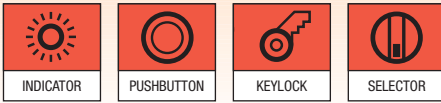


Series 71

22.5mm 21 x 21mm 21 x 27mm IP65 3A 250VAC



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

Product Profile

The Series 71 is a high quality, modular switch range that includes pushbuttons, indicators, selector switches and keylock switches in flush mount with self cleaning snap-action switching elements. The switching elements may be soldered directly onto the PCB and the actuators are lockable with an interlocking pin, no spacing pins needed.

- IP65 Protection
- Switch Rating, 3A, 250VAC
- Flush Mounting into 22.5mm, 21x21mm and 21x27mm cut out
- Illumination using midget-grooved T1³/₄ lamps or single chip LED's
- All standard lenses are transparent with translucent diffuser available in different colours
- For keylock switches 135 different keys are available

Technical data see page 98

Technical drawings see page 99



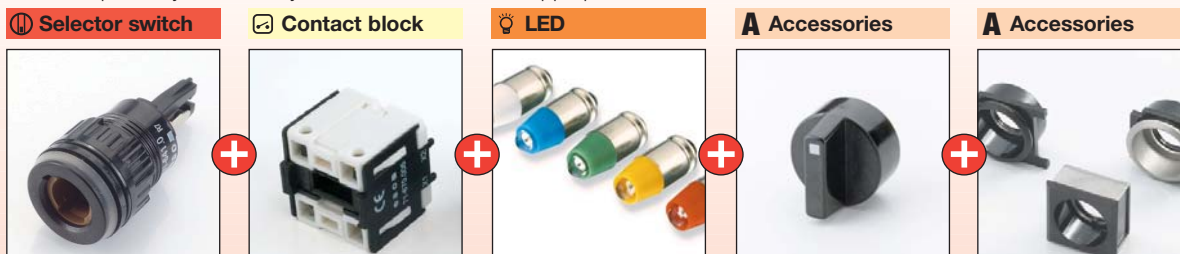
For a complete indicator you will need to order the appropriate contact block, LED, lens and bezel



For a complete illuminated pushbutton you will need to order the appropriate contact block, LED, lens and bezel



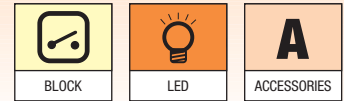
For a complete keylock switch you will need to order the appropriate contact block and bezel



For a complete selector switch you will need to order the appropriate contact block, LED, lever and bezel

A guide to ordering parts - choice of front bezel determines front shape

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



Indicator



Indicator body for flush mount, black plastic

Part No.
71-600.0

For complete switch also order **A**

Illuminated pushbutton



Illuminated flush mount pushbutton actuator, round, black plastic

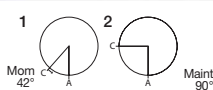
Part No.	Momentary/Maintained
71-611.0	Momentary
71-612.0	Maintained

For complete switch also order **A**

Keylock switch



Keylock switch actuator, 2 position for flush mount



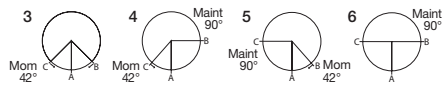
Drawing	Part No.	Momentary/Maintained	Key rem.
1	71-621.0/D	Momentary	A
2	71-622.0/D	Maintained	A
2	71-623.0/D	Maintained	C
2	71-624.0/D	Maintained	A+C

For complete switch also order **A**

Keylock switch



Keylock switch actuator, 3 position for flush mount



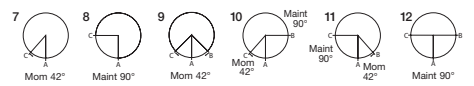
Drawing	Part No.	Momentary/Maintained	Key rem.
3	71-631.0/D	Momentary/Momentary	A
4	71-638.0/D	Momentary/Maintained	A
4	71-639.0/D	Momentary/Maintained	A+B
5	71-636.0/D	Maintained/Momentary	A
5	71-637.0/D	Maintained/Momentary	A+C
6	71-632.0/D	Maintained/Maintained	A
6	71-635.0/D	Maintained/Maintained	A+B+C
6	71-634.0/D	Maintained/Maintained	B+C
6	71-633.0/D	Maintained/Maintained	C

