Series 04 *Versatile. Robust and reliable.*

https://eao.com/04





Key advantages

- Versatile and reliable range of products
- Ideal for driver's cabs
- Modern and robust designSafe and ergonomically friendly in use
- Pronounced tactile feedback
- Customised and standardised markings

Typical application areas

- Driver's cab
- Control panels
- Control cabinets
- Special vehicles
- Machinery

Functions

- Pushbutton
- Illuminated pushbutton
- Mushroom-head pushbutton
- Selector switch
- Keylock switch
- Key insert switch
- Lever switch
- Indicator
- Potentiometer
- Stop switch Emergency stop switch

Design

- Flush
- Raised

IP front protection

- IP40
- IP54
- IP65

Ratings

• 500 VAC (10 A)

Mounting cut-outs

- Ø 22.3 mm
- Ø 30.5 mm e,
- 30 mm x 30 mm

Terminal

- Plug-in terminal
- Double plug-in terminal
- Screw terminal
- . Push-in terminal (PIT)

Lens Material

- Aluminium
- Stainless steel e,
- Plastic

Markings

- Engraving
- Hot stamping
- Pad printing
- Screen print .
- Under eloxal printing

Approvals

- CB (IEC 60947)
- CCC
- CSA
- DNV
- NFF 16-102
- UL

Conformities

- CE
- UKCA
- EN 45545
- ECE R 118
- 2006/42/EU (MD)
- 2011/65/EU (RoHS) ÷.
- REACH



IP67

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Pushbutton square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on







Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- $C = Plug-in terminal 6.3 mm \times 0.8 mm$ D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 35 mm x 35 mm

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Operating Travel	Part No.	Wiring diagram
Momentary	Black	Plastic	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.000	72
	Black	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.200	72
	Black	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.400	72
	Black	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.500	72
	Black	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.600	72
	Black	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.700	72
	Silver	Plastic	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.008	72
	Silver	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.208	72
	Silver	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.408	72
	Silver	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.508	72
	Silver	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.608	72
	Silver	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.708	72
	Black	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.239.200	73
	Black	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.239.400	73
	Black	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.239.600	73



Equipment consisting of (schematic overview)

To obtain a complete unit, please select the red components from the pages shown.

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Operating Travel	Part No.	Wiring diagram
Maintained	Black	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.239.700	73
	Silver	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.240.408	73
	Silver	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.240.508	73
	Silver	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.240.708	73



Pushbutton round, IP65



General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons





Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Front bezel surface	Lens co- lour	Lens ma- terial	Housing colour	Housing material	Operating Tra- vel	Part No.	Wiring diagram
Momentary Nature	Nature	Aluminium	anodised	Black	Alumini- um	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.011.018	72
	Nature	Aluminium	anodised	Red	Alumini- um	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.011.218	72
	Nature	Aluminium	anodised	Gold	Alumini- um	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.011.418	72
	Nature	Aluminium	anodised	Olive green	Alumini- um	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.011.518	72
	Nature	Aluminium	anodised	Blue	Alumini- um	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.011.618	72
Nature	Nature	Aluminium	anodised	Nature	Alumini- um	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.011.818	72
	Nature	Aluminium	anodised	Black	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.012.018	72
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.012.218	72
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.012.418	72
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.012.518	72
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.012.618	72
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.012.718	72
Maintained	Nature	Aluminium	anodised	Black	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.042.018	73
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.042.218	73

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Switching action	Front bezel colour	Front bezel material	Front bezel surface	Lens co- lour	Lens ma- terial	Housing colour	Housing material	Operating Tra- vel	Part No.	Wiring diagram
Maintained	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.042.418	73
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.042.518	73
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.042.618	73
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.042.718	73

Wiring diagrams



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Pushbutton square, IP65



Mounting cut-outs [mm]

30

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm

+

30 0 0

 $(\mathbf{B})(\mathbf{C})(\mathbf{D})$



Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Housing colour	Housing material	Operating Travel	Part No.	Wiring diagram
Momentary	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.741.0	72
	Silver	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.741.8	72
Maintained	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.742.0	73
	Silver	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.742.8	73

Wiring diagrams



Switching element

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red

components from the pages shown.

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Pushbutton round, IP65

Equipment cor	nsisting of (schematic ov	verview)
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\bigcirc	Lens	Page 153
\bigcirc	Marking Plate	Page 155
	Actuator	
	Bayonet flange	Page 157
	Switching element	Page 167
Each Part Nur	nber listed below include	s all the



Dimensions [mm] A = Screw terminal



Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons

Each Part Number listed below includes all the black components shown in the 3D-drawing.

A = Screw terminal B = Push-in terminal (PIT)

Mounting cut-outs [mm]

C = Plug-in terminal 6.3 mm x 0.8 mm

To obtain a complete unit, please select the red components from the pages shown.





Actuator, Front dimension Ø 35 mm

Switching action	Housing colour	Housing material	Operating Travel	Part No.	Wiring diagram
Momentary	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.631.1	72
Maintained	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.632.1	73



Illuminated pushbutton square, IP65



Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The lamp block will be delivered with screw terminal







Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm D = Double plug-in terminal 6.3 mm x 0.8 mm



components from the pages shown.



Actuator, Front dimension 35 mm x 35 mm

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Operating Travel	Part No.	Wiring diagram
Momentary I	Black	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.200	74
	Black	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.400	74
	Black	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.500	74
	Black	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.600	74
	Black	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.700	74
	Silver	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.208	74
	Silver	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.408	74
	Silver	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.508	74
-	Silver	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.608	74
	Silver	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.708	74

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Operating Travel	Part No.	Wiring diagram
Maintained	Black	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.200	75
	Black	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.400	75
	Black	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.500	75
	Black	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.700	75
	Silver	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.208	75
	Silver	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.408	75
	Silver	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.508	75
	Silver	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.608	75
	Silver	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.708	75



Illuminated pushbutton round, IP65





Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Front bezel surface	Lens co- lour	Lens ma- terial	Housing colour	Housing material	Operating Tra- vel	Part No.	Wiring diagram
Momentary	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.218	74
_	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.418	74
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.518	74
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.618	74
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.718	74
Maintained	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.218	75
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.418	75
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.518	75
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.618	75

Switching action	Front bezel colour	Front bezel material	Front bezel surface	Lens co- lour	Lens ma- terial	Housing colour	Housing material	Operating Tra- vel	Part No.	Wiring diagram
Maintained	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.718	75



Illuminated pushbutton square, IP65





Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Housing colour	Housing material	Operating Travel	Part No.	Wiring diagram
Momentary	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.741.0	72
	Silver	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.741.8	72
Maintained	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.742.0	73
	Silver	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.742.8	73



Illuminated pushbutton round, IP65





Actuator, Front dimension Ø 35 mm

Switching action	Housing colour	Housing material	Operating Travel	Part No.	Wiring diagram
Momentary	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.631.1	72
Maintained	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.632.1	73



Mushroom-head pushbutton, IP65





Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- $C = Plug-in terminal 6.3 mm \times 0.8 mm$
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 40 mm

Switching action	Front bezel colour	Front bezel material	Front bezel surface	Lens co- lour	Lens ma- terial	Housing colour	Housing material	Operating Tra- vel	Part No.	Wiring diagram
Momentary	Black	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.071.210	77
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.071.218	77
	Black	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.071.410	77
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.071.418	77



Selector switch illuminated, 2 positions, short lever, square, IP65





Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Black	Plastic	90° right	704.510.0001	85
	Silver	Plastic	90° right	704.510.0081	85



Selector switch illuminated 2 positions short lever, round, IP65



black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Black	Aluminium	90° right	anodised	704.411.0101	85
	Nature	Aluminium	90° right	anodised	704.411.018	85
Rest - Momentary	Black	Aluminium	42° right	anodised	704.413.010	84
	Nature	Aluminium	42° right	anodised	704.413.0181	84

Wiring diagrams





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on •
- The colour of anodised aluminium parts can vary • due to technical production reasons

Selector switch 2 positions short lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on



Dimensions [mm] A = Screw terminal



 Equipment coverview

 Image: Second s

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm





Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Black	Plastic	90° right / -45° +45°	704.510.000	87
	Silver	Plastic	90° right / -45° … +45°	704.510.008	87
Rest - Momentary	Black	Plastic	42° right	704.512.000	86
	Silver	Plastic	42° right	704.512.008	86



Selector switch 2 positions, short lever, round, IP65





Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Black	Aluminium	90° right / -45° +45°	anodised	704.411.010	87
	Nature	Aluminium	90° right / -45° +45°	anodised	704.411.018	87
Rest - Momentary	Black	Aluminium	42° right	anodised	704.413.010	86
	Nature	Aluminium	42° right	anodised	704.413.018	86



Selector switch 2 positions, short lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on



Dimensions [mm] A = Screw terminal



 Equipment courteus of (schematic overview)

 Image: Image of the set of the set

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- $C = Plug-in terminal 6.3 mm \times 0.8 mm$
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Black	Plastic	90° right	704.510.000.12	87



Selector switch 2 positions, short lever, round, IP65





Dimensions [mm] X = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Black	Aluminium	90° right	anodised	704.411.010.12	87
	Nature	Aluminium	90° right	anodised	704.411.018.12	87



Selector switch illuminated, 2 positions, long lever, square, IP65





Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Black	Plastic	90° right	704.300.0001	85



Selector switch illuminated, 2 positions, long lever, round, IP65



To obtain a complete unit, please select the red components from the pages shown.

Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Black	Aluminium	90° right	anodised	704.101.0101	85
	Nature	Aluminium	90° right	anodised	704.101.0181	85
Rest - Momentary	Nature	Aluminium	42° right	anodised	704.103.0181	84

23

(A)

 (\mathbf{A})

23

 (\mathbf{A})

37

Wiring diagrams





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on •
- The colour of anodised aluminium parts can vary • due to technical production reasons

Selector switch 2 positions, long lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on







 Equipment coverview

 Image: Second s

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- $C = Plug-in terminal 6.3 mm \times 0.8 mm$
- D = Double plug-in terminal $6.3v \times 0.8 \text{ mm}$



Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Black	Plastic	90° right / -45° +45°	704.300.000	87
	Silver	Plastic	90° right / -45° +45°	704.300.008	87
Rest - Momentary	Black	Plastic	42° right	704.302.000	86



Selector switch 2 positions, long lever, round, IP65



min

(B)(C)(D)

• The colour of anodised aluminium parts can vary due to technical production reasons

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm

+

Ø30.5⁺⁰

D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Black	Aluminium	90° right / -45° +45°	anodised	704.101.010	87
	Nature	Aluminium	90° right / -45° +45°	anodised	704.101.018	87
Rest - Momentary	Nature	Aluminium	42° right	anodised	704.103.018	86



Selector switch 2 positions, 12 o'clock, long lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on







 Equipment consisting of (schematic overview)

 Actuator

 Actuator

 Press frame

 Bayonet flange

 Switching element
 Page 167

 Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- $C = Plug-in terminal 6.3 mm \times 0.8 mm$
- D = Double plug-in terminal $6.3v \times 0.8$ mm



Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Black	Plastic	90° right	704.300.000.12	87



Selector switch 2 positions, long lever, round, IP65



50r

(B)(C)(D)

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



- Mounting cut-outs [mm]
- A = Screw terminal
- B = Push-in terminal (PIT) C = Plug-in terminal 6.3 mm x 0.8 mm

+

D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Black	Aluminium	90° right	anodised	704.101.010.12	87
	Nature	Aluminium	90° right	anodised	704.101.018.12	87



Selector switch illuminated, 3 positions, short lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on







Mounting cut-outs [mm]

A = Screw terminal

B = Push-in terminal (PIT)

 $C = Plug-in terminal 6.3 mm \times 0.8 mm$

D = Double plug-in terminal 6.3 mm x 0.8 mm

 Equipment council constraint council counci



Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained - Rest - Maintained	Black	Plastic	42° left / 42° right	704.502.0001	91
Momentary - Rest - Maintained	Black	Plastic	42° left / 42° right	704.508.0001	88
	Silver	Plastic	42° left / 42° right	704.508.0081	88



Selector switch illuminated, 3 positions, short lever, round, IP65



15 40 15.5 23 23 (A)(A)37 2 ... 6

Dimensions [mm] X = Screw terminal

Mounting cut-outs [mm] A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm D = Double plug-in terminal 6.3 mm x 0.8 mm





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on •
- The colour of anodised aluminium parts can vary • due to technical production reasons

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Maintained - Rest - Maintained	Black	Aluminium	42° left / 42° right	anodised	704.403.0101	91
	Nature	Aluminium	42° left / 42° right	anodised	704.403.0181	91
Momentary - Rest - Momentary	Black	Aluminium	42° left / 42° right	anodised	704.405.0101	90
	Nature	Aluminium	42° left / 42° right	anodised	704.405.0181	90
Maintained - Rest - Momentary	Nature	Aluminium	42° left / 42° right	anodised	704.407.0181	89
Momentary - Rest - Maintained	Nature	Aluminium	42° left / 42° right	anodised	704.409.0181	88

Wiring diagrams



Wiring diagram 91



Selector switch 3 positions, short lever, square, IP65





Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on

black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained - Rest - Maintained	Black	Plastic	42° left / 42° right	704.502.000	95
	Silver	Plastic	42° left / 42° right	704.502.008	95
Momentary - Rest - Momentary	Black	Plastic	42° left / 42° right	704.504.000	94
	Silver	Plastic	42° left / 42° right	704.504.008	94
Momentary - Rest - Maintained	Black	Plastic	42° left / 42° right	704.508.000	92
	Silver	Plastic	42° left / 42° right	704.508.008	92

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Wiring diagram 92	Wiring diagram 94	Wiring diagram 95

Selector switch 3 positions, short lever, round, IP65



Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons



Dimensions [mm] A = Screw terminal





To obtain a complete unit, please select the red components from the pages shown.



A = Screw terminal

- B = Push-in terminal (PIT)
- $C = Plug-in terminal 6.3 mm \times 0.8 mm$
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Maintained - Rest - Maintained	Black	Aluminium	42° left / 42° right	anodised	704.403.010	95
	Nature	Aluminium	42° left / 42° right	anodised	704.403.018	95
Momentary - Rest - Momentary	Black	Aluminium	42° left / 42° right	anodised	704.405.010	94
	Nature	Aluminium	42° left / 42° right	anodised	704.405.018	94
Maintained - Rest - Momentary	Black	Aluminium	42° left / 42° right	anodised	704.407.010	93
	Nature	Aluminium	42° left / 42° right	anodised	704.407.018	93
Momentary - Rest - Maintained	Black	Aluminium	42° left / 42° right	anodised	704.409.010	92
	Nature	Aluminium	42° left / 42° right	anodised	704.409.018	92

_F~	F~~	F~	F~~~-
Wiring diagram 92	Wiring diagram 93	Wiring diagram 94	Wiring diagram 95
Selector switch illuminated, 3 positions, long lever, square, IP65





N

Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained - Rest - Maintained	Black	Plastic	42° left / 42° right	704.292.0001	91
	Silver	Plastic	42° left / 42° right	704.292.0081	91



Selector switch illuminated, 3 positions long lever, round, IP65



Mounting cut-outs [mm]

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm

Ø30.5^{+0.}

D = Double plug-in terminal 6.3 mm x 0.8 mm

Lamp block Page 164

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Maintained - Rest - Maintained	Black	Aluminium	42° left / 42° right	anodised	704.093.0101	91
	Nature	Aluminium	42° left / 42° right	anodised	704.093.0181	91
Momentary - Rest - Momentary	Black	Aluminium	42° left / 42° right	anodised	704.095.0101	90
	Nature	Aluminium	42° left / 42° right	anodised	704.095.0181	90
Maintained - Rest - Momentary	Black	Aluminium	42° left / 42° right	anodised	704.097.0101	89
	Nature	Aluminium	42° left / 42° right	anodised	704.097.0181	89
Momentary - Rest - Maintained	Nature	Aluminium	42° left / 42° right	anodised	704.099.0181	88

Wiring diagrams



Selector switch 3 positions, long lever, quare, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on







 Equipment coverview

 Image: Constraint of the second seco

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal $6.3v \times 0.8$ mm



_

Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained - Rest - Maintained	Black	Plastic	42° left / 42° right	704.292.000	95
	Silver	Plastic	42° left / 42° right	704.292.008	95
Momentary - Rest - Momentary	Black	Plastic	42° left / 42° right	704.294.000	94
	Silver	Plastic	42° left / 42° right	704.294.008	94
Maintained - Rest - Momentary	Black	Plastic	42° left / 42° right	704.296.000	93

F~~	F~	F~~~-
Wiring diagram 93	Wiring diagram 94	Wiring diagram 95

Selector switch 3 positions, long lever, round, IP65





Dimensions [mm] A = Screw terminal

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Maintained - Rest - Maintained	Black	Aluminium	42° left / 42° right	anodised	704.093.010	95
	Nature	Aluminium	42° left / 42° right	anodised	704.093.018	95
Momentary - Rest - Momentary	Black	Aluminium	42° left / 42° right	anodised	704.095.010	94
	Nature	Aluminium	42° left / 42° right	anodised	704.095.018	94
Maintained - Rest - Momentary	Black	Aluminium	42° left / 42° right	anodised	704.097.010	93
	Nature	Aluminium	42° left / 42° right	anodised	704.097.018	93
Momentary - Rest - Maintained	Black	Aluminium	42° left / 42° right	anodised	704.099.010	92
	Nature	Aluminium	42° left / 42° right	anodised	704.099.018	92

F~-	F~~	F~	F~~~-
Wiring diagram 92	Wiring diagram 93	Wiring diagram 94	Wiring diagram 95

Selector rotary switch, short lever rounded, round, IP65



Product can differ from the current configuration.





Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Dimensions [mm]

- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 66.5 mm
- 2 =Santon switching element
- B = (Number of stages x 13.5) + 65.5 mm

- General information
- The colour of anodised aluminium parts can vary due to technical production reasons



Mounting cut-outs [mm]



Actuator, Front dimension Ø 35 mm

Front bezel colour	Front bezel material	Switching positions	Front bezel surface	Part No.
Black	Aluminium	Rest = 12 o'clock	anodised	704.411.010KNI
Nature	Aluminium	Rest = 12 o'clock	anodised	704.411.018KNI
	Aluminium	Rest = 9 o'clock	anodised	704.411.118KNI

Selector rotary switch, short lever, square, IP65



Page 182 Switching element

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.







Product can differ from the current configuration.

Dimensions [mm]

- 1 = Kraus & Naimer switching element A = (Number of stages x 12) + 66.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 65.5 mm



Mounting cut-outs [mm]



Actuator, Front dimension 35 mm x 35 mm

Front bezel colour	Front bezel material	Switching positions	Part No.
Black	Plastic	Rest = 9 o'clock	704.510.100KN
Silver	Plastic	Rest = 9 o'clock	704.510.108KN

Selector rotary switch short lever, round, IP65



Product can differ from the current configuration.





Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Dimensions [mm]

- 1 = Kraus & Naimer switching element A = (Number of stages x 12) + 66.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 65.5 mm

- General information
- The colour of anodised aluminium parts can vary due to technical production reasons



Mounting cut-outs [mm]



Actuator, Front dimension Ø 35 mm

Front bezel colour	Front bezel material	Switching positions	Front bezel surface	Part No.
Black	Aluminium	Rest = 12 o'clock	anodised	704.411.010KN
Nature	Aluminium	Rest = 12 o'clock	anodised	704.411.018KN
Black	Aluminium	Rest = 9 o'clock	anodised	704.411.110KN
Nature	Aluminium	Rest = 9 o'clock	anodised	704.411.118KN

Selector rotary switch, long lever rounded, round, IP65

Page 182



Each Part Number listed below includes all the

black components shown in the 3D-drawing. To obtain a complete unit, please select the red

components from the pages shown.





Product can differ from the current configuration.

• The colour of anodised aluminium parts can vary

due to technical production reasons

General information

Dimensions [mm]

- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 66.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 65.5 mm



Mounting cut-outs [mm]



Actuator, Front dimension Ø 35 mm

Front bezel colour	Front bezel material	Switching positions	Front bezel surface	Part No.
Nature	Aluminium	Rest = 12 o'clock	anodised	704.101.018KNI
Black	Aluminium	Rest = 9 o'clock	anodised	704.101.110KNI
Nature	Aluminium	Rest = 9 o'clock	anodised	704.101.118KNI

Selector rotary switch long lever, square, IP65



Product can differ from the current configuration.





Dimensions [mm]

- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 66.5 mm

2 = Santon switching element

B = (Number of stages x 13.5) + 65.5 mm



Mounting cut-outs [mm]



Actuator, Front dimension 35 mm x 35 mm

Front bezel colour	Front bezel material	Switching positions	Part No.
Black	Plastic	Rest = 9 o'clock	704.300.100KN
Silver	Plastic	Rest = 9 o'clock	704.300.108KN

Selector rotary switch long lever, round, IP65



15 A ДС ДС 44 th t 32 12 2 ... 6 2 В 15 13.5 25 2 ... 6 -



Product can differ from the current configuration.

• The colour of anodised aluminium parts can vary due to technical production reasons

General information

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Dimensions [mm]

(1)

- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 66.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 65.5 mm



Mounting cut-outs [mm]



Actuator, Front dimension Ø 35 mm

Front bezel colour	Front bezel material	Switching positions	Front bezel surface	Part No.
Nature	Aluminium	Rest = 12 o'clock	anodised	704.101.018KN
Black	Aluminium	Rest = 9 o'clock	anodised	704.101.110KN
Nature	Aluminium	Rest = 9 o'clock	anodised	704.101.118KN

Keylock switch 2 positions, square, IP65



 $(\mathbf{B})(\mathbf{C})(\mathbf{D})$

To obtain a complete unit, please select the red

components from the pages shown.

