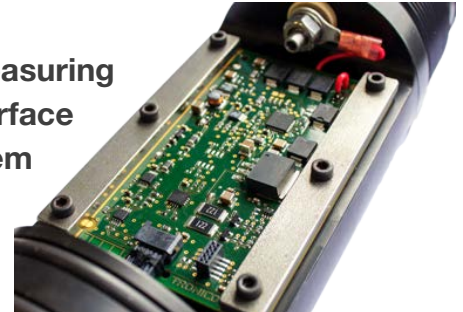


Pressure Temperature Gauge (PTG)

PTG-GEO-120-PTDH-01-A

PTG is a 3 in 1 system comprised of a downhole element measuring pressure & temperature, a communication link and a top interface providing the measurement data. The communication system depends on the well architecture: it can be a wireless system for production casing or a regular wireline for completion operations or chemical injection for geothermal wells.

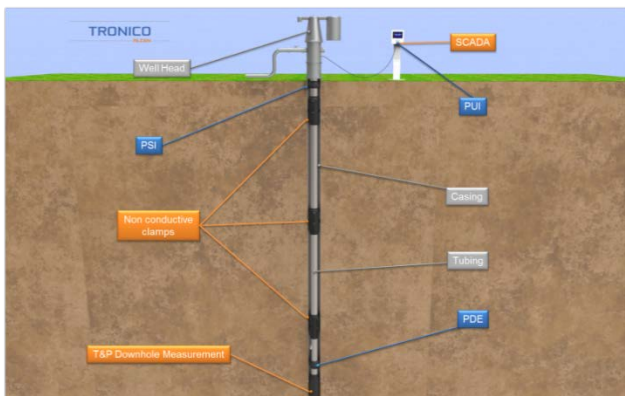


FEATURES

- Temperature measurements up to 125°C (175°C may be requested)
- Pressure measurement scalable up to 20 KPSI
- Usable with any Inconel compatible fluid
- Usable with carbon steel, CR13 or super duplex casings
- Long life span for downhole elements (depending on temperature profiles)
- Seamless installation on regular casings or tubings
- TCPIP link to interface with the user's system

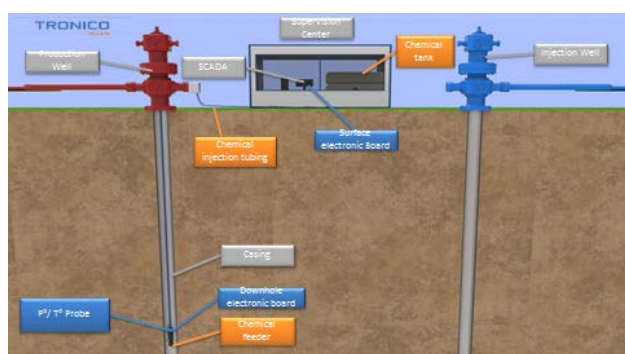
APPLICATIONS

- Downhole survey (e.g. production cycle with PCP pump)
- Cementing survey (e.g. completion cycle for wireline)
- Geothermal monitoring
- Cavity surveying



Completion

- Suitable with production casing
- Using tubing/casing production
 - Wireless communication between tubing/casing
 - PT sensors



Geothermal


- Suitable with geothermal casing
- Wireless communication using chemical injection tubing
 - Best Cost for PT sensors

SPECIFICATIONS

PRESSURE MEASUREMENTS

	Measurement from 0 to 5000 psi ; Survival up to to 10,000 psi
	Absolute accuracy: <ul style="list-style-type: none"> • +/- 5 psi between + 60 °C to + 110 °C • +/- 15 psi outside ;
	Resolution: 0.5 psi

TEMPERATURE MEASUREMENTS

Temperature measurement		From 20 °C to +125 °C up to 175 °C on demand
Accuracy		Absolute accuracy: +/-0.5 °C
Resolution		Resolution: 0.05 °C


DATA LOGGING

	Most recent 1000 valid measurements stored. Measurement individually time-stamped
--	--

DOWNHOLE ENVIRONMENT

	Casing from 9 5/8 to 4 1/2
	Geothermal tubing
	Downhole equipment diameter: OD 3,5"
	Electronic board dimensions: 60 x 60 x 20 mm

USER INTERFACE

		Communication via PCP/IP 100 BaseT
		Embedded website for easy field operation
		Practical throughput: 1 measurement per minute
		Dimension: 193 x 113 x 58mm

LOGGING ENVIRONMENT

	Withstands pressures up to 10 000 psi without degradation or loss of functionality
	Shock 20 g, 6 ms on each axis and in each direction.
	Sinusoidal linear vibration :
	<ul style="list-style-type: none"> • 50 g peak between 10 and 5000 Hz • In 10 minutes per axis • Depending on each axis

LIFE SPAN

	10 years at 110 °C
--	--------------------

DISCLAIMER

Information in this document supersedes and replaces all information previously supplied. Information in this document is provided solely in connection with TRONICO products. The information contained herein is believed to be reliable. TRONICO makes no warranties regarding the information contained herein. TRONICO assumes no responsibility or liability whatsoever for any of the information contained herein. TRONICO assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. TRONICO reserves the right to make changes, corrections, modifications or improvements, to this document and the information herein without notice. Customers should obtain and verify the latest relevant information before placing orders for TRONICO products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. Unless expressly approved in writing by an authorized representative of TRONICO, TRONICO products are not designed, authorized or warranted for use in military, aircraft, space, life saving, or life sustaining applications, nor in products or systems where failure or malfunction may result in personal injury, death, or property or environmental damage.