Data Sheet
PS162
Ceramic Capacitive High Pressure Sensing Modules
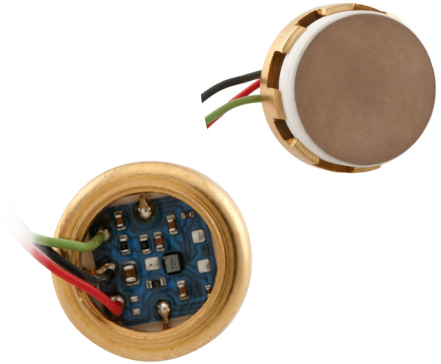
Main Features

Pressure Ranges	0 to 0.04 bar up to 0 to 60 bar (gage)
	0 to 1 up to 0 to 60 bar (absolute)
Electrical Connection	3 isolated color coded wires; 0.15 mm², appr. 75 mm long
	Silicon coat: RED – VSUPPLY; GREEN – OUTPUT; BLACK – GROUND
Housing Material	Brass spacer
Output Signal	1 - 4 VDC, 0.5 - 4.5 VDC (at 0 - 100% pressure)

Attributes

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

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

Description

The ceramic capacitive sensing technology in Kavlico's OEM Pressure sensing modules has been field proven for more than 30 years and has been designed for high volume applications. Klavico 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 compatible with most industrial fluids and gaseous media. The standard module is provided with a brass spacer as housing material and an electric connection of 3 isolated wires 0.15 mm2, 75mm long. The module facilitates 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 cycles, Kavlico's ruggedly designed modules are made to last.

Sensata Technologies

Technical Specifications

Pressure Ranges

from 0 to …	bar (gage)	0.04	1	2	3.50	5	7	10	20	35	60
from 0 to …	bar (absolute)		1	2	3.50	5	7	10	20	35	60
Proof pressure *1	bar	4	4.3	7.2	10.5	15	21	30	60	105	210
Burst pressure *1	bar	4	8	13	18	25	35	50	100	175	350

* Data is being calibrated in the Kavlico test fixtures

*1 with Kavlico test fixture, is due to change depending on customer housing

Physical

Operating Life Cycle	min. 10 million full pressure cycles over the full range
Weight	≤ 50 grams (without mating connector)
Operating Temperature	-40°C to + 125°C
Media	All fluids and gases compatible with AU/Al_2O_3

Performance

Liniarity *1	± 0.1 % TYP. / ± 0.2 % MAX
Total Error Band *1	± 1.0 % TYP. for temperature range +20°…+85°C ± 2.0 % MAX. for temperature range -40°…+125°C
Stability *1	± 0.1 % TYP. * / ± 0.25 % MAX. (1 YEAR)
Temp. Coefficients - Zero	± 0.05 % TYP. * / ± 0.1% MAX. / 10 K within temperature range 0° to + 85°C
Temp. Coefficients - Span	± 0.05 % TYP. * / ± 0.1% MAX. / 10 K within temperature range 0° to + 85°C

Electrical

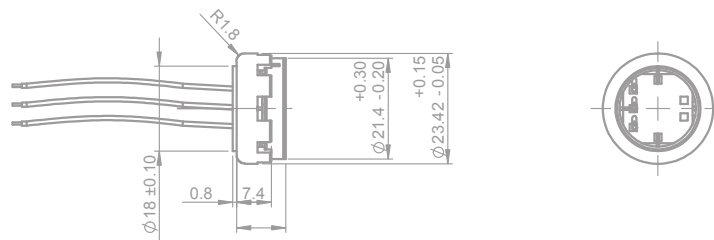| Output Signal	1...4 VDC	0.5…4.5 VDC
Supply Voltage	5.00 ±0.25 VDC	
Supply Current	MAX. 2.2 mA at 5 VDC	
Output Impedence	100 kΩ	
Load	50 kΩ	
Response Time	≤ 5 ms max. to 63% of full scale pressure with step change on input	
Overvoltage Protection	up to ± 16 V	
Reserve Voltage	up to ± 16 V	
Short-circuit Proofness	yes (for min. 3 intervals at 5 min. each)	
Insulation Voltage	500 VDC	> 1 MΩ
EMI Protection	Depending on customer package	

