

High Temperature MWD

Scientific Drilling now offers a new version Mud Pulse MWD system capable of operating at temperatures up to 350 deg. F. The system comes in the same collar configurations as the standard system. The new housings are now all rated to 30K PSI.

MPMWD's pulser systems have a variety of operating ranges and are well suited to all lost circulation material (LCM) types. This positive pulse MWD system is fully programmable and offers an array of precision survey data outputs. The MPMWD provides accurate directional control and transmits calculated data and raw vector parameters. MPMWD provides the following borehole measurements.

- Inclination
- Azimuth
- High-side and magnetic toolface position
- Temperature
- Peak & RMS vibration
- Inclination/azimuth while sliding
- Gamma ray
- Annular pressure, static & dynamic
- MagTraC ranging

Wide Range of Applications

Scientific Drilling's Mud Pulse MWD (MPMWD) high-performance system comes in all standard collar sizes for a wide range of flow rates. This system is ideal for difficult well scenarios.

- Directional/horizontal wells
- Relief wells
- Re-entry wells

Leading-Edge Mud Pulse MWD Design Features

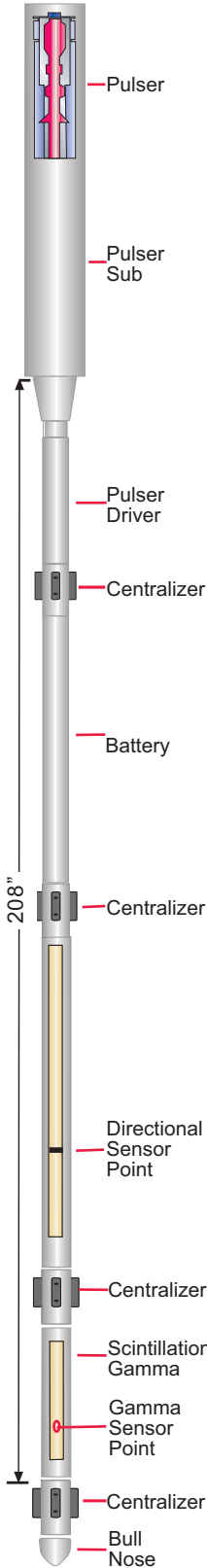
The MPMWD pressure-compensated pulser design has one of the widest flow rates in the industry. MPMWD centralizers absorb shock and hold the tool in place during drilling operations. MPMWD has the following design features:

- Accurate memory logging
- Robust electronics and mechanical design
- Sonde-based electronics in interchangeable collar sizes
- MWD reliability ensured by self-contained battery
- Multiple flow rates without adjusting pulser
- Fixed & Retrievable Configurations

New Product

ADVANTAGES

- Good for Many Well Types. Has all standard collar sizes for multiple flow rates.
- Wide Range of Measurements. Fully programmable, it produces a variety of real-time measurements.
- High-Quality, Real-Time Output. Sophisticated algorithms correlate, analyze, and produce accurate real-time data.



Technical Specifications

Outer Diameter:	3 1/8" (7.94cm) 3 1/2" (8.89cm) 4 3/4" (12.07cm) 6 1/2" (16.51cm)	6 3/4" (17.15 cm) 8" (20.32 cm) 9 1/2" (24.13cm)
Pressure Rating:	30,000 psi @ 302°F (206,842 kPa @ 150°C)	
Length:	Fits in 30' collar	
Maximum Temperature:	350°F (176°C)	
Power Source:	Lithium Battery	
Operating Time:	140 hours	
Dog Leg Degree per 100' Outer Diameter:	Sliding 12(8"), 20(6 3/4"), 28(4 3/4"), 65(3 1/2"), 65(3 1/8")	Rotating 7(8"), 10(6 3/4"), 12(4 3/4"), 30(3 1/2"), 30(3 1/8")
Lost Circulation Material:	Medium Net Plug 40lbs/bbl (18kg/bbl)	
Telemetry:	Positive Pulse	
Maximum Bit Pressure:	No Limit	
Mudflow Rate:	Tool O. D. 3 1/8" - 3 1/2" 4 3/4" - 6 1/2" 6 3/4" - 8" 9 1/2"	Gallons/Minutes 50-200 100-400 200-1,000 300-1,500

Directional Specifications

Length	16 4/5' (plus 6' pulser sub)	
Directional Only:	17 1/3' (plus 6' pulser sub)	
Directional + Gamma Ray:	17 1/3' (plus 6' pulser sub) 3.25" (15.9 cm)	
Toolface Update Period:	Minimum = 7 sec @ .5 sec pulse width Maximum = 14 sec @ 1 sec pulse width	
Long Survey Time :	120 seconds based on 1/2 sec. pulse width	
Short Survey Time :	60 seconds based on 1/2 sec. pulse width	
Survey-While-Drilling:	Sliding: Yes	Rotating No



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