PS2100

PRESSURE SENSOR

Water Level & Temperature

TECHNICAL SUPPORT RELIABILITY ACCURACY

- On-board Logger
- 2Mb Memory
- User Replaceable Internal Battery
- Ceramic Capacitive Transducer
- Quick Release Cable
- Logarithmic Sampling
- Minimum Logging Interval 0.2sec
- Ranges for 2.5mtr to 0-100mtr
- 36pt Calibration
- 22mm Diameter
- Highly Accurate
- Many MORE Software Features

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PS2100 Specifications

Standard Ranges Available		Max. Over Range	
metres	feet	metres	feet
0-2.5	0-8	60	195
0-5	0-15	60	195
0-10	0-30	100	325
0-20	0-65	180	590

Range		Max. Over Range	
metres	feet	metres	feet
0-40	0-130	250	820
0-75	0-245	400	1300
0-100	0-325	400	1300

Other ranges on request.
Advanced temperature compensation.

Standard Cable Lengths

Metres: 1, 3, 5, 10, 15, 20, 30, 50, 80, 100, 150, 200
Feet: 3, 10, 15, 30, 50, 65,100, 165, 260, 325, 490, 650
Other lengths available upon request

Operating Temperature Range

0 to 50°C

Linearity

Pressure: ±0.05% FS (Combined linearity, hysteresis and repeatability)
Temperature: ±0.2°C

Overall Accuracy

Pressure: ±0.1% FS (Over full pressure and operating temp)
Temperature: ±0.2°C
Battery Voltage: ±5%

Resolution

0.000012% FS (23 bits Uni-Polar)

Battery Life

12months unattended logging @15 minute intervals

External Supply Voltage

Supply Limits: 9-30VDC
Reverse polarity protected to 30V
Surge current protected to 19A peak
Self Resettable Fuse Over-current Protection
Operating Current Consumption (12VDC input)
- 3mA (Sleep Mode)
- 11mA (Logging Measurement Mode)
- 20mA (Logging/Measurement Mode With RS232 Communications)

Maximum Continuous Operating Over-Voltage Protection 33V
EMC Tested and Approved to following Standards:
- EN 50204
- EN 61000-6-3
- EN 61000-4-2
- EN 61000-4-4
- EN 61000-4-5
- EN 61000-4-6

Internal Batteries

Voltage Range 6.0V to 7.8V
Operating Current Consumption:
- 50µA (Sleep Mode)
- 6mA (Logging/Measurement Mode)
- 18mA (Logging/Measurement Mode With RS232 Communications)

Reverse Polarity Protected
Recommended Battery: 2x TADIRAN, 1/2AA 3.6V Lithium
Low Battery Indication: 5.65V to 5.95V

Power On Reset Time

5 secs

Warm Up Time

2 seconds to stable reading

Sensor Type

Ceramic Capacitive Pressure Transducer

Memory

2Mb Data Flash
User Definable - Memory Wrap

Data Storage

Approx 100,000 single channel readings/User Defineable Measuring Units

Maximum Logging Rate

5Hz (0.2 seconds)

Storage Temperature Range

-10 to 60°C

Weight

410g (15oz)

Dimensions

380mm Length (15in)
22.5mm Diameter (0.9in)

Cable

12 core Polyurethane sheathed with internal 3mm vent tube, OD 8mm. Cable terminated with locking waterproof connector at one end and 7 pin connector with flying power leads and vent at the other.

Features

Output

RS232-E (EIA-232) Compatible
ESD Protection (15kV) on RS232 Lines
Average Transfer Rate: 1kb/sec

A-D Converter

24 Bit Converter on-board
Mains Frequency Rejection (50Hz to 60Hz)

Wetted Materials

Ceramic, Passivated 316 Stainless Steel, Viton, Polyurethane

Software Supplied

SmartCom, Aquagraph

Technical Support

The correct choice of sensor should be supported by professional advice to ensure long term success in the field. ***Greenspan Technical Services*** is dedicated to customer support and commissioning of sensors with a full range of training and consulting services.

