

PRODUCT INFORMATION

Membrane switches

Features

- Customizable to fit virtually any application
- Fully sealed surface
- Easy to clean, variable design
- Durable and robust

Almost any design concepts can be realised using membrane switches. With or without tactile feedback, rigid or flexible - membrane switches can offer precisely the features required for any particular application. Membrane keyboards with pressure points ensure clear and low-bounce switching behaviour, however the keys are operated. The shape of the contact fields guarantees secure contact with clear feedback. The highest demands for reliability in almost current-free switchings can be fulfilled via the double-sided contact gold-plating for rigid designs with circuit boards. We provide membrane keyboards with replaceable insert strips for country-specific labelling.

Keyboards can be adapted to the current labelling variant in a matter of minutes. And of course the life cycle of well over 1 million switching cycles is guaranteed.

Switching

- Matrix key arrangement, combined control wires or electronics acc. wiring diagram
- Contact pairs acc. keyboard type, with and without tactile feedback
- Contact springs X 12 CrNi 177 one-sided 0,2 μm Ni, 0.2 μm Au

Front membrane

- Front foil membrane polyester matt and gloss, Polyflex 030

Shielding

- Imprinted holohedrally with silver, between design foil membrane and electrical switching mechanism

Flat input systems

- Pressure point keyboards in GT technology
- Standard PC keyboards
- Keyboards in night design
- Keyboard controller and software development
- Keyboard combination with touch screen
- Keyboards with sensor technology
- Operating systems for heavy duty areas
- Complete, customer-tailored solutions

DATA SHEET

Membrane switches

Technical data according to DIN 42 115

■ Conductor and contact materials	Gold, silver, copper, carbon
■ Switching voltage (max.)	AC 25 V, DC 42 V
■ Switching current (max.)	100 mA
■ Switching capacity (max.)	1 W
■ Insulation resistance	$> 2 \times 10^8$ Ohm
■ Life cycle	$> 1 \times 10^6$ switching cycles
■ Electrical strength between any connections	Up RMS = 300 V
■ Electrical strength between all connections and a metal supporting plate	Up RMS = 500 V
■ Electrostatic strength	Ustat = 15 kV (by arrangement)
■ Bounce time	< 5 ms
■ Contact travel	0.3 - 0.6 mm
■ Actuation force without contact element	2 - 5 N
■ Actuation force with contact element	d = 12 mm, optional 2N or 3N; d = 8 mm, 2.5 N
■ Key spacing with contact element	d = 12 mm, from 16 mm; d = 8 mm, from 10 mm
■ Mechanical load	100 N, duration 60s
■ Measurement requirements	Up to 250 mm, ± 0.25 mm Up to 500 mm, ± 0.5 mm

Climatic characteristic values

■ Operating temperature	-40 °C to 70 °C
■ Storage temperature, de-energised	-40 °C to 85 °C
■ Transport	Acc. technical construction

