

# Quantum™ Geothermal PTS Gauge

Provides production logging measurements in either surface-read-out or memory mode, in ultra-high temperature environments

## Applications

- Geothermal and steam injection well surveys
- Monitor well performance
- Reservoir management

## Features and Benefits

- Operating temperatures up to 662°F (350°C) makes it suitable for geothermal and high temperature wells
- Provides comprehensive data by measuring pressure, temperature, flow rate, and casing collars, essential for detailed well analysis
- Capable of operating in both memory and surface readout mode, offering operational flexibility

## Tool Description

The Weatherford geothermal PTS gauge is a subsurface high temperature memory tool designed to continuously measure and record downhole temperature, pressure, and flow.

The PTS gauge has excellent thermal protection from temperatures up to 350°C. Directional flow data is provided by the lower spinner section. A fast response temperature sensor (RTD) provides a high accuracy temperature profile of the well.

Communication is via USB interface and the tool is powered using AA cell batteries.

## Specifications

### Ratings and dimensions

Outer diameter	1.75 in. (44.45 mm)
Length	66.0 in. (1.67 m)
Weight	30.0 lb (13.6 kg)
Maximum temperature	4 hours @ 662°F (350°C)
Pressure range	8,500 psi (58.6 MPa)



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## Specifications, continued

### Hardware characteristics

Transducer type	<b>Pressure:</b> Piezo resistive	<b>Temperature:</b> RTD
Battery type	AA Lithium / Alkaline Carrier	
Materials	17/4 ph or 718 Inconel NACE MRO 175	
Connections	<b>Top:</b> 5/8 in. API Pin (Memory Configuration) (460 Model) <b>Top:</b> 1 3/16 in. - 12 GO Box (SRO Configuration) (640 Model)	

### Pressure measurements

Pressure range	0-5,000 psi / 0-10,000 psi (0 to 34.4 MPa / 0 to 68.9 MPa)
Sampling rate	1 sps
Resolution	0.0003% F.S.
Accuracy	0.024% F.S. or 0.05% F.S.

### Temperature measurements

Maximum temperature	4 hours at 662°F (350°C)
Resolution	0.0018°F (0.001°C)
Accuracy	± 0.449°F (± 0.25°C)
Response time	1.5 sec / 10°C

### Flowmeter / spinner

Outer diameter	2-1/8 and 1-11/16 in.
Sensors	3 Reed switch/magnetic
Data	Flow with directional sensing
Flow rate	30 RPM - 18,000 rpm

### Electrical specifications

Consumption	3.6V
Maximum data	8,000,000 sets
Interface	USB URod

### Application

Acquisition Mode	Memory / SRO
Logging time	4 hr at 662°F (350°C), 6 hr at 572°F (300°C)
Other Options	PTS-CCL-SRO - PN: 18600-470 PTS-CCL Memory - PN: 18600-450