For complete switch also order **A**

Selector switch



Selector switch actuator, 2 and 3 position for flush mount



Drawing	Part No.	Momentary/Maintained	Positions
7	71-641.0	Momentary	2
8	71-642.0	Maintained	2
9	71-651.0	Momentary/Momentary	3
10	71-658.0	Momentary/Maintained	3
11	71-656.0	Maintained/Momentary	3
12	71-652.0	Maintained/Maintained	3

For complete switch also order **A**

Complete switch

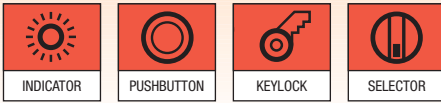


Features

- IP65 front sealed
- Modular switching system
- Attractive, compact switching system with low back panel depth
- Intensive LED illumination
- Options for engraving and symbols
- Self cleaning, double-break snap action system for good tactile feel
- Unique PCB assembly system offers a multitude of options
- World wide approvals

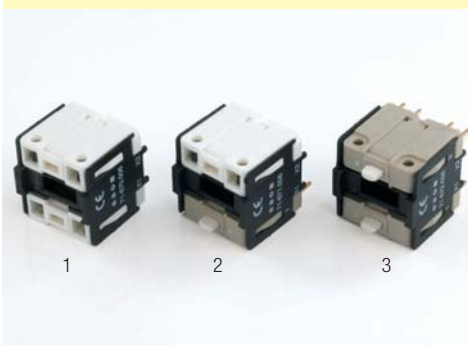
Series 71

22.5mm 21 x 21mm 21 x 27mm IP65 3A 250VAC



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

Contact block



Indicator Element and Switching Element.
Interlocking pin for PCB assembly supplied with each element

Image	Part No.	Contact type	Product description
1	71-670.006		Indicator element
2	71-671.026	1NO/1NC	Switching element
3	71-672.026	2NO/2NC	Switching element

LED



LED, T1 3/4 MG, 12 Volt and 28 Volt

Colour	Part No.	Voltage
● Red	10-2J09.1062	12VAC/DC, 7/14mA
● Yellow	10-2J09.1064	12VAC/DC, 7/14mA
● Green	10-2J09.1065	12VAC/DC, 4/7mA
● Blue	10-2J09.1066	12VAC/DC, 7/14mA
○ White	10-2J09.1069	12VAC/DC, 7/14mA
● Red	10-2J13.1062	28VAC/DC, 7/14mA
● Yellow	10-2J13.1064	28VAC/DC, 7/14mA
● Green	10-2J13.1065	28VAC/DC, 4/7mA
● Blue	10-2J13.1066	28VAC/DC, 7/14mA
○ White	10-2J13.1069	28VAC/DC, 7/14mA

A Accessories



Lens, plastic for flush mount rectangular indicator and pushbutton bodies

Colour	Part No.	Size
● Red	61-9681.2	24 x 30mm
● Yellow	61-9681.4	24 x 30mm
● Green	61-9681.5	24 x 30mm
● Blue	61-9681.6	24 x 30mm
○ Clear	61-9681.7	24 x 30mm

For complete switch also order ☀️ ⦿ ⚙️ ⚡️

A Accessories



Lens, plastic for flush mount round indicator and pushbutton bodies

Colour	Part No.	Size
● Red	61-9642.2	25mm Ø
● Yellow	61-9642.4	25mm Ø
● Green	61-9642.5	25mm Ø
● Blue	61-9642.6	25mm Ø
○ Clear	61-9642.7	25mm Ø



Lens, plastic for flush mount square indicator and pushbutton bodies

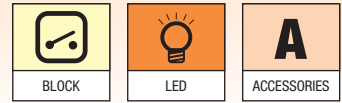
Colour	Part No.	Size
● Red	61-9671.2	24 x 24mm
● Yellow	61-9671.4	24 x 24mm
● Green	61-9671.5	24 x 24mm
● Blue	61-9671.6	24 x 24mm
○ Clear	61-9671.7	24 x 24mm



Lever for selector switch, flush mount, coloured lever bar options available as indicated