Approvals & Certificates

ROHS	2011/65/EU ROHS Directive

Dimensions

Pressure Sensor with Electrical Connection

Dimensions in mm [Inch]

How to Order

PS162	1000A	1

Pressure Ranges

5G 0 - 0.4 BarG	**15A** 0 - 1 BarA
15G 0 - 1 BarG	**30A** 0 - 2 BarA
30G 0 - 2 BarG	**50A** 0 - 3.50 BarA
50G 0 - 3.50 BarG	**75A** 0 - 5 BarA
75G 0 - 5 BarG	**100A** 0 - 7 BarA
100G 0 - 7 BarG	**150A** 0 - 10 BarA
150G 0 - 10 BarG	**300A** 0 - 20 BarA
300G 0 - 20 BarG	**500A** 0 - 35 BarA
500G 0 - 35 BarG	**1000A** 0 - 60 BarA
1000G 0 - 60 BarG	

Output

1   1...4 VDC at 0 - 100 % Pressure

2   0.5...4.5 VDC at 0 - 100% Pressure
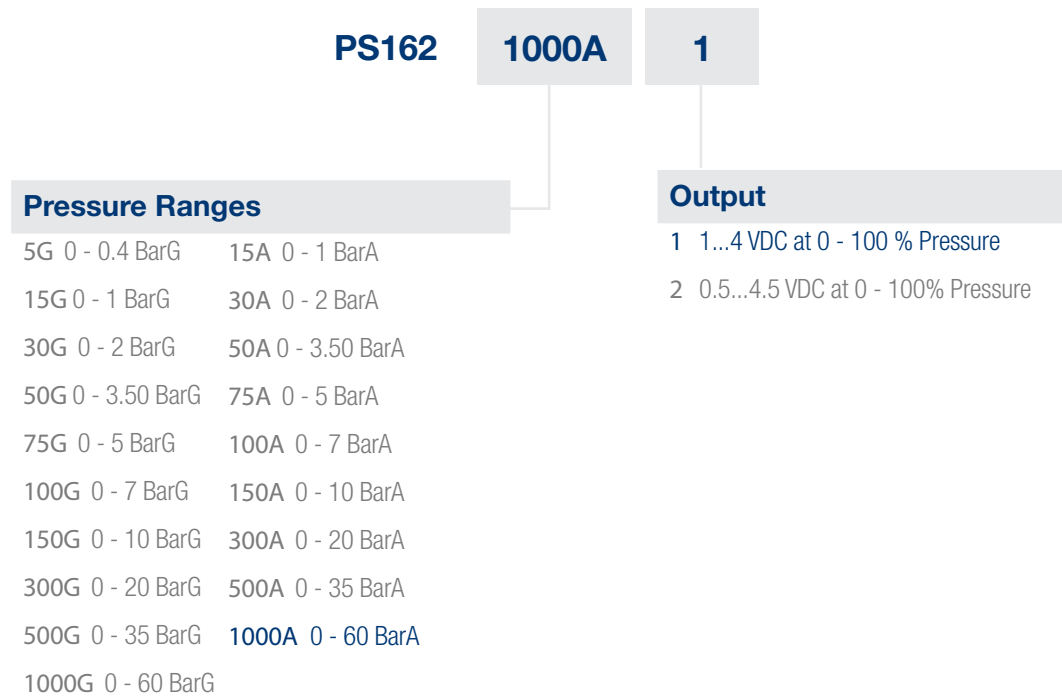
Example:
PS162-1000A-1

Description:
PS162 Pressure Sensing Module, 0 - 60bar absolute, 1...4 VDC at 0 - 100% pressure.

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.

Sales Offices Worldwide

Americas
Brazil
Mexico
USA

Europe
England
France
Germany
Italy
Netherlands
Spain
Sweden
Russia

Asia Pacific
China
India
Japan
South Korea

Main Contact

Sensata Germany GmbH
Potsdamer Strasse 14,
32423 Minden
Tel: +49 571 3859-0
Fax: +49 571 3859-119
www.kavlico.com
www.sensata.com

Your local sales contact:

JB Controls

industrie@jbcontrols.com
+33(0)1 46 91 93 30
https://jbcontrols.com/
59 Rue Emile Deschanel
92400 COURBEVOIE, France

Sensata
Technologies