Triton® Gauges

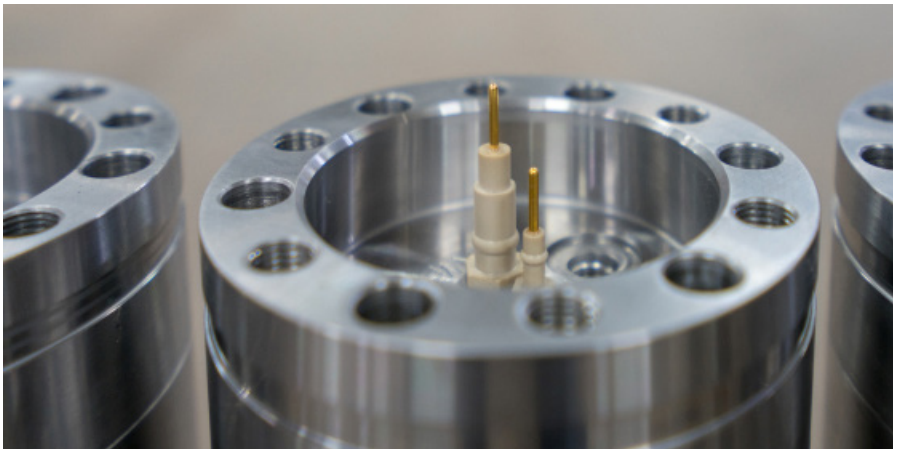
DOWNHOLE GAUGE PROVIDES SUPERIOR ASSET SURVEILLANCE AND DATA ACQUISITION

OVERVIEW

Summit ESP® – A Halliburton Service proudly presents the next generation of downhole gauges with leading-edge, data acquisition technology that provides superior surveillance capability and asset protection. Triton® 7 channel (T7-125 or T7-150) or Triton 8 channel (T8-150) downhole gauges can be used with a variety of electric submersible pump (ESP) motors using specially-designed, bolt-on adapters.

Reservoir life cycles can be improved by using Triton downhole gauges in conjunction with proactive data evaluation philosophies, to prevent or reduce formation damage caused by over-production. Data acquisition supplies intake fluid temperature and intake pressure data, which help identify water or gas break-through. The acquired data can then be transmitted via Modbus protocol or SCADA to a surveillance center through Summit ESPs well surveillance and remote control service. Analysis can then be performed by our team of petroleum engineers to ensure continuous operation and optimized production, which helps increase run-life and reduce OPEX.

Triton downhole gauges are easy to install, easy to operate, and use a waterproof wye-point connection. Telemetry to the surface is accomplished by superimposing DC signals on a traditional 5 KV ESP power cable. At the surface, these signals are translated into usable data values by the Triton Surface Interface (TSI) and are displayed on the advanced technology Summit ESP ACS®-15 variable speed drive (VSD) operator interface.



FEATURES AND BENEFITS

- Sealed electronics maintain communication if well fluid penetrates ESP motor or seal assembly
- Industry-leading transducer accuracy increases reliability of gauge operation, reducing the chance of formation damage
- Downhole data displayed directly on VSD interface provides better data reliability and accessibility
- Remote access via SCADA and Summit ESP® monitoring service improves decision-making capability based upon current information
- Adaptability for RS-485, TCP-IP, AO, DI, and competitive Modbus maps
- Easy integration into Summit ESP VSDs and switchboards
- Compatible with all ESP OEM providers
- Slimhole compatible – 3-3/4" (9.5 cm) O.D.
- Optional stainless steel metallurgy
- Industry-leading 20,000 pound connection weight

Technical Specifications

	T7 125°C (257°F)	T7 150°C (302°F)	T8 150°C (302°F)	Operating Range	Accuracy	Resolution
Intake Pressure	x	x	x	Up to 5,800 psi (Up to 400 bar)	0.17% FS	0.1 psi
Discharge Pressure			x	Up to 5,800 psi (Up to 400 bar)	0.17% FS	0.1 psi
Intake Temperature	x	x	x	150°C (302°F)	1% FS	0.1°C
Motor Temperature	x	x	x	250°C (482°F)	1% FS	0.1°C
Gauge Input Voltage	x	x	x	55 – 130 VDC	2%	0.1 VDC
Current Leakage	x	x	x	0 – 25 mA	±0.1 mA	0.1 mA
Vibration X	x	x	x	±6 g P-P	1% FS	0.1 g
Vibration Y	x	x	x	±6 g P-P	1% FS	0.1 g
Metallurgy	Carbon Steel	Stainless Steel or Carbon Steel	Stainless Steel			

Discharge Kits

Motor Equipment	Production Tubing
375 Series	2-3/8″ (6 cm) 8 rd EUE
456 Series	2-7/8″ (7.3 cm) 8 rd EUE
562 Series	2-7/8″ (7.3 cm) 8 rd EUE
562 Series	3-1/2″ (8.9 cm) 8 rd EUE

Mechanical Characteristics

Length	20-1/2″ (52 cm)*
O.D.	3-3/4″ (9.5 cm)
Weight	<30 lbs. (13.6 kg)
Connection Weight	20,000 lbs (9,702 kg)
Connection Thread	2-3/8″ (6 cm) 8 Rd EUE

**Length without motor adapter*

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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