

# 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 -----			
<b>Pressure ranges from 0 to ...</b>	bar	0.05	up to	20	0.2	up to	100
<b>Proof pressure</b>	bar	1.2	up to	60	2	up to	300
<b>Burst pressure</b>	bar	2.4	up to	100	4	up to	400
<b>Reference</b>	Absolute or gage						
<b>Materials</b>							
Wetted Parts	Ceramic Al2O3, gold coating on diaphragm						
Process Media	All gases and liquids compatible with ceramic Al2O3 and gold						
<b>Electrical</b>							
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						
<b>Protection</b>							
Overvoltage	7 VDC						
EMI	Dependent upon customer packaging						
<b>Response time</b>	≤ 10 ms max. to 63 % of full scale pressure with step change on input						
<b>Accuracy *)</b>	0,5 % of span						
<b>Non-linearity **)</b>	typ. 0.1 % of span						
<b>Hysteresis</b>	0,2 % of span						
<b>Non-repeatability</b>	0,1 % of span						
<b>1-year stability ***)</b>	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							
<b>Temperature</b>							
Operating temperature range	-40°C to + 125°C						
TC zero	typ. ± 0.05 % / 10K						
TC span	typ. ± 0.05 % / 10K						
<b>Conformity</b>							
RoHS	according to 2002/95/EC RoHS Directive						
<b>Electrical connection</b>	3 isolated wires 0.15 mm <sup>2</sup> , 75 mm long						
<b>Color code of wires</b>	RED – VSUPPLY, GREEN – OUTPUT, BLACK – GROUND						
<b>Service life</b>	Min. 10 million pressure cycles full scale						
<b>Weight</b>							
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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