Mounting cut-outs [mm]

30

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm

30 0 0



Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained (a)	Black	Plastic	90° right / -45° +45°	704.340.000	79
	Silver	Plastic	90° right / -45° +45°	704.340.008	79
Rest (a) - Maintained	Black	Plastic	90° right / -45° +45°	704.341.000	79
	Silver	Plastic	90° right / -45° +45°	704.341.008	79
Rest (a) - Maintained (a)	Black	Plastic	90° right / -45° +45°	704.342.000	79
	Silver	Plastic	90° right / -45° +45°	704.342.008	79
Rest (a) - Momentary	Black	Plastic	42° right	704.343.000	78

a = Key remove



Keylock switch 2 positions, round, IP65



Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The standard lock Ronis 251
- Further lock numbers on request
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained (a)	Nature	Aluminium	90° right / -45° +45°	704.120.018	79
Rest (a) - Maintained	Nature	Aluminium	90° right / -45° +45°	704.121.018	79
Rest (a) - Maintained (a)	Nature	Aluminium	90° right / -45° … +45°	704.122.018	79
Rest (a) - Momentary	Nature	Aluminium	42° right	704.123.018	78

a = Key remove



Keylock switch 3 positions, square, IP65



Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm

30 0 0



Actuator, Front dimension 35 mm x 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained (a) - Rest - Maintained (a)	Black	Plastic	42° left / 42° right	704.336.000	83
Maintained (a) - Rest (a) - Momentary	Black	Plastic	42° left / 42° right	704.344.000	81

a = Key remove



Keylock switch 3 positions, round, IP65



To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The standard lock Ronis 251
- Further lock numbers on request
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm

Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained (a) - Rest (a) - Maintained (a)	Nature	Aluminium	90° left / 90° right	704.113.018	83
Maintained - Rest (a) - Maintained	Nature	Aluminium	42° left / 42° right	704.114.018	83
Momentary - Rest (a) - Momentary	Nature	Aluminium	42° left / 42° right	704.115.018	82
Maintained (a) - Rest - Maintained (a)	Nature	Aluminium	42° left / 42° right	704.116.018	83
Maintained (a) - Rest - Momentary	Nature	Aluminium	42° left / 42° right	704.117.018	81
Momentary - Rest (a) - Maintained	Nature	Aluminium	42° left / 42° right	704.118.018	80
Maintained (a) - Rest (a) - Momentary	Nature	Aluminium	42° left / 42° right	704.124.018	81

a = Key remove

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Wiring diagram 80	Wiring diagra	am 81	Wiring diagram 82	Wiring diagra	m 83	

Keylock rotary switch, IP65



Product can differ from the current configuration.



Dimensions [mm]

- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 66.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 65.5 mm



General information

- The standard lock Ronis 251
- The colour of anodised aluminium parts can vary due to technical production reasons



Mounting cut-outs [mm]



Actuator, Front dimension Ø 35 mm

Switching action	Front bezel colour	Front bezel material	Switching positions	Part No.
Maintained - Rest (a)	Nature	Aluminium	Rest = 12 o'clock	704.123.018KN
	Nature	Aluminium	Rest = 9 o'clock	704.123.118KN

a = Key remove

Actuator Anti-twist device Pressure ring Bayonet flange Switching element Page 182 Each Part Number listed below includes all the

black components shown in the 3D-drawing.

components from the pages shown.

Key-insert switch 2 positions, IP67



- In the Part-No x^{*} stands for not defined actua
 - In the Part-No. "x" stands for not defined actuator

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

R1.5

Ø30.5^{+0.3}

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm

+

+

32^{+0.5}

in lini

50

(B)(C)(D)



Actuator, Front dimension Ø 38 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Nature	Stainless steel	90° right	704.101.0x28	97
Rest - Momentary	Nature	Stainless steel	45° left	704.103.0x28	98



Key-insert switch 3 positions, IP67





tor

• In the Part-No. "x" stands for not defined actua-

Fixing nut Bayonet flange (\mathbf{A}) 38 min. Switching element 50 min. min. 65

G

Each Part Number listed below includes all the black components shown in the 3D-drawing.

Page 167

Equipment consisting of (schematic overview)

Actuator

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

R1.5

Ø30.5^{+0.3}

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm

32 0 0

(B)(C)(D



Actuator, Front dimension Ø 38 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained - Rest - Maintained	Nature	Stainless steel	45° left / 45° right	704.093.0x28	99
Momentary - Rest - Momentary	Nature	Stainless steel	45° left / 45° right	704.095.0x28	100
Maintained - Rest - Momentary	Nature	Stainless steel	45° left / 45° right	704.097.0x28	101
Momentary - Rest - Maintained	Nature	Stainless steel	45° left / 45° right	704.099.0x28	102



Key-insert switch 3 positions, conductor switch, IP67





38 min.

+

30+0.5

(A)

50 min. 65 min.

R1.2 max.

(B)(C)(D



Product can differ from the current configuration.

General information

Max. 2 switching elements can be clipped on

Mounting cut-outs [mm]

0.5

Ø33⁺

A = Screw terminal

Dimensions [mm]

A = Screw terminal

- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 38 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Momentary - Rest - Momentary	Nature	Stainless steel	42° left / 42° right	704.095.0T28N	100



Lever switch, IP54



Product can differ from the current configuration.

Dimensions [mm]

General information

- For all units are the levers 02 (black), 03, 04, 05, 06 (yellow) 13, 14, 15 and 16 available (levers 6 + 16 according UIC 612). Special levers on request
- Front bezel can also be delivered in black version
- Functions and properties, including lever style and switching positions of the lever switch are being produced according to customer specifications. Please contact your local EAO Sales Office
- Micro-switch contacts: The micro-switch is available with a silver contact or a gold plated silver contact. Contact without positive opening operation is used in the lever switches S41, S42 and S43
- Each lever switch includes a maximum of five micro-switches. Contact with positive opening operation is used in the lever switches S44 and S45. Each lever switch includes a maximum of four micro-switches



Actuator, Front dimension Ø 40 mm

Product attributes	Front bezel colour	Front bezel material	Front bezel surface	Switching system	Contacts	Part No.
S41: Cage clamp 1.0 mm 1.5 mm ² , 1 contact element	Nature	Aluminium	anodised	Snap-action switching element	1 NC / 1 NO	704.151.XXX
S42: JST connector max. 0.2 mm ² (counter plug is supplied), 1 contact element	Nature	Aluminium	anodised	Snap-action switching element	1 NC / 1 NO	704.152.XXX
S43: Plug-in terminal 6.3 mm x 0.8 mm, 1 contact element	Nature	Aluminium	anodised	Snap-action switching element	1 NC / 1 NO	704.153.XXX
S44: Cage clamp 1.0 mm 1.5 mm ² , 1 contact element positive opend	Nature	Aluminium	anodised	Snap-action switching element	1 NC / 1 NO	704.154.XXX
S45: Screw terminal or plug-in terminal 6.3 mm x 0.8 mm, 1 contact element positive opend	Nature	Aluminium	anodised	Snap-action switching element	1 NC / 1 NO	704.155.XXX

Contacts: NC = Normally closed, NO = Normally open

Equipment consisting of (schematic overview)

Each Part Number listed below includes all the black components shown in the 3D-drawing.

Indicator square, IP65



To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 35 mm x 35 mm

Housing co- lour	Housing mate- rial	Lens co- lour	Front bezel co- lour	Front bezel mate- rial	Marking plate co- lour	Marking plate op- tics	Part No.	Wiring diagram
Black	Plastic	Red	Silver	Plastic	White	translucent	704.202.208	4
	Plastic	Yellow	Silver	Plastic	White	translucent	704.202.408	4
	Plastic	Green	Silver	Plastic	White	translucent	704.202.508	4
	Plastic	Blue	Silver	Plastic	White	translucent	704.202.608	4
	Plastic	Colourless	Silver	Plastic	White	translucent	704.202.708	4
	Plastic	Red	Black	Plastic	White	translucent	704.206.200	4
	Plastic	Yellow	Black	Plastic	White	translucent	704.206.400	4
	Plastic	Green	Black	Plastic	White	translucent	704.206.500	4
	Plastic	Blue	Black	Plastic	White	translucent	704.206.600	4
	Plastic	Colourless	Black	Plastic	White	translucent	704.206.700	4

39

2 ... 6

35 min.

+

+

30 0 0 0

17.5

40

A guin.

3

R1.2 max.

0.5

່ອ



Product can differ from the current configuration.



Indicator round, IP65





35min

Ø30.5⁺⁰

A 20min.



Product can differ from the current configuration.



Actuator, Front dimension Ø 35 mm

Housing colour	Housing material	Lens colour	Front bezel colour	Front bezel material	Front bezel surface	Part No.	Wiring diagram
Grey	Plastic	Red	Nature	Aluminium	anodised	704.006.218	4
	Plastic	Yellow	Nature	Aluminium	anodised	704.006.418	4
	Plastic	Green	Nature	Aluminium	anodised	704.006.518	4
	Plastic	Blue	Nature	Aluminium	anodised	704.006.618	4
	Plastic	Colourless	Nature	Aluminium	anodised	704.006.718	4



Indicator square, IP65



Product can differ from the current configuration.



Dimensions [mm] A = Screw terminal



Mounting cut-outs [mm]

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm

 Equipment consisting of (schematic overview)

 Image: Lens
 Page 153

 Image: Lens holder
 Page 155

 Image: Lens holder
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 Image: Lens holder
 Page 157

 Image: Lens holder
 Page 158

 Image: Lens holder
 Page 158

 Image: Lens holder
 Page 164

 Image: Lens holder
 Page 164

black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 35 mm x 35 mm

Housing colour	Housing material	Front bezel colour	Front bezel material	Part No.	Wiring diagram
Black	Plastic	Black	Plastic	704.743.0	4
	Plastic	Silver	Plastic	704.743.8	4



Indicator round, IP65





Actuator, Front dimension Ø 35 mm

Housing colour	Housing material	Part No.	Wiring diagram
Grey	Plastic	704.633.1	4



Flasher without LED square, IP65



B = Push-in terminal (PIT)

Each Part Number listed below includes all the black components shown in the 3D-drawing.

Flasher element

Page 185

Lamp block

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 35 mm x 35 mm

Housing co- lour	Housing mate- rial	Lens co- lour	Front bezel co- lour	Front bezel mate- rial	Marking plate co- lour	Marking plate op- tics	Part No.	Wiring diagram
Black	Plastic	Red	Silver	Plastic	White	translucent	704.202.208	4
	Plastic	Yellow	Silver	Plastic	White	translucent	704.202.408	4
	Plastic	Green	Silver	Plastic	White	translucent	704.202.508	4
	Plastic	Blue	Silver	Plastic	White	translucent	704.202.608	4
	Plastic	Colourless	Silver	Plastic	White	translucent	704.202.708	4
	Plastic	Red	Black	Plastic	White	translucent	704.206.200	4
	Plastic	Yellow	Black	Plastic	White	translucent	704.206.400	4
	Plastic	Green	Black	Plastic	White	translucent	704.206.500	4
	Plastic	Blue	Black	Plastic	White	translucent	704.206.600	4
	Plastic	Colourless	Black	Plastic	White	translucent	704.206.700	4



Flasher without LED round, IP65





Actuator, Front dimension Ø 35 mm

Housing colour	Housing material	Lens colour	Front bezel colour	Front bezel material	Front bezel surface	Part No.	Wiring diagram
Grey	Plastic	Red	Nature	Aluminium	anodised	704.006.218	4
	Plastic	Yellow	Nature	Aluminium	anodised	704.006.418	4
	Plastic	Green	Nature	Aluminium	anodised	704.006.518	4
	Plastic	Blue	Nature	Aluminium	anodised	704.006.618	4
	Plastic	Colourless	Nature	Aluminium	anodised	704.006.718	4



Flasher square, IP65



To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 35 mm x 35 mm

Housing colour	Housing material	Front bezel colour	Front bezel material	Part No.	Wiring diagram
Black	Plastic	Black	Plastic	704.743.0	4
	Plastic	Silver	Plastic	704.743.8	4



Flasher round, IP65

Equipment cor	nsisting of (schematic o	verview)	
	Front bezel set	Page 156	
\bigcirc	Lens	Page 153	
\bigcirc	Marking Plate	Page 155	
	Actuator		Dime A = S
	Bayonet flange	Page 157	
	LED	Page 158	Mou A = 3 B =
	Lamp block	Page 164	
	Flasher element	Page 185	
	mber listed below include nents shown in the 3D-dr		
To obtain a co components f	mplete unit, please selectron the pages shown.	ct the red	



nensions [mm] Screw terminal





Product can differ from the current configuration.

unting cut-outs [mm] Screw terminal Push-in terminal (PIT)

components from the pages shown.



Actuator, Front dimension Ø 35 mm

Housing colour	Housing material	Part No.	Wiring diagram
Grey	Plastic	704.633.1	4



Buzzer, IP65



2 ... 6 Ø35 46.5 2

Dimensions [mm]



General information

• Further information see Technical data

Product can differ from the current configuration.



Each Part Number listed below includes all the black components shown in the 3D-drawing.





Actuator, Front dimension Ø 35 mm

Terminal	Soundpressure	Tone frequency	Opera- ting vol- tage	Front cap colour	Front cap material	Front cap surface	Part No.	Wiring diagram
Plug-in terminal, 2.8 x 0.5 mm	95 db (A) ±8 dB at a dis- tance of 0.1m	Approx. 3.2 kHz continuous tone only	24 V DC ±10 %	Black	Alumini- um	anodised	14-810.910	71
	95 db (A) ±8 dB at a dis- tance of 0.1m	Approx. 3.2 kHz continuous tone only	24 V DC ±10 %	Nature	Alumini- um	anodised	14-810.918	71

Wiring diagrams



68

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Stop switch, IP65



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)

+

Ø30.5^{+0.6}

- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm

(B)(C)(D)



Actuator, Front dimension Ø 40 mm

Switching ac- tion	Lens co- lour	Front bezel co- lour	Front bezel materi- al	Front bezel sur- face	Marking	Operating Travel	Part No.	Wiring diagram
Maintained	Red	Black	Aluminium	anodised	Arrows	ca. 5.8 mm ± 0.2 mm		76
	Red	Nature	Aluminium	anodised	Arrows	ca. 5.8 mm ± 0.2 mm	704.075.218	76
	Red	Black	Aluminium	anodised	Stop	ca. 5.8 mm ± 0.2 mm	704.075.310	76
	Red	Nature	Aluminium	anodised	Stop	ca. 5.8 mm ± 0.2 mm	704.075.318	76



Pushbutton square, IP67



13 53 23 37 (\mathbf{A}) (\mathbf{A}) 2 ... 7

Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

Max. 3 switching elements can be clipped on

black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Operating Travel	Part No.	Wiring diagram
Momentary	Black	Plastic	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.0	72
	Black	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.2	72
	Black	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.4	72
	Black	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.5	72
	Black	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.6	72
	Black	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.209.7	72
	Grey	Plastic	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.0	72
	Grey	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.2	72
	Grey	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.4	72
	Grey	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.5	72
	Grey	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.6	72
	Grey	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.210.7	72
Maintained	Black	Plastic	Black	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.239.0	73
	Black	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.239.2	73
	Grey	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.240.5	73

04 Raised design

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Operating Travel	Part No.	Wiring diagram
Maintained	Grey	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.240.7	73


Pushbutton round, IP65



To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm] A = Screw terminal



Product can differ from the current configuration.

General information

Max. 3 switching elements can be clipped on

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 29 mm

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Front bezel sur- face	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Part No.	Wiring diagram
Momentary	Black	Plastic		Black	Plastic	Grey	Plastic	704.009.0	72
	Black	Plastic		Red	Plastic	Grey	Plastic	704.009.2	72
	Black	Plastic		Yellow	Plastic	Grey	Plastic	704.009.4	72
	Black	Plastic		Green	Plastic	Grey	Plastic	704.009.5	72
	Black	Plastic		Blue	Plastic	Grey	Plastic	704.009.6	72
	Black	Plastic		Colour- less	Plastic	Grey	Plastic	704.009.7	72
	Grey	Plastic		Black	Plastic	Grey	Plastic	704.010.0	72
	Grey	Plastic		Red	Plastic	Grey	Plastic	704.010.2	72
	Grey	Plastic		Yellow	Plastic	Grey	Plastic	704.010.4	72
	Grey	Plastic		Green	Plastic	Grey	Plastic	704.010.5	72
	Grey	Plastic		Blue	Plastic	Grey	Plastic	704.010.6	72
	Grey	Plastic		Colour- less	Plastic	Grey	Plastic	704.010.7	72
	Nature	Aluminium	anodised	Black	Aluminium	Grey	Plastic	704.011.0	72
	Nature	Aluminium	anodised	Red	Aluminium	Grey	Plastic	704.011.2	72
	Nature	Aluminium	anodised	Gold	Aluminium	Grey	Plastic	704.011.4	72
	Nature	Aluminium	anodised	Olive green	Aluminium	Grey	Plastic	704.011.5	72
	Nature	Aluminium	anodised	Blue	Aluminium	Grey	Plastic	704.011.6	72
	Nature	Aluminium	anodised	Nature	Aluminium	Grey	Plastic	704.011.8	72
	Nature	Aluminium	anodised	Black	Plastic	Grey	Plastic	704.012.0	72

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Front bezel sur- face	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Part No.	Wiring diagram
Momentary	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	704.012.2	72
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	704.012.4	72
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	704.012.5	72
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	704.012.6	72
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	704.012.7	72
Maintained	Black	Plastic		Black	Plastic	Grey	Plastic	704.039.0	73
	Black	Plastic		Red	Plastic	Grey	Plastic	704.039.2	73
_	Black	Plastic		Colour- less	Plastic	Grey	Plastic	704.039.7	73
	Grey	Plastic		Red	Plastic	Grey	Plastic	704.040.2	73
	Grey	Plastic		Yellow	Plastic	Grey	Plastic	704.040.4	73
	Grey	Plastic		Green	Plastic	Grey	Plastic	704.040.5	73
	Grey	Plastic		Blue	Plastic	Grey	Plastic	704.040.6	73
-	Grey	Plastic		Colour- less	Plastic	Grey	Plastic	704.040.7	73
	Nature	Aluminium	anodised	Black	Aluminium	Grey	Plastic	704.041.0	73
	Nature	Aluminium	anodised	Red	Aluminium	Grey	Plastic	704.041.2	73
	Nature	Aluminium	anodised	Olive green	Aluminium	Grey	Plastic	704.041.5	73
	Nature	Aluminium	anodised	Blue	Aluminium	Grey	Plastic	704.041.6	73
	Nature	Aluminium	anodised	Black	Plastic	Grey	Plastic	704.042.0	73
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	704.042.2	73
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	704.042.4	73
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	704.042.5	73
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	704.042.6	73
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	704.042.7	73
Momentary	Nature	Aluminium	anodised	Black	Plastic	Grey	Plastic	704.013.0	72
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	704.013.2	72
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	704.013.4	72
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	704.013.5	72
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	704.013.6	72
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	704.013.7	72
Maintained	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	704.043.2	73
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	704.043.7	73



Pushbutton square, IP65

Equipment co	nsisting of (schematic or	verview)
\bigcirc	Front bezel	Page 156
\bigcirc	Lens	Page 153
	Lens holder	Page 155
	Actuator	
	Bayonet flange	Page 157
	Switching element	Page 167



Dimensions [mm] A = Screw terminal



Product can differ from the current configuration.

General information

Max. 3 switching elements can be clipped on

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT) C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Housing colour	Housing material	Operating Travel	Part No.	Wiring diagram
Momentary	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.731.0	72
	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.731.1	72
Maintained	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.732.0	73
	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.732.1	73



Pushbutton round, IP65



- Frontring with protective cover to be mounted with a torque of 0.4 Nm onto actuator
- Max. 3 switching elements can be clipped on





black components shown in the 3D-drawing. To obtain a complete unit, please select the red

components from the pages shown.

