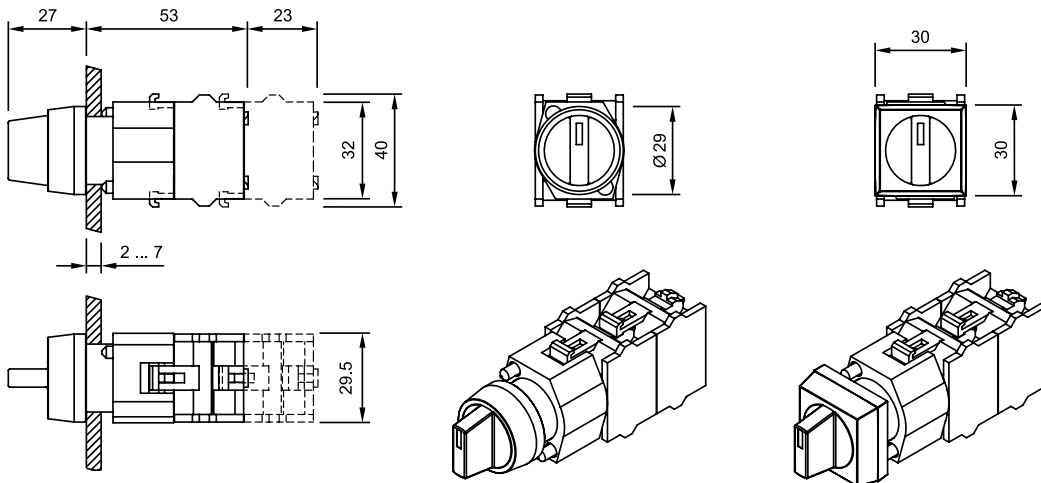
04 Selector switch

2-Position, 3-Position, Short lever, Flush



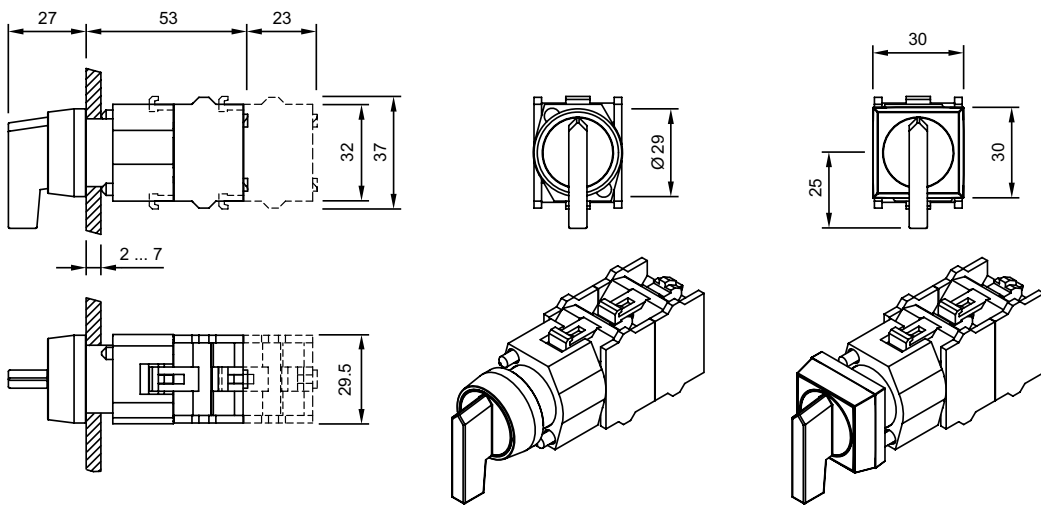
04 Selector switch

2-Position, 3-Position, Short lever, Raised



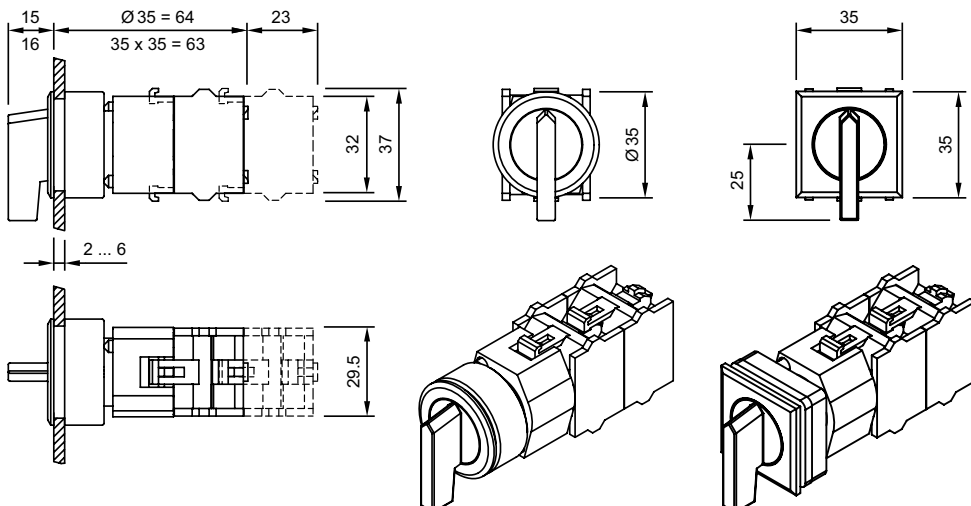
04 Selector switch

2-Position, 3-Position, Long lever, Raised



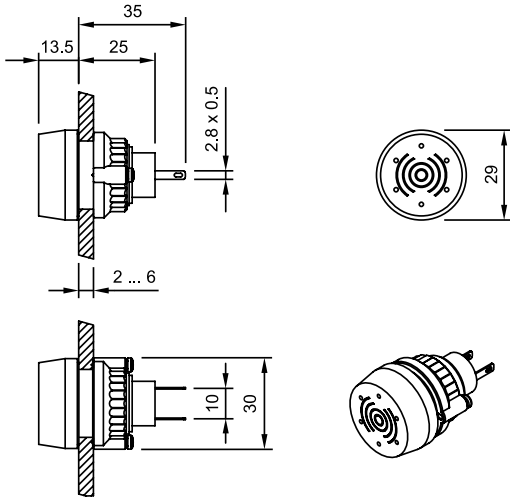
04 Selector switch

2-Position, 3-Position, Long lever, Flush



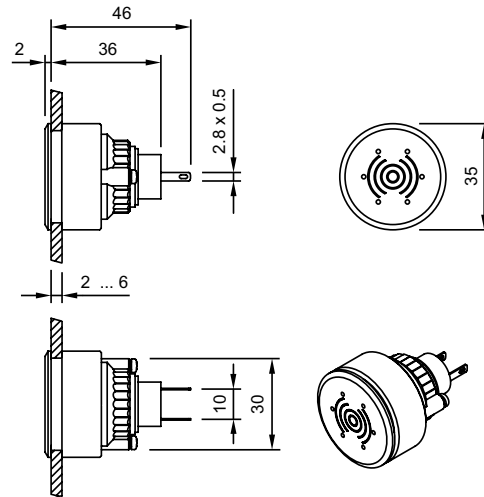
04 Buzzer

Raised



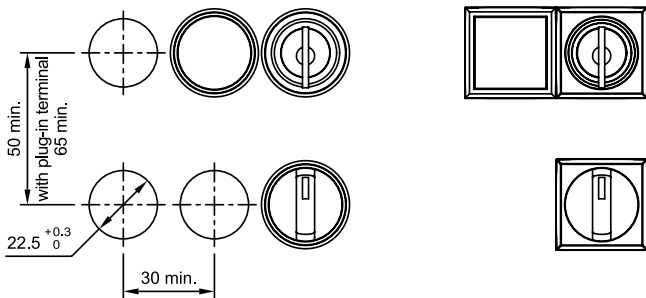
04 Buzzer

Flush



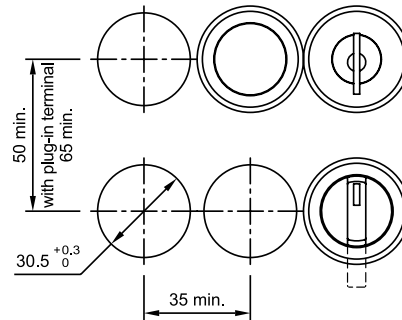
04 Cut-outs, Raised Mounting

(All but long lever)



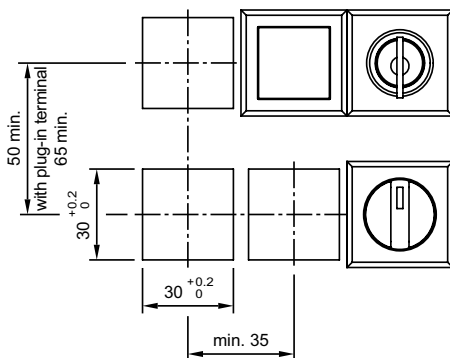
04 Cut-outs, Flush Mounting

(All but long lever)



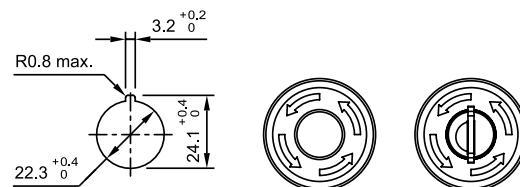
04 Cut-outs, Flush Mounting

(All but long lever)

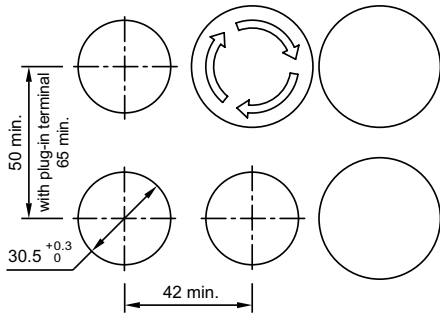


04 Cut-outs, Emergency-Stop

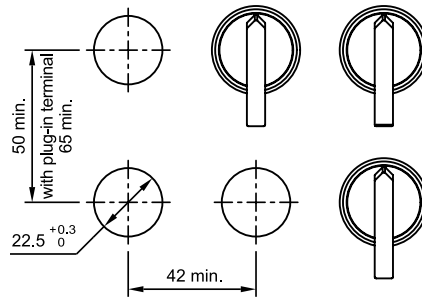
ISO 13850, Twist release, Key release



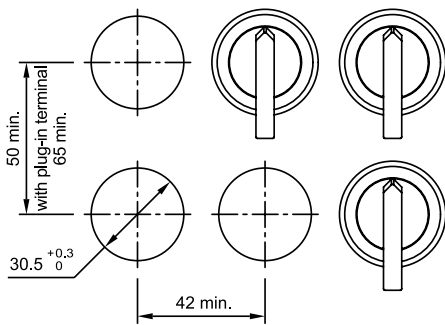
04 Cut-outs, Mushroom head



04 Cut-outs, Long Lever, Raised Mounting



04 Cut-outs, Long Lever, Flush Mounting



04 Cut-outs, Long Lever, Flush Mounting