Colour	Part No.
● Red	61-9028.20
● Yellow	61-9028.40
● Green	61-9028.50
● Blue	61-9028.60
○ White	61-9028.9
● Black	61-9028.0

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



A Accessories



Keylock switch front bezel, black plastic

Image	Part No.	Size
1	61-9230.0	24 x 30mm
2	61-9220.0	24 x 24mm
3	61-9210.0	25mm Ø



Front bezel set for flush mount indicator, illuminated pushbutton and square and rectangular keylock switch

Image	Part No.	Material	Size
1	61-9933.10	Plastic	25mm Ø
2	61-9933.0	Aluminium	25mm Ø
3	61-9931.0	Plastic	24 x 30mm
4	61-9930.0	Plastic	24 x 24mm



Front bezel set for round flush mount selector, keylock switch and square selector switch

Image	Part No.	Material	Size
1	61-9932.10	Plastic	25mm Ø
2	61-9936.0	Plastic	24 x 24mm
3	61-9932.0	Aluminium	25mm Ø

A Accessories



Flap guard, flush mount

Image	Part No.	Size
1	61-9922.0	24 x 30mm
2	61-9921.0	24 x 24mm
3	61-9924.0	25mm Ø



Blanking plate

Image	Part No.	Size
1	61-9453.0	25mm Ø
2	61-9452.0	24 x 30mm
3	61-9451.0	24 x 24mm



Lens remover for flush mount, mounting tool and LED remover

Image	Part No.	Product description
1	61-9730.0	Lens remover for flush mount
2	01-907	Mounting tool
3	61-9740.0	LED remover

System switch 71**Mechanical characteristics****Actuation torque**

measured on the rotation knob of the selector / keylock switch
2.5 - 10 Ncm, depending on the number of contact elements

Actuation force

measured on the lens of the illuminated pushbutton
2 - 3 N, depending on the number of contact elements

Actuation travel

illuminated pushbutton 3 mm

key-/selector switch	2 positions
deflection momentary	1 x approx. 42°
deflection maintained	1 x approx. 90°

key-/selector switch	3 positions
deflection momentary	2 x approx. 42°
deflection maintained	2 x approx. 90°

Resistance to climate

according to IEC 68-2-3

Storage temperature

-40°C to + 85°C

(as per DIN IEC 68-)

Resistance to heat of soldering

manual with soldering iron: 300°C / 10 sec

avoid flux deposits on contacts

by sucking off flux

flow soldering: 260°C / 5 sec

Mechanical life

illuminated pushbutton	2 million cycles
keylock switch	50'000 cycles
selector switch	100'000 cycles

Rebound time

< 1 ms

Resistance to shock

according to IEC 68-2-27 und 29

Ea 18-300-18/3

Eb 6-250-3000/3

Degree of protection

indicators, illuminated pushbuttons, keylock switches and selector switches, front IP 65

Switching element IP 40 (flux protection according to DIN 41640 section 84)

Resistance to vibration

according IEC 68-2-6

Fc 10/500-0.35/50-30/3

Ambient air temperature

-25°C to + 55°C

(as per DIN IEC 68-)

Electrical characteristics**Contact resistance**

value as new < 50 mΩ

Insulation resistance

$\geq 10^{12} \Omega$

Switch rating

min.	5 VAC / 10 mA
------	---------------

max.	250 VAC / 3 A
------	---------------

AC-Operation $\cos \phi$ 0.7	250 VAC / 3 A
------------------------------	---------------

DC-Operation	250 VDC / 0.5 A
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	24 VDC / 3 A
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Electric strength

2500 VAC, 50 Hz, 1 min. between all terminals and earth

Approvals

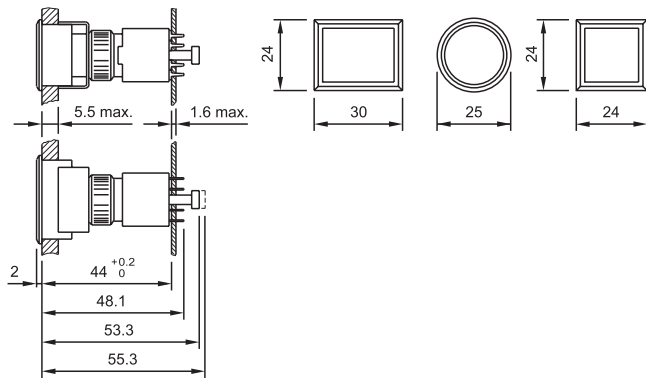
ENEC 61058

UL (ML file E 51383)

