

DATASHEET



Product Description

The advanced Oxford ESP Gauge brings Simplicity, Reliability and Sophistication together into one design that features the very latest in advanced downhole monitoring, onboard diagnostics and health indicators for ultimate downhole visibility and maximum ESP performance. Whether seeking to acquire pressure & temperature build-up data for well test interpretation purposes or seeking to avoid wellbore deviations that cause premature ESP failure, the advanced features of the Oxford ESP Gauge make it a clear choice for downhole monitoring in challenging well environments.

Key Features

- QuickStart
- Variable speed telemetry¹
- Inclination
- Motor Temperature 2
- On-board diagnostics



Standard parameters include pump intake pressure (**Pi**), pump intake temperature (**Ti**), motor oil or motor winding temperature (**Tm**), three-axis vibration (**Vx**, **Vy**, **Vz**) and inclination (**In**). Optional upgrades include pump discharge pressure (**Pd**), pump discharge temperature (**Td**) and a second motor oil/winding temperature (**Tm2**).

All Oxford ESP gauges feature an on-board diagnostics system (**OBD**) and provide health indicators including star-point voltage (**Vsp**), current leakage (**Cl**), signal quality (**Sq**), signal level (**Sl**), gauge current (**Ct**) and packet counter (**Pk**).

Specification²

Primary Parameters	Rating			Accuracy	Resolution	
Intake Pressure	2,900psi	5,800psi	10,000psi	+/-0.1% FS	0.1psi	0.01psi
Intake Temperature	125°C	150°C	165°C	+/-1°C	0.01°C	
Motor Temperature	300°C			+/-1°C	0.01°C	
Vibration X-Y-Z	16g			+/-1% FS	0.001g	
Discharge Pressure	5,800psi			10,000psi	+/-0.1% FS	

Advanced Parameters	Rating	Accuracy	Resolution
Inclination ³	180°	+/-0.1% FS	1°
Motor Temperature 2	300°C	+/-1°C	0.01°C

Health Indicators	Rating	Accuracy	Resolution
Current Leakage	25mA	+/-0.2% FS	0.01mA
Star-Point Voltage	1000V	+/-2% FS	1V
Gauge Current	25mA	+/-0.2% FS	0.01mA
Signal quality	+/- 100%		
Signal level	+/- 100%		
Packet Counter	data packet incremental counter		

ESP SYSTEMS

Oxford ESP Gauge +



Physical properties		
Material	13Cr stainless steel	
Diameter	3.75"	95mm
Length	40"	1,000mm
Weight	73lbs	33Kg
Top Connection	3.75" (6-hole flange)	4.50" (6-hole flange)
Bottom Connection	2-3/8" EUE 8 RND Box	
Maximum Hanging Weight	25,000lbs	11,000Kg
Calibrated range	2,900psi; 5,800psi; 10,000psi	125°C; 150°C; 165°C
Maximum AC operating Voltage	3,000V phase to ground	5,000V phase-to-phase
Insulation test rating	Reverse polarity to 5kV DC (max) for 10 seconds. Recommended 2.5kV	

¹ Second generation variable speed telemetry.

² Specifications are subject to change. Alternative specifications are available upon request.

³ Available during RIH.