



PS1000
Pressure Sensor



Description

The enhanced features and performance of the new PS1000 pressure sensor provides users with an affordable solution to a wide range of water level and pressure monitoring applications. The PS1000 has a standard, 2 wire, loop powered 4-20mA output with an option for 0-2.5Vdc. New features include the ability to re-range the sensor, as well as adjust the fluid density and gravity to suit specific applications.

The sensor is ideal for use in groundwater, surface water and a wide range of water monitoring and environmental projects. A durable corrosion resistant body, rugged ceramic capacitance transducer and double O ring sealing ensures suitability for harsh environment applications. The sensor comes fitted with a moulded polyurethane cable as standard. Other cable options are also supported. An optional SDI-12 adaptor can provide a serial output for external controllers or data loggers.

The sensor can be supplied in various gauge (vented) or absolute (non vented) pressure ranges. Gauge sensors utilise a closed vent system (CVS). This provides barometric pressure venting of the sensor, without the need to continually replace desiccant.

The PS1000 sensor is easy to install and provides users with a rugged and reliable solution to long term monitoring. For more information please contact your nearest sales office.

Features

- Loop powered – battery or solar
- 4-20mA or 0-2.5Vdc outputs
- 0.1% FS accuracy
- Field re-ranging and calibration
- User inputs for fluid density and local gravity
- Double O-ring design and moulded cable gland
- Acetal construction
- ½" diameter ceramic capacitance transducer
- Long term stability better than 0.2% per annum
- Optional SDI-12 adaptor for serial output
- Threaded fitting for Process connection.

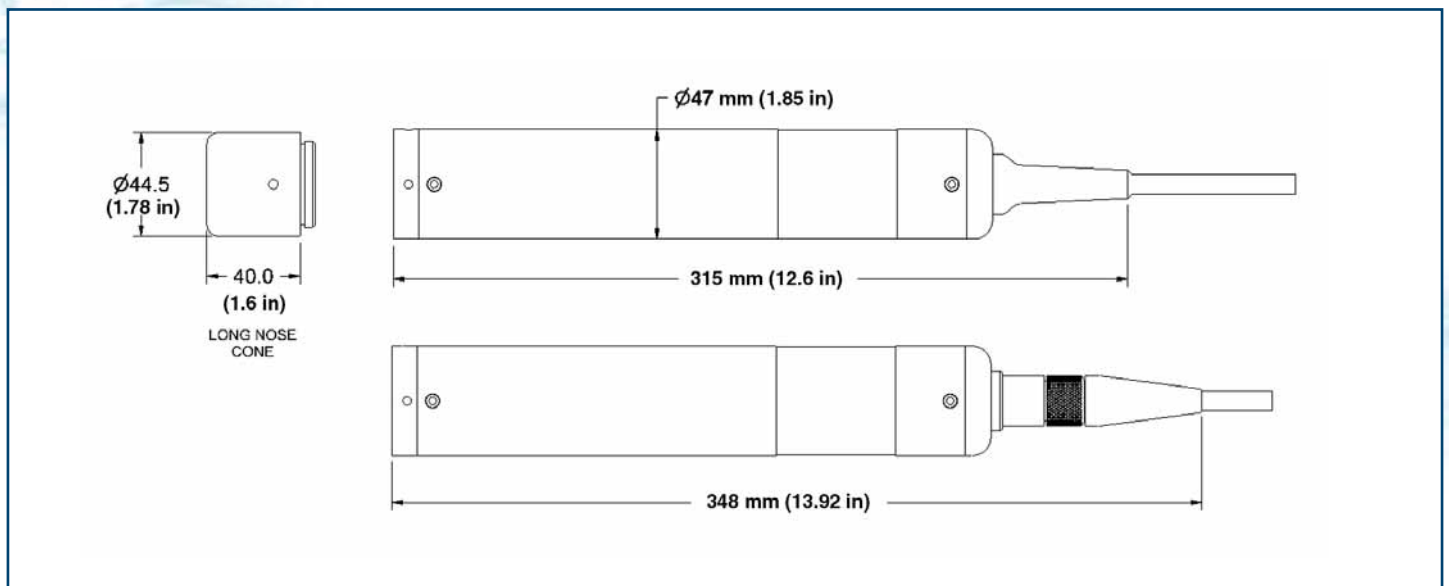
Benefits

- Can be installed in active waters (acidic or salty) that would damage a stainless steel sensor.
- No need for regular desiccant replacement resulting in fewer field visits
- Low cost of ownership and minimal maintenance
- Ease of use and long term reliability.

Applications

- Sewer wet wells
- Bore hole monitoring
- River and dam level monitoring
- Flood warning systems
- Tank level monitoring
- Process level and pressure monitoring.

Dimensions



PS1000 Specification

Measurement technique		½" ceramic capacitance transducer
Std ranges available	Gauge	2.5, 5, 10, 20, 40, 75, 100m
	Absolute	20, 40, 75, 100m
Other ranges available		Yes (consult sales office)
Sensor output		4-20mA, or optional 0-2.5V dc (SDI12 via adaptor)
Overall accuracy (combined linearity, hysteresis and repeatability)		+/- 0.1% full scale
Long term stability		0.2% full scale per annum
Zero offset and full scale maximum variation		+/-0.02mA
Cable type		Polyurethane sheathed cable, OD 8mm, with 3mm vent tube, moulded entry, bare wire connection
Cable lengths		10,20,30,50,100,150m (32,65,100,165,325,490 ft)
Closed Vent System (CVS)		Gauge sensors must be fitted with a CVS
Power supply		8 to 30Vdc (at sensor) loop powered
Reverse polarity protection		Yes
Surge current protected		To 2kV
Warm up time to stable reading		<150 ms
Current consumption		Up to 20mA while turned on, 0mA when off.
Operating temperature		0-50°C
Storage temperature		-5°C - +60°C
Max over pressure		At least twice the full scale range
Dimensions (L x OD)		315mm x 47mm (12.6" x 1.78")
Weight		550g plus cable weight (665g per 10m length)
Wetted materials		Acetal, ceramic, 316 passivated stainless steel, polyurethane, viton

Optional Extras and Accessories

- For all Gauge (vented) Sensors, a Closed Vent System must also be fitted. (each CVS unit can handle up to 70m of vented cable)
- Sensors are normally supplied with a moulded cable pre cut to required length. Detachable cable options may be available*
- BSP Pressure Adaptor (Part No 492-0238) for process connection for pressure monitoring. (Gas Bubbler, Pipelines, Tanks)*
- Protective Copper Nose Cone (Part No 492-0241) - prevents marine and biological growth on sensor face*
- Serial Breakout Box (Part No 7BB-1000) – provides user field adjustments and calibration*
- SDI12 Adaptor Unit –(Part No 7SDI-1000) provides 3 wire SDI12 serial output for Data Logger *



How to Order

The following information will be required:

- Sensor full scale range (specify range in m)
- Sensor type (Gauge or Absolute)
- Output required (4-20mA or 0-2.5V)
- Moulded cable length (specify length in m)
- Closed Vent System (for Gauge sensors)
- Accessories (Nose cone, Breakout box, SDI12 box)*

* Consult your Greenspan sales representative for further details.



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