



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



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) Alumina 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.

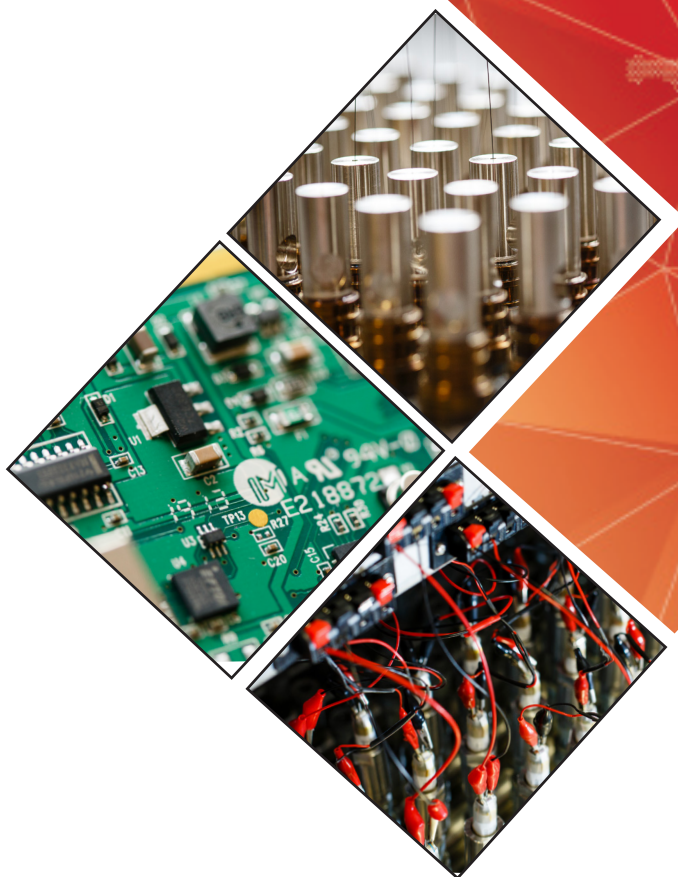
² ± 0.1% FS available on request.

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



HEAD OFFICE

Nova House
Rougham Industrial Estate
Rougham, Bury St Edmunds
Suffolk IP30 9ND
England

+44 (0)1359 270457
sales@geosense.com
support@geosense.com

NORTH AMERICA OFFICE

15 West 38th Street
Suite 632
New York
NY 10018

+1 518-920-3483
sales@geosense.com
support@geosense.com

www.geosense.com

Specifications are subject to change without notice and should not be construed as a commitment by Geosense. Geosense assumes no responsibility for any errors that may appear in this document. In no event shall Geosense be liable for incidental or consequential damages arising from the use of this document or the systems described in this document. All Content published or distributed by Geosense is made available for the purposes of general information. You are not permitted to publish our content or make any commercial use of our content without our express written consent. This material or any portion of this material may not be reproduced, duplicated, copied, sold, resold, edited, or modified without our express written consent.

V1.14 03/2025