

## FRAUNHOFER-INSTITUT FÜR MIKROELEKTRONISCHE SCHALTUNGEN UND SYSTEME IMS



- 1 Typical sensor curve for the pressure sensor
- 2 Pressure sensor for catheter use
- 3 Tactile sensorarray with interface
- 4 Cross section of the integrated pressure sensor process

Fraunhofer Institute for Microelectronic Circuits and Systems IMS

## Finkenstr. 61 D - 47057 Duisburg phone +49 203 37 83-0 fax +49 203 37 83-266 www.ims.fraunhofer.de

## contact Michael Bollerott phone +49 203 37 83-227 vertrieb@ims.fraunhofer.de





## **BUSINESS FIELD MICROMACHINED PRESSURE SENSOR TECHNOLOGY**

Considering the fast growing pressure sensor market and more than 20 years of experience in our business field pressure sensors we offer you an innovative and state of the art micromachined pressure sensor technology. Goal of the business field is the development and production of micromachined pressure sensors for customer specific applications and their transfer to the industry. The activities cover the full range from concept, feasibility study to first sample development and prototyping, ending up with pre-series and series production of the sensor ASICs. Combining the know-how for mixed signal circuit design, sensor technology and system design-optimized solutions for the customer specific requirements are achieved. A modern 8" fab working at four shifts ensures the production of the microchips. The patented IMS capacitive absolute pressure sensor process based on surface micromachining offers the capability for monolithic integration with a high

voltage option and integration of EEPROM for data storage. In order to readout the small capacitance of the pressure sensor cell small currents are needed. Combining the low power feature and the monolithic integration of CMOS circuitry single-chip sensor transponders have been achieved.

Examples of developments and products are shown in the following figures. In accordance with the policy of technology transfer the pressure sensor IP can be licensed.

