

Downhole Monitoring



Weatherford Downhole Monitoring

Monitoring System

As operators move to deeper and more demanding reservoirs the requirement for downhole operating data and analysis has never been more critical.

Monitoring downhole conditions and pump performance is finally being recognized as the largest sole mechanism for maximizing the full potential of the reservoir.

The Weatherford Downhole Monitoring System will help operators realize this full potential by improving the ultimate reservoir recovery and extending the life of the equipment.

ESP Gauge

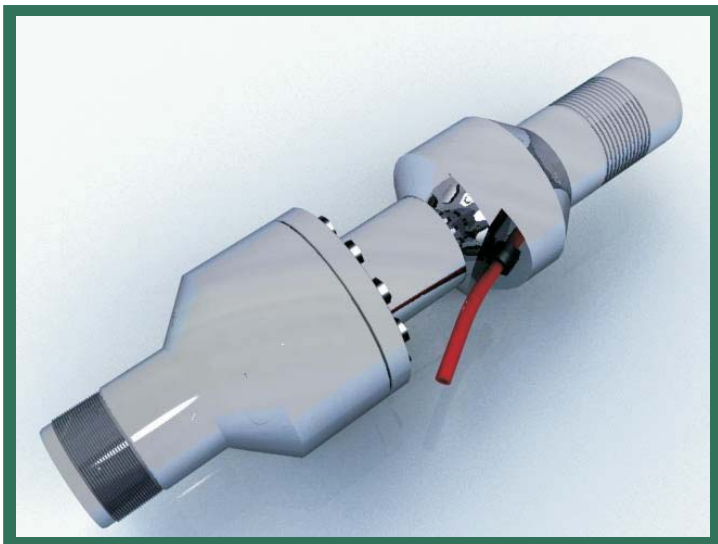
The Weatherford ESP Gauge has been designed with simplicity in mind.

It is a modular system which provides maximum operator flexibility by offering factory or field upgrades and redress/repair.

The system offers the following features:

- Downhole Gauge offering the following standard parameters:
 1. Intake Pressure
 2. Intake Temperature
 3. Motor Winding Temperature
 4. Two Axis Vibration
 5. Current Leakage
- Uses 'compactFLASH' memory, with data files in Excel compatible format for easy viewing.
- Optional 'Artificial Lift Controller' surface unit. (Not required with SCADA link).
- Discharge Pressure option. (Discharge Pressure Spool shown below).
- Optional Motor adapter.
- Fully field serviceable and upgradeable. (Discharge Pressure upgrade can be made in the field if required).
- Self-calibrating. Each downhole module corrects its own measurements before transferring the data to the transceiver on surface.

Discharge Pressure Spool



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Downhole Gauge Specifications



Length	25.787" [655mm]
Diameter	4.375" [111mm]
Weight	55lb [25 kg]
Body Material	316SS
Elastomer Material	Viton
Pressure	5000psi [344.7bar] Max 1.0psi resolution 0.1% accuracy
Temperature	125°C [257°F] Max 0.1°C resolution 1.0°C accuracy
Motor Winding Temperature	J-Type 0.1°C resolution 1.0°C accuracy
Vibration	10g 13 - 180 Hz Filtered 0.001g resolution 1% accuracy

Artificial Lift Controller

The Weatherford Artificial Lift Controller (ALC) is the control and display unit that receives information from the gauge via the transceiver, and displays this in simple easy to view screens.

The ALC configures logging rates and data sampling and can also be set up with gauge parameter trips, alarms, choke and speed control.

All units and display configurations can be customized to suit the individual user.

Data retrieval from the ALC is simple and quick, using Windows compatible 'compactFLASH' data slots. (Up to 2GB).

Each unit contains 3 SCADA ports.

