



The Pilot MWD is a Positive Pulse Measurement-While-Drilling tool. Its modular design and configuration provide optimum performance in a wide range of Collar diameters and flow rates. Pilot is fully Retrievable and Reseatable allowing extraction and replacement of the tool without tripping. Valuable rig time can be saved in the event of downhole complications and LIH liability is minimized in difficult drilling environments.

Description

The Pilot MWD system uses a bottom mounted, retrievable/reseatable pulser to transmit survey data to surface by actuating a pilot valve which momentarily restricts mud flow through the drill string interior creating a positive pressure pulse. The pilot valve is actuated by a motor working in conjunction with a gear and leadscrew arrangement which exerts 100 lbs seating force providing exceptional tolerance to LCM. The Pilot Orientation Module combines tri-axial Flux Gate Magnetometers with Q-Flex type accelerometers to offer high accuracy and reliability.

Features

- Full Retrievability and Reseatability minimize LIH liability.
- Highly efficient gear-leadscrew configuration provides battery life of in excess of 400 hrs (depending on tool/battery configuration).
- The servo motor assembly exerts up to 100 lbs-force to minimize plugging and increase tolerance to LCM.
- Single tool configurable for 3 1/2 in to 12 in O.D. Collars and a range of flow rates.

Specification

MEASUREMENT	Range	Accuracy
Azimuth	0-360°	+/- 0.5°
Inclination (up to 80° Inc)	0-180°	+/- 0.1°
Toolface (up to 10° Inc only)	0-360°	+/- 0.5°
MECHANICAL	Imperial Units	Metric Units
UBHO Sub O.D.	3.5 to 12in	89 to 305mm
UBHO Sub Length	36in (longer on request)	914mm
Probe O.D.	1 7/8in	47.625mm
Tool Length	17ft 11.3in / 23ft 3.5in (Single Battery / Dual Battery)	5469mm / 7099mm
Minimum Flow Rate	130 GPM in water	0.5 m ³ /min
Maximum Flow Rate	1060 GPM in water	4 m ³ /min
Max Temperature	150°C	302°F
Operating Pressure	20,000 psi	137.9Mpa
Shock	1000g/0.5 millisecond	
Vibration	25g RMS 30-500Hz Random, 30g 50-300Hz Sine	
Mud Sand Content	Less than 1% recommended	
Lost-circulation Material	Up to 50lb/bbl premixed Medium Nut Plug or Cedar Fiber	

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