

Tolteq TruVertical System

The Tolteq™ TruVertical™ tool is a simple and reliable vertical monitoring system that provides access to valuable survey information, including inclination, azimuth, and toolface. Integration with the Tool Tracker™ system allows access to logged tool history and environmental data, and firmware updates ensure continuous improvement throughout the life cycle of the tool. The TruVertical tool is expandable, allowing the user to add gamma for additional visibility, and its rugged design is able to withstand the shock and vibration of harsh downhole environments.

Features and Benefits

- Provides access to valuable information, including: inclination, azimuth, toolface, depth, battery voltage, dip angle, gravity, magnetic field, temperature, shock, and vibration
- Integrates with Tool Tracker to access logged tool history and environmental data
- The ability to add gamma enables additional visibility
- Designed to handle the shock and vibration of harsh downhole environments
- Future firmware updates ensure the tool is kept up to date



Tolteq TruVertical System

General Specifications

Physical

Collar length (includes nonