

GREENSPAN



PS1000
PRESSURE SENSOR

PS-1000A & PS-1000L

Analogue or Logging Pressure Sensor

DESCRIPTION

The enhanced features and performance of the proven PS-1000A pressure sensor provides users with an affordable solution to a wide range of water level and pressure monitoring applications. The PS-1000A has a standard, 2 wire, loop powered 4–20 mA output with an option for 0–2.5 V DC. The PS-1000L includes the Greenspan 3000 data logger for a complete sensor solution.

Key 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 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. An optional SDI-12 adapter can provide a level and temperature 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.

DIMENSIONS



The PS-1000A 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
- 4–20 mA or 0–2.5 V DC 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
- Optional 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

CUSTOMER SUPPORT

Greenspan also offer a range of customer support functions:

- Field installation
- Data management
- Project integration
- Technical and sales support
- Factory calibration and re-certification
- Product servicing and repair

PS-1000A SPECIFICATION

Measurement technique	½" ceramic capacitance transducer	
Std ranges available	Gauge Absolute	2.5, 5, 10, 20, 40, 75, 100 m 20, 40, 75, 100 m
Other ranges available	Yes (consult sales office)	
Sensor output	4–20 mA, or optional 0–2.5 VDC (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	+/-0.02 mA	
Cable type	Polyurethane sheathed cable, OD 8 mm, with 3m vent tube, Aramid reinforced, moulded entry, bare wire connection	
Standard cable lengths	10, 30 50, 80, 100, 150 m	
Non-standard cable lengths	Yes (Extra cable moulding time may be required)	
Closed Vent System (CVS)	Gauge sensors must be fitted with a CVS	
Power supply	8 to 30 V DC (at sensor) loop powered	
Reverse polarity protection	Yes	
Surge current protected	To 2 kV	
Warm-up time to stable reading	<150 ms	
Current consumption	Up to 20 mA 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×OD)	328 mm × 47 mm (12.91" × 1.85")	
Weight	550 g plus cable weight (665 g per 10 m length)	
Wetted materials	Acetal, ceramic, 316 passivated stainless steel, polyurethane, viton	

OPTIONAL EXTRAS AND ACCESSORIES

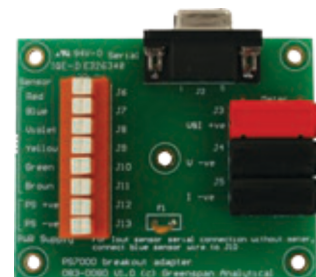
- For all Gauge (vented) Sensors, a Closed Vent System must also be fitted. (each CVS unit can handle up to 70 m of vented cable)
- Sensors are normally supplied with a moulded cable pre cut to required length.*
- BSP Pressure Adaptor for process connection for pressure monitoring. (Gas Bubbler, Pipelines, Tanks)*
- Protective Copper Nose Cone – prevents marine and biological growth on sensor face*
- Serial Breakout adapter – provides easy wiring connection for field adjustments and calibration*

- SDI12 Adaptor Unit – 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 (4–20 mA or 0–2.5 V)
- Moulded cable length (specify length in m)
- Closed Vent System (for Gauge sensors)
- Accessories (Nose cone, Breakout adapter, SDI12 adaptor)*



Serial Breakout Adapter



SDI-12 Adaptor



Closed Vent System



Website: greenspan.com.au

Phone: +61 3 8420 8999

Email: sales@esearth.com

ESS Earth Sciences Head Office:
141 Palmer Street
Richmond VIC 3121
Australia