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 29 mm

Switching action	Housing colour	Housing material	Operating Travel	Part No.	Wiring diagram
Momentary	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.631.1	72
Maintained	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.632.1	73



Illuminated pushbutton square, IP65



To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 30 mm x 30 mm

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Operating Travel	Part No.	Wiring diagram
Momentary	Black	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.2	74
	Black	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.4	74
	Black	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.5	74
	Black	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.6	74
	Black	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.229.7	74
	Grey	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.2	74
	Grey	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.4	74
-	Grey	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.5	74
	Grey	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.6	74
	Grey	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.230.7	74

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Operating Travel	Part No.	Wiring diagram
Maintained	Black	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.2	75
	Black	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.4	75
	Black	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.5	75
	Black	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.6	75
	Black	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.259.7	75
	Grey	Plastic	Red	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.2	75
	Grey	Plastic	Yellow	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.4	75
	Grey	Plastic	Green	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.5	75
	Grey	Plastic	Blue	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.6	75
	Grey	Plastic	Colour- less	Plastic	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.260.7	75



Illuminated pushbutton round, IP65



To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Front bezel surface	Lens co- lour	Lens ma- terial	Housing colour	Housing material	Operating Tra- vel	Part No.	Wiring diagram
Momentary	Black	Plastic		Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.029.2	74
	Black	Plastic		Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.029.4	74
	Black	Plastic		Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.029.5	74
	Black	Plastic		Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.029.6	74
	Black	Plastic		Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.029.7	74
	Grey	Plastic		Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.030.2	74
	Grey	Plastic		Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.030.4	74
_	Grey	Plastic		Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.030.5	74
	Grey	Plastic		Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.030.6	74
	Grey	Plastic		Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.030.7	74

Switching action	Front bezel colour	Front bezel material	Front bezel surface	Lens co- lour	Lens ma- terial	Housing colour	Housing material	Operating Tra- vel	Part No.	Wiring diagram
Nomentary	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.2	74
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.4	74
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.5	74
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.6	74
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.032.7	74
Ν	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.033.2	74
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.033.4	74
-	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.033.5	74
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.033.6	74
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.033.7	74
-	Black	Plastic		Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.059.2	75
	Black	Plastic		Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.059.4	75
	Black	Plastic		Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.059.5	75
	Black	Plastic		Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.059.7	75
	Grey	Plastic		Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.060.2	75
	Grey	Plastic		Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.060.4	75
	Grey	Plastic		Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.060.5	75
	Grey	Plastic		Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.060.6	75
	Grey	Plastic		Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.060.7	75
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.2	75
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.4	75
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.5	75
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.6	75
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.062.7	75
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.063.2	75
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.063.4	75
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.063.5	75
	Nature	Aluminium	anodised	Blue	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.063.6	75
	Nature	Aluminium	anodised	Colour- less	Plastic	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.063.7	75



Illuminated pushbutton square, IP65



Mounting cut-outs [mm]

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm

Lamp block
Switching element

Page 164

Page 167

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 30 mm x 30 mm

Switching action	Housing colour	Housing material	Operating Travel	Part No.	Wiring diagram
Momentary	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.731.0	72
	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.731.1	72
Maintained	Black	Plastic	ca. 5.8 mm ± 0.2 mm	704.732.0	73
	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.732.1	73



Illuminated pushbutton round, IP65





Actuator, Front dimension Ø 29 mm

Switching action	Housing colour	Housing material	Operating Travel	Part No.	Wiring diagram
Momentary	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.631.1	72
Maintained	Grey	Plastic	ca. 5.8 mm ± 0.2 mm	704.632.1	73



Mushroom-head pushbutton, IP65



To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons



- B = Push-in terminal (PIT)
- $C = Plug-in terminal 6.3 mm \times 0.8 mm$
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 40 mm

Switching ac- tion	Front bezel co- lour	Front bezel ma- terial	Front bezel sur- face	Lens co- lour	Lens ma- terial	Housing co- lour	Housing ma- terial	Part No.	Wiring diagram
Momentary	Grey	Plastic		Black	Plastic	Grey	Plastic	704.070.0	72
	Grey	Plastic		Red	Plastic	Grey	Plastic	704.070.2	72
	Grey	Plastic		Yellow	Plastic	Grey	Plastic	704.070.4	72
	Grey	Plastic		Green	Plastic	Grey	Plastic	704.070.5	72
	Nature	Aluminium	anodised	Black	Plastic	Grey	Plastic	704.071.0	72
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	704.071.2	72
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	704.071.4	72
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	704.071.5	72
Maintained	Grey	Plastic		Black	Plastic	Grey	Plastic	704.072.0	73
	Grey	Plastic		Red	Plastic	Grey	Plastic	704.072.2	73
	Nature	Aluminium	anodised	Black	Plastic	Grey	Plastic	704.073.0	73
	Nature	Aluminium	anodised	Red	Plastic	Grey	Plastic	704.073.2	73
	Nature	Aluminium	anodised	Yellow	Plastic	Grey	Plastic	704.073.4	73
	Nature	Aluminium	anodised	Green	Plastic	Grey	Plastic	704.073.5	73



Mushroom-head pushbutton illuminated, IP65





Actuator, Front dimension Ø 40 mm

Switching action	Front bezel colour	Front bezel material	Lens colour	Lens material	Housing colour	Housing material	Part No.	Wiring diagram
Momentary	Grey	Plastic	Red	Plastic	Grey	Plastic	704.084.2	74
	Grey	Plastic	Yellow	Plastic	Grey	Plastic	704.084.4	74
	Grey	Plastic	Green	Plastic	Grey	Plastic	704.084.5	74
	Grey	Plastic	Blue	Plastic	Grey	Plastic	704.084.6	74
	Grey	Plastic	Colourless	Plastic	Grey	Plastic	704.084.7	74
Maintained	Grey	Plastic	Red	Plastic	Grey	Plastic	704.086.2	75
	Grey	Plastic	Yellow	Plastic	Grey	Plastic	704.086.4	75
	Grey	Plastic	Green	Plastic	Grey	Plastic	704.086.5	75



Selector switch illuminated, 2 positions, short lever, square, IP65



C = Plug-in terminal 6.3 mm x 0.8 mm

components from the pages shown.

D = Double plug-in terminal 6.3 mm x 0.8 mm

Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right	704.510.01	85
Rest - Momentary	Grey	Plastic	42° right	704.512.01	84



Selector switch illuminated, 2 positions, short lever, round, IP65





Dimensions [mm] A = Screw terminal

Mounting cut-outs [mm] A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm



Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on •
- The colour of anodised aluminium parts can vary • due to technical production reasons

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right		704.410.01	85
	Nature	Aluminium	90° right	anodised	704.411.01	85
Rest - Momentary	Grey	Plastic	42° right		704.412.01	84
	Nature	Aluminium	42° right	anodised	704.413.01	84



Selector switch 2 positions, short lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on







 Equipment consisting of (schematic overview)

 Image: Imag

components from the pages shown.

- Mounting cut-outs [mm]
- A = Screw terminal B = Push-in terminal (PIT)
- C = Plug-in terminal (6.3 mm x 0.8 mm)
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right / -45° +45°	704.510.0	87
Rest - Momentary	Grey	Plastic	42° right	704.512.0	86



Selector switch 2 positions, short lever, round, IP65





Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on •
- The colour of anodised aluminium parts can vary • due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right / -45° +45°		704.410.0	87
	Nature	Aluminium	90° right / -45° +45°	anodised	704.411.0	87
Rest - Momentary	Grey	Plastic	42° right		704.412.0	86
	Nature	Aluminium	42° right	anodised	704.413.0	86



Selector switch 2 positions, short lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on







Actuator
Bayonet flange
Switching element Page 167

Equipment consisting of (schematic overview)

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

- A = Screw terminal
- B = Push-in terminal (PIT)
- $C = Plug-in terminal 6.3 mm \times 0.8 mm$
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right	704.510.0.12	87



Selector switch 2 positions, short lever, round, IP65





Product can differ from the current configuration.

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm

Ø22.3 0

D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right		704.410.0.12	87
	Nature	Aluminium	90° right	anodised	704.411.0.12	87



Selector switch illuminated, 2 positions, long lever, square, IP65



D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram	
Rest - Maintained	Grey	Plastic	90° right	704.300.01	85	



Selector switch illuminated, 2 positions, long lever, round, IP65

Equipment consisting of (schematic overview)

Equipment co	insisting of (schematic o	
	Actuator	
	Bayonet flange	
	LED	Page 158
	Lamp block	Page 164
	Switching element	Page 167
	mber listed below includ nents shown in the 3D-di	

28.5 15.5 27 23 23 37 (A)(A)20 2 ... 7

Dimensions [mm] A = Screw terminal

Mounting cut-outs [mm] A = Screw terminal B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm D = Double plug-in terminal 6.3 mm x 0.8 mm



Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on •
- The colour of anodised aluminium parts can vary • due to technical production reasons

To obtain a complete unit, please select the red components from the pages shown.



Front dimension Ø 29 mm



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right		704.100.01	85
	Nature	Aluminium	90° right	anodised	704.101.01	85
Rest - Momentary	Grey	Plastic	42° right		704.102.01	84
	Nature	Aluminium	42° right	anodised	704.103.01	84



Selector switch 2 positions, long lever, square, IP65



- Mounting cut-outs [mm]
- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm

Ø22.3^{+0.}

D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right / -45° +45°	704.300.0	87
Rest - Momentary	Grey	Plastic	42° right	704.302.0	86



Selector switch 2 positions, long lever, round, IP65



Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons







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Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right / -45° +45°		704.100.0	87
	Nature	Aluminium	90° right / -45° +45°	anodised	704.101.0	87
Rest - Momentary	Grey	Plastic	42° right		704.102.0	86
	Nature	Aluminium	42° right	anodised	704.103.0	86



Selector switch 2 positions, long lever, square, IP65



(B)(C)(D)



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm

+

Ø22.3^{+0.}

D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right	704.300.0.12	87



Selector switch 2 positions, long lever, round, IP65



- Mounting cut-outs [mm]
- A = Screw terminal B = Push-in terminal (PIT)
- C = Plug-in terminal (PT)C = Plug-in terminal 6.3 mm x 0.8 mm

+

Ø22.3

D = Double plug-in terminal 6.3 mm x 0.8 mm

(B)(C)(D)



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Rest - Maintained	Grey	Plastic	90° right		704.100.0.12	87
	Nature	Aluminium	90° right	anodised	704.101.0.12	87



Selector switch illuminated, 3 positions, short lever, square, IP65



27 28.5 15.5 23 23 37 (A) (A) 2 ... 7

Dimensions [mm] A = Screw terminal



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on

- To obtain a complete unit, please select the red components from the pages shown.
 - C = Plug-in terminal 6.3 mm x 0.8 mm D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Momentary - Rest - Momentary	Grey	Plastic	42° left / 42° right	704.504.01	90



Selector switch illuminated, 3 positions, short lever, round, IP65



Page 158 Lamp block Page 164 Switching element Page 167 Each Part Number listed below includes all the

black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

Mounting cut-outs [mm]

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm

+

Ø22.3[⁺]

D = Double plug-in terminal 6.3 mm x 0.8 mm

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 $(\mathbf{B})(\mathbf{C})(\mathbf{D})$

Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Maintained - Rest - Maintained	Grey	Plastic	42° left / 42° right		704.402.01	91
	Nature	Aluminium	42° left / 42° right	anodised	704.403.01	91
Momentary - Rest - Momentary	Grey	Plastic	42° left / 42° right		704.404.01	90
	Nature	Aluminium	42° left / 42° right	anodised	704.405.01	90
Maintained - Rest - Momentary	Nature	Aluminium	42° left / 42° right	anodised	704.407.01	89
Momentary - Rest - Maintained	Nature	Aluminium	42° left / 42° right	anodised	704.409.01	88





Selector switch 3 positions, short lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on







 Equipment consisting of (schematic overview)

 Image

 Image
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To obtain a complete unit, please select the red components from the pages shown.



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained - Rest - Maintained	Grey	Plastic	42° left / 42° right	704.502.0	95
Momentary - Rest - Momentary	Grey	Plastic	42° left / 42° right	704.504.0	94
Maintained - Rest - Momentary	Grey	Plastic	42° left / 42° right	704.506.0	93
Momentary - Rest - Maintained	Grey	Plastic	42° left / 42° right	704.508.0	92



Selector switch 3 positions, short lever, round, IP65





Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on •
- The colour of anodised aluminium parts can vary • due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Maintained - Rest - Maintained	Grey	Plastic	42° left / 42° right		704.402.0	95
	Nature	Aluminium	42° left / 42° right	anodised	704.403.0	95
Momentary - Rest - Momentary	Grey	Plastic	42° left / 42° right		704.404.0	94
	Nature	Aluminium	42° left / 42° right	anodised	704.405.0	94
Maintained - Rest - Momentary	Grey	Plastic	42° left / 42° right		704.406.0	93
	Nature	Aluminium	42° left / 42° right	anodised	704.407.0	93
Momentary - Rest - Maintained	Grey	Plastic	42° left / 42° right		704.408.0	92
	Nature	Aluminium	42° left / 42° right	anodised	704.409.0	92

_F-	~~-	F~~	~	F~~~-
Wiring	diagram 92	Wiring diagram 93	Wiring diagram 94	Wiring diagram 95

Selector switch illuminated, 3 positions, long lever, square, IP65





Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Momentary - Rest - Momentary	Grey	Plastic	42° left / 42° right	704.294.01	90



Selector switch illuminated, 3 positions, long lever, round, IP65

158

164

167

28.5

2 ... 7

42 min.

Ø22.3[°]

 $C = Plug-in terminal 6.3 mm \times 0.8 mm$ D = Double plug-in terminal 6.3 mm x 0.8 mm

Mounting cut-outs [mm] A = Screw terminal B = Push-in terminal (PIT)

15.5 23

(A)

 (\mathbf{A})

0 min

(B)(C)(D

23

(A)

37

27

20

Dimensions [mm]

A = Screw terminal

Equipment consisting of (schematic overview)

Equipment co	isisting of (schematic of	/erview)
	Actuator	
	Bayonet flange	
	LED	Page 1
	Lamp block	Page 1
	Switching element	Page 1
	nber listed below include ients shown in the 3D-dra	

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Maintained - Rest - Maintained	Grey	Plastic	42° left / 42° right		704.092.01	91
Momentary - Rest - Momentary	Grey	Plastic	42° left / 42° right		704.094.01	90
	Nature	Aluminium	42° left / 42° right	anodised	704.095.01	90
Maintained - Rest - Momentary	Nature	Aluminium	42° left / 42° right	anodised	704.097.01	89

Wiring diagrams





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons

Selector switch 3 positions, long lever, square, IP65



Product can differ from the current configuration.

General information

• Max. 3 switching elements can be clipped on









To obtain a complete unit, please select the red components from the pages shown.



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained - Rest - Maintained	Grey	Plastic	42° left / 42° right	704.292.0	95
Momentary - Rest - Momentary	Grey	Plastic	42° left / 42° right	704.294.0	94
Maintained - Rest - Momentary	Grey	Plastic	42° left / 42° right	704.296.0	93
Momentary - Rest - Maintained	Grey	Plastic	42° left / 42° right	704.298.0	92


Selector switch 3 positions, long lever, round, IP65





Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The colour of anodised aluminium parts can vary due to technical production reasons

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Front bezel surface	Part No.	Wiring diagram
Maintained - Rest - Maintained	Grey	Plastic	42° left / 42° right		704.092.0	95
	Nature	Aluminium	42° left / 42° right	anodised	704.093.0	95
Momentary - Rest - Momentary	Grey	Plastic	42° left / 42° right		704.094.0	94
	Nature	Aluminium	42° left / 42° right	anodised	704.095.0	94
Maintained - Rest - Momentary	Grey	Plastic	42° left / 42° right		704.096.0	93
	Nature	Aluminium	42° left / 42° right	anodised	704.097.0	93
Momentary - Rest - Maintained	Grey	Plastic	42° left / 42° right		704.098.0	92
	Nature	Aluminium	42° left / 42° right	anodised	704.099.0	92

F~	F~~	F~	F~~~-
Wiring diagram 92	Wiring diagram 93	Wiring diagram 94	Wiring diagram 95

Selector rotary switch, short lever, rounded, square, IP65



Product can differ from the current configuration.



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Equipment consisting of (schematic overview)

To obtain a complete unit, please select the red components from the pages shown.



1 = Kraus & Naimer switching element

2...7

- A = (Number of stages x 12) + 54.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 54.5 mm



Mounting cut-outs [mm]



Actuator, Front dimension 30 mm x 30 mm

Front bezel colour	Front bezel material	Switching positions	Part No.
Grey	Plastic	Rest = 9 o'clock	704.510.1KNI

Selector rotary switch, short lever rounded, round, IP65

(1) 27





A

12

4



Product can differ from the current configuration.

• The colour of anodised aluminium parts can vary due to technical production reasons

General information

black components shown in the 3D-drawing. To obtain a complete unit, please select the red

components from the pages shown.



- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 54.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 54.5 mm



Mounting cut-outs [mm]

M

Front bezel colour	Front bezel material	Switching positions	Front bezel surface	Part No.
Nature	Aluminium	Rest = 9 o'clock	anodised	704.411.1KNI

Selector rotary switch, short lever, square, IP65



Product can differ from the current configuration.





To obtain a complete unit, please select the red components from the pages shown.



- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 54.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 54.5 mm



Mounting cut-outs [mm]



Actuator, Front dimension 30 mm x 30 mm

Front bezel colour	Front bezel material	Switching positions	Part No.
Grey	Plastic	Rest = 9 o'clock	704.510.1KN

Selector rotary switch, short lever, round, IP65







Product can differ from the current configuration.

Dimensions [mm]

- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 54.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 54.5 mm



General information

• The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]



Front bezel colour	Front bezel material	Switching positions	Front bezel surface	Part No.
Nature	Aluminium	Rest = 9 o'clock	anodised	704.411.1KN

Selector rotary switch, long lever rounded, square, IP65



Product can differ from the current configuration.





To obtain a complete unit, please select the red components from the pages shown.



- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 54.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 54.5 mm



Mounting cut-outs [mm]



Actuator, Front dimension 30 mm x 30 mm

Front bezel colour	Front bezel material	Switching positions	Part No.
Grey	Plastic	Rest = 9 o'clock	704.300.1KNI

Selector rotary switch, long lever rounded, round, IP65

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A

12



Product can differ from the current configuration.

black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



 $(\mathbf{1})$ 27

1 = Kraus & Naimer switching element

2 ... 7

- A = (Number of stages x 12) + 54.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 54.5 mm



General information

. The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]



Front bezel colour	Front bezel material	Switching positions	Front bezel surface	Part No.
Nature	Aluminium	Rest = 9 o'clock	anodised	704.101.1KNI

Selector rotary switch, long lever, square, IP65



Product can differ from the current configuration.





Dimensions [mm]

1 = Kraus & Naimer switching element

2...7

- A = (Number of stages x 12) + 54.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 54.5 mm



Mounting cut-outs [mm]



Actuator, Front dimension 30 mm x 30 mm

Front bezel colour	Front bezel material	Switching positions	Part No.
Grey	Plastic	Rest = 9 o'clock	704.300.1KN

Selector rotary switch, long lever, round, IP65



To obtain a complete unit, please select the red components from the pages shown.

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Product can differ from the current configuration.

2 ... 7

Dimensions [mm]

- 1 = Kraus & Naimer switching element
- A = (Number of stages x 12) + 54.5 mm
- 2 = Santon switching element
- B = (Number of stages x 13.5) + 54.5 mm



General information .

The colour of anodised aluminium parts can vary due to technical production reasons

Front bezel colour	Front bezel material	Switching positions	Front bezel surface	Part No.
Nature	Aluminium	Rest = 12 o'clock	anodised	704.101.0KN
	Aluminium	Rest = 9 o'clock	anodised	704.101.1KN

Keylock switch 2 positions, square, IP65



- Mounting cut-outs [mm]
- A = Screw terminal B = Push-in terminal (PIT)
- C = Plug-in terminal (PT)C = Plug-in terminal 6.3 mm x 0.8 mm

Ø22.3

D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained (a)	Grey	Plastic	90° right / -45° +45°	704.340.0	79
Rest (a) - Maintained	Grey	Plastic	90° right / -45° +45°	704.341.0	79
Rest (a) - Maintained (a)	Grey	Plastic	90° right / -45° +45°	704.342.0	79
Rest (a) - Momentary	Grey	Plastic	42° right	704.343.0	78

a = Key remove



Keylock switch 2 positions, round, IP65



To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The standard lock Ronis 251
- Further lock numbers on request
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Rest - Maintained (a)	Nature	Aluminium	90° right / -45° +45°	704.120.0	79
Rest (a) - Maintained	Nature	Aluminium	90° right / -45° +45°	704.121.0	79
Rest (a) - Maintained (a)	Nature	Aluminium	90° right / -45° +45°	704.122.0	79
Rest (a) - Momentary	Nature	Aluminium	42° right	704.123.0	78

a = Key remove



Keylock switch 3 positions, square, IP65



Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The standard lock Ronis 251
- Further lock numbers on request







 Equipment consisting of (schematic overview)

 Image

 Image
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Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm

Actuator, Front dimension 30 mm x 30 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained (a) - Rest (a) - Maintained (a)	Grey	Plastic	90° left / 90° right	704.333.0	83
Maintained - Rest (a) - Maintained	Grey	Plastic	42° left / 42° right	704.334.0	83
Momentary - Rest (a) - Momentary	Grey	Plastic	42° left / 42° right	704.335.0	82
Maintained (a) - Rest - Momentary	Grey	Plastic	42° left / 42° right	704.337.0	81
Maintained (a) - Rest (a) - Momentary	Grey	Plastic	42° left / 42° right	704.344.0	81

a = Key remove

8-~	8	8-~~~-
Wiring diagram 81	Wiring diagram 82	Wiring diagram 83

Keylock switch 3 positions, round, IP65



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- Max. 3 switching elements can be clipped on
- The standard lock Ronis 251
- Further lock numbers on request
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm D = Double plug-in terminal 6.3 mm x 0.8 mm

Actuator, Front dimension Ø 29 mm

Switching action	Front bezel colour	Front bezel material	Switching angle	Part No.	Wiring diagram
Maintained (a) - Rest (a) - Maintained (a)	Nature	Aluminium	90° left / 90° right	704.113.0	83
Maintained - Rest (a) - Maintained	Nature	Aluminium	42° left / 42° right	704.114.0	83
Momentary - Rest (a) - Momentary	Nature	Aluminium	42° left / 42° right	704.115.0	82
Maintained (a) - Rest - Maintained (a)	Nature	Aluminium	42° left / 42° right	704.116.0	83
Maintained (a) - Rest - Momentary	Nature	Aluminium	42° left / 42° right	704.117.0	81
Momentary - Rest (a) - Maintained	Nature	Aluminium	42° left / 42° right	704.118.0	80
Maintained (a) - Rest (a) - Momentary	Nature	Aluminium	42° left / 42° right	704.124.0	81

a = Key remove

8	8-~	8	8
Wiring diagram 80	Wiring diagram 81	Wiring diagram 82	Wiring diagram 83

Indicator full-face illumination compact, round, IP65



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Product attributes	Housing colour	Housing material	Lens cap colour	Marking cap colour	Part No.	Wiring diagram
Filament lamp max. 2.6 W or LED	Grey	Plastic	Red	White	704.020.2	4
	Grey	Plastic	Yellow	White	704.020.4	4
	Grey	Plastic	Green	White	704.020.5	4
	Grey	Plastic	Blue	White	704.020.6	4
	Grey	Plastic	Colourless	White	704.020.7	4
	Grey	Plastic	Red	Colourless	704.021.2	4
	Grey	Plastic	Yellow	Colourless	704.021.4	4
	Grey	Plastic	Green	Colourless	704.021.5	4
	Grey	Plastic	Blue	Colourless	704.021.6	4
	Grey	Plastic	Colourless	Colourless	704.021.7	4
Filament lamp 130 V, max. 2.6 W with integrated se-	Grey	Plastic	Red	White	704.022.2	105
ries resistor 230/130 V	Grey	Plastic	Yellow	White	704.022.4	105
	Grey	Plastic	Green	White	704.022.5	105
	Grey	Plastic	Colourless	White	704.022.7	105



Indicator full-face illumination compact, round, IP65



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension Ø 29 mm

Product attributes	Housing colour	Housing material	Part No.	Wiring diagram
Without built-in series resistor	Grey	Plastic	704.642.0	4
With series resistor for 220/240 V and filament lamp 130 V, 20 mA $$	Grey	Plastic	704.642.1	105
With series resistor for 110/125 V and filament lamp 60 V, 33 $$ mA	Grey	Plastic	704.642.2	105



Indicator full-face illumination, square, IP65



LED

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Lamp block

Mounting cut-outs [mm]

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 30 mm x 30 mm

Housing colour	Housing material	Front bezel colour	Lens cap colour	Marking cap colour	Diffusor cap colour	Part No.	Wiring diagram
Grey	Plastic	Black	Red	White	White	704.199.2	4
	Plastic	Black	Yellow	White	White	704.199.4	4
	Plastic	Black	Green	White	White	704.199.5	4
	Plastic	Grey	Red	White	White	704.200.2	4
	Plastic	Grey	Yellow	White	White	704.200.4	4
	Plastic	Grey	Green	White	White	704.200.5	4
	Plastic	Grey	Blue	White	White	704.200.6	4
	Plastic	Grey	Colourless	White	White	704.200.7	4



Indicator full-face illumination, round, IP65





Housing colour	Housing material	Lens cap colour	Marking cap colour	Diffusor cap colour	Part No.	Wiring diagram
Grey	Plastic	Red	White	White	704.000.2	4
	Plastic	Yellow	White	White	704.000.4	4
	Plastic	Green	White	White	704.000.5	4
	Plastic	Blue	White	White	704.000.6	4
	Plastic	Colourless	White	White	704.000.7	4
	Plastic	Red	Colourless	White	704.001.2	4
	Plastic	Yellow	Colourless	White	704.001.4	4
	Plastic	Green	Colourless	White	704.001.5	4
	Plastic	Blue	Colourless	White	704.001.6	4
	Plastic	Colourless	Colourless	White	704.001.7	4



Indicator full-face illumination, square, IP65



Product can differ from the current configuration.



