

Platinum Resistance Thermometer (PRT)

Measures downhole temperature by measuring the resistance of a platinum resistance element

Application

- Distinguish producing zones from nonproducing zones
- Determine injection points and, under some conditions, develop an injection profile
- Locate tubing and casing leaks, particularly when the leaking fluid is gas
- Time-lapse shut-in or flowing temperature surveys to evaluate injection and production intervals
- Cement top identification
- Location of fluid movement behind pipe

Features

- Fast response
- Simultaneous operation with other Baker Hughes **Ultrawire™** production logging tools

The Baker Hughes **Platinum Resistance Thermometer (PRT016) tool** measures the borehole fluid temperature, which can be used for finding fluid entry, gas leaks and injection zones. It is also useful in finding cement tops.

The Platinum Resistance Thermometer tool is small and compact. The tool plays a critical role in production logging interpretation and is an integral piece of equipment in any production logging string.

The PRT measures downhole temperature by measuring the resistance of a platinum resistance element. The probe is contained in a pressure tight Inconel® needle, protruding into an open slot through which borehole fluid can flow. The measurements from the low mass probe result in high resolution data with fast temperature response.



Specifications

Temperature rating	350°F (177°C)
Pressure rating	15,000 psi (103.4 MPa)
Tool diameter	1 ¹¹ / ₁₆ in. (43 mm)
Tool length	12.5 in. (317.5 mm)
Tool weight	5.2 lb (2.4 kg)
Toolbus	Ultrawire production logging tool
Current consumption	20 mA
Resolution	0.006°F (0.003°C)
Measurement range	50 to 350°F (10 to 177°C)
Response time	~0.5 seconds
Accuracy	±0.9°F (0.5°C)
Linearity	0.5°F (0.15°C)
Materials	Corrosion resistant throughout