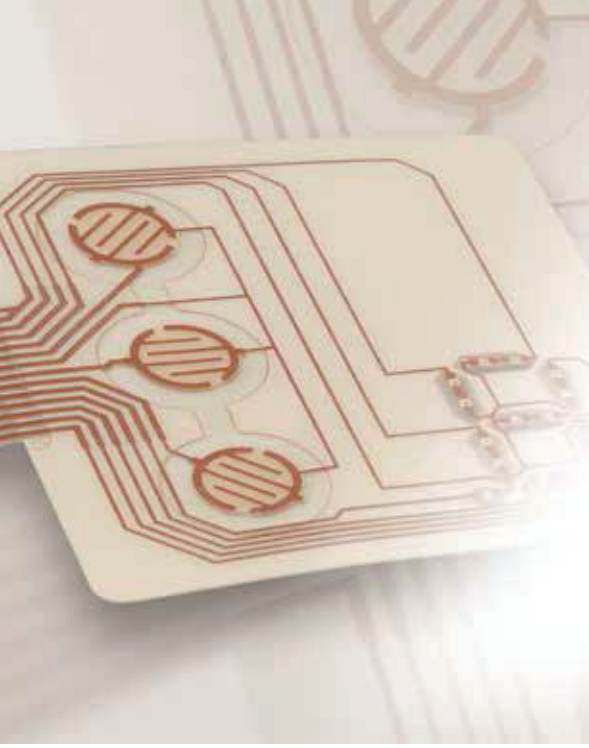
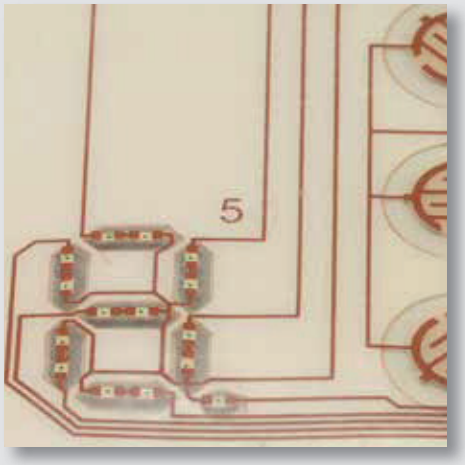


Our speciality:
Copper technology

BOPLA manufactures high-quality keypads with copper-laminated base membranes, galvanically silver-plated and gold-plated on request. In contrast to the conductive silver technology offered by many manufacturers, copper-laminated material is extremely flexible, so there is almost no possibility of breaks to the membrane cable, and problems such as silver migration cannot occur.
Instead of using an adhesive, we can safely and permanently solder LEDs, photo diodes or other components and this process ensures operational reliability.



Technical data for copper base membrane:

Key area	from 7 x 7 mm
Min. average distance between keys	11 mm
Installation height	from 0.6 mm
Contact surface (depending on type)	Copper-laminated, silver- or gold-plated, Snap domes gold-plated
Switch travel (depending on construction, up to IP 65)	approx. 0.6 – 0.7 mm
Switch pressure, depending on membrane	3 – 5 N
Ingress protection (depending on construction)	up to IP 67
Voltage	1– 42 VDC
Current	≤ 100 mA
Output	≤ 1 W
Conductor strip resistance* depending on design	< 0.1 Ω (for 100 mm Length – 1 mm width)
Insulation resistance	≥ 100 M Ω
Bouncing time (depending on actuation)	< 10 msec
Operating life	> 1 mio. operations
Operating temperature:	–20 °C to +70 °C
Transport / storage temperature:	– 40 °C to +80 °C

* Conductor strip resistance depends on the design ot the product layout. Conductive silver bridges in CuLs technology increase conductive resistance.