

High Temperature Piezometer - VWPHT-3600 series



For extreme environments of temperature and pressure in geothermal heat and enhanced oil recovery systems including steam assisted gravity drainage (SAGD) and cyclic steam stimulation (CSS). Capable of monitoring temperatures up to 250°C and pressures up to 34.5 MPa.



High Temperature Piezometer - VWPHT-3600 series



Overview



APPLICATIONS

- Geothermal heat recovery
- Enhanced oil recovery (EOR)
- In-situ heavy oil recovery systems
- Steam assisted gravity drainage (SAGD) systems

FEATURES

- Temperatures up to 250°C
- Pressures up to 34.5 MPa
- Internal high temperature thermistor
- Reliable long-term stability
- Suitable for the harshest of environments

The VWPHT-3600 series High Temperature Piezometers are suitable for the extreme environments of temperature and pressure found within applications such as geothermal heat and enhanced oil recovery systems including steam assisted gravity drainage (SAGD) and cyclic steam stimulation (CSS). They are capable of monitoring high temperatures up to 250°C and pressures up to 34.5 MPa.

They use the well-proven vibrating wire technology of converting fluid pressures onto a pressure sensitive diaphragm which when deflected causes a change in tension and the corresponding change of frequency of the wire. In addition, an internal high temperature thermistor allows the temperature at the piezometer location to be measured.

Manufactured from high temperature and corrosion-resistant materials throughout, together with a comprehensive temperature calibration, they provide high accuracy stable long-term data with no zero shift.

The specially-designed Tubular Encapsulated Cable (TEC) is both high temperature resistant and highly flexible for easy installation within boreholes or above ground.

Also available as a pressure transducer with a threaded connection in the base.



High Temperature Piezometer - VWPHT-3600 series

Specifications

SENSOR

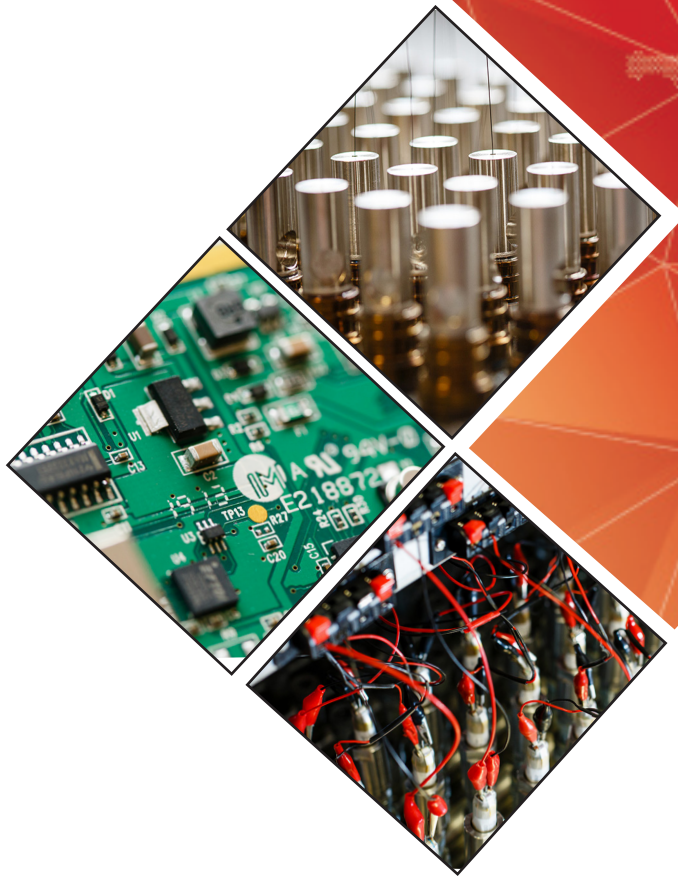
Pressure range MPa	2.1, 3.5, 5.2, 6.9, 10.4, 13.8, 20.7, 34.5
Calibration range VWPHT -3600 VWPHT -3610	+20 to + 200°C +20 to + 250°C
Operating range VWPHT -3600 VWPHT -3610	0 to + 200°C 0 to + 250°C
Thermistor Type VWPHT -3600 VWPHT -3610	3K 10K
Pressure over range	1.5 x pressure
Accuracy	±0.1% FS ¹
Resolution	0.025% FS
Linearity	<0.5% FS
Thermal effect	0.02% FS/°C
Piezometer filter	LAE (Low resistance to air entry) 50µ 316 sintered stainless steel
Transducer connection	¼" BSPF

CABLE

Jacket	Incoloy 825 ²
Conductors	4 x 24 AWG stranded, tinned copper
Insulation	PFA
Diameter	4mm

¹ Based on third order polynomial regression

² FEP jacket available on request



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

www.geosense.co.uk e sales@geosense.co.uk t +44(0)1359 270457

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.

V1.3 06/2023