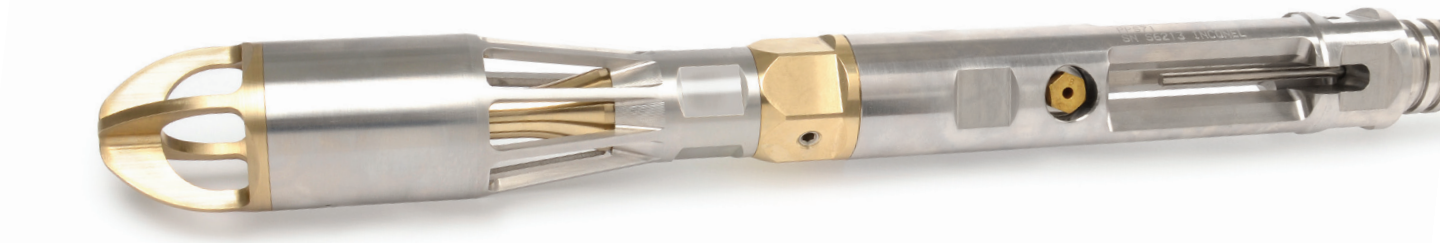
PPS71 PTS-C Geothermal Tools - Memory / SRO

The **PPS71 PTS-C 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 tool measures pressure, temperature, casing collar location, and flow profile and can be configured as either a memory tool or surface read out tool (SRO) tool. The measurements are done with a highly accurate silicon-sapphire (piezo) transducer, a fast response resistance temperature detector (RTD), the customer's choice of either a continuous or fullbore spinner flowmeter and a highly sensitive CCL. The CCL has a magnet and central coil arrangement which amplifies current providing a readable voltage spike or "collar kick" as data, giving end users an important control for depth correlation.



Pressure Measurement

Sensor Type	Silicon-Sapphire
Pressure Range	5K psi | 10K psi
Accuracy	± 0.03% FS
Resolution	0.0003% FS

Temperature Measurement

Sensor Type	RTD (Pt1000; 4-wire)
Temperature Range	300 °C (572 °F) | 350 °C (662 °F)
Accuracy	± 0.5 °C
Resolution	0.01 °C

Flow Measurement

Sensor Type	Reed switch/magnetic
Flow Rate Range	5 – 7,000 RPM
Accuracy (≥ 20 RPS)	± 0.5 revolution
Accuracy (≤ 20 RPS)	± 0.25 revolution
Resolution (≥ 20 RPS)	0.5 RPS
Resolution (≤ 20 RPS)	0.1 RPS

Environmental

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"
Downhole Time (OD 1.75")	4 hours at 350 °C (662 °F) | 6 hours at 300 °C (572 °F) | 8 hours at 250 °C (482 °F) | 10 hours at 200 °C (392 °F)
Downhole Time (OD 1.56")	4 hours at 300 °C (572 °F) | 5.5 hours at 250 °C (482 °F) | 7.5 hours at 200 °C (392 °F)

Features:

- **Operating temperatures up to 350 °C (662 °F)**
- **Fast response RTD temperature sensor**
- **Continuous or full-bore 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**

Unit 105-1437 47 Ave. NE Calgary AB T2E 6N7 | Tel: 1–403–282–7669 | Fax: 1–403–282–0509
Toll Free in Canada & US: 1–888–PP–GAUGE (774–2843) | Email: sales@pioneerps.com

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Memory Tool Specifications

Sampling Rate	0.1 s – 1.8 hrs/per sample
Data Sets	Time / Pressure / Temperature / Flow / CCL
Memory Capacity	2,000,000 data Sets
Communication Interface	USB
Communication Rate	115,200 bits/s
Operation Voltage	2.7 – 3.9 VDC
Battery	180 °C (356 °F) C-size Li-battery (5 A hr/3.6 V)
Connector	Lemo 6 pin with locker

Surface SRO Interface

Transmitter Sampling Rate	0.1 s – 1.8 hrs/per sample
Communication Distance	7,000 meters
Data Transmission Rate	9,600 bits per second via standard electrical cable
Data Transmission Distance	Up to 7,000 meters via standard electrical cable
Compatibility	Warrior 8 and up
Communication Port	USB 2.0 to PC
Power Input	100 - 240 VAC
Surface Unit Power Output	+60 VDC
Working Temperature	-40 °C (-40 °F) to 85 °C (185 °F)
Humidity	90%
Condensation	No
Material	Aluminum
Connectors	1 AC Power, 1 DC Power, 1 USB Port and 1 Gauge Interface
Dimensions–inches	7.75 (196 mm) x 4 (101 mm) x 3.25 (82 mm)
Interface	USB 2.0

Mechanical and Materials

Service	Sour Services
Outside Diameter–inches	1.56 (39 mm) Memory Only | 1.75 (44 mm)
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	Austenitic stainless steel

PPS71 PTS-C Tool

MEMORY SRO 10K psi 350°C (662°F) RTD FLOW CCL

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