

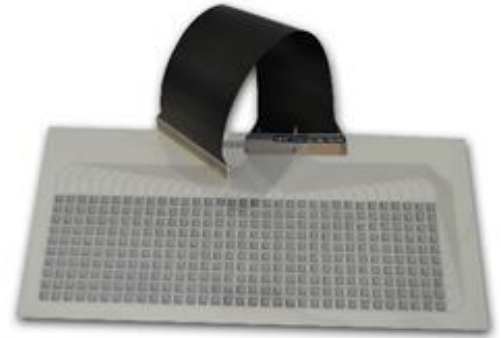
FSR-Matrix SM32x10 (Type 4) - PET

Product Brief

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Key Features

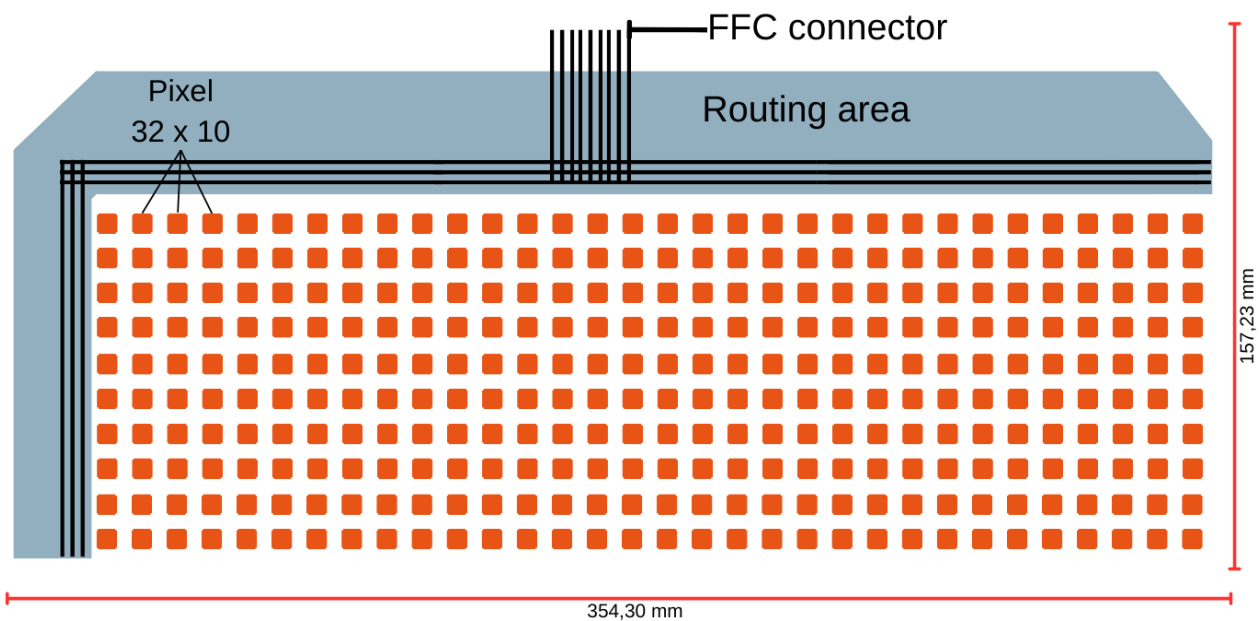
- Piezoresistive sensor foil
- Wide range
- Compatible with iL-readout electronics, Plug & Play
- Cost-efficient roll-to-roll manufacturing
- Available for:
 - DevKit electronics
 - Universal electronics



Mechanical data

Foil thickness & material	75 µm PET	Spatial resolution (# of pixels)	32 x 10
Foil dimensions (L x W x H)	36 x 17 x 0.021 cm ³	Pixel size	0.62 x 0.57 cm ²
Active area	32.5 x 9.6 cm ²	Pixel pitch	1 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)	6.7 %	1.3 %	0.14 %
Drift (average) (% / log ₁₀ time scale)	11.2 %	3.2 %	0.5 %
Hysteresis (at 50 % of maximal actuation)	1.7 %		
Recommended max. actuation	2 000 Ncm ⁻²	20 000 kPa	
Dynamic range	0.1 – 2 000 Ncm ⁻²	1 – 20 000 kPa	
Temperature coefficient	~ 0.9 %/K		
Pixel-to-Pixel variation	~ 5% (w/o compensation)		

