



ELECTRONIC MEMORY RECORDERS

Sapphire Pressure Gauge

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 well information.

Product Overview

Spartek Systems once again demonstrates superior technological innovation with its latest series of Sapphire pressure recorders. Working closely with our customers, our engineering team has developed a multi-purpose gauge that significantly improves overall job performance. This new series of gauge incorporates the latest low-power three volt technology to minimize power consumption. Depending on the sampling rate, a pressure recorder could run up to one year on a single AA cell. Our engineers did not sacrifice signal resolution or sampling speed in order to reduce power consumption. The recorders utilize a proprietary parallel dual digital (PDD) signal processing technique to maximize signal to noise and improve resolution.

The software tools supporting the new Sapphire series have been enhanced to provide programming features such as pressure triggers, multi-job programming, detailed job logging, high sample rates (up to 10 samples per second), enhanced user diagnostics, and USB interface support. To learn more about these exciting new products, contact a Spartek Systems sales representative for more information.



Primary Features

- ▶ Long battery life
- ▶ 3 V, single cell operation
- ▶ 10 sample/s sampling rate
- ▶ Pressure trigger
- ▶ Sour service operation
- ▶ Designed for USB with retrieval rates up to 50,000 samples/min
- ▶ Data separation for multiple jobs
- ▶ Advanced diagnostics
- ▶ Surface readout
- ▶ Large Memory (up to 4,000,000 samples)
- ▶ Windows 10/8/7/Vista/XP/NT/2000

Applications

- ▶ Well Testing
- ▶ Monitor Well Performance
- ▶ Permanent Sensors (Monitoring)
- ▶ Completion Diagnostics
- ▶ Well Stimulation
- ▶ Reservoir Characterization
- ▶ Gradient Survey

SPARTEK SYSTEMS

Providing Our Customers With "Best In Class" Technology

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Specifications:

MODEL	SS2300 Series	SS2500 Series	SS2700 Series
Pressure Sensor Type Range(s) (psi) Accuracy ^{1,2} Resolution Drift	Sapphire 750, 1500, 3k, or 6k 0.3 psi or 0.03% Full-Scale 0.0003% Full-Scale < 0.03% Full-Scale / year	Sapphire 10k, 15k, or 20K* * (1.0" or 1.25" O.D. only) 0.3 psi or 0.03% Full-Scale 0.0003% Full-Scale < 0.03% Full-Scale / year	Sapphire 10k, 15k, or 20k* * (1.0" or 1.25" O.D. only) 0.3 psi or 0.05% Full-Scale 0.0003% Full-Scale < 0.03% Full-Scale / year
Temperature ³ Accuracy ⁴ Resolution	135°C (275°F) ± 1.0°C (1.8°F) < 0.001 °C (.0018°F)	150°C (302°F) ± 0.5°C (0.9°F) < 0.001 °C (.0018°F)	170°C (338°F) ± 0.5°C (0.9°F) < 0.001 °C (.0018°F)
Power Requirements Voltage (min) Current (Sleep) Current (Sample)	3 V 0.10 mA 4.50 mA	3 V 0.10 mA 4.50 mA	3 V 0.20 mA 4.80 mA
Data Acquisition Channels Fastest sample rate Memory Capacity Option(s) Pressure Trigger Redundant Memory	Pressure Temperature Time 10 samples/second 4,000,000 samples 8,000,000 samples Yes 2x, 4x	Pressure Temperature Time 10 sample/second 4,000,000 samples Yes 2x, 4x	Pressure Temperature Time 10 sample/sec 4,000,000 samples Yes 2x, 4x
Housing Material Options Diameter Length	17-4 PH Inconel 718-NACE (0.75", 1.00", or 1.25") (Varies with configuration)	17-4 PH Inconel 718-NACE (0.75", 1.00", or 1.25") (Varies with configuration)	17-4 PH Inconel 718-NACE (0.75", 1.00", or 1.25") (Varies with configuration)
Communications	RS232 / USB		
Software OS	Windows 10/8/7/Vista/XP/NT/2000		
Surface Readout	Yes		

Notes:

- Accuracy is larger of the two stated values. This includes the combined effects of hysteresis, repeatability, and the corrected linearity over the calibrated temperature range.
- Pressure accuracy for the lower pressure transducers are based on the following calibrated temperature ranges: 750 psi (0 to 80°C), 1500 psi (0 to 100°C), and 3000 psi (0 to 120°C). All other transducers are based on maximum operating temperature specified. Consult your Spartek representative for specifications at other calibrated temperature ranges.
- Operating Temperature Range for the equipment is stated from 0°C to max temperature. Actual calibrated temperature range can vary based on customer requirements
- Temperature accuracy is valid for tools with PT1000 RTD. Temperature Accuracy can be calibrated to better than <0.15°C on request.

Specifications subject to change without notice

For More Information, Pricing, and Technical Support Contact:


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