

Electronic Drilling Recorder

Monitors and analyzes drilling parameters and rig equipment-related data

Applications

- Measurement and display of drilling parameters including rate of penetration, weight on bit, standpipe pressure, torque, table and mud-motor rotational speed, casing pressure, pit totals, and total gas
- Remote monitoring of rig equipment-related parameters including motor temperature, speed, and fluid level

Features

- Pre-installed WellWizard® software facilitates the tracking, organization, and analysis of EDR data. The software, which includes the IADC reporting suite, enables users to generate drilling and bit reports; track well-time breakdown, days versus depth, and pipe tally; and calculate mechanical specific energy.
- A pit-volume totalizer (PVT) and complementary software enable early kick detection. The PVT is equipped with a flowback monitor to detect kicks even when the mud pumps are off.
- Robust cabling and connectors facilitate smooth rig-up and rig-down procedures.
- The optional web-based information management system uses industry-standard communication protocols (WITS and WITSML) to facilitate effective communication with third-party equipment.

Benefits

- The ability to view real-time drilling parameters improves the quality and



Real-time data from the EDR system helps users to recognize problems, raise alerts, and minimize response times.

speed of decision making.

- Remote access to EDR data enhances operational efficiency and reduces keystroke entry at the wellsite.
- Advanced kick detection reduces the risk of a blowout and enhances wellsite safety.
- Drilling optimization consultants are available to provide remote or wellsite data interpretation services as needed to help users maximize the full range of capabilities of the EDR.
- The service is scalable according to operational needs.

Certification

- Each component is certified for global use.
- All sensors installed with the EDR are certified for use in Zone 1, Class 1, Div. 1 hazardous areas.

Tool Description

The EDR can monitor a wide range of drilling parameters and all major rig equipment. Pre-installed software displays real-time data at the wellsite, which



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enables users to efficiently track, organize, and analyze information. Optional features include a web-based information management service that makes real-time data available to offsite stakeholders, and access to Weatherford drilling optimization consultants.

Safety Notices

- All personnel responsible for installing and servicing the electronic drilling recorder (EDR) have already undergone the necessary training and certification courses required by Weatherford and its clients to be on the rig and perform their given tasks.

Specifications

Power input	120 to 230 Vac
Power frequency	50 to 60 Hz
Operating temperature	32 to 122°F (0 to 50°C)
Operating system	OpenBSD
Network	10/100 Mbps, wireless bridge
Wireless networking	802.11 b/g (WLAN), 802.3 (LAN); 2.4GHz
Online communication protocol	WITS Level 0 (In/Out) WITSML 1.3.1.1 (Out)
Offline communication protocol	Log ASCII Standard Microsoft® Access® database, CSV, txt
Data updates per second	1 to 2
Data latency to remote mirror	<3 sec
Surge protection	1,300 joules
Lightning protection	6500 A, ANSI C62.21 / IEEE 587 A & B
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