

PS162/PS312

Ceramic Capacitive OEM

High and Low

Pressure Sensing Modules

Typical Applications

- Industrial Pumps & Compressors
- Refrigeration
- Heating, Ventilation and
- Air-conditioning (HVAC)
- Steam Sterilizers, Boilers & Dryers
- Test & Monitoring Equipment
- Process Controls
- Facility Management
- Mechanical Engineering
- Filter Restriction
- Fuel Cells
- Hydraulics Systems
- Process Controls
- Level Measurement
- Water Management
- Power Generators

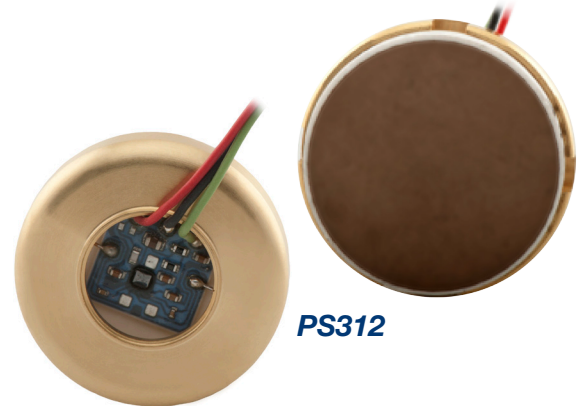
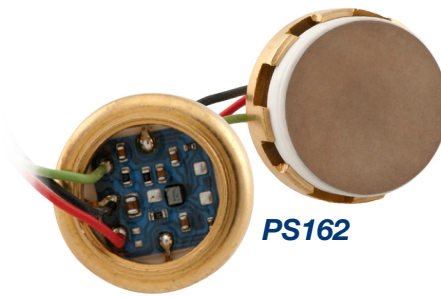
Standard Full Scale Pressure Ranges

PS162: 0-200 mBar up to 0-200 Bar

PS312: 0-50 mBar up to 0-20 Bar

Features

- Media Resistant
- Superior Long-Term Stability & Repeatability
- High Overpressure Capability
- Shock & Vibration Resistant



Description

Kavlico's OEM Pressure sensing modules utilize our more than 30-year field-proven ceramic capacitive sensing technology and are intended for high volume applications. Millions of Kavlico sensors are installed worldwide in a variety of industrial and transportation applications.

These RoHS compliant modules are equipped with a robust flush mounted ceramic sensing diaphragm that is compatible with most industrial fluids and gaseous media. The standard housing material is a Brass Spacer, and the standard electrical connection is 3 Isolated Wires 0.15 mm, 2 – 75mm Long. The module allows for easy integration and installation into final assemblies for a wide variety of applications.

With a 10-year minimum shelf life and a lifetime of millions of pressure cycles, Kavlico's ruggedly designed modules are made to last.

Technical Specifications

| | -----PS Module 312 ----- | | | -----PS Module 162 ----- | | | |
|--|---|------|-------|------------------------------------|-----|-------|-----|
| Pressure ranges from 0 to ... | bar | 0.05 | up to | 20 | 0.2 | up to | 100 |
| Proof pressure | bar | 1.2 | up to | 60 | 2 | up to | 300 |
| Burst pressure | bar | 2.4 | up to | 100 | 4 | up to | 400 |
| Reference | Absolute or gage | | | | | | |
| Materials | | | | | | | |
| Wetted Parts | Ceramic Al2O3, gold coating on diaphragm | | | | | | |
| Process Media | All gases and liquids compatible with ceramic Al2O3 and gold | | | | | | |
| Electrical | | | | | | | |
| Supply Voltage | 4.75 - 5.25 VDC | | | | | | |
| Output Signal | 1.0 - 4.0 VDC output | | | 0.5 - 4.5 VDC output configuration | | | |
| at Zero | 1.0 VDC | | | 0.5 VDC | | | |
| at Full Span | 4.0 VDC | | | 4.5 VDC | | | |
| Supply current | Max. 2.2 mA at 5 VDC | | | | | | |
| Load resistance | > 50 kΩ | | | | | | |
| Protection | | | | | | | |
| Overvoltage | 7 VDC | | | | | | |
| EMI | Dependent upon customer packaging | | | | | | |
| Response time | ≤ 10 ms max. to 63 % of full scale pressure with step change on input | | | | | | |
| Accuracy *) | 0,5 % of span | | | | | | |
| Non-linearity **) | typ. 0.1 % of span | | | | | | |
| Hysteresis | 0,2 % of span | | | | | | |
| Non-repeatability | 0,1 % of span | | | | | | |
| 1-year stability ***) | typ. 0.1 % of span | | | | | | |
| *) Including non-linearity, hysteresis, non-repeatability, zero point and full scale error (corresponds to error of measurement per IEC 61298-2) | | | | | | | |
| **) BFSL according to IEC 61298-2 | | | | | | | |
| ***) with reference conditions to EN 61298-1 | | | | | | | |
| Temperature | | | | | | | |
| Operating temperature range | -40°C to + 125°C | | | | | | |
| TC zero | typ. ± 0.05 % / 10K | | | | | | |
| TC span | typ. ± 0.05 % / 10K | | | | | | |
| Conformity | | | | | | | |
| RoHS | according to 2002/95/EC RoHS Directive | | | | | | |
| Electrical connection | 3 isolated wires 0.15 mm ² , 75 mm long | | | | | | |
| Color code of wires | RED – VSUPPLY, GREEN – OUTPUT, BLACK – GROUND | | | | | | |
| Service life | Min. 10 million pressure cycles full scale | | | | | | |
| Weight | | | | | | | |
| PS312 | 40 gram | | | | | | |
| PS162 | 20 gram | | | | | | |

Customized versions with PS modules already build into housings on request - contact factory for details.



Before installation and operation, ensure that the appropriate pressure sensor has been selected in terms of pressure range, design and specific measuring conditions. Non-compliance can result in serious injury and/or damage to the equipment.

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to meet your application-specific needs!

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