Overview of PPS71 PTS Geothermal Tools
Pressure, Temperature and Flow Profile

The PPS71 PTS Geothermal Tools are designed for extreme subsurface conditions. The robust electronics combined with vacuum flask technology allow these products to perform at 350 °C (662 °F) continuously, for four hours. The PTS tool measures pressure, temperature, and flow profile and can be configured as either a memory tool or surface read out (SRO) tool.

The measurements are done with a highly sensitive silicon-sapphire (piezo) transducer, a fast response resistance temperature detector (RTD) and the customer’s choice of either a continuous or fullbore spinner flowmeter. Both continuous and fullbore spinners are intended for quantitative use in flow streams with the spinners’ greatest quantitative application being injection profiling.

By combining the downhole measurements with a depth recorder, such as PPS’s DepthWatcher (PPS36), customers have the capability to create synchronized profile logs.

In addition SmartLog, PPS’s proprietary companion software for this tool can be used to create logging files for reports and export LAS files. These profile logs can be opened in any commercial logging software.

- Operating temperatures up to 350 °C (662 °F)
- Features a fast response RTD temperature sensor
- Continuous or fullbore spinners are available
- Operates in either memory or surface read out mode
- Surface read out mode using e-line is compatible with the Warrior or PPS SRO acquisition system
- Can be combined with PPS36 DepthWatcher if depth measurement is needed
Specifications

**PPS71 PTS Geothermal Tools**  
Pressure, Temperature and Flow Profile

- **Pressure Sensor**: Silicon-Sapphire
- **Pressure Ranges**—psi
  - 5K | 10K
- **Temperature Sensor**: RTD (Pt1000; 4-wire)
- **Temperature Rating—Standard Housing**: 177 °C (350 °F)
- **Temperature Rating—Flask Housing**: 300 °C (572 °F) OD 1.56” | 350 °C (662 °F) OD 1.75”
- **Flow Sensor Type**: Reed switch/magnetic
- **Flow Rate Range**: 5 – 7,000 RPM
- **Downhole Time (OD 1.75”)**: 4 hours at 350 °C (662 °F)
- **Downhole Time (OD 1.56”)**: 4 hours at 300 °C (572 °F)
- **Memory Capacity**: 6,000,000 data sets
- **Sampling Rate**: 0.1 s – 1.8 hrs/per sample
- **SRO Data Transmission Distance**: Up to 7,000 meters via standard electrical cable
- **SRO Interface Compatibility**: Warrior 8 and up
- **Service**: H₂S Services

**Overall Length Memory Tool—inches**
- 66.7 (1,694 mm) 1.75” OD tool with 2.125” OD spinner
- 66.3 (1,684 mm) 1.75” OD tool with 1.69” OD spinner
- 66 (1,676 mm) 1.56” OD tool with 1.44” OD spinner

**Overall Length SRO Tool—inches**
- 111.9 (2,842 mm) with 2.125” OD spinner
- 111.5 (2,832 mm) with 1.69” OD spinner

**Housing Material**: Stainless Steel 17-4 | Inconel 718

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**Choose a PPS71 Geothermal Tool**

<table>
<thead>
<tr>
<th>Memory Mode</th>
<th>SRO Mode</th>
<th>Temperature Max.</th>
<th>Pressure Max.</th>
<th>Flow Profile</th>
<th>Casing Collar Locator</th>
<th>Gamma Ray</th>
<th>Memory Capacity</th>
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