

**System switch 71**

**Switching system**

Self-cleaning, double-break snap-action switching system with one NC- (Normally closed) and one NO-contact (Normally open).

**Material**

**Lens**

Polycarbonat (PC), as per UL 94 V0, or Aluminium anodized

**Front bezel**

Polyetherimid (PEI), as per UL 94 V0, or Aluminium anodized

**Material of contact**

AgNi, 2 µm gold plated

**Switching element**

Polyethylene terephthalate (PETP), as per UL 94 V0

**Actuator housing**

Polyetherimide (PEI), as per UL 94 V0

**Mechanical characteristics**

**Terminals**

PCB terminal, Brass gold plated

**Tightening torque**

for fixing nut max. 50Ncm

**Actuating torque**

Selector-/Keylock switch 4Ncm ... 8Ncm

**Actuating force**

Pushbutton 2N ... 3N

**Actuating travel**

Pushbutton 3mm

Selector-/keylock switch	2 positions	3 positions
Momentary action	approx. 42°	approx. 2 x 42°
Maintained action	approx. 90°	approx. 2 x 90°

**Rebound time**

≤ 1 ms

**Mechanical lifetime**

Pushbutton maintained action	1 million cycles of operation
Pushbutton momentary action	2 million cycles of operation
Keylock switch	50 000 cycles of operation
Selector switch	100 000 cycles of operation

**Resistance to heat of soldering**

Manual soldering 350 °C, 3 sec.  
Flow soldering 260 °C, 5 sec.

**Electrical characteristics**

**Contact resistance**

Starting value (initial) ≤ 50mΩ

**Isolation resistance**

≥ 10<sup>12</sup> Ω

**Switch rating**

Switch rating AC cosφ 0.7 ... 0.8  
Voltage 250 VAC  
Current 3A

Switch rating DC

Voltage 24VDC 250VDC  
Current 3A 0.5A

**Recommended minimum operational data**

Voltage 5VAC  
Current 10mA

**Electric strength**

2000VAC, 50Hz, 1 min. between all terminals and earth

**Environmental conditions**

**Storage temperature**

-40 °C ... +85 °C

**Operating temperature**

-25 °C ... +55 °C

**Protection degree**

Frontside IP 65

**Shock resistance**

(semi-sinusoidal)  
max. 500 m/s<sup>2</sup>, pulse width 11 ms, 3-axis,  
as per EN IEC 60068-2-27

**Vibration resistance**

(sinusoidal)  
max. 100 m/s<sup>2</sup> at 10 Hz ... 500 Hz, as per EN IEC 60068-2-6

**Climate resistance**

Damp heat, state  
56 days, +40 °C/93 % relative humidity, as per EN IEC 60068-2-78

**Approvals**

**Declaration of conformity**

CE

**Lens plastic with symbols**

**Chemical and mechanical tests**

1. Wipe resistance according to EN 61058-1 section 8.9  
(Petrol/gasoline, distilled water, diluted alcohol)
2. Graffiti-Killer Test
3. Railway cleaning agents (Walo)
4. Damp/dry heat durability
5. UV test according to EN 60068-2-5 / 56 days
6. Mechanical life time 2 Mio. Operations (abrasive test)