Dimensions [mm] A = Screw terminal



Mounting cut-outs [mm]

A = Screw terminal

B = Push-in terminal (PIT)C = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm

Equipment consisting of (schematic overview)						
\bigcirc	Lens cap	Page 154				
	Diffusor cap	Page 155				
	Actuator					
	Bayonet flange	Page 157				
	LED	Page 158				
	Lamp block	Page 164				
	mber listed below include nents shown in the 3D-dra					

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 30 mm x 30 mm

Housing colour	Housing material	Part No.	Wiring diagram
Black	Plastic	704.730.0	4
Grey	Plastic	704.730.1	4



Indicator full-face illumination, round, IP65





Actuator, Front dimension Ø 29 mm

Housing colour	Housing material	Part No.	Wiring diagram
Grey	Plastic	704.630.1	4



Indicator front illumination, square, IP65



Product can differ from the current configuration.



Dimensions [mm]



Mounting cut-outs [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 30 mm x 30 mm

Housing colour	Housing material	Front bezel colour	Lens colour	Marking plate colour	Marking plate optics	Part No.	Wiring diagram
Black	Plastic	Grey	Red	White	translucent	704.202.2	4
	Plastic	Grey	Yellow	White	translucent	704.202.4	4
	Plastic	Grey	Green	White	translucent	704.202.5	4
	Plastic	Grey	Colourless	White	translucent	704.202.7	4
	Plastic	Grey	Red	Colourless	transparent	704.203.2	4
	Plastic	Grey	Yellow	Colourless	transparent	704.203.4	4
	Plastic	Grey	Green	Colourless	transparent	704.203.5	4
	Plastic	Black	Red	White	translucent	704.206.2	4
	Plastic	Black	Yellow	White	translucent	704.206.4	4
	Plastic	Black	Green	White	translucent	704.206.5	4
	Plastic	Black	Blue	White	translucent	704.206.6	4
	Plastic	Black	Colourless	White	translucent	704.206.7	4
	Plastic	Black	Green	Colourless	transparent	704.207.5	4



Indicator front illumination, round, IP65



Product can differ from the current configuration.



Dimensions [mm]



Mounting cut-outs [mm]



To obtain a complete unit, please select the red components from the pages shown.

Front dimension Ø 29 mm



Housing colour	Housing material	Front bezel colour	Lens colour	Marking plate colour	Marking plate optics	Part No.	Wiring diagram
Grey	Plastic	Grey	Red	White	translucent	704.002.2	4
	Plastic	Grey	Yellow	White	translucent	704.002.4	4
	Plastic	Grey	Green	White	translucent	704.002.5	4
	Plastic	Grey	Blue	White	translucent	704.002.6	4
	Plastic	Grey	Colourless	White	translucent	704.002.7	4
	Plastic	Grey	Red	Colourless	transparent	704.003.2	4
	Plastic	Grey	Yellow	Colourless	transparent	704.003.4	4
	Plastic	Grey	Green	Colourless	transparent	704.003.5	4
	Plastic	Grey	Blue	Colourless	transparent	704.003.6	4
	Plastic	Grey	Colourless	Colourless	transparent	704.003.7	4
	Plastic	Black	Red	White	translucent	704.006.2	4
	Plastic	Black	Yellow	White	translucent	704.006.4	4
	Plastic	Black	Green	White	translucent	704.006.5	4
	Plastic	Black	Blue	White	translucent	704.006.6	4
	Plastic	Black	Colourless	White	translucent	704.006.7	4



Indicator front illumination, square, IP65



Product can differ from the current configuration.







Mounting cut-outs [mm]

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm

Equipment consisting of (schematic overview)					
Equipment co	nsisting of (schematic o	verview)			
\bigcirc	Front bezel	Page 156			
\bigcirc	Lens	Page 153			
	Lens holder	Page 155			
	Actuator				
	Bayonet flange	Page 157			
٩	LED	Page 158			
	Lamp block	Page 164			
	mber listed below includ nents shown in the 3D-di				

To obtain a complete unit, please select the red components from the pages shown.



Actuator, Front dimension 30 mm x 30 mm

Housing colour	Housing material	Part No.	Wiring diagram
Black	Plastic	704.733.0	4
Grey	Plastic	704.733.1	4



Indicator front illumination, round, IP65





Actuator, Front dimension Ø 29 mm

Housing colour	Housing material	Part No.	Wiring diagram
Grey	Plastic	704.633.1	4



Flasher full-face illumination, square, IP65



Product can differ from the current configuration.

General information

• The lamp block will be delivered with screw terminal







Mounting cut-outs [mm] A = Screw terminal B = Push-in terminal (PIT)





Actuator, Front dimension 30 mm x 30 mm

Housing co- lour	Housing mate- rial	Front bezel co- lour	Front bezel mate- rial	Diffusor cap co- lour	Lens cap co- lour	Marking cap co- lour	Part No.	Wiring diagram
Grey	Plastic	Black	Plastic	White	Red	White	704.199.2	4
	Plastic	Black	Plastic	White	Yellow	White	704.199.4	4
	Plastic	Black	Plastic	White	Green	White	704.199.5	4
	Plastic	Black	Plastic	White	Colourless	White	704.199.7	4
	Plastic	Grey	Plastic	White	Red	White	704.200.2	4
	Plastic	Grey	Plastic	White	Yellow	White	704.200.4	4
	Plastic	Grey	Plastic	White	Green	White	704.200.5	4
	Plastic	Grey	Plastic	White	Blue	White	704.200.6	4
	Plastic	Grey	Plastic	White	Colourless	White	704.200.7	4



Flasher full-face illumination, round, IP65





Housing co- lour	Housing mate- rial	Diffusor cap co- lour	Diffusor cap sur- face	Lens cap co- lour	Marking cap co- lour	Marking cap sur- face	Part No.	Wiring diagram
Grey	Plastic	White		Red	White		704.000.2	4
	Plastic	White		Yellow	White		704.000.4	4
	Plastic	White		Green	White		704.000.5	4
	Plastic	White		Blue	White		704.000.6	4
	Plastic	White		Colourless	White		704.000.7	4
	Plastic	White		Red	Colourless	ribbed	704.001.2	4
	Plastic	White	ribbed	Yellow	Colourless	ribbed	704.001.4	4
	Plastic	White	ribbed	Green	Colourless	ribbed	704.001.5	4
	Plastic	White	ribbed	Blue	Colourless	ribbed	704.001.6	4
	Plastic	White	ribbed	Colourless	Colourless	ribbed	704.001.7	4



Flasher full-face illumination, square, IP65





Actuator, Front dimension 30 mm x 30 mm

Housing colour	Housing material	Part No.	Wiring diagram
Black	Plastic	704.730.0	4
Grey	Plastic	704.730.1	4



Flasher full-face illumination, round, IP65





Actuator, Front dimension Ø 29 mm

Housing colour	Housing material	Part No.	Wiring diagram
Grey	Plastic	704.630.1	4



Flasher front illumination, square, IP65



Product can differ from the current configuration.

General information

 The lamp block will be delivered with screw terminal







Mounting cut-outs [mm] A = Screw terminal

B = Push-in terminal (PIT)





Actuator, Front dimension 30 mm x 30 mm

Housing co- lour	Housing mate- rial	Lens co- lour	Front bezel co- lour	Front bezel mate- rial	Marking plate co- lour	Marking plate op- tics	Part No.	Wiring diagram
Black	Plastic	Red	Grey	Plastic	White	translucent	704.202.2	4
	Plastic	Yellow	Grey	Plastic	White	translucent	704.202.4	4
	Plastic	Green	Grey	Plastic	White	translucent	704.202.5	4
	Plastic	Blue	Grey	Plastic	White	translucent	704.202.6	4
	Plastic	Colourless	Grey	Plastic	White	translucent	704.202.7	4
	Plastic	Red	Grey	Plastic	Colourless	transparent	704.203.2	4
	Plastic	Yellow	Grey	Plastic	Colourless	transparent	704.203.4	4
	Plastic	Green	Grey	Plastic	Colourless	transparent	704.203.5	4
	Plastic	Colourless	Grey	Plastic	Colourless	transparent	704.203.7	4
	Plastic	Red	Black	Plastic	White	translucent	704.206.2	4
	Plastic	Yellow	Black	Plastic	White	translucent	704.206.4	4
	Plastic	Green	Black	Plastic	White	translucent	704.206.5	4
	Plastic	Blue	Black	Plastic	White	translucent	704.206.6	4
	Plastic	Colourless	Black	Plastic	White	translucent	704.206.7	4
	Plastic	Green	Black	Plastic	Colourless	transparent	704.207.5	4



Flasher front illumination, round, IP65



Product can differ from the current configuration.

General information

 The lamp block will be delivered with screw terminal







Mounting cut-outs [mm] A = Screw terminal

B = Push-in terminal (PIT)





Housing co- lour	Housing mate- rial	Lens co- lour	Front bezel co- lour	Front bezel mate- rial	Marking plate co- lour	Marking plate op- tics	Part No.	Wiring diagram
Grey	Plastic	Red	Grey	Plastic	White	translucent	704.002.2	4
	Plastic	Yellow	Grey	Plastic	White	translucent	704.002.4	4
	Plastic	Green	Grey	Plastic	White	translucent	704.002.5	4
	Plastic	Blue	Grey	Plastic	White	translucent	704.002.6	4
	Plastic	Colourless	Grey	Plastic	White	translucent	704.002.7	4
	Plastic	Red	Grey	Plastic	Colourless	transparent	704.003.2	4
	Plastic	Yellow	Grey	Plastic	Colourless	transparent	704.003.4	4
	Plastic	Green	Grey	Plastic	Colourless	transparent	704.003.5	4
	Plastic	Blue	Grey	Plastic	Colourless	transparent	704.003.6	4
	Plastic	Colourless	Grey	Plastic	Colourless	transparent	704.003.7	4
	Plastic	Red	Black	Plastic	White	translucent	704.006.2	4
	Plastic	Yellow	Black	Plastic	White	translucent	704.006.4	4
	Plastic	Green	Black	Plastic	White	translucent	704.006.5	4
	Plastic	Blue	Black	Plastic	White	translucent	704.006.6	4
	Plastic	Colourless	Black	Plastic	White	translucent	704.006.7	4


Flasher front illumination, square, IP65



Product can differ from the current configuration.



Dimensions [mm] A = Screw terminal



Mounting cut-outs [mm] A = Screw terminalB = Push-in terminal (PIT)

Equipment co	onsisting of (schematic	overview)
\bigcirc	Front bezel	Page 156
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	Lens holder	Page 155
	Actuator	
	Bayonet flange	Page 157
9	LED	Page 158
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	Imber listed below inclu nents shown in the 3D-	
	omplete unit, please se from the pages shown.	



Actuator, Front dimension 30 mm x 30 mm

Housing colour	Housing material	Part No.	Wiring diagram
Black	Plastic	704.733.0	4
Grey	Plastic	704.733.1	4



Flasher front illumination, round, IP65





Actuator, Front dimension Ø 29 mm

Housing colour	Housing material	Part No.	Wiring diagram
Grey	Plastic	704.633.1	4



Buzzer, IP65



Product can differ from the current configuration.



Dimensions [mm]





Each Part Number listed below includes all the black components shown in the 3D-drawing.

General information

- Further information see Technical data
- The colour of anodised aluminium parts can vary due to technical production reasons

Mounting cut-outs [mm]



Actuator, Front dimension Ø 29 mm

Terminal	Soundpressure	Tone frequency	Opera- ting vol- tage	Front cap colour	Front cap material	Front cap surface	Part No.	Wiring diagram
Plug-in terminal, 2.8 x 0.5 mm	95 db (A) ±8 dB at a dis- tance of 0.1m	Approx. 3.2 kHz continuous tone only	24 V DC ±10 %	Black	Plastic		14-810.002	71
	95 db (A) \pm 8 dB at a distance of 0.1m	Approx. 3.2 kHz continuous tone only	24 V DC ±10 %	Nature	Alumini- um	anodised	14-810.902	71



Potentiometer, IP65





Product can differ from the current configuration.

General information

• Resistor 10 kOhm / linear, series E3

Mounting cut-outs [mm]



Actuator, Front dimension Ø 28 mm

Housing material	Front bezel colour	Front bezel material	Front bezel surface	Resistance	Part No.	Wiring diagram
Plastic		Metal	matt chrome	10 kΩ	44-745.20-10K1	104
	Matt grey	Plastic		10 kΩ	44-745.60-10K1	104



Stop switch Ø 37 mm, IP65



Mounting cut-outs [mm]



Actuator, Front dimension Ø 37 mm

Switching action	Housing colour	Housing material	Lens colour	Marking	Product attributes	Part No.	Wiring diagram
Maintained	Yellow	Plastic	Red	Arrows	Twist to unlock clockwise	704.064.2	363
	Yellow	Plastic	Red	Arrows	Key to unlock clockwise	704.066.2	364

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Stop switch Ø 40 mm, IP65





Dimensions [mm] A = Screw terminal





Product can differ from the current configuration.

General information

- The standard lock Ronis 251
- The colour of anodised aluminium parts can vary • due to technical production reasons

Mounting cut-outs [mm]

- A = Screw terminal
- B = Push-in terminal (PIT) C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm



Actuator, Front dimension Ø 40 mm

Switching action	Housing colour	Housing material	Lens co- lour	Marking	Product attributes	Front bezel colour	Front bezel material	Front bezel surface	Part No.	Wiring diagram
Maintained	Grey	Plastic	Red	Arrows	Twist to unlock clockwise	Grey	Plastic		704.074.2	363
	Grey	Plastic	Red	Stop	Twist to unlock clockwise	Grey	Plastic		704.074.3	363
	Grey	Plastic	Red	Arrows	Twist to unlock clockwise	Nature	Aluminium	anodised	704.075.2	363
	Grey	Plastic	Red	Stop	Twist to unlock clockwise	Nature	Aluminium	anodised	704.075.3	363
	Grey	Plastic	Red		Key to unlock clockwise	Grey	Plastic		704.076.0	364
	Grey	Plastic	Red		Key to unlock clockwise	Nature	Aluminium	anodised	704.078.0	364



Emergency stop switch, IP65



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Mounting cut-outs [mm]



Actuator, Front dimension Ø 37 mm

Switching action	Housing colour	Housing material	Lens colour	Marking	Product attributes	Part No.	Wiring diagram
Maintained	Yellow	Plastic	Red	Arrows	Twist to unlock anti-clockwise	704.064.2A	363
	Yellow	Plastic	Red	Arrows	Key release to unlock anti-clockwise	704.066.2A	364





Lens plastic raised

Lens material	Lens colour	Lens optics	Lens shape	Lens illumination	Dimension	Part No.
Plastic	Red	transparent	flush	illuminative	Ø 23.7 mm	704.611.2
	Yellow	transparent	flush	illuminative	Ø 23.7 mm	704.611.4
	Green	transparent	flush	illuminative	Ø 23.7 mm	704.611.5
	Blue	transparent	flush	illuminative	Ø 23.7 mm	704.611.6
	Colourless	transparent	flush	illuminative	Ø 23.7 mm	704.611.7

Additional information

• To obtain IP67, use marking plate Part Nr. 704.610.X



Lens plastic square

Lens material	Lens colour	Lens optics	Lens shape	Lens illumination	Dimension	Part No.
Plastic	Black	opaque	flush	non illuminative	24.4 mm x 24.4 mm	704.702.0
	White	opaque	flush	non illuminative	24.4 mm x 24.4 mm	704.702.9
	Red	transparent	flush	illuminative	24.4 mm x 24.4 mm	704.702.2
	Yellow	transparent	flush	illuminative	24.4 mm x 24.4 mm	704.702.4
	Green	transparent	flush	illuminative	24.4 mm x 24.4 mm	704.702.5
	Blue	transparent	flush	illuminative	24.4 mm x 24.4 mm	704.702.6
	Colourless	transparent	flush	illuminative	24.4 mm x 24.4 mm	704.702.7



Lens metal round spot round

Lens material	Lens colour	Lens optics	Lens shape	Lens illumination	Dimension	Part No.
Aluminium	Black	opaque	flush	illuminative	Ø 23.7 mm	704.601.01
	Red	opaque	flush	illuminative	Ø 23.7 mm	704.601.21
	Gold	opaque	flush	illuminative	Ø 23.7 mm	704.601.41
	Olive green	opaque	flush	illuminative	Ø 23.7 mm	704.601.51
	Blue	opaque	flush	illuminative	Ø 23.7 mm	704.601.61
	Nature	opaque	flush	illuminative	Ø 23.7 mm	704.601.81
Stainless steel	Nature	opaque	flush	illuminative	Ø 23.7 mm	704.601.91
	Nature	opaque	flush	illuminative	Ø 23.7 mm	704.601.101

Additional information

• The colour of anodised aluminium parts can vary due to technical production reasons

• To obtain IP65, it is necessary to use marking plate Part No.. 704.609.X



Lens metal round

Lens material	Lens colour	Lens optics	Lens shape	Lens illumination	Dimension	Part No.
Aluminium Black Red Gold Olive gre	Black	opaque	flush	non illuminative	Ø 23.7 mm	704.601.0
	Red	opaque	flush	non illuminative	Ø 23.7 mm	704.601.2
	Gold	opaque	flush	non illuminative	Ø 23.7 mm	704.601.4
	Olive green	opaque	flush	non illuminative	Ø 23.7 mm	704.601.5
	Blue	opaque	flush	non illuminative	Ø 23.7 mm	704.601.6
	Nature	opaque	flush	non illuminative	Ø 23.7 mm	704.601.8
Stainless steel	Nature	opaque	flush	non illuminative	Ø 23.7 mm	704.601.9
	Nature	opaque	flush	non illuminative	Ø 23.7 mm	704.601.10

Additional information

- The colour of anodised aluminium parts can vary due to technical production reasons
- To obtain IP65, it is necessary to use marking plate Part No.. 704.609.X



Lens plastic round

Lens material	Lens colour	Lens optics	Lens shape	Lens illumination	Symbol	Dimension	Part No.
Plastic	Black	opaque	flush	non illuminative		Ø 23.7 mm	704.602.0
	Red	transparent	flush	illuminative		Ø 23.7 mm	704.602.2
	Yellow	transparent	flush	illuminative		Ø 23.7 mm	704.602.4
	Green	transparent	flush	illuminative		Ø 23.7 mm	704.602.5
	Blue	transparent	flush	illuminative		Ø 23.7 mm	704.602.6
	Colourless	transparent	flush	illuminative		Ø 23.7 mm	704.602.7
	Silver	transparent	flush	illuminative	Ring	Ø 23.7 mm	704.602.7A01

Additional information

- To obtain IP67, use marking plate Part No. 704.609.9
- To obtain IP67 use marking plate Part No. 704.609.9A01 (ring illumination)



Lens cap round for full face indicator

Lens cap material	Lens cap colour	Lens cap optical effect	Diameter	Part No.
Plastic	Red	transparent	29 mm	704.603.2
	Yellow	transparent	29 mm	704.603.4
	Green	transparent	29 mm	704.603.5
	Blue	transparent	29 mm	704.603.6
	Colourless	transparent	29 mm	704.603.7

Additional information

• To obtain IP67, use marking plate Part Nr. 704.608.X

Lens holder

Marking plate material	Marking plate colour	Marking plate illu	mination	Part No.
Plastic	Colourless	illuminative		704.709.7
Additional information				

• For square lens



Marking cap for lens cap round

Marking cap material	Marking cap colour	Marking cap optics	Dimension	Marking cap surface	Part No.
Plastic	Colourless	transparent	Ø 29 mm	ribbed	704.608.7
	White	translucent	Ø 29 mm		704.608.9



Marking cap round raised profile

Marking cap material	Marking cap colour Marking cap optics		Dimension Marking cap surface		Part No.
Plastic	Colourless	transparent	Ø 29 mm	ribbed	704.610.7
	White	translucent	Ø 29 mm		704.610.9



Marking cap round flat

Marking plate material	Marking plate colour	Marking plate optics	Marking plate illumination	Dimension	Diameter	Part No.
Plastic	Black	opaque	non illuminative	Ø 20 mm	20 mm	704.609.0
Colourless White White		transparent	illuminative	Ø 20 mm	20 mm	704.609.7
		translucent	illuminative	Ø 20 mm	20 mm	704.609.9
		translucent	ring illumination	Ø 20 mm	20 mm	704.609.9A01

