DATASHEET

VW Piezometers, VWP-3000 Series

Pore pressure measurement in soils and rocks & fluid pressures in hydro-fracture and pump tests using the well-proven method of converting fluid pressures on a sensitive diaphragm into a frequency signal

GEOSENSE

VWP-3000 Series

Overview

Geosense® VWP-3000 Series of Vibrating Wire piezometers use the well-proven method of converting fluid pressures on a sensitive diaphragm into a frequency signal.

Frequency signals are particularly suitable for the demanding environment of Civil Engineering applications, since the signals are capable of long transmission distances without degradation, tolerant of wet wiring conditions and resistant to external electrical noise.

APPLICATIONS

- Pore pressure measurement in soils and rocks
- Fluid pressures in hydro-fracture and pump tests

FEATURES

- Reliable long-term performance
- Rugged, suitable for demanding environments
- High accuracy
- Insensitive to long cable lengths

FILTER OPTIONS

- LAE (Low resistance to air entry) 50µ sintered stainless steel, Vyon®
- HAE (High resistance to air entry) Alumo silicate ceramic - 1 & 3 bar

CABLE TYPE

- Type 900 VW Sensor with Foil Screen & Drain Wire
- Type 920 Vented with Drain Wire
- Type 710 Heavy Duty

VWP-3000 Series

Models

VWP-3000/3310

VWP-3000 (STANDARD)

Standard construction with high & low air entry filters to measure groundwater elevations and pore pressures.

VWP-3310 (STANDARD VENTED)

Standard construction but vented to compensate for barometric pressure changes. Available with high & low air entry filters.

VWP-3100

VWP-3100 (HEAVY DUTY)

Heavy duty body for direct burial in fills and dam embankments. Available with high & low air entry filters, standard and heavy duty cable.

VWP-3200/3300

VWP-3200 (LOW PRESSURE)

Low pressure version to measure groundwater elevations and pore pressures. Available with high & low air entry filters.

VWP-3300 (LOW PRESSURE VENTED)

Low pressure vented version to compensate for barometric pressure changes. Available with high & low air entry filters.

VWP-3400/3401

VWP-3400 (DRIVE-IN)

Drive-in version available for use with CPT rods

VWP-3401 (DRIVE-IN)

Drive-in version available for use with 1" BSPM rods

A range of drive-in adaptors, including R32, are available.

VWP-3000 Series

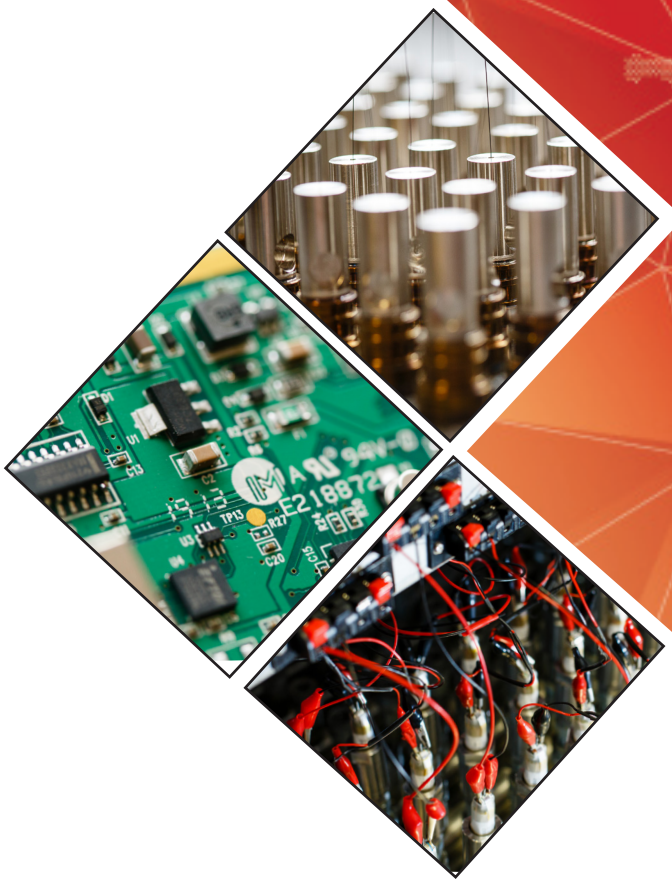
Specifications

TYPE	DESCRIPTION	PRESSURE RANGE	OVER RANGE PRESSURE[1]	RESOLUTION	ACCURACY	NON LINEARITY[2]	CALIB. TEMP RANGE	THERMAL EFFECT	DIAMETER X LENGTH	WEIGHT
VWP-3000	Standard LAE	345, 518, 690 kPa 1, 2, 3.5 MPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	20 x 165mm	240g
VWP-3001	Standard HAE	345, 518, 690 kPa 1, 2, 3.5 MPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	20 x 165mm	240g
VWP-3310	Standard Vented LAE	345, 518, 690 kPa 1, 2, 3.5 MPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	20 x 165mm	240g
VWP-3311	Standard Vented HAE	345, 518, 690 kPa 1, 2, 3.5 MPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	20 x 165mm	240g
VWP-3100	Heavy Duty LAE	345, 518, 690 kPa 1, 2, 3.5, 5, 7 10, 20 MPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	25 x 170mm	500g
VWP-3101	Heavy Duty HAE	345, 518, 690 kPa 1, 2, 3.5, 5, 7 10, 20 MPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	25 x 170mm	500g
VWP-3200	Low Pressure LAE	70, 173 kPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	32 x 179mm	600g
VWP-3201	Low Pressure HAE	70, 173 kPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	32 x 179mm	600g
VWP-3300	Low Pressure Vented LAE	70, 173 kPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	32 x 179mm	600g
VWP-3301	Low Pressure Vented HAE	70, 173 kPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	32 x 179mm	600g
VWP-3400	Drive-in LAE CPT	345, 518, 690 kPa 1, 2, 3.5 MPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	35 x 220mm	550g
VWP-3401	Drive-in LAE 1" BSPM	345, 518, 690 kPa 1, 2, 3.5 MPa	1.5	0.025% FS	± 0.1% FS	<0.5% FS	-20 to + 80 °C	<0.05% FS/°C	35 x 238mm	560g

[1] The maximum pressure that may be applied continuously without causing damage and maintaining set point repeatability.
[2] ± 0.1% FS available on request.

ALL MODELS	
Materials	316 Stainless Steel
Operating Temp Range	0 to +80°C
Over Voltage Protection	90V Gas Plasma Arrester
Thermistor	3k Ohms @ 25°C
Frequency Range	1850-3500 Hz

ORDERING INFORMATION
Type
Cable Length
Pressure Range
Filter
Cable Type
Adaptor Type



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