

Pressure Sensors

- Most advanced - piezoresistive technology
- OEM pcb / equipment inside mountable
- External - metal housing w/ quick-fit or thread
- Full scale: ultra low pressure $\frac{1}{4}$ mb to 40b
- Modular system - 2 basic types: SCPB / SCPK
- Smart sensor – customer / in field adjustable



A Member of
SHW AG

Company



Mikrosystemtechnik
Sensorik

- Specialized in piezoresistive pressure sensors
- Experienced: Founder first started in 1994
- Full digital signal processing – ASIC technology
- Made in Germany / EU
- Backed by automotive SHW Group /1400 empl.
SensDev is a consolidated member
- Independent firm: for product / market decision

Location



- **SensDev:** Head office – customer service – marketing & sales – research & development
- **Lust Hybrid-Technik:** Automated micro electronics production – finances – administration – quality management – production development – marketing assistance

Benefits

- **Highly available/short delivery time due to modular system**
- **Mass production** of basic sensors – stored at SensDev stock
- Automated customized calibration and finishing allocated based on blanket orders
- Coating **protection against aggressive media**
- **No extra handling cost** - customization is standard

- **piezoresistive pressure sensors - 40..125°C compensated / calibrated**



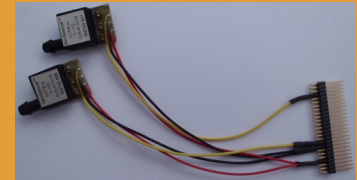
- **SCPB Series:** 15bit-resolution, I²C-bus + analog 0..5V



Accuracy from 0,1% total error

Vs: 3,3V 5V 6..100V

internal voltage regulation



- **SCPK Series:** 14bit-resolution, I²C-bus / SPI
SMD direct soldering or flying leads



Applications

- **Medical equipment:**
Respiration, breath control, genium analysis,
ear & nose diagnostics, dialysis, alcohol control
- **Environmental control:** exhaust measurement, gas analysis
- **Automotive:** Diesel particle filter, suspension, car air condition
- **Security** (explosive media), fuel-level control
- **Automation:** Positioning, vacuum handling, pressure controller
- **Civil aviation:** speed, altitude & vario, fuel-level control
- **Building automation:** filter control, heating, air-conditioning

Advanced Specs

- **Ultra low pressure:** from ± 25 Pa full scale – no altitude dependency – no mass flow principle
- up to 40bar /400mWclm **for water supply** w/ 60bar over-pressure
- Over-all-accuracy including temperature up to **0.1%**
- Up to **3 pressure ranges** - customer / field settable
- **Smart-Sensor:** dynamic signal-filter setting, energy optimization

Smart Sensor SCPB

- Customer settable & in place user changeable
- Average calculation w/ 1..128 measurement values
= signal smoozing
- I²C-cycle time setting: 0,5ms ... 4ms
- I²C-bus Addresses 0x00 ... 0x1F (128 addresses)
- Changes: setting EEPROM via I²C-bus commands
- Support w/ ARDUINO and RaspBerry Pi apps