Additional information

• for lens round flat



Diffusor cap

Product attributes	Diffusor cap colour	Diffusor cap optics	Diffusor cap illumination	Part No.
	Colourless	transparent	illuminative	704.708.7
Can be marked	White	translucent	illuminative	704.708.9



Front bezel round, raised design

Front bezel material	Front bezel colour	Front bezel surface	Dimension	Part No.
Plastic	Black		Ø 29 mm	704.600.0
	Grey		Ø 29 mm	704.600.6
	Grey		Ø 29 mm x 16 mm	704.600.7
Aluminium	Nature	anodised	Ø 29 mm	704.600.1
	Black	anodised	Ø 29 mm	704.600.1A
Stainless steel	Nature		Ø 29 mm	704.600.9

Additional information

• The colour of anodised aluminium parts can vary due to technical production reasons



Front bezel square, raised design

Front bezel material	Front bezel colour	Front bezel surface	Dimension	Part No.
Plastic	Black		30 mm x 30 mm	704.701.0
	Chrome coloured	chrome plated	30 mm x 30 mm	704.701.4
	Grey		30 mm x 30 mm	704.701.6



Front bezel set flush design

Front bezel material	Front bezel colour	Front bezel surface	Front bezel type	Dimension	Part No.
Aluminium	Black	anodised	flush	Ø 35 mm	704.955.0
	Nature	anodised	flush	Ø 35 mm	704.955.1
Stainless steel 304	Nature		flush	Ø 35 mm	704.955.9
Stainless steel 316	Nature		flush	Ø 35 mm	704.955.10

Additional information

• The colour of anodised aluminium parts can vary due to technical production reasons



Front bezel set protective membrane

Product attributes	Front be- zel materi- al	Front bezel colour	Front be- zel sur- face	Front bezel type	Di- men- sion	Part No.
With transparent silicone membrane	Aluminium	Nature	anodised	With transparent silicone membrane	Ø 35 mm	704.955.3
	Aluminium	Black	anodised	With transparent silicone membrane	Ø 35 mm	704.955.4
With transparent silicone membrane, resistant to sea water	Stainless steel	Nature		With transparent silicone membrane, resis- tant to sea water	Ø 35 mm	704.955.9E

Additional information

- Front bezel to be mounted with a torque of 0.4 Nm onto actuator
- Before assembling remove the flat gasket of the switch
- The colour of anodised aluminium parts can vary due to technical production reasons



Bayonet flange

Material	Part No.
Plastic	704.950.5
Metal	704.960.5



Dimensions [mm] for Part No. 704.950.5 Dimensions [mm] for Part No. 704.960.5



Single-LED, BA9s

Illumination colour	Operating voltage	Operation current	Lumi. Intensity	Dom. Wavelength	Part No.	Wiring diagram
Red	6 V DC +10%	17 mA ±15 %	400 mcd	630 nm	10-2506.1082	70
	12 V AC/DC +10%	16 mA ±15 %	390 mcd	630 nm	10-2509.1142	70
	24 V AC/DC +10%	15 mA ±15 %	350 mcd	630 nm	10-2512.1142	70
	28 V AC/DC +10%	13 mA ±15 %	300 mcd	630 nm	10-2513.1142	70
	48 V AC/DC +10%	8 mA ±15 %	200 mcd	630 nm	10-2519.1052	70
	130 V DC +10%	3 mA ±15 %	120 mcd	630 nm	10-2524.3042	70
	130 V AC +10%	5 mA ±15 %	180 mcd	630 nm	10-2H24.2052	70
	230 V AC +10%	3 mA ±15 %	120 mcd	630 nm	10-2H25.2042	70
Yellow	6 V DC +10%	17 mA ±15 %	340 mcd	587 nm	10-2506.1084	70
	12 V AC/DC +10%	16 mA ±15 %	340 mcd	587 nm	10-2509.1144	70
	24 V AC/DC +10%	15 mA ±15 %	300 mcd	587 nm	10-2512.1144	70
	28 V AC/DC +10%	13 mA ±15 %	270 mcd	587 nm	10-2513.1144	70
	48 V AC/DC +10%	8 mA ±15 %	180 mcd	587 nm	10-2519.1054	70
	130 V DC +10%	3 mA ±15 %	110 mcd	587 nm	10-2524.3044	70
	130 V AC +10%	5 mA ±15 %	160 mcd	587 nm	10-2H24.2054	70
	230 V AC +10%	3 mA ±15 %	110 mcd	587 nm	10-2H25.2044	70
Green	6 V DC +10%	7 mA ±15 %	1050 mcd	525 nm	10-2506.1085	70
	12 V AC/DC +10%	7 mA ±15 %	1050 mcd	525 nm	10-2509.1145	70
	24 V AC/DC +10%	7 mA ±15 %	1050 mcd	525 nm	10-2512.1145	70
	28 V AC/DC +10%	7 mA ±15 %	1050 mcd	525 nm	10-2513.1145	70
	48 V AC/DC +10%	4 mA ±15 %	600 mcd	525 nm	10-2519.1055	70
	130 V DC +10%	2 mA ±15 %	300 mcd	525 nm	10-2524.3045	70
	130 V AC +10%	3 mA ±15 %	450 mcd	525 nm	10-2H24.2055	70
	230 V AC +10%	2 mA ±15 %	300 mcd	525 nm	10-2H25.2045	70
Blue	6 V DC +10%	17 mA ±15 %	780 mcd	470 nm	10-2506.1086	70
	12 V AC/DC +10%	16 mA ±15 %	720 mcd	470 nm	10-2509.1146	70
	24 V AC/DC +10%	15 mA ±15 %	680 mcd	470 nm	10-2512.1146	70
	28 V AC/DC +10%	13 mA ±15 %	590 mcd	470 nm	10-2513.1146	70
	48 V AC/DC +10%	8 mA ±15 %	400 mcd	470 nm	10-2519.1056	70
	130 V DC +10%	3 mA ±15 %	200 mcd	470 nm	10-2524.3046	70
	130 V AC +10%	5 mA ±15 %	230 mcd	470 nm	10-2H24.2056	70
	230 V AC +10%	3 mA ±15 %	200 mcd	470 nm	10-2H25.2046	70
White	6 V DC +10%	5 mA ±15 %	750 mcd	x: 0,31 / y: 0,32 nm	10-2506.1089	70
	12 V AC/DC +10%	8 mA ±15 %	1200 mcd	x: 0,31 / y: 0,32 nm	10-2509.1149	70
	24 V AC/DC +10%	7 mA ±15 %	1050 mcd	x: 0,31 / y: 0,32 nm	10-2512.1149	70
	28 V AC/DC +10%	5 mA ±15 %	750 mcd	x: 0,31 / y: 0,32 nm	10-2513.1149	70
	48 V AC/DC +10%	5 mA ±15 %	750 mcd	x: 0,31 / y: 0,32 nm	10-2519.1059	70
	130 V DC +10%	1,5 mA ±15 %	225 mcd	x: 0,31 / y: 0,32 nm	10-2524.3049	70
	130 V AC +10%	2 mA ±15 %	300 mcd	x: 0,31 / y: 0,32 nm	10-2H24.2059	70
	230 V AC +10%	1,5 mA ±15 %	225 mcd	x: 0,31 / y: 0,32 nm	10-2H25.2049	70

Additional information

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- The specified 6 V DC, 24 V DC Bi-colour; 130 V AC, 130 V DC and 230 V AC versions are built with a
 protection diode
- The specified 12, 24, 28, 48 VAC/DC versions are built with a bridge rectifier
- The specified 130 VAC types are developed to run on a supply voltage of 130 VAC only
- An operation at a higher supply voltage using commercial lampholders with integrated resistors, is not approved
- If the 24VDC Bi-colour lamp is driven with normal polarity (plus on middle contact of the lamp) the first
 mentioned colour will light up, with inverted polarity the second colour will light up
- The luminous intensity stated is for when used with DC
- Electrical and optical data are measured at 25 °C
- Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination. The customer has to decide what resistor shall be used to the LED



Wiring diagrams





Single-LED super bright

Illumination colour	Operating voltage	Operation current	Lumi. Intensity	Dom. Wavelength	Part No.	Wiring diagram
Red	28 V AC/DC +10%	14 mA ±15 %	7700 mcd	630 nm	10-2413.1132R	70
Green	28 V AC/DC +10%	13 mA ±15 %	12400 mcd	525 nm	10-2413.1125R	70
Yellow	28 V AC/DC +10%	14 mA ±15 %	4200 mcd	589 nm	10-2413.1134R	70

Additional information

- The specified 12, 24, 28, 48 VAC/DC versions are built with a bridge rectifier
- Electrical and optical data are measured at 25 °C
- Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination. The customer has to decide what resistor shall be used to the LED



A = (standard)B = (super bright)





Single-LED with integrated Zener diode, BA9s

Illumination colour	Operating voltage	Operation current	Lumi. Intensity	Dom. Wavelength	Part No.	Wiring diagram
Red	24 - 30,00 V DC +10%	13 - 19,00 mA ±15 %	300 - 440 mcd	630 nm	10-2H13.3162Q	469
Green	24 - 30,00 V DC +10%	12 - 18,00 mA ±15 %	1800 - 2700 mcd	525 nm	10-2H13.3165Q	469
Yellow	24 - 30,00 V DC +10%	13 - 19,00 mA ±15 %	270 - 380 mcd	589 nm	10-2H13.3164Q	469
Blue	24 - 30,00 V DC +10%	12 - 18,00 mA ±15 %	560 - 800 mcd	589 nm	10-2H13.3166Q	469
White	24 - 30,00 V DC +10%	7 - 11,00 mA ±15 %	600 - 900 mcd	589 nm	10-2H13.3169Q	469

Additional information

- Luminosity and wave length variations caused by LED manufacturing processes may cause slight diffe-rences regarding the illumination. The customer has to decide what resistor shall be used to the LED
- Electrical and optical data are measured at 25 °C
- The specified 12, 24, 28, 48 VAC/DC versions are built with a bridge rectifier



Dimensions [mm] A = (standard)B = (super bright)





Bi-colour LED, BA9s

Illumination colour	Operating voltage	Operation current	Lumi. Intensity	Dom. Wavelength	Part No.	Wiring diagram
Red / Green	24 V DC +10%	15 mA ±15 %	1200/900 mcd	625/525 nm	10-2H12.314A	171
Red / Yellow	24 V DC +10%	15 mA ±15 %	1200/550 mcd	625/589 nm	10-2H12.314B	171
Green / Yellow	24 V DC +10%	15 mA ±15 %	900/550 mcd	525/589 nm	10-2H12.314C	171

Additional information

- The max. overall length of the lamp may not exceed 25mm
- Electrical and optical data are measured at 25 °C
- The specified 6 V DC, 24 V DC Bi-colour; 130 V AC, 130 V DC and 230 V AC versions are built with a
 protection diode
- Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination. The customer has to decide what resistor shall be used to the LED



Dimensions [mm]

A = (standard) B = (super bright)





Multi-LED, BA9s, EN 50155, Fail Safe

Illumination colour	Operating voltage	Operation current	Lumi. Intensity	Dom. Wavelength	Part No.	Wiring diagram
Red	72 V AC/DC	2,2 mA -30%/+25%	4 x 128 mcd	625 nm	10-4H21.1032P	368
	110 V AC/DC	2 mA -30%/+25%	4 x 128 mcd	625 nm	10-4H22.1032P	368
Yellow	72 V AC/DC	2,2 mA -30%/+25%	4 x 112 mcd	589 nm	10-4H21.1034P	368
	110 V AC/DC	2 mA -30%/+25%	4 x 128 mcd	589 nm	10-4H22.1034P	369
Green	72 V AC/DC	2,2 mA -30%/+25%	4 x 478 mcd	525 nm	10-4H21.1035P	368
	110 V AC/DC	2 mA -30%/+25%	4 x 510 mcd	525 nm	10-4H22.1035P	368
Blue	72 V AC/DC	2,2 mA -30%/+25%	4 x 90 mcd	465 nm	10-4H21.1036P	368
	110 V AC/DC	2 mA -30%/+25%	4 x 86 mcd	465 nm	10-4H22.1036P	369
White	72 V AC/DC	2,2 mA -30%/+25%	4 x 382 mcd		10-4H21.1039P	368
	110 V AC/DC	2 mA -30%/+25%	4 x 446 mcd		10-4H22.1039P	368

Additional information

- A suitable LED remover Part No. 700.006.0
- The luminous intensity stated is for when used with DC
- Electrical and optical data are measured at 25 °C
- The specified 72 and 110 VAC/VDC versions are built with a bridge rectifier
- The specified 72 and 110 VAC/VDC versions are built with a protection diode
- In case one LED fails, the other pair of still functioning LED is is working. The light output then is half in order to indicate the malfunction and shows this way the need for replacement
- Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination. The customer has to decide what resistor shall be used to the LED



Dimensions [mm]



LED BA9s, EN 50155

Illumination colour	Operating voltage	Operation current	Lumi. Intensity	Part No.	Wiring diagram
White	24 V AC/DC -30% / +25%	7,5 mA -30%/+25%	700 mcd	10-2412.1089P	369

Additional information

- A suitable LED remover Part No. 700.006.0
- The luminous intensity stated is for when used with DC
- Electrical and optical data are measured at 25 °C
- The specified 24 VAC/VDC versions are built with a protection diode
- Specified 24 VAC/VDC versions are built with a bridge rectifier
- The new, white BA9s LED operates within a range of 16VDC to 34VDC. It conforms to the norms EN 50155 and IEEE 1476
- Luminosity and wave length variations caused by LED manufacturing processes may cause slight differences regarding the illumination. The customer has to decide what resistor shall be used to the LED



Dimensions [mm]





Lamp block for selector switch and illuminated pushbutton, 2 positions

Product attributes	Terminal kind of	Part No.	Wiring diagram
	Screw terminal	704.950.0	4
	Plug-in terminal	704.950.1	4
Terminals nickel plated and blank Cu/Sn	Double plug-in terminal	704.950.1/D	4
	Push-in terminal	704.950.3	4
Terminals nickel plated Cu/Sn	Double plug-in terminal	704.950.2/D	4
For ring cable shoe	Ring cable lug screw terminal	704.950.0B	4

Additional information

• When using the lamp block, the application guidelines must be observed.



Dimensions [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm D = Double plug-in terminal 6.3 mm x 0.8 mm





Lamp block for selector switch 3 positions

Product attributes	Terminal kind of	Part No.	Wiring diagram
	Screw terminal	704.951.0	4
	Plug-in terminal	704.951.1	4
Terminals nickel plated and blank Cu/Sn	Double plug-in terminal	704.951.1/D	4
	Push-in terminal	704.951.3	4

Additional information

• When using the lamp block, the application guidelines must be observed.



Dimensions [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm





Dual lamp block

Operating voltage	Operation current	Terminal kind of	Part No.	Wiring diagram	Compo- nent Layout
24 V AC/DC (-30% / +25%)	Typ. 8 mA	Push-in terminal	704.952.129.3	375	104
110 V AC/DC (-30% / +25%)	Typ. 8 mA	Push-in terminal	704.952.159.3	375	104

Additional information

• When using the lamp block, the application guidelines must be observed.



Dimensions [mm] B = Push-in terminal (PIT)

Wiring diagrams



Component layouts





Snap-action switching element with push-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
250.00 V	6.00 A	1 NO	Gold	Push-in terminal	704.907.1	376
	6.00 A	1 NC	Gold	Push-in terminal	704.907.2	377
	6.00 A	2 NO	Gold	Push-in terminal	704.907.3	378
	6.00 A	2 NC	Gold	Push-in terminal	704.907.4	379
	6.00 A	1 NC / 1 NO	Gold	Push-in terminal	704.907.5	380
	6.00 A	1 NO	Silver	Push-in terminal	704.908.1	376
	6.00 A	1 NC	Silver	Push-in terminal	704.908.2	377
	6.00 A	2 NO	Silver	Push-in terminal	704.908.3	378
	6.00 A	2 NC	Silver	Push-in terminal	704.908.4	379
	6.00 A	1 NC / 1 NO	Silver	Push-in terminal	704.908.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal (.17)D = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23		
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element with push-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
250.00 V	6.00 A	1 NO	Gold	Push-in terminal	704.917.1	376
	6.00 A	1 NC	Gold	Push-in terminal	704.917.2	377
	6.00 A	2 NO	Gold	Push-in terminal	704.917.3	378
	6.00 A	2 NC	Gold	Push-in terminal	704.917.4	379
	6.00 A	1 NC / 1 NO	Gold	Push-in terminal	704.917.5	380
	6.00 A	1 NO	Silver	Push-in terminal	704.918.1	376
	6.00 A	1 NC	Silver	Push-in terminal	704.918.2	377
	6.00 A	2 NO	Silver	Push-in terminal	704.918.3	378
	6.00 A	2 NC	Silver	Push-in terminal	704.918.4	379
	6.00 A	1 NC / 1 NO	Silver	Push-in terminal	704.918.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm
- D = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4		44	
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Snap-action switching element with plug-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	6.00 A	1 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.905.1	376
	6.00 A	1 NC	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.905.2	377
	6.00 A	2 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.905.3	378
	6.00 A	2 NC	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.905.4	379
	6.00 A	1 NC / 1 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.905.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	Ļ			
14	12	14 24	12 22	14 22
Wiring diagram 3	76 Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element with plug-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	6.00 A	1 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.1	376
	6.00 A	1 NC	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.2	377
	6.00 A	2 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.3	378
	6.00 A	2 NC	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.4	379
	6.00 A	1 NC / 1 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

- A = Screw terminal B = Push-in terminal (PIT)
- C = Plug-in terminal (6.3 mm x 0.8 mmD = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4		44	
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Snap-action switching element with double plug-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	6.00 A	1 NO	Gold	Double plug-in terminal, 6.3 x 0.8 mm	704.901.1/D	376
	6.00 A	1 NC	Gold	Double plug-in terminal, 6.3 x 0.8 mm	704.901.2/D	377
	6.00 A	2 NO	Gold	Double plug-in terminal, 6.3 x 0.8 mm	704.901.3/D	378
	6.00 A	2 NC	Gold	Double plug-in terminal, 6.3 x 0.8 mm	704.901.4/D	379
	6.00 A	1 NC / 1 NO	Gold	Double plug-in terminal, 6.3 x 0.8 mm	704.901.5/D	380
	6.00 A	1 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.905.1/D	376
	6.00 A	2 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.905.3/D	378
	6.00 A	2 NC	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.905.4/D	379
	6.00 A	1 NC / 1 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.905.5/D	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mmD = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4			
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element with double plug-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	6.00 A	1 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.1/D	376
	6.00 A	1 NC	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.2/D	377
	6.00 A	2 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.3/D	378
	6.00 A	2 NC	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.4/D	379
	6.00 A	1 NC / 1 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.5/D	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm] A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal (-11)C = N = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4		 	
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Snap-action switching element with screw terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	10.00 A	1 NO	Silver	Screw terminal	704.900.1	376
	10.00 A	1 NC	Silver	Screw terminal	704.900.2	377
	10.00 A	2 NO	Silver	Screw terminal	704.900.3	378
	10.00 A	2 NC	Silver	Screw terminal	704.900.4	379
	10.00 A	1 NC / 1 NO	Silver	Screw terminal	704.900.5	380
	10.00 A	1 NO	Gold	Screw terminal	704.901.1	376
	10.00 A	1 NC	Gold	Screw terminal	704.901.2	377
	10.00 A	2 NO	Gold	Screw terminal	704.901.3	378
	10.00 A	2 NC	Gold	Screw terminal	704.901.4	379
	10.00 A	1 NC / 1 NO	Gold	Screw terminal	704.901.5	380
	10.00 A	1 NO	Palladium	Screw terminal	704.902.1	376
	10.00 A	1 NC	Palladium	Screw terminal	704.902.2	377
	10.00 A	2 NO	Palladium	Screw terminal	704.902.3	378
	10.00 A	2 NC	Palladium	Screw terminal	704.902.4	379
	10.00 A	1 NC / 1 NO	Palladium	Screw terminal	704.902.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mmD = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4		 	
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element with screw terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	10.00 A	1 NO	Silver	Screw terminal	704.910.1	376
	10.00 A	1 NC	Silver	Screw terminal	704.910.2	377
	10.00 A	2 NO	Silver	Screw terminal	704.910.3	378
	10.00 A	2 NC	Silver	Screw terminal	704.910.4	379
	10.00 A	1 NC / 1 NO	Silver	Screw terminal	704.910.5	380
	10.00 A	1 NO	Gold	Screw terminal	704.911.1	376
	10.00 A	1 NC	Gold	Screw terminal	704.911.2	377
	10.00 A	2 NO	Gold	Screw terminal	704.911.3	378
	10.00 A	2 NC	Gold	Screw terminal	704.911.4	379
	10.00 A	1 NC / 1 NO	Gold	Screw terminal	704.911.5	380
	10.00 A	1 NO	Palladium	Screw terminal	704.912.1	376
	10.00 A	2 NO	Palladium	Screw terminal	704.912.3	378
	10.00 A	2 NC	Palladium	Screw terminal	704.912.4	379
	10.00 A	1 NC / 1 NO	Palladium	Screw terminal	704.912.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

A = Screw terminal

 $B = Push-in terminal (PIT) \\ C = Plug-in terminal 6.3 mm x 0.8 mm$

D = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4		44	
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Snap-action switching element for ring cable shoe with screw terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	10.00 A	1 NO	Silver	Ring cable lug screw terminal	704.900.1B	376
	10.00 A	1 NC	Silver	Ring cable lug screw terminal	704.900.2B	377
	10.00 A	2 NO	Silver	Ring cable lug screw terminal	704.900.3B	378
	10.00 A	2 NC	Silver	Ring cable lug screw terminal	704.900.4B	379
	10.00 A	1 NC / 1 NO	Silver	Ring cable lug screw terminal	704.900.5B	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mm

