

Membrane switch keyboards

Technical data

General information

Dimensions..... Outer dimension max. 750 x 450 mm – thickness min. 0,8 mm.
 Graphics..... Screen printing technology, colour inkjet etc.
 Embossing..... No / pillow embossing / rim embossing (data sheet on request).
 Key distance / LED distance..... Please see illustrations.

Materials

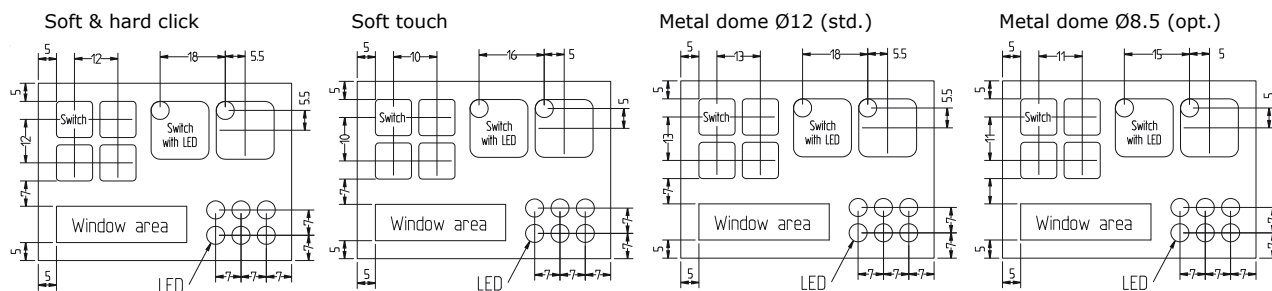
Metal domes Gold plated / nickel plated / with button / without button – as requested.
 Base material..... Structured polyester 0,15 or 0,20 mm – velvet or fine texture.
 Spacer Transparent polyester with acrylic adhesive.
 Adhesive 3M, Lohmann or according to customer specifications.
 Conductive material Screen printed with highly pigmented silver-based thick film lacquer.
 Retainer and switch foil Transparent polyester.
 Spacer Polystyrene / polyester / polycarbonate.
 Back plate..... Steel, aluminium, stainless steel, acrylic or another type of plastic.
 Screen printed display window Matt or transparent - with / without transparent colours.
 Mounted display window According to customer specifications.
 EMI shielding Screen printed with highly pigmented silver-based thick film lacquer.
 Conductive elements Metal domes or transp. polyester with / without polydome embossing.
 SMD components Resistors, LEDs type 1206 all std. colours, diodes, light sensors or as requested.
 (data sheet on request)
 Flat cable..... With connector: CRIMPFLEX OF 2-25 ways (std.), max. 51 ways, or as requested.
 (data sheet on request) Without connector: according to customer specifications.

Specifications

	MD	SC	ST	HC
Type	Metal dome	Soft click	Soft touch	Hard click
Actuation force [N] (nominal value)	2,2/2,8/3,4	2-2,5	1-3 ¹	2-4
Switch travel [mm]	0,6	1	0,15 ¹	0,5
Bounce contact [mS]	<5	<5	<5	<5
Contact voltage [VDC] max	30	30	30	30
Contact rating [mA] max	100	100	100	100
Contact performance [W] max	1	1	1	1
Contact resistance [Ω] max	1	1	1	1
Circuit resistance [Ω] max ²	100	100	100	100
Insulation resistance [M Ω] min	100	100	100	100
Life time (no. of actuations) min ..	10 ⁶	10 ⁶	10 ⁶	10 ⁶
Dielectric strength [kV] min	15	15	15	15
Operating temp. no embossing	[°C] -25° - 105°		-25° - 120°	
Storage temp. no embossing	[°C] -40° - 105°		-40° - 120°	
Operating temp. with embossing	[°C] -25° - 65°	-25° - 55°	-25° - 65°	-25° - 55°
Storage temp. with embossing	[°C] -40° - 65°	-40° - 65°	-40° - 65°	-40° - 65°
Operating temp. with diodes	[°C] -20° - 80°	-20° - 80°	-20° - 80°	-20° - 80°
Storage temp. with diodes	[°C] -30° - 65°	-30° - 65°	-30° - 65°	-30° - 65°

1 Key distance, actuation force and contact travel are interdependent quantities – depending on requested design.

2 Depending on the length of the conductive material.



All technical data given are depending on design, construction and may vary according to customer specifications. The technical data are to be considered as guiding only and cannot be considered as legally guaranteed.



METALWO