



# CASED HOLE LOGGING

## Production Logging Instrumentation

**Spartek Systems** specializes in providing the oil and gas industry with high quality data to monitor well performance and diagnose potential problems. Founded in 1994, Spartek Systems leads the industry in providing cost effective solutions for acquiring reliable production data.

### Product Overview

The SS8000 Production Logging System provides a complete solution for acquiring, recording, and processing surface and downhole well production data. This easy to operate, portable logging system is offered in a 1 3/8" and 1" diameter Surface Readout (SRO) version with a memory option available for the 1 3/8" diameter tool. The high-speed, 4-wire instrument bus and smart sensor based tools allow the operator to interchange and configure the tool string to suit well conditions.



### Available Sensor Modules

- ▶ Accelerometer
- ▶ Gamma Ray
- ▶ Casing Collar Locator
- ▶ Quartz and Sapphire Pressure
- ▶ Fast Response Temperature
- ▶ Fluid Dielectric (Capacitance)
- ▶ Acoustic Density
- ▶ Fullbore Folding Flowmeter
- ▶ Caged Flowmeter
- ▶ Inline Flowmeter
- ▶ 4 - Arm Roller Centralizer
- ▶ X-Y caliper

### Primary Features

- ▶ Well 350°F / 15Kpsi operating Temperature / Pressure
- ▶ Complete hardware and software solution for acquiring Surface and downhole production data
- ▶ Surface Readout (SRO) or Memory mode operation
- ▶ Bi-directional, digital communications link over conventional single-conductor wireline
- ▶ Tool string configuration parameters
- ▶ "Smart Sensor" technology allows each sensor to identify itself upon operator query
- ▶ Built in Accelerometer sensor measures tool movement and inclination
- ▶ Compatible with the "Warrior" logging system
- ▶ built by Scientific Data Systems
- ▶ Compatible with Windows Vista/XP/NT/2000

The Telemetry tool's bi-directional, high-speed, digital communications bus allows the operator to log, record and view downhole data from all sensors in real-time over conventional, single conductor wireline. A unique feature of the bi-directional communication link is that it allows the operator to query each smart sensor at any time, for key configuration parameters such as its serial number and position in

### Applications

- ▶ Monitor well efficiency
- ▶ Production Diagnostics
- ▶ Analyze production profile by zone
- ▶ Monitor well stimulations
- ▶ Well mechanical integrity analysis
- ▶ Time lapse logging
- ▶ Well treatment verification

## SPARTEK SYSTEMS

Providing Our Customers With "Best In Class" Technology

Email: [sales@sparteksystems.com](mailto:sales@sparteksystems.com)

<http://www.sparteksystems.com>

Specifications:

Operating Specifications				
<b>Pressure Rating</b>	15,000 psi (max)	<b>Temperature Range</b>	-40° F to 350° F [-40° C to 177° C]	
<b>Housing Material</b>	Inconel 718* (sour)	<b>Dimensions</b>	<b>1.0" OD</b>	<b>1.375" OD</b>
<b>Master Controllers</b>	Power Requirements	<u>Master Controllers</u>		
<b>Memory</b>		Memory / Battery Housing	N/A	2.50 ft
Voltage	12.0 - 15.6 V (4 cell pack)	SRO Controller (Telemetry)	2.11 ft	2.11 ft
Current (max)	200 mA	<u>Sensors</u>		
<b>Surface Read Out</b>		Casing Collar Locator	N/A	1.41 ft
Voltage	125 V - 175V @ Cable head	Gamma Ray / CCL	3.23 ft	2.91 ft
Current (max)	100 mA	Gamma Ray	N/A	2.20 ft
<b>Communications</b>	RS232 / USB	Pressure (Sapphire)	1.09 ft	N/A
<b>Data Acquisition</b>		Press / Temp (Sapphire)	N/A	1.00 ft
<u>Memory PLT</u>		Press / Temp (Quartz)	N/A	1.50 ft
Memory Size	128 Mb	Temperature	1.11 ft	N/A
Sample Rate	1, 2, 5, or 10 samples/sec	Capacitance	1.25 ft	1.39 ft
Logging Time	Standard PLT (8 sensors) at 1 sec sample for 135 hours	Acoustic Density	N/A	1.39 ft
<u>SRO PLT</u>		Caged Flowmeter	N/A	1.32 ft (1.68" OD)
Sample Rate	10 samples/sec	Full Bore Flowmeter	2.60 ft	2.25 ft
		In Line Flowmeter	N/A	1.21 ft (1.68" OD)
		X-Y Caliper	N/A	3.32 ft
		Roller Centralizer	N/A	2.58 ft
		Pressure Bulkhead	1.09 ft	0.32 ft
Performance Specifications				
<b>Spinner</b>		<b>Pressure</b>	<u>Sapphire</u>	<u>Quartz</u>
Range	+/- 200 rps	Range	15,000 psi	15,000 psi
Operating Diameter	1.81" minimum Caged Spinner	Resolution	0.003% F.S.	0.00006% F.S.
Resolution	0.125 rps	Accuracy	0.05% F.S	0.020% F.S
Accuracy	+/- 2%	<b>Acoustic Density</b>		
Threshold		Sensor	Vibrating Element	
In Line	8 ft/min (oil flow)	Range	0 - 2 g/cc	
Caged	4 ft/min (oil flow)	Resolution	0.01 g/cc	
Fullbore	2 ft/min (oil flow)	Accuracy	0.03 g/cc	
<b>Temperature</b>		<b>Fluid Capacitance</b>		
Range	-40° C to 177° C	Resolution	0.1%	
Resolution	0.01° C	WHI Accuracy	2% (range 0% - 30%)	
Accuracy	+/- 1° C		5% (range 30% - 60%)	
<b>Gamma Ray</b>		<b>Casing Collar Locator</b>		
Detector Type	Scintillation	Detector Type	Electromagnetic	
Range	0 - 10,000 API			
<b>Accelerometer</b>		<b>X-Y Caliper</b>		
Range	+/- 5 g	Range	2.0 to 9.0 inches	
Resolution	0.01 g	Resolution	+/- 0.02 inches	
Accuracy	+/- 0.1 g	Accuracy	+/- 0.1 inches	
<b>Roller Centralizer</b>		<b>Pressure Bulkhead</b>		
Range	1.4 to 8.2 inches	Range	15,000 psi	

Specifications subject to change without notice

For More Information, Pricing, and Technical Support Contact:



#1 Thevenaz Industrial Trail  
Sylvan Lake, Alberta  
Canada, T4S 2J6

Tel: (403) 887-2443  
Fax: (403) 887-4050

Providing Our Customers With "Best In Class" Technology

Email: [sales@sparteksystems.com](mailto:sales@sparteksystems.com)

<http://www.sparteksystems.com>