



**METALLUX**

Swiss technology at your service

**ULTRA SMALL PRESSURE SENSOR**

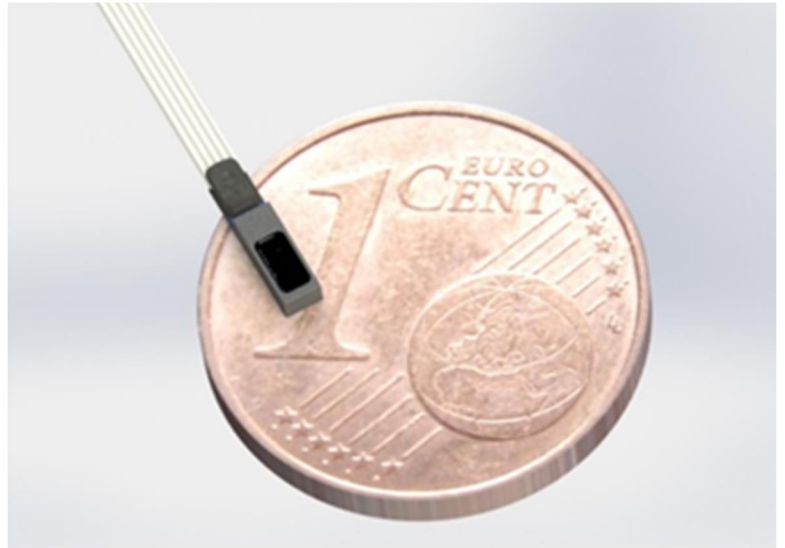


## **MICRO SENSOR TECHNOLOGY**

Ultra small pressure sensor based on a piezoresistive MEMS

Suitable for applications such as:

- catheter tips
- probes
- mini invasive disposable units
- very small devices



**Metallux SA** is a Swiss manufacturer of ceramic pressure sensors and thick film technology electronic circuits. Based in southern Switzerland, Metallux SA produces an extensive range of both standard and customized pressure sensors, together with technologically innovative hybrid circuits based on proprietary design and clients' specifications.

The **Ultra Small Pressure Sensor**, or Microsensor, represents the perfect combination of Metallux expertise in both field of pressure sensors manufacturing and assembly of high quality electronic circuits.

With a measurable pressure range **up to 300 mmHg (400 millibar)**, the Microsensor is realized by integrating piezo-resistive MEMS on a PCB. The extremely reduced dimensions (**6 x 1.5 x 1.1 mm**) make this device particularly suited for applications such as medical measurement of bodily fluids' pressure. In fact, the micro sensor can be installed in a disposable catheter so that a direct pressure measurement can be achieved.

However, even if the Microsensor finds its best field of application in the medical sector, its use can be extended to all those areas in which small probes are needed.

The Microsensor is available in **three configurations**, each one **customizable** according to the customer's specifications:

- **BASIC**                      The raw sensor provided with micro cable
- **COMPLETE**                Sensor provided with EEPROM which stores the sensor's parameters (output and bridge resistance at two temperatures and two pressure values), useful to calibrate and thermally compensate the output signal.
- **WITH BOARD**              A specific electronic board is available to read the parameters stored into the EEPROM and to allow:
  - Offset calibration
  - Sensitivity calibration at 5  $\mu\text{V/V/mmHg}$  (other values available on request)
  - Offset and span temperature compensation