

## PPS71 G-CCL Geothermal Tools

The **PPS71 G-CCL Geothermal Tools** are designed for extreme, high temperature downhole 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 casing collar location, and gamma rays, and can be configured as either a memory tool or surface read out tool (SRO) tool.



PPS71 G-CCL

### 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)
- 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



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### Memory Tool Specifications

Sampling Rate	0.1 s – 1.8 hrs/per sample
Data Sets	Time / Pressure / Temperature / Flow
Memory Capacity	6,000,000 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 or newer versions
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
Overall Length Memory Tool–inches	76.1 (1,933 mm) 1.75” OD tool
Overall Length SRO Tool–inches	100.6 (2,555 mm) 1.75” OD tool
Housing Material	Inconel 718

