



DOWNHOLE SENSOR SYSTEM

Application:

Downhole Sensor System operates as a part of ESP system, measures and records data received from downhole sensors (standard version):

- ▶ Pump intake pressure
- ▶ Pump discharge pressure
- ▶ Pump intake temperature
- ▶ Motor oil temperature
- ▶ Motor vibration X, Y
- ▶ Insulation resistance of the system: Step-Up Transformer Zero Point – Cable – Motor Zero Point

Design features:

- ▶ Standard design (with pump discharge pressure)
- ▶ Enhanced design
 near perforation data: temperature, pressure, watercut and fluid flow
 at pump discharge: temperature, pressure, watercut and fluid flow

Delivery set of standard design:

- ▶ Downhole Sensor
- ▶ Installation parts set
- ▶ Stainless steel tube
- ▶ Coupling sub
- ▶ Built-in Surface Panel
- ▶ Surface Sensors (according to Customer's requirement)

PARAMETER	VALUE
Pump intake pressure, MPa	0...32 ±2%
Pump discharge pressure, MPa	0...32 ±2%
Pump intake temperature, °C	0...150 ±2.5°C
Motor oil temperature, °C	0...220 ±2.5°C
Axial RMS vibration speed, mm/sec	0...30 ±5%
Radial RMS vibration speed, mm/sec	0...30 ±5%
Insulation resistance, KΩ	0...9999 ±10%

Overall dimensions of Downhole sensor:

- Outside diameter – 96 mm
- Length – 940 mm
- Weight – 22 kg



REVISION

REVISION	DESCRIPTION	DATE
1A	1 st edition	August 2007
2A	2 nd edition	November 2007
3A	3 rd edition	June 2008
4A	4 th edition	October 2008
5A	5 th edition	April 2009
5B	5 th edition	August 2009
5C	<p>Replaced sheets: Engineering Tables: 2, 3, 4, 5, 6, 9; Pump NF: 5, 11, 12; Pump NH: 0A, 19, 20; Pump NJ: 1, 3; Auxiliary Equipment: 1,2.</p> <p>New sheets: Pump NF: 6A, 6B, 8A, 8B, 10A, 10B; Pump NH: 00A, 00B; Pump NP: 5, 6, 7, 8, 9, 10; Pump NT: 1, 2.</p> <p>Removed sheets: Pump NP: 3, 4.</p>	April 2010