

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.

Warning: The product information contained in this catalogue is given purely as information and does not constitute a representation, warranty or any form of contractual commitment. Kavlico reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsibility of the buyer to establish, particularly through all the appropriate tests, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.

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to meet your application-specific needs!

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