A full technical support and field advice service can be accessed by ringing the Customer Service Manager on **(07) 4660 1888.**

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PS2100

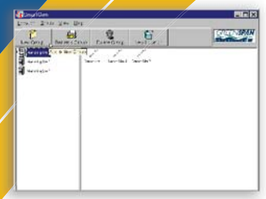
PRESSURE SENSOR

Water Level & Temperature

The ***NEW*** **Greenspan PS2100** sensor provides you with a highly accurate, software enhanced tool for all your groundwater monitoring requirements. Utilising ceramic technology for stability and advanced electronics and calibration for performance, the **PS2100** is the most advanced groundwater probe of its kind.

The **PS2100** is fully calibrated over all temperature and pressure ranges to provide you with a fully temperature compensated unit. Linear and logarithmic schedules are easily set up using SmartCom software with logging frequencies of up to 0.2 secs per log.

1

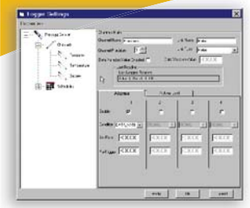


Group all your sensors in an easy to manage format. SmartCom works behind the scenes to replicate the same directory structure on your PC in the SmartCom folder.

2

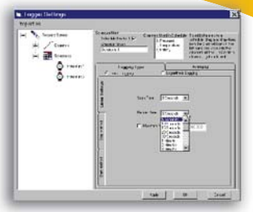
Adding new locations into your groups is simple with the use of the new location wizard. You can specify the instrument you are using or SmartCom will automatically detect the sensor connected to your com port.

3



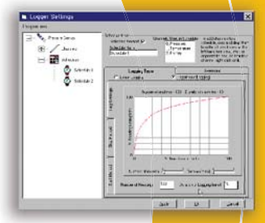
The logger properties screen allows you to see which channels are in each sensor. Alarms and data variation values can also be set on each parameter.

4



You can also setup up to 15 different schedules for your instrument. Two of which are stored on the logger. Changing schedules on your sensor is as simple as enabling your preference. Schedules can be linear (set frequency) or logarithmic. Setting up the logging frequency can be done by simply choosing your required frequency from a drop down menu.

5

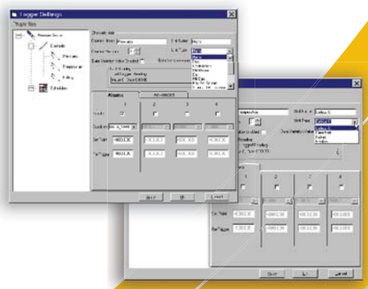


Setting a logarithmic schedule has never been easier. Choose the duration of the schedule and how many data points you want to collect and SmartCom does the rest. A graphical representation of the schedule is visible at all times.

6

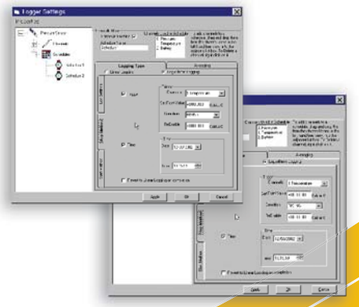
Like the graph, but want the hard data! Simply click on the logarithmic graph and a table is presented to you showing the distribution of logging frequency over the duration of the schedule.

7



Want to easily change the engineeering units that your data is collected in? SmartCom's drop down menus means that all you have to do is select the units you want and it's done!! No re-calibration required.

8



Stop and start your sensor whenever you want! The sensor can be setup to stop/start on the trigger of an event or at a predefined time interval.

9

Collect the data you want not the data you have to! SmartCom gives you the options of collecting all new data since your last visit to the site, between a set date range or all the data on file. You can append this data to an existing data set or overwrite the old data file on your PC.

10

Synchronise the real-time clock on your sensor with your PC. It's a one click process!!

11

User calibration made simple! Enter the user calibration section of SmartCom, select the type of calibration you want to perform and follow your nose with the easy step-by-step instructions. Within seconds your sensor is recalibrated and ready to go again.

SMART SERIES II

The NEW Greenspan PS2100 - putting advanced technology and superior software in the palm of your hand...