

# Formation Pressure Measurement While Drilling System

## ■ Introduction

Formation Pressure Measurement While Drilling System can measure downhole formation pressure and laminar mobility parameters in two modes, and the measured data can be uploaded in real time. Quantitative measurement mode, in the case of predicted laminar mobility, can set the suction volume and establish the balance time for multiple suction measurement to improve the measurement accuracy. The intelligent measurement mode optimizes the pumping rate, pressure drop, and pressure recovery time for different laminar mobility during the process of pumping formation fluid, improving the measurement accuracy and optimizing the measurement time.

## ■ Features

- Intelligent measurement can be made according to different formation fluidity to improve the measurement accuracy and optimize the measurement time.
- Push force can be set to ensure the push seal while saving power.
- Temperature is 175°C and pressure is 150MPa, suitable for high temperature and high pressure measurement while drilling.
- It can detect annulus pressure in real-time, and timely know downhole pressure information.
- Reliability design. It can timely retrieve the probe in case of unexpected power failure,

## ■ Application

### Formation Evaluation

- Establish formation pressure gradient
- Search for reservoir information
- Reservoir pressure management

### Drilling Optimization and Safety

- Pore pressure check
- Reduce cost and risk, improve drilling efficiency
- Monitor annular pressure in real time

### Geosteering and Geological stop drilling

- Rapid identification of closed faults and reservoir connectivity, and avoidance of drilling in pressure-depleted reservoirs.
- Help decision makers select the best production zone for drilling and determine the optimal drainage length for horizontal wells.

## ■ Technical Parameters

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|---------------------------------------|-------------------------------|
| ● Pressure range                      | 0 to 150MPa                   |
| ● Pressure accuracy                   | ≤0.06%F.S                     |
| ● Output pressure of hydraulic system | 29MPa                         |
| ● Total measurement time              | 8 to 20min                    |
| ● OD, Lengh, Thread type              | 4 3/4", 4.551m, 310×311(NC38) |
| ● Extension of probe/hydraulic block  | 16mm                          |
| ● Extension of Probe                  | 12mm                          |
| ● Push time of Probe                  | ≤60s                          |
| ● Retrieval time of Probe             | ≤60s                          |
| ● Max. pressure                       | 150MPa                        |
| ● Temperature                         | -40 to 175°C / -40 to 347°F   |