CE

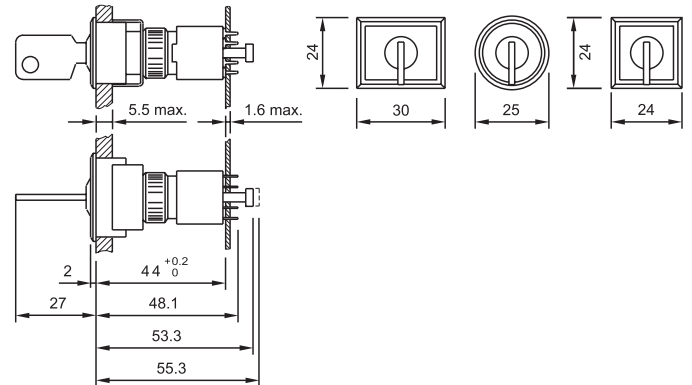
71 Indicator, Pushbutton

Flush, Round, Square, Rectangular



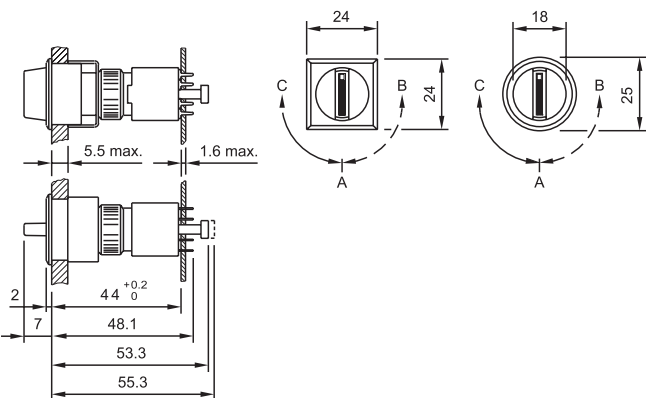
71 Keylock

Flush, Round, Square, Rectangular



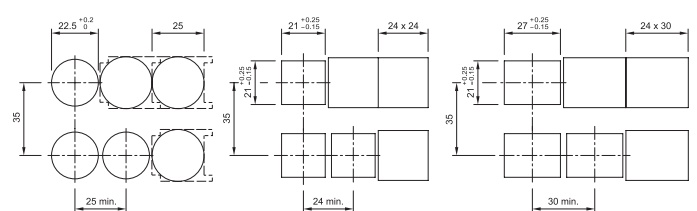
71 Selector

Flush, Round, Square, Rectangular



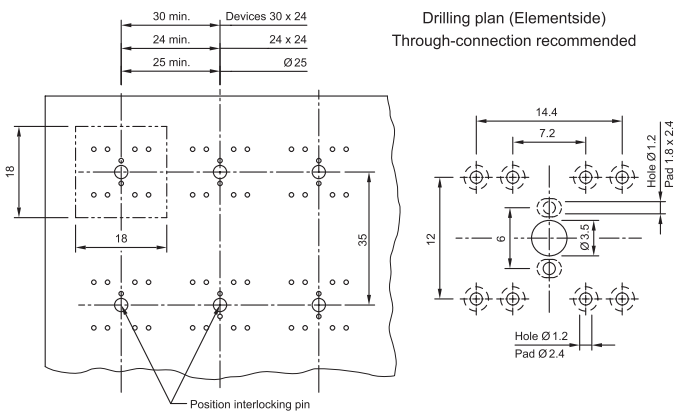
71 Cut-outs

Indicator, Pushbutton Flush, Keylock Flush, Selector Flush



Note:
Pitch of the front plate mounting holes must agree with the printed circuit board holes $\varnothing 3.5$

71 PCB Layout



Note:
Pitch of the print circuit board hole $\varnothing 3.5$ must agree with the mounting holes on the front plate