D = Double plug-in terminal 6.3 mm x 0.8 mm

10		40 00	44 04	10 01
13	11	13 23	11 21	13 21
	4		44	\'
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element for ring cable shoe with screw terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	10.00 A	1 NO	Silver	Ring cable lug screw terminal	704.910.1B	376
	10.00 A	1 NC	Silver	Ring cable lug screw terminal	704.910.2B	377
	10.00 A	2 NO	Silver	Ring cable lug screw terminal	704.910.3B	378
	10.00 A	2 NC	Silver	Ring cable lug screw terminal	704.910.4B	379
	10.00 A	2 NO	Gold	Ring cable lug screw terminal	704.911.3B	378
	10.00 A	2 NC	Gold	Ring cable lug screw terminal	704.911.4B	379
	10.00 A	1 NC / 1 NO	Gold	Ring cable lug screw terminal	704.911.5B	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

- A = Screw terminal

 $\begin{array}{l} \mathsf{A} = \mathsf{Solew} \ \text{(initial} \\ \mathsf{B} = \mathsf{Push-in terminal} \ (\mathsf{PIT}) \\ \mathsf{C} = \mathsf{Plug-in terminal} \ \mathsf{6.3 \ mm x} \ \mathsf{0.8 \ mm} \\ \mathsf{D} = \mathsf{Double plug-in terminal} \ \mathsf{6.3 \ mm x} \ \mathsf{0.8 \ mm} \\ \end{array}$

13	11	13 23	11 21	13 21
	4		44	
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element for emergency stop switch with push-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
250.00 V	6.00 A	1 NO	Gold	Push-in terminal	704.917.1	376
	6.00 A	1 NC	Gold	Push-in terminal	704.917.2	377
	6.00 A	2 NO	Gold	Push-in terminal	704.917.3	378
	6.00 A	2 NC	Gold	Push-in terminal	704.917.4	379
	6.00 A	1 NC / 1 NO	Gold	Push-in terminal	704.917.5	380
	6.00 A	1 NO	Silver	Push-in terminal	704.918.1	376
	6.00 A	1 NC	Silver	Push-in terminal	704.918.2	377
	6.00 A	2 NO	Silver	Push-in terminal	704.918.3	378
	6.00 A	2 NC	Silver	Push-in terminal	704.918.4	379
	6.00 A	1 NC / 1 NO	Silver	Push-in terminal	704.918.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- · For the third switching element the terminal marking insert is to be ordered separately
- · Operating temperature: Other temperatures on request



Dimensions [mm]

A = Screw terminal

B = Push-in terminal (PIT)

C = Plug-in terminal 6.3 mm x 0.8 mmD = Double plug-in terminal 6.3 mm x 0.8 mm

	11 			
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element for emergency stop switch with plug-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	6.00 A	1 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.1	376
	6.00 A	1 NC	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.2	377
	6.00 A	2 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.3	378
	6.00 A	2 NC	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.4	379
	6.00 A	1 NC / 1 NO	Silver	Plug-in terminal, 6.3 x 0.8 mm	704.915.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)

C = Plug-in terminal (6.3 mm x 0.8 mmD = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4		44	
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element for emergency stop switch with double plug-in terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	6.00 A	1 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.1/D	376
	6.00 A	1 NC	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.2/D	377
	6.00 A	2 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.3/D	378
	6.00 A	2 NC	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.4/D	379
	6.00 A	1 NC / 1 NO	Silver	Double plug-in terminal, 6.3 x 0.8 mm	704.915.5/D	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- · Operating temperature: Other temperatures on request



Dimensions [mm]

- A = Screw terminal
- B = Push-in terminal (PIT)
- C = Plug-in terminal 6.3 mm x 0.8 mm D = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4			
14	12	14 24	12 22	14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380



Slow-make switching element for emergency stop switch with screw terminal

Switching voltage	Switching current	Contacts	Contact material	Terminal	Part No.	Wiring diagram
500.00 V	10.00 A	1 NO	Silver	Screw terminal	704.910.1	376
	10.00 A	1 NC	Silver	Screw terminal	704.910.2	377
	10.00 A	2 NO	Silver	Screw terminal	704.910.3	378
	10.00 A	2 NC	Silver	Screw terminal	704.910.4	379
	10.00 A	1 NC / 1 NO	Silver	Screw terminal	704.910.5	380
	10.00 A	1 NO	Gold	Screw terminal	704.911.1	376
	10.00 A	1 NC	Gold	Screw terminal	704.911.2	377
	10.00 A	2 NO	Gold	Screw terminal	704.911.3	378
	10.00 A	2 NC	Gold	Screw terminal	704.911.4	379
	10.00 A	1 NC / 1 NO	Gold	Screw terminal	704.911.5	380
	10.00 A	1 NO	Palladium	Screw terminal	704.912.1	376
	10.00 A	2 NO	Palladium	Screw terminal	704.912.3	378
	10.00 A	2 NC	Palladium	Screw terminal	704.912.4	379
	10.00 A	1 NC / 1 NO	Palladium	Screw terminal	704.912.5	380

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

A = Screw terminal

 $B = Push-in terminal (PIT) \\ C = Plug-in terminal 6.3 mm x 0.8 mm$

D = Double plug-in terminal 6.3 mm x 0.8 mm

13	11	13 23	11 21	13 21
	4		+ +	
 14	12	 14 24	 12 22	 14 22
Wiring diagram 376	Wiring diagram 377	Wiring diagram 378	Wiring diagram 379	Wiring diagram 380


Slow-make switching element failsafe

Contacts	Contact material	Terminal	Product attributes	Part No.	Wiring diagram
1 NC / 1 FS	Silver	Screw terminal		704.910.4FS	381
	Gold	Screw terminal		704.911.4FS	381
	Silver	Screw terminal	For ring cable shoe	704.910.4BFS	381
	Gold	Screw terminal	For ring cable shoe	704.911.4BFS	381
	Gold	Double plug-in terminal, 6.3 x 0.8 mm		704.911.4/DFS	381
	Silver	Double plug-in terminal, 6.3 x 0.8 mm		704.915.4/DFS	381
	Gold	Push-in terminal		704.917.4FS	381
	Silver	Push-in terminal		704.918.4FS	381

Contacts: NC = Normally closed, NO = Normally open

Additional information

- When using the switching element, the application guidelines must be observed.
- For the third switching element the terminal marking insert is to be ordered separately
- Operating temperature: Other temperatures on request



Dimensions [mm]

A = Screw terminal

 $\begin{array}{l} \mathsf{A} = \mathsf{O}\mathsf{c}\mathsf{s}\mathsf{w}\mathsf{m}\mathsf{m}\mathsf{m}\mathsf{m} \\ \mathsf{B} = \mathsf{P}\mathsf{u}\mathsf{s}\mathsf{h}\mathsf{-}\mathsf{i}\mathsf{n}\mathsf{t}\mathsf{e}\mathsf{rm}\mathsf{m}\mathsf{i}\mathsf{a}\mathsf{l}(\mathsf{P}|\mathsf{T}) \\ \mathsf{C} = \mathsf{P}\mathsf{l}\mathsf{u}\mathsf{g}\mathsf{-}\mathsf{i}\mathsf{n}\mathsf{t}\mathsf{e}\mathsf{rm}\mathsf{i}\mathsf{a}\mathsf{l}(\mathsf{6.3}\ \mathsf{mm}\ \mathsf{x}\ \mathsf{0.8}\ \mathsf{mm} \\ \mathsf{D} = \mathsf{D}\mathsf{o}\mathsf{u}\mathsf{b}\mathsf{l}\mathsf{e}\mathsf{p}\mathsf{l}\mathsf{u}\mathsf{g}\mathsf{-}\mathsf{i}\mathsf{n}\mathsf{t}\mathsf{e}\mathsf{rm}\mathsf{i}\mathsf{a}\mathsf{l}(\mathsf{6.3}\ \mathsf{mm}\ \mathsf{x}\ \mathsf{0.8}\ \mathsf{mm} \\ \end{array}$





Kraus Naimer rotary switching element 30°

Switching positions	Switching positions	Multi-step switch	Stages	Terminal	Part No.	Wiring diagram
A = Rest, I = End	9 positions	1-pole	5	Screw terminal	704.8A236	382
A = Rest, K = End	10 positions	1-pole	5	Screw terminal	704.8A237	383
A = Rest, L = End	11 positions	1-pole	6	Screw terminal	704.8A238	384
A = Rest, M = End	12 positions	1-pole	6	Screw terminal	704.8A239	385
A = Rest (without stop)	12 positions	1-pole	6	Screw terminal	704.8A639	385

Additional information

 Switching positions and functions of the rotary switching elements are being produced according to customer specifications. Please contact your local EAO Sales Office

Wiring diagrams





Kraus Naimer rotary switching element 45°

Switching positions	Switching positions	Multi-step switch	Stages	Terminal	Part No.	Wiring diagram
A = Rest, G = End	7 positions	1-pole	4	Screw terminal	704.8A234	386
	7 positions	2-pole	7	Screw terminal	704.8A254	387
A = Rest, H = End	8 positions	1-pole	4	Screw terminal	704.8A235	388
	8 positions	2-pole	8	Screw terminal	704.8A255	389

Additional information

 Switching positions and functions of the rotary switching elements are being produced according to customer specifications. Please contact your local EAO Sales Office

9	9	25	9	9	25
5 ° ° 13	5 ° ° 13	21 ₀ 015	5 ° ° 13	5 ° 13	21 ₀ 0 15
1 ° 2 ° 3	1 ° 2 ° 3 1	17 • 2 • 19	1 ° 2 ° 3	1 ° 2 ° 3	$\begin{array}{c} 17 & & & \\ & & & \\ & & & \\ 31 & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array} $
° 7	° 7	° 23	15 ° 7	15 ° 7	
11	11	27	11	11	
Wiring diagram 386	Wiring diagram 387		Wiring diagram 388	Wiring diagram 389	



Kraus Naimer rotary switching element 60°

Switching positions	Switching positions	Multi-step switch	Stages	Terminal	Part No.	Wiring diagram
A = Rest, C = End	3 positions	1-pole	2	Screw terminal	704.8A230	390
	3 positions	1-pole, galvanically isolated	2	Screw terminal	704.8A730	391
	3 positions	2-pole	3	Screw terminal	704.8A250	392
	3 positions	3-pole	5	Screw terminal	704.8A270	393
A = Rest, D = End	4 positions	1-pole	2	Screw terminal	704.8A231	394
	4 positions	1-pole, galvanically isolated	2	Screw terminal	704.8A731	395
	4 positions	2-pole	4	Screw terminal	704.8A251	396
	4 positions	3-pole	6	Screw terminal	704.8A271	397
A = Rest, E = End	5 positions	1-pole	3	Screw terminal	704.8A232	398
	5 positions	2-pole	5	Screw terminal	704.8A252	399
	5 positions	3-pole	8	Screw terminal	704.8A272	400
A = Rest, F = End	6 positions	1-pole	3	Screw terminal	704.8A233	401
	6 positions	2-pole	6	Screw terminal	704.8A253	402

Additional information

 Switching positions and functions of the rotary switching elements are being produced according to customer specifications. Please contact your local EAO Sales Office



Wiring diagrams





Flasher element

Product attributes	Operating voltage	Operation current	Terminal	Part No.	Wiring diagram
Lamp voltage/-current 130 V, 20 mA	230 / 230,00 / 130,00 V AC/DC ±6%		Screw terminal	704.943.0	374
Lamp voltage/- current 60 V, 33 mA	115,00 / 60,00 V AC/DC +10%		Screw terminal	704.943.1	374
Lamp voltage/-current 130 V, 3 mA	130 / 130,00 / 130,00 V AC/DC +10%		Push-in terminal	704.943.2P	374
	130 / 130,00 / 130,00 V AC/DC +10%		Screw terminal	704.943.2	374
Lamp voltage/-current 24 V, 10 85 mA	24 / 24,00 / 24,00 V AC/DC ±15 %	10 / 85,00 mA	Screw terminal	704.943.5	374



Dimensions [mm] A = Screw terminal Push-in terminal (PIT)





Lamp transformer

Part No.	Wiring diagram
704.970.3	371
704.970.4	371
704.970.5	371
704.970.6	371

Additional information

• Lamp voltage/-current 24 VAC, 50 mA, 50/60 Hz



Dimensions [mm]



Front side



Legend frame

Product attributes	Dimension	Material	Colour	Surface	Mounting type	Part No.
For raised design	30 mm x 50 mm x 0.75 mm	Aluminium	Black	anodised	adhesive	704.968.2
For flush design	35 mm x 57.5 mm x 0.75 mm	Aluminium	Black	anodised	adhesive	704.968.3

Additional information

The colour of anodised aluminium parts can vary due to technical production reasons



Dimensions [mm] for Part No. 704.968.2

Dimensions [mm] for Part No. 704.968.3



Product attributes	Dimension	Material	Colour	Surface	Mounting type	Part No.
For legend frame Part No.704.968.2 and 704.968.3	14.5 mm x 23.5 mm	Aluminium	Nature	anodised	adhesive	704.968.0
	14.5 mm x 23.5 mm	Aluminium	Black	anodised	adhesive	704.968.1

Additional information

The colour of anodised aluminium parts can vary due to technical production reasons



Legend plate flush design

Dimension	Material	Colour	Surface	Mounting type	Part No.
18 mm x 35 mm	Aluminium	Nature	anodised	adhesive	704.968.4

Additional information

- For devices square with flush design
- The colour of anodised aluminium parts can vary due to technical production reasons



Emergency stop legend

Dimension	Material	Colour	Mounting cut-out	Marking	Part No.
Ø 60 mm	Plastic	Yellow	Ø 22.5 mm	NOT AUS	704.963.5
	Plastic	Yellow	Ø 22.5 mm	EMERGENCY STOP	704.963.6
	Plastic	Yellow	Ø 22.5 mm	ARRET D'URGENCE	704.963.7
	Plastic	Yellow	Ø 22.5 mm	NOT HALT	704.963.8
	Plastic	Yellow	Ø 22.5 mm	EN ISO 13850 symbol	704.963.9
Ø 90 mm	Plastic	Yellow	Ø 22.5 mm	NOT AUS	704.963.0
	Plastic	Yellow	Ø 22.5 mm	EMERGENCY STOP	704.963.1
	Plastic	Yellow	Ø 22.5 mm	ARRET D'URGENCE	704.963.2
	Plastic	Yellow	Ø 22.5 mm	NOT HALT	704.963.3
	Plastic	Yellow	Ø 22.5 mm	EN ISO 13850 symbol	704.963.4

Additional information

• Front panel thickness 3 mm max.



Legend plate rotary switch

Product attributes	Dimension	Material	Colour	Surface	Mounting type	Part No.
For raised design Ø 29 mm	48 mm x 60 mm	Aluminium	Black	anodised	adhesive	704.968.12

Additional information

• The colour of anodised aluminium parts can vary due to technical production reasons



Blind plug

Dimension	Material	Colour	Mounting cut-out	Part No.
Ø 28 mm	Plastic	Black	Ø 22.5 mm	704.960.4
Ø 22.5 mm	Plastic	Black	Ø 22.5 mm	704.964.7
Ø 36 mm	Plastic	Black	Ø 30.5 mm	704.964.8
35 mm x 35 mm	Plastic	Black	30 mm x 30 mm	704.964.9

Additional information

• Please note that bigger minimum distances are necessary







Dimensions [mm] for Part No. 704.964.8

Dimensions [mm] for Part No. 704.964.9



Spare key

Product attributes	Material	Part No.
The standard lock Ronis 251	Metal	704.989.251



Protective cap

Product attributes	Material	Colour	Optics	Part No.
Only together with lenses Part No. 704.602.X, 704.601.X and front rings Part No. 704.600.X	Silicone	Colourless	transparent	704.953.0

Additional information

• For Indicator and Illuminated pushbutton for IP68 protection



Protective ring

Product attributes	Material	Colour	Surface	Part No.
With transparent silicone membrane (resistant to sea water), temperature resistance -40 $^\circ C$ +85 $^\circ C$	Brass		chrome	704.600.2
	Aluminium	Nature	anodised	704.600.3
With transparent Pebax membrane, temperature re- sistance -40 °C +85 °C	Aluminium	Nature	anodised	704.600.5/A

Additional information

For Illuminated pushbutton for front protection IP 67

The colour of anodised aluminium parts can vary due to technical production reasons



Protective cover raised design

Product attributes	Material	Optics	Part No.
For pushbutton	Plastic	transparent	704.925.0
For pushbutton, with spring fitted	Plastic	transparent	704.925.3
For selector switch	Plastic	transparent	704.925.2

Additional information

• Hinged, with means for sealing



Dimensions [mm]



Protective cover square flush design

Product attributes	Dimension	Material	Optics	Mounting cut-out	Part No.
For pushbutton	38.5 mm x 45 mm	Plastic	transparent	30 mm x 30 mm	704.925.8
				-	

Additional information

- · Hinged, with means for sealing
- Front panel thickness reduces by 2 mm
- · Please note that bigger minimum distances are necessary



Dimensions [mm]



Protective cover round flush design

Product attributes	Dimension	Material	Colour	Surface	Part No.
With means for sealing, for pushbutton with mounting cut-outs $\ensuremath{\varnothing}$ 30.5 mm	37 mm x 44.5 mm	Plastic	Colourless		704.925.7
Without cover locking hole, with spring fitted, with win-dow, for pushbutton with mounting cut-outs \varnothing 30.5 mm	38 mm x 50 mm	Aluminium	Nature	anodised	704.928.18
Without cover locking hole, for pushbutton and selector switch short lever with mounting cut-outs Ø 30.5 mm	38 mm x 50 mm	Aluminium	Nature	anodised	704.928.28
With means for sealing, for pushbutton and selector switch short lever with mounting cut-outs \varnothing 30.5 $\rm mm$	38 mm x 50 mm	Aluminium	Nature	anodised	704.928.38

Additional information

- Hinged
- Front panel thickness reduces by 2 mm
- · Please note that bigger minimum distances are necessary
- The colour of anodised aluminium parts can vary due to technical production reasons



Dimensions [mm] for Part No. 704.928.18

Dimensions [mm] for Part No. 704.928.28, 704.928.38



E stop protective shroud

Dimension	Material	Colour	Marking	Part No.
Ø 65 mm	Plastic	Yellow		704.927.6
	Plastic	Yellow	NOT-AUS	704.927.6A
	Plastic	Yellow	EMERGENCY-STOP	704.927.6B
	Plastic	Yellow	EMERGENCY-STOP / NOT-AUS	704.927.6C

Additional information

- Front panel thickness 1 ... 2.5 mm other actuators
- Front panel thickness 1 ... 2.5 mm with emergency stop switch
- With anti-twist device
- When using a protective shroud the e-stop or stop-switch has to be turned by 180° to be mounted. See dimensional drawing
- Do not use solvents when cleaning



Dimensions [mm]



Protective shroud

Product attributes	Dimension	Material	Colour	Part No.
Use only for Part No. 704.064.2 und 704.066.2	Ø 50 mm	Plastic	Yellow	704.927.8
	Ø 83 mm	Plastic	Yellow	704.927.9

Additional information

- The protection shroud is not suitable for a proper use of emergency-stop. It can obstruct a spontaneous operation of the emergency-stop switch
- Use only for Part No. 704.064.2 und 704.066.2





Dimensions [mm]

Dimensions [mm]



Marking foil square

Product attributes	Material	Colour	Optics	Part No.
For lens square, front illumination	Plastic	Colourless	transparent	704.707.7
For lens square, full-face illumination	Plastic	Colourless	transparent	704.706.7

Additional information

Can be hot stamped

Rear side



Diode block

Terminal	Part No.	Wiring diagram
Push-in terminal	704.942.5P	370
Screw terminal	704.942.5	370



Dimensions [mm] A = Screw terminal Push-in terminal (PIT)

Wiring diagrams





Product attributes	Material	Terminal	Part No.
For covering of screw terminal	Plastic	Screw terminal	704.964.5



Dimensions [mm]



Product attributes	Terminal	Marking	Part No.
2 NO for 1st or 2nd switching element	null	13/23 33/43	704.965.1
	null	24/14 44/34	704.965.2
2 NO for 3rd switching element	null	53/63 73/83	704.965.3
	null	22/12 42/32	704.965.4
2 NC for 1st or 2nd switching element	null	11/21 31/41	704.965.5
	null	22/12 42/32	704.965.6
2 NC for 3rd switching element	null	51/61 71/81	704.965.7
	null	22/12 42/32	704.965.8
1 NC + 1 NO for 1st or 2nd switching element	null	13/21 33/41	704.965.9
	null	22/14 42/34	704.966.0
1 NC + 1 NO for 3rd switching element	null	53/61 73/81	704.966.1
	null	62/54 82/74	704.966.2



Terminal plate empty

Product attributes	Dimension	Terminal	Part No.
5 spaces	62.5 mm x 60 mm x 15 mm	null	02-912.1
10 spaces	125 mm x 60 mm x 15 mm	null	02-912.2
15 spaces	187.6 mm x 60 mm x 15 mm	null	02-912.3
20 spaces	250 mm x 60 mm x 15 mm	null	02-912.4

Additional information

• For fitting with series resistors



Contact bridge

Material	Terminal	Part No.
Metal	null	704.990.1

Additional information

• For switching element with screw terminals

• Do not insert by Emergency-stopp switches and by stop switches

• Available in unit of 10 pieces



Resistor block

Product attributes	Materi- al	Operating voltage	Terminal	Input volta- ge	Output volta- ge	Part No.	Wiring diagram
Lamp voltage/-current 130 V, 20 mA	Plastic	130 - 230,00 - 230,00 - 130,00 V AC	Screw termi- nal	230.00 V	130.00 V	704.941.0	372
Lamp voltage/- current 60 V, 33 mA	Plastic	33 - 60,00 - 125,00 - 60,00 V AC	Screw termi- nal	125.00 V	60.00 V	704.941.5	372



Dimensions [mm] A = Screw terminal Push-in terminal (PIT)

Wiring diagrams





Side resistor diode block

Product attributes	Materi- al	Operating voltage	Terminal	Input volta- ge	Output volta- ge	Part No.	Wiring diagram
Lamp voltage/-current 130 V, 20 mA	Plastic	130 - 230,00 - 230,00 - 130,00 V AC	Screw termi- nal	230.00 V	130.00 V	704.941.9	373



Dimensions [mm] A = Screw terminal Push-in terminal (PIT)



Mounting



Enclosure

Product attributes	Dimension	Material	Colour	IP Protection	Part No.
Bottom grey similar RAL 7035; cover lead-sealable, yellow similar RAL 1004	94 mm x 94 mm x 81 mm	Plastic	Grey	IP66	704.945.0
	65 mm x 65 mm x 81 mm	Plastic	Grey	IP66	704.945.7
	94 mm x 65 mm x 81 mm	Plastic	Grey	IP66	704.945.8
With mounting cut-out 1 x Ø 22.3 mm, with anti-twist device	94 mm x 94 mm x 81 mm	Plastic	Grey	IP66	704.945.1
With mounting cut-out 2 x Ø 22.3 mm, with anti-twist device	130 mm x 94 mm x 81 mm	Plastic	Grey	IP66	704.945.2
With mounting cut-out 3 x Ø 22.3 mm, with anti-twist device	180 mm x 94 mm x 81 mm	Plastic	Grey	IP66	704.945.3
With mounting cut-out 4 x Ø 22.3 mm, with anti- twist device	180 mm x 182 mm x 110 mm	Plastic	Grey	IP66	704.945.4
With mounting cut-out 6 x Ø 22.3 mm, with anti- twist device	180 mm x 182 mm x 110 mm	Plastic	Grey	IP66	704.945.5





Dimensions [mm]

Dimensions [mm] for Part No. 704.945.1, 704.945.2, 704.945.3, 704.945.4, 704.945.5

Lens plug

Product attributes	Material	Part No.
For mounting and dismantling of the round lens, flush design	Plastic	700.006.0



Lens remover

Product attributes	Material	Part No.
For dismantling of the square lens, flush design	Metal	98-968



Cable gland

Product attributes	Material	Colour	IP Protection	Thread	Part No.
With traction relief	Plastic	Grey	IP68	M16 x 1.5 mm	61-9481.6
	Plastic	Grey	IP68	M20 x 1.5 mm	704.945.6



Mounting plate

Product attributes	Material	Colour	Part No.
For separate mounting of lamp transformer, resistor block or capacitor block	Plastic	Grey	704.940.8

Dimensions [mm]



Mounting tool indicator

Product attributes	Material	Part No.
For Indicators full-face illumination, compact	Metal	700.005.0



Mounting tool key insert switch

Product attributes	Material	Part No.
For key insert switch	Metal	704.990.0



Reducing ring

Product attributes	Material	Colour	Surface	Part No.
	Aluminium	Black	anodised	704.960.0
	Aluminium	Nature	anodised	704.960.8
With slot for anti-twist device	Aluminium	Nature	anodised	704.960.8A

Additional information

- Devices Ø 22.3 mm in mounting cut-out Ø 30.5 mm
- The colour of anodised aluminium parts can vary due to technical production reasons



Dimensions [mm]



On base

Product attributes	Material	Colour	Optics	Part No.
To snap-on, for seperate mounting of lamp transfor- mer, resistor block or capacitor block	Plastic	Black		704.940.9
	Plastic	Colourless	transparent	704.941.1





Dimensions [mm]

Dimensions [mm]



Reinforcement ring

Dimension	Material	Surface	Part No.
44 mm x 29 mm x 3 mm	Steel plate	galvanized	704.960.9

Additional information

• For thin front panels and plastic case

Slow-make switching element with VDE and UKCA

When using the switching element, the application guidelines must be observed.

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 three switching elements can be snapped to each actuator.

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

Special requirements for positive-opening auxiliary current switches

Positive opening travel	Emergency stop 12.5 mm
Minimum force	Emergency stop 50 N (actuating force at
	which is safely switched)
Max. travel	Emergency stop 12.5 mm

Material

Housing

The indicator lights/switches may be installed in enclosures with protection class 2 according to DIN EN 61140. The enclosure must at least have enclosure class 2 according to UL50E.

Material of contact

Hard silver, gold-silver, silver-palladium (for aggressive atmospheres)

Switch housing

Plastic

Mechanical characteristics

Terminals

Screw terminal	
- max. wire cross section	2.5 mm ²
- stripping length wire	10mm
- max. number of wire	2
- max. strand cross section	1.5 mm ²
 stripping strands 	use stranded wires only
	with wire end ferrules
	of 10mm length
- max. number of strands	2

Only one polarity is allowed on each side when wiring.

Plug-in terminal 1 x 6.3 mm x 0.8 mm or 2 x 2.8 mm x 0.8 mm For devises with plug-in connections, insulating sleeves are required and the mounting cut-out of 65 mm must be observed.

Double plug-in terminal 2 x 6.3 mm x 0.8 mm For units with plug-in connections, insulating sleeves are required and the mounting cut-out of 65 mm must be observed.

Tightening torque

Screws at the plastic mounting flange max. 0.4 ... 0.5 Nm Screws at the metal mounting flange max. 0.25 ... 0.3 Nm Screws at switching element max. 0.8 Nm

Actuating force

1 Normally closed 2 N 1 Normally open 3 N

Actuating travel

Approx. 5.8 mm ±0.2 mm

Mechanical lifetime

- (with 1 switching element) Pushbutton maintained action Pushbutton momentary action Selector switch maintained action 1.25 million cycles of operation Selector switch momentary action Emergency-stop switch Keylock switch maintained action Keylock switch momentary action
 - 1.5 million cycles of operation 3 million cycles of operation 2.5 million cycles of operation 50 000 cycles of operation 25000 cycles of operation 50 000 cycles of operation

Electrical characteristics

Standards

The switches comply with the "Standards for low-voltage switching devices" DIN EN 60947-5-1

Rated Insulation Voltage U_i

500 V, as per DIN EN 60947-5-1

Rated impulse withstand voltage U_{imp}

4 kV, according to EN/IEC 60947-5-1

Electrical life 50 000 cycles of operation

Thermal current I_{th}

Max. current at continuous operation and limit temperatures which do not exceed the specified max. values. 10 A

Switching voltage and switching current

as per EN IEC 60947-5-1			
voltage	DC13	AC15	
24V	4.0 A	8.0A	
60 V	1.5 A	8.0A	
110V	1.0A		
120V		8.0A	
230 V	0.4 A	7.0A	
400 V	0.2 A	5.0A	
500 V	0.15A	4.0A	

For voltages greater than $U_i = 400 \text{ V}$, the grid dimensions must not be less than 35 mm x 35 mm.

Recommended minimum operational data

Gold-silver contacts: Voltage 24VDC 110VDC Current 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

Ambient conditions

Storage temperature $-40 \,^{\circ}\text{C} \dots + 85 \,^{\circ}\text{C}$

Operating temperature

-40 °C ... +55 °C (other temperatures on request) Protection degree IP00

Shock resistance (single impacts, semi-sinusoidal) $300\,m/s^2\,pulse \ width \ 11\,ms, \ as \ per \ EN \ IEC \ 60068-2-27$

Vibration resistance

(sinusoidal) $100\,m/s^2 \ at \ 10\,Hz \dots 500\,Hz, \ amplitude \ 0.75\,mm, \ as \ per \ EN \ IEC \ 60068-2-6$

Pollution degree

3

Climatic resistance

Relative humidity 10 ... 95 % non-condensing

Approvals

Approbations

CB (IEC 60947-5-1) DNV EAC NFF cULus VDE

Conformities CE CCC

UKCA

Snap-action switching element with VDE and UKCA

When using the switching element, the application guidelines must be observed.

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 three switching elements can be snapped to each actuator.

Snap-action switching elements are not permissible for emergencystop pushbuttons!

Material

Housing

The indicator lights/switches may be installed in enclosures with protection class 2 according to DIN EN 61140. The enclosure must at least have enclosure class 2 according to UL50E.

Material of contact

Hard silver, gold-silver, silver-palladium (for aggressive atmospheres)

Switch housing

Plastic

Mechanical characteristics

Terminals

Screw terminal	
- max. wire cross section	2.5 mm ²
- stripping length wire	10mm
- max. number of wire	2
- max. strand cross section	1.5 mm ²
- stripping strands	use stranded wires only
	with wire end ferrules
	of 10mm length

Only one polarity is allowed on each side when wiring.

Plug-in terminal 1 x 6.3 mm x 0.8 mm or 2 x 2.8 mm x 0.8 mm For devises with plug-in connections, insulating sleeves are required and the mounting cut-out of 65 mm must be observed.

Double plug-in terminal 2 x 6.3 mm x 0.8 mm

For units with plug-in connections, insulating sleeves are required and the mounting cut-out of 65 mm must be observed.

Tightening torque

Screws at the plastic mounting flange max. 0.4-0.5 Nm Screws at the metal mounting flange max. 0.25-0.3 Nm Screws at switching element max. 0.8 Nm

Actuating force

1 Normally closed 1.9 N 1 Normally open 2 N

Actuating travel

Approx. $5.8 \text{ mm} \pm 0.2 \text{ mm}$

Mechanical lifetime

(with 1 switching element) Pushbutton maintained action Pushbutton momentary action Selector switch maintained action 1.25 million cycles of operation Selector switch momentary action Keylock switch maintained action Keylock switch momentary action

1.5 million cycles of operation 3 million cycles of operation

2.5 million cycles of operation 25000 cycles of operation

50000 cycles of operation

Electrical characteristics

Standards

The switches comply with the "Standards for low-voltage switching devices" DIN EN 60947-5-1

Rated Insulation Voltage U 500 V, as per DIN EN 60947-5-1

Rated impulse withstand voltage U

4 kV, according to EN/IEC 60947-5-1

Electrical life

50 000 cycles of operation

Thermal current Ith

Max. current at continuous operation and limit temperatures which do not exceed the specified max. values. 10 A

Switching voltage and switching current

as per EN IEC 60947-5-1

voltage	DC13	AC15
24 V	2.5A	4.5A
60 V	0.8A	4.5A
110V	0.6A	
120 V		4.5A
230 V	0.2A	4.5A
400 V	0.15A	4.0A
500 V	0.07 A	2.5A

For voltages greater than $U_i = 400 \text{ V}$, the grid dimensions must not be less than 35 mm x 35 mm.

Recommended minimum operational data

Gold-silver contacts: Voltage 5VDC 24VDC 110VDC 5mA 2mA Current 15mA

Hard silver contacts:

Voltage 24VDC 110VDC Current 50 mA 10 m A

Protection class

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

Ambient conditions

Storage temperature -40°C...+85°C

Operating temperature

-40°C...+55°C (other temperatures on request)

Protection degree

IP00

Shock resistance

(single impacts, semi-sinusoidal) 300 m/s² pulse width 11 ms, as per DIN EN 60068-2-27

Vibration resistance

(sinusoidal) 100 m4/s² at 10 Hz ... 500 Hz, amplitude 0.75 mm, as per DIN EN 60068-2-6

Pollution degree

3

Climatic resistance Relative humidity 10 ... 95 % non-condensing

Approvals

Approbations

CE CCC UKCA

CB (IEC 60947-5-1)
DNV
EAC
NFF
cULus
VDE
Conformities

Slow-make switching element PIT with VDE and UKCA

When using the switching element, the application guidelines must be observed.

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 three switching elements can be snapped to each actuator.

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

Special requirements for positive-opening auxiliary current switches

Positive opening travel	Emergency stop 12.5 mm
Minimum force	Emergency stop 50 N (actuating force at
	which is safely switched)
Max. travel	Emergency stop 12.5 mm

Material

Housing

The indicator lights/switches may be installed in enclosures with protection class 2 according to DIN EN 61140.

The enclosure must at least have enclosure class 2 according to UL50E.

Material of contact

Hard silver and gold-silver

Switch housing

Plastic

Mechanical characteristics

Terminals

PIT push-in terminal	
- max. wire cross section	1.0 mm ²
- stripping length wire	8 mm
- max. number of wire	2
- max. strand cross section	0.75 mm ²
 stripping strands 	use stranded wires only
	with wire end ferrules
	of 8 mm length
- max. number of strands	2

Only one polarity is allowed on each side when wiring.

Tightening torque

Screws at the plastic mounting flange max. 0.4-0.5 Nm Screws at the metal mounting flange max. 0.25-0.3 Nm

Actuating force

1 Normally closed 2 N 1 Normally open 3 N

Actuating travel

approx. $5.8 \text{ mm} \pm 0.2 \text{ mm}$

Mechanical lifetime

(with 1 switching element) Pushbutton maintained action Pushbutton momentary action Selector switch maintained action 1.25 million cycles of operation Selector switch momentary action Emergency-stop switch Keylock switch maintained action Keylock switch momentary action

1.5 million cycles of operation 3 million cycles of operation 2.5 million cycles of operation 50000 cycles of operation 25000 cycles of operation 50000 cycles of operation

Electrical characteristics

Standards The switches comply with DIN EN 60947-1/EN IEC 60947-5-1

Rated Insulation Voltage U_i 500 V, as per DIN EN 60947-5-1

Rated impulse withstand voltage U_{imp} 4 kV, according to EN/IEC 60947-5-1

Electrical life 50000 cycles of operation

Thermal current \mathbf{I}_{th}

Max. current at continuous operation and limit temperatures which do not exceed the specified max. values. 6A

Switching voltage and switching current

as per EN IEC 60947-5-1			
voltage	DC13	AC15	
24 V	4,0 A	6,0A	
48V		6,0A	
60 V	1,5 A		
110V	1,0 A		
120V		6,0A	
230 V		7,0A	

For voltages greater than $\rm U_i$ = 400 V, the grid dimensions must not be less than 35 mm x 35 mm.

Recommended minimum operational data

Gold-silver contacts: Voltage 24 VDC Current 5 mA

Hard silver contacts: Voltage 24 VDC Current 50 mA

Protection class

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

Ambient conditions

Storage temperature $-40 \,^{\circ}\text{C} \dots + 85 \,^{\circ}\text{C}$

Operating temperature $-40\,^\circ\text{C}\ldots+55\,^\circ\text{C}$ (other temperatures on request)

Protection degree

Shock resistance (single impacts, semi-sinusoidal) $300\,m/s^2$ pulse width 11 ms, as per DIN EN 60068-2-27

Pollution degree

3

Climatic resistance

Relative humidity 10 ... 95 % non-condensing

Approvals

Approbations CB (IEC 60947-5-1) DNV EAC NFF cULus VDE

Conformities

CE CCC UKCA

Snap-action switching element PIT with VDE and UKCA

When using the switching element, the application guidelines must be observed.

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 three switching elements can be snapped to each actuator.

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

Material

Housing

The indicator lights/switches may be installed in enclosures with protection class 2 according to DIN EN 61140.

The enclosure must at least have enclosure class 2 according to UL50E.

Material of contact Hard silver and gold-silver

Switch housing

Plastic

Mechanical characteristics

Terminals

PIT push-in terminal - max. wire cross section - stripping length wire - max. number of wire	1.0 mm² 8 mm 2
 max. strand cross section stripping strands max. number of strands 	0.75 mm ² use stranded wires only with wire end ferrules of 8 mm length 2

Only one polarity is allowed on each side when wiring.

Tightening torgue

Screws at the plastic mounting flange max. 0.4-0.5 Nm Screws at the metal mounting flange max. 0.25-0.3 Nm

Actuating force

1 Normally closed 1.9 N

1 Normally open 2 N

Actuating travel

Approx. 5.8 mm ±0.2 mm

Mechanical lifetime

(with 1 switching element) Pushbutton maintained action Pushbutton momentary action Selector switch maintained action 1.25 million cycles of operation Selector switch momentary action Keylock switch maintained action Keylock switch momentary action

1.5 million cycles of operation 3 million cycles of operation 2.5 million cycles of operation 25000 cycles of operation 50000 cycles of operation

Electrical characteristics

Standards

The switches comply with DIN EN 60947-1/DIN EN 60947-5-1

Rated Insulation Voltage Ui 500 V, as per DIN EN 60947-5-1

Rated impulse withstand voltage U_{imp}

4 kV, according to EN/IEC 60947-5-1

Electrical life

50 000 cycles of operation

Thermal current Ith

Max. current at continuous operation and limit temperatures which do not exceed the specified max. values. 6A

Switching voltage and switching current

as per E	N IEC 60947-5-1	
voltage	DC13	AC15
24 V	2,5A	6,0A
48 V		6,0A
60 V	0,8A	
110V	0,6A	
120V		6,0A

For voltages greater than $U_1 = 400 \text{ V}$, the grid dimensions must not be less than 35 mm x 35 mm.

6.0A

Recommended minimum operational data

Gold-silver contacts: Voltage 24 VDC Current 5mA

230 V

Hard silver contacts: Voltage 24 VDC Current 50 mA

Protection class

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

Ambient conditions

Storage temperature

-40°C...+85°C

Operating temperature

-40 °C ... + 55 °C (other temperatures on request)

Protection degree

IP20

Shock resistance (single impacts, semi-sinusoidal) $300\,m/s^2$ pulse width 11 ms, as per DIN EN 60068-2-27

Vibration resistance

(sinusoidal) $100\,m/s^2$ at $10\,Hz\ldots500\,Hz,$ as per DIN EN 60068-2-6 and EN 61373 Increased broad band noise, class 1B

Pollution degree

3

Climatic resistance Relative humidity 10 ... 95 % non-condensing

Lamp block

When using the lamp block, the application guidelines must be observed.

Material

Housing Plastic

Mechanical characteristics

Terminals

Screw terminal	
- max. wire cross section	2.5 mm ²
- stripping length wire	10 mm

_	suppling length w		
-	max. number of w	ire	

-	max.	strand	cross	section

stripping strands

- max, number of strands

1.5 mm² use stranded wires only with wire end ferrules of 10 mm length 2

2

Only one polarity is allowed on each side when wiring.

Approvals

Approbations

CB (IEC 60947-5-1) DNV EAC NFF cULus VDE

Conformities

CCC UKCA

Plug-in terminal $1 \times 6.3 \text{ mm} \times 0.8 \text{ mm}$ or $2 \times 2.8 \text{ mm} \times 0.8 \text{ mm}$ For devises with plug-in connections, insulating sleeves are required and the mounting cut-out of 65 mm must be observed.

Double plug-in terminal $2 \times 6.3 \,\text{mm} \times 0.8 \,\text{mm}$ For units with plug-in connections, insulating sleeves are required and the mounting cut-out of 65 mm must be observed.

Tightening torque

Screws at lamp block max. 0.5 Nm

Electrical characteristics

Standards The switches comply with DIN EN 60947-1/DIN EN 60947-5-1

Illumination

Voltage 250 V max. (many different lamp types available) Power 2.6 W max. (many different lamp types available)

Ambient conditions

Storage temperature $-40 \degree C \dots + 85 \degree C$

Operating temperature -40 °C ... + 55 °C (other temperatures on request)

Protection degree

Shock resistance (single impacts, semi-sinusoidal) 300 m/s² pulse width 11 ms, as per DIN EN 60068-2-27

Vibration resistance (sinusoidal) $100 \,\text{m/s}^2$ at $10 \,\text{Hz} \dots 500 \,\text{Hz}$, as per DIN EN 60068-2-6 and EN 61373 Increased broad band noise, class 1B

Climatic resistance Relative humidity 10 ... 95 % non-condensing

Lamp block PIT

When using the lamp block, the application guidelines must be observed.

Material

Housing Plastic

Mechanical characteristics

Terminals

 PIT push-in terminal

 - max. wire cross section
 1.0 mm²

 - stripping length wire
 8 mm

 - max. number of wire
 2

 - max. strand cross section
 0.75 mm

 - stripping strands
 use strand

2 0.75 mm² use stranded wires only with wire end ferrules of 8 mm length 2

Electrical characteristics

- max, number of strands

Standards

The switches comply with EN IEC 60947-1/EN IEC 60947-5-1

Illumination

Voltage 250 V max. (many different lamp types available) Power 2.6 W max. (many different lamp types available)

Ambient conditions

Storage temperature $-40 \degree C \dots + 85 \degree C$

Operating temperature

-40 °C ... +55 °C (other temperatures on request)

Protection degree

Shock resistance (single impacts, semi-sinusoidal) 300 m/s² pulse width 11 ms, as per DIN EN 60068-2-27

Vibration resistance

(sinusoidal) $100\,m/s^2$ at $10\,Hz\ldots500\,Hz,$ as per DIN EN 60068-2-6 and EN 61373 Increased broad band noise, class 1B

Climatic resistance

Relative humidity 10 ... 95 % non-condensing

Dual lamp block

When using the lamp block, the application guidelines must be observed.

Material

Housing Plastic

Mechanical characteristics

Terminals

PIT push-in terminal

- stripping length wire

- max. number of wire

1.0 mm² - max. wire cross section 8mm

- max. strand cross section
- stripping strands

2

0.75 mm² use stranded wires only with wire end ferrules of 8 mm length 2

Electrical characteristics

- max. number of strands

Lighting Illuminant = 2 SMD-LEDs white

Operating voltages 24 VDC (-30 % / +25 %) 110 VDC (-30 % / +25 %)

Operating current

Typ. 8 mA

Ambient conditions

Storage temperature -40 °C ... +85 °C

Operating temperature

-40 °C ... +60 °C (other temperatures on request)

Degree of protection IP20

Resistance to shock 500 m/s², pulse duration 11 ms, according to EN IEC 60068-2-27 (semi-sinusoidal)

Broadband noise 5.72 m/s² per axis, 5 h (duration), class 1B according to DIN EN 61373

Climatic resistance Relative humidity

10 ... 95 % non-condensing

Approvals

Approbations UL-94 V0 EN 45545

Buzzer

Buzzer

System Piezo disc

Material

Buzzer case Plastic

Front cap Flush design Aluminium black anodised Aluminium natural anodised

Raised design Plastic Metal = nickel-plated brass (sea-water proof)

Mechanical characteristics

Terminals Plug-in terminal 2.8 mm x 0.5 mm

Tightening torque For fixing nut max. 0.25 Nm

Acoustic characteristics

Frequency (tone) Approx. 3.2 kHz continuous tone only

Sound pressure 95 db (A) $\pm 8 \text{ dB}$ at a distance of 0.1 m

Electrical characteristics

Ambient conditions

Storage temperature -40 °C ... +85 °C

Operating temperature $-40 \,^{\circ}\text{C} \dots +55 \,^{\circ}\text{C}$ (other temperatures on request)

Protection degree As per DIN EN 60529, frontside IP65

Approvals

Conformities CE 2014/35/EU (LVD) 2011/65/EC (RoHS)

Actuator

Material

Front ring Polyamide, Aluminium or Stainless steel

Mounting flange Plastic, metal

Actuator housing Plastic

Mechanical characteristics

Actuating force Mounting style square flush 6.2 N Other mounting styles 8 N

Actuating travel Approx. 5.8 mm ± 0.2 mm

Mechanical lifetime

(with 1 switching element) Pushbutton Selector switch Stop switch Fool proofed E-stop Keylock switch Key insert switches

≤ 3 million cycles of operation
 ≤ 2.5 million cycles of operation
 ≤ 50 000 cycles of operation
 ≥ 50 000 cycles of operation
 ≤ 50 000 cycles of operation
 ≤ 250 000 cycles of operation

Keylock switch

The standard lock number is 251, the last digit of the device Part No. = 0 (example: 704.335.0).

Additional lock numbers are available:

252 last digit = 1; 253 last digit = 2; 254 last digit = 3 255 last digit = 4, 256 last digit = 5; 257 last digit = 6 258 last digit = 7; 259 last digit = 8; 260 last digit = 9

Electrical characteristics

Standards

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

Ambient conditions

Storage temperature

-40°C...+85°C

Operating temperature

-40 °C ... + 55 °C (other temperatures on request)

Protection degree

As per EN IEC 60529 IP65 front side (IP65 and IP67 Key insert switch)

Kraus Naimer rotary selector switching element

Mechanical characteristics

Terminals

Screw terminals Terminal lead material copper wires only Max. permissible wire gage: Single-core or stranded wire 2 x 1.5 mm² (2 x AWG 14) Flexible wire 2 x 1.5 mm² (2 x AWG 16)

Tightening torque

For fixing nut max. 0.25 Nm

Number of stages

1 to 8 positions max.

Number of contacts

1 to 16 max. normally open contacts (contact positioning according circuit drawing)

Switching angle

Basic position of switching position "A" is 9 o'clock

Maintained action	Switching angle
12 max.	30°
8 max.	45°
6 max.	60°
4 max.	90°

Momentary action with release 24° (provide at the beginning or at the end)

Standard type of Kraus & Naimer

CG4 Hard Silver contacts with 1 µm Gold layer CG4-1 Hard Silver contacts with 35 µm Gold layer

Electrical characteristics

Minimum Voltage

Rated Impulse Withstand Voltage ${\rm U_{imp}}$ $4\,{\rm kV}$

Short Circuit Protection

Max. fuse size (gL-characteristic) 10A Rated short-time withstand current (1s-current) 90A

Electrical characteristics for AC

Standards The devices comply with: DIN EN 60947-3, VDE 0660 part 107

Rated Operational Voltage U_e 440 V

Rated Insulation Voltage U_i 440 V

Rated Thermal Current I_u / I_{th} 10 A

Rated Operational Current I_e AC-15 Switching of control devices, contactors, valves etc.

110V-120V 2.5A 220V-240V 2.5A 380V-440V 1.5A

No load operation 10A

AC-21A Switching of resistive loads, including moderate overloads For switching of power > 1 kW 10 A

AC-22A Switching of combined resistive or low inductive loads including moderate overloads 220V-240V 10A

Rated Utilization Category

AC-2 Slip ring motor starting, reversing and plugging, star-delta starting 3 phase, 3 pole

220V-240V 2.5kW 380V-440V 4.5kW

AC-3 Direct-on-line starting, star-delta starting

3 phase, 3 pole 220V-240V 2.50 kW 380V-440V 2.20 kW 1 phase, 2 pole 110V-120V 0.30 kW 220V-240V 0.55 kW 380V-440V 0.75 kW AC-Direct-on-line starting, reversing, plugging and inching

3 phase, 3 pole	220V-240V	0 37 kW
o priase, o pole		
	380V-440V	
1 phase, 2 pole	110V-120V	
	220V-240V	0.25 kW
	380V-440V	0.50 kW

AC-23A Frequent switching of motors or other high inductive loads

3 phase, 3 pole 220V-240V 1.80kW 380V-440V 3.00kW 1 phase, 2 pole 110V-120V 0.37kW 220V-240V 0.75kW 380V-440V 1.10kW

Overvoltage category

III, valid for lines with grounded common neutral termination

Degree of pollution

3, valid for lines with grounded common neutral termination

Electrical characteristics for AC (UL/Canada)

Rated operational voltage

Rated Insulation Voltage U_i 300 V

Rated Thermal Current

Ampere Rating Resisitve or low inductive loads, for switching of power > 1 kW, 10 A

Ratings

Standard motor load, DOL Rating (similar AC-3)

3 phase, 3 pole 110V-120V 0.75 HP 220V-240V 1.00 HP 1 phase, 2 pole 110V-120V 0.33 HP 220V-240V 0.75 HP 277V-277V 0.75 HP

Pilot Duty, Heavy

300 VAC

35 °C during 24 h with peaks up to 40 °C

Electrical characteristics for DC

Switching voltage and switching current DC Resistive loads $T \le 1 \text{ ms}$

Number	of serie	s conta	ct(s)				Switch
1	2	3	4	5	6	8	capacity
24 V	48V	70 V	95 V	120 V	145V	190 V	10.0A
48 V	95 V	140V	190 V	240 V	290 V	350 V	6.0A
60 V	120 V	180 V	240 V	300 V	360 V	450 V	2.5 A
110V	220 V	330 V	440 V	550 V	660 V		0.7 A
220 V	440 V	660 V					0.3 A
440 V	660 V						0.2 A

Number of series contact(s) Switch 2 5 6 8 1 3 4 capacity 24 V 48 V 70 V 95V 120V 145V 190V 6.0A 30 V 60 V 90V 120V 150V 180V 240V 3.0A 48 V 95V 140V 190V 240V 290V 350V 1.0A 0.7A 60V 120V 180V 240V 300V 360V 450V 110V 220V 330V 440V 550V 660V 0.3A

Ambient conditions

Operating temperature

enclosed at 100 % I_{the}

Ambient Temperatures of	Stages
open at 100 % I _u / I _{th}	55 °C during 24 h with peaks up to 60 °C

Inductive loads T = 50 ms

Santon rotary selector switching element

Mechanical characteristics

Terminals Screw terminals

Terminal lead material copper wires only Max. wire gauge: Single or multi-wire 2 x 1.5 mm² (2 x AWG 12) Fine wire $2 \times 1.5 \text{ mm}^2$ ($2 \times \text{AWG}$ 12) Min. wire gauge: Single or multi-wire 2 x 0.5 mm² (2 x AWG 20) Fine wire 2 x 0.5 mm² (2 x AWG 20)

Tightening torque For fixing nuts max. 0.5 Nm

Number of stages 1 to 8 stages max.

Number of contacts

1 to 16 closing contacts (contacts positioning according to wiring diagram)

Switching angle Basic position of switching position "A" is 9 o'clock

Maintained action switching angle 12 max. 30° 8 max. 45° 6 max. 60° 4 max. 90°

Momentary action with release 30°

Standard type of Santon F1V Hard Silver contacts Gold plated

Electrical Characteristics

Minimum Voltage 20V

Rated Impulse Withstand Voltage U 4KV

Short Circuit Protection Max. fuse size (gL-characteristics) 25 KA = > 16 A10 KA = > 20A Rated short-time withstand current (1s-current) 250A

Electrical Characteristics for AC

Standards

The devices comply with: IEC 60947, IEC 60204, DIN EN 61058, UL508, C22.2 No.14

Rated Operational Voltage U

480 V

Rated Insulation Voltage U 480 V

Rated Operational Current I

AC-15 switching of control devices, contractors, valves, etc. 220 V - 230 V 8 A 380V - 440V 6 A

AC-20 A no load operation 20 A

AC-21A Switching of resistive loads, including moderate overloads for switching of power $> 1\,kW$ 20 A

AC-23 Switching of motors or other high-inductive loads

3-phase, 3-pole	220V - 230V	5,00 kW
	380V-440V	7,50 kW
1-phase, 2-pole	220V-230V	2,50 kW
	380V-440V	3,70 kW

Related Utilization Category

AC-3 Direct starting of squirrel-cage induction motors, switching off during the starting, star-delta starting

3-phasig, 3-polig	220V-240V	3,00 kW
	380V-440V	5,00 kW
1-phasig, 2-polig	220V-230V	2,20 kW
	380V-440V	3,00 kW

Degree of pollution

3, valid for lines with grounded common neutral termination

Electrical characteristics for AC (UL/Canada)

Rated operational voltage 300 V

Rated Insulation Voltage U_i 300 V

Rated Thermal Current

15A

Ampere Rating

Resistive or low inductive loads, for switching of power $> 1 \, \text{kW}$, 15 A

Ratings

Standard motor load, DOL Rating (similar to AC-3)

3-phase, 3-pole 220V – 240V 3.00 HP

Electrical characteristics for DC

Switching voltage and switching current DC

Resistive loads T \leq 1 ms DC 21

Number	of serie	es conta	ict(s)	
1	2	5	8	Switch capacity
24 V	110 V	220 V	440 V	20.0 A
48 V				20.0 A
60 V				20.0 A
110 V				4.0 A
220 V				0.7 A
440 V				0.25 A

Inductive Loads T = 50 ms DC13

Number of series contact(s)

1	2	3	6	8	Switch capacity
24 V	48 V	60 V	110 V	220 V	20.0 A
48 V					16.0 A
60 V					12.0 A
110 V					1.0 A
220 V					0.4 A
440 V					0.15 A

Ambient conditions

Operating Temperature

Ambient Temperature of Stages $-25 \degree C \dots + 55 \degree C$

Shock resistance

(single impact, semi-sinusoidal) 300 m/s² pulse width 11 ms, as per DIN EN 600068-2-27

Fire Protection norms

EN 45545

Flasher

Material

Housing Plastic, in accordance with UL 94 V0

Mechanical characteristics

Terminals Screw terminal

Electrical characteristics

Flasher frequency 1.5 Hz

Relative duty factor Approx. 50 %

Ambient conditions

Operating temperature $0^{\circ} \dots +50 \ ^{\circ}C$

Protection degree Rear side IP30

EAO reserves the right to alter specifications without further notice.

General notes

1. Engraving

In addition to the most commonly used world languages, in DIN1451-3 close spacing, other typefaces are available as Scandinavian, Slavic, Greek, Russian and Polish. Red, blue and black lenses are filled with white colour. Other colour lenses are filled in black. Standard height of letters is 3 mm. If the height is not specified, we will supply 3 mm engraved letters.

2. Hot stamping

For larger series it is worth considering markings by means of hot stamping. We will pleased to advise you. For letters and figures, typefaces with 2.5 mm, 3 mm and 4 mm are available.

Engraving marking cap for Indicator round, full face illumination

All dimensions in mm

Height of text cap	Height of letters h	Number of lines	Number of capital letters per line (guide value)	Number of lowercase letters per line (guide value)	Picture
Text cap (Ø 23)	3	3	8-9	9-10	B1
	4	3	5-7	6-8	B1
	8	3	_	-	B1
	3	2	8	9	B2
	4	2	5	6	B2
	8	2	2	2	B2
	3	1	9	10	B3
	4	1	7	8	B3
	8	1	3	3-4	B3



The gap between two words results in each case a letter less.

3. Film inserts

Instead of using engraving the square lenses can be fitted with film inserts, as an alternative. Film thickness is 0.25 mm. Max. film size: for Indicator 24.5 x 24.5 mm, for illuminated pushbutton 21.5×21.5 mm.

Engraving marking plate for Indicator and illuminated Pushbutton round, front illumination

All dimensions in mm

Height of marking plate	Height of letters h	Number of lines	Number of capital letters per line (guide value)	Number of lowercase letters per line (guide value)	Picture
Marking plate (Ø 20)	3	3	6-8	7+9	B1
	4	3	5-6	6-7	B1
	8	3	_	-	B1
	3	2	6	7	B2
	4	2	5	6	B2
	8	2	1	2	B2
	3	1	8	9	B3
	4	1	6	7	B3
	8	1	3	3	B3



B2

В3



The gap between two words results in each case a letter less.

Engraving diffusor cap for Indicator square, full face illumination

All dimensions in mm

Height of letters h	Number of lines	Number of capital letters per line (guide value)	Number of lowercase letters per line (guide value)
2.5	6	12	13
3.0	5	10	11
4.0	4	7	8
5.0	3	6	7
6.0	3	5	5-6
8.0	2	4	4-5



The gap between two words results in each case a letter less.

Engraving lens holder for Indicator and Illuminate Pushbutton square, front illumination

All dimensions in mm

Height of letters h	Number of lines	Number of capital letters per line (guide value)	Number of lowercase letters per line (guide value)
2.5	5	10	11
3.0	5	9	9-10
4.0	4	6	7
5.0	3	5	6
6.0	1	4	4-5
8.0	2	2-3	3



The gap between two words results in each case a letter less.

Important: Consider lens holder mounting orientation before specifying engraving charachters!

Engraving legend plates

All dimensions in mm

Dimension	Devices mounting style	Height of letters h	Number of lines	Number of capital letters per line (guide value)	Number of lowercase letters per line (guide value)	Picture
30 x 50	round, raised	3	2	10	11	B1
		4	1	7	8	B1
		8	1	3	4	B1
35 x 57.5	round, flush	3	2	10	11	B2
		4	1	7	8	B2
		8	1	3	4	B2
18 x 35	square, flush	3	3	15	16	B3
		4	2	10	12	B3

B1



B2

B3





The gap between two words results in each case a letter less.

Standard texts for marking plates and marking caps for Indicator and Illuminated Pushbutton

Height of letters 6 mm

I Part No. 704.609.912001	II Part No. 704.609.912002	III Part No. 704.609.912003	0 Part No. 704.609.912004
EIN Part No. 704.609.912005	AUS Part No. 704.609.912006	AUF Part No. 704.609.912007	AB Part No. 704.609.912008
START Part No. 704.609.912009	STOP Part No. 704.609.912010	(HAND) Part No. 704.609.912011	AUTO Part No. 704.609.912012
ZU Part No. 704.609.912013	ON Part No. 704.609.912014	OFF Part No. 704.609.912015	ARRET Part No. 704.609.912016
MARCHE Part No. 704.609.912017	RESET Part No. 704.609.912018		

Symbols for marking plates and marking caps for Indicator and Illuminated Pushbutton

All marking plates with the printed article-numbers are available for flat lenses, marking cap only on request.

Part No. 704.609.910001 Direction of linear rectilinear motion (also for $\rightarrow \downarrow \uparrow$)	Part No. 704.609.910002 Linear motion in 2 direc- tions (also for 1)	Part No. 704.609.910004 Limited linear motion (also for $\leftarrow \overline{\uparrow} \underline{\downarrow}$)	Part No. 704.609.910007 Direction of continuous rotation (right)
Part No. 704.609.9100071 Direction of continuous rotation (left)	Part No. 704.609.910008 Rotation in 2 directions	Part No. 704.609.910009 Direction of interrupted rotation (right)	Part No. 704.609.910010 Limited rotation (right)
Part No. 704.609.9100101 Limited rotation (left)	Part No. 704.609.910013 Direction of spindle rotation	Part No. 704.609.910026 Rapid traverse	Part No. 704.609.910028 Increase of value (speed, for instance)
Part No. 704.609.910029 Decrease of value (speed, for instance)	Part No. 704.609.910041 Electric motor	Part No. 704.609.910048 Pump (general symbol)	Part No. 704.609.9100631 Lock or tighten
Part No. 704.609.9100632 Lock or tighten	Part No. 704.609.9100641 Unlock, unclamp	Part No. 704.609.9100642 Unlock, unclamp	Part No. 704.609.910065 Brake on
Part No. 704.609.910066 Brake off	Part No. 704.609.910067 Automatic (or semi-automatic) cycle	Part No. 704.609.910068 Hand control	Part No. 704.609.910069 Start, on
Part No. 704.609.910070 Stop, off	Part No. 704.609.910071 Start and stop with same button	Part No. 704.609.910072 In action as long as button is operated	Part No. 704.609.910074 Engaging (mechanical start)
Part No. 704.609.910075 Disengaging (mechanical stop)	Part No. 704.609.910092 Danger (high voltage)!	Part No. 704.609.910093 Caution!	Part No. 704.609.910101 Coolant fluid
Part No. 704.609.910102 Machine lighting	Part No. 704.609.910108 Blast		

Terminal Markings

We supply the switch elements with terminal marking labels inserted, the figures always being visible for the first element (immediately following the actuator). Therefore, when two switch elements are used, these inserts have to be turned for the second element. Then the numbers appear as described under III.

I. Consecutive numbering of switch systems

(2 per switch element)

First switch element





Second switch element



When more than 2 switch elements are used, the numbering is sequenced accordingly (5, 6 etc.).

II. Marking of normally closed contact, normally open contact and their combinations

Normally closed (1-2) Normally open (3-4)





Normally close	d/
open	



If more than two switch elements are used, this should be noted on your order, in order that we may insert and deliver the marking labels accordingly.

III. Example of the correct insertion of the labels for 2 switch elements with normally open contacts

First switch element



Second switch element



Labels for normally closed and normally closed/normally open contacts should be inserted accordingly.

04 Application guidelines

Suppressor circuits

When switching inductive loads such as relays, DC motors, and DC solenoids, it is always important to absorb surges (e.g. with a diode) to protect the contacts. When these inductive loads are switched off, a counter emf can severely damage switch contacts and greatly shorten lifetime.

Fig. 1 shows an inductive load with a free-wheeling diode connected in parallel. This free-wheeling diode provides a path for the inductor current to flow when the current is interrupted by the switch. Without this free-wheeling diode, the voltage across the coil will be limited only by dielectric breakdown voltages of the circuit or parasitic elements of the coil. This voltage can be kilo-

diode

volts in amplitude even when nominal circuit voltages are low (e.g. 12 VDC) see Fig. 2.

The free-wheeling diode should be chosen so that the reverse breakdown voltage is greater than the voltage driving the inductive load. The DC blocking voltage (VR) of the free-wheeling diode can be found in the datasheet of a diode. The forward current should be equal or greater than the maximum current flowing through the load.

To get an efficient protection, the free-wheeling diode must be connected as close as possible to the inductive load!

 $e = L \frac{di}{dt}$



to several

thousend volts

load

Rating data

The following guidelines apply when connecting the Series 04 buttons.

Buttons with 1 slow-make switching element and front panel made of plastic or metal

- Pushbutton
- Mushroom-head pushbutton
- Selector switch
- Keylock switch
- Key-insert switch
- Stop switch
- Emergency stop switch

Rated values

Overvoltage category	111
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U	500 V
Pollution degree	3

Restrictions

· Metal front panel must be earthed

Buttons with 1 snap-action switching element and front panel made of plastic or metal

- Pushbutton
- Mushroom-head pushbutton
- Selector switch
- Keylock switch
- Key-insert switch
- Stop switch

Rated values

Overvoltage category	
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U	500 V
Pollution degree	3

Restrictions

· Metal front panel must be earthed

Buttons illuminable with 1 slow-make switching element and front panel made of plastic or metal

- Illuminated pushbutton
- Mushroom-head pushbutton
- Selector switch

Rated values

Overvoltage category	
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U	400 V
Pollution degree	3

Restrictions

Metal front panel must be earthed

Buttons illuminable with 1 snap-action switching element and front panel made of plastic or metal

- Illuminated pushbutton
- Mushroom-head pushbutton
- Selector switch

Rated values

Overvoltage category	
Rated impulse withstand voltage	4kV
Max. rated insulation voltage U	500 V
Pollution degree	3

Restrictions

Metal front panel must be earthed

Buttons with 1 slow-make switching element and front panel made of plastic or metal

· Key-insert switch, conductor switch

Rated values

Overvoltage category	111
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U	250 V
Pollution degree	3

Restrictions

• The actuator of the conductor button must be earthed

Buttons with 1 snap-action switching element and front panel made of plastic or metal

· Key-insert switch, conductor switch

Rated values

Overvoltage category	111
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U _i	320 V
Pollution degree	3

Restrictions

· Metal front panel must be earthed

04 Application guidelines

Buttons with 2 – 3 slow-make switching element and front panel made of plastic or metal

- Pushbutton
- Mushroom-head pushbutton
- Selector switch
- Keylock switch
- Key-insert switch
- Stop switch

Rated values

Overvoltage category	
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U	320 V
Pollution degree	3

Restrictions

Metal front panel must be earthed

Buttons with 2 – 3 snap-action switching element and front panel made of plastic or metal

- Pushbutton
- Mushroom-head pushbutton
- Selector switch
- Keylock switch
- Key-insert switch
- Stop switch

Rated values

Overvoltage category	
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U	400 V
Pollution degree	3

Restrictions

Metal front panel must be earthed

Buttons illuminable with 2 – 3 slow-make switching element and front panel made of plastic or metal

- Illuminated pushbutton
- Mushroom-head pushbutton
- Selector switch

Rated values

Overvoltage category	111
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U	320 V
Pollution degree	3

Restrictions

Metal front panel must be earthed

Buttons illuminable with 2 – 3 snap-action switching element and front panel made of plastic or metal

- Illuminated pushbutton
- Mushroom-head pushbutton
- Selector switch

Rated values

Overvoltage category	
Rated impulse withstand voltage	4 kV
Max. rated insulation voltage U	400 V
Pollution degree	3

Restrictions

Metal front panel must be earthed

Buttons with 2 slow-make switching element and front panel made of plastic or metal

Emergency stop switch

Rated values

Overvoltage category	
Rated impulse withstand voltage	4kV
Max. rated insulation voltage U	320 V
Pollution degree	3

Restrictions

- Metal front panel must be earthed