FSR-Matrix TM20x12 (Type 6) - PI

Product Brief

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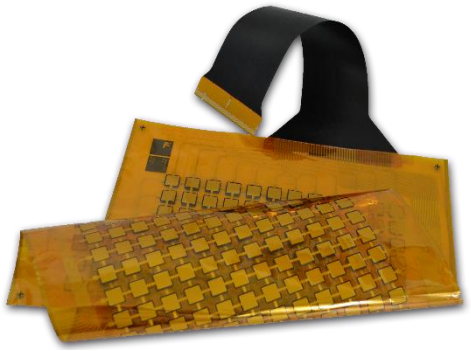
Key Features

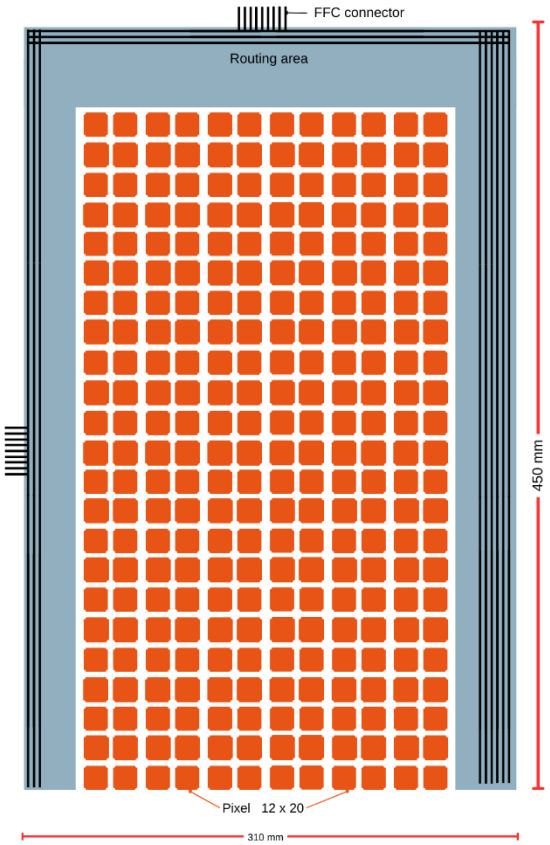
- Large area design
- Low drift and high sensitivity to measure detailed differences in pressure distributions
- Temperature stable PI-substrate
- Extra thin design
- Available for:
  - DevKit electronics



Mechanical data

Foil thickness & material	25 µm PI	**Spatial resolution** (# of pixels)	20 x 12
Foil dimensions (L x W x H)	45 x 31 x 0.007 cm^3	**Pixel size**	1.1 x 1.1 cm^2
Active area	37 x 22 cm^2	**Pixel pitch**	1.8 cm
Approved temperature range*	-20 °C to 100 °C	**Sensitive matrix part** (w/o concentrator)	36 %

*in non-condensing solvents



Sensor characteristics

The following data was obtained without preconditioning of the sensor. Preconditioning, i.e. loading the sensor with a high pressure for a certain time prior to the measurement, can improve the specs.

	@ 1 Ncm^{-2} / 10 kPa	@ 10 Ncm^{-2} / 100 kPa	@ 100 Ncm^{-2} / 1 000 kPa
Repeatability Error (1 σ) (20 repetitions w/o preconditioning)	8.9 %	2.3 %	0.7 %
Drift (average) (% / log_{10} time scale)	10.4 %	5.2 %	1.7 %
Hysteresis (at 50 % of maximal actuation)	5.4 %		
Recommended max. actuation	2 000 Ncm^{-2}	20 000 kPa	
Dynamic range	0.1 – 500 Ncm^{-2}	1 – 5 000 kPa	
Temperature coefficient	~ 0.9 %/K		
Pixel-to-Pixel variation	~ 5% (w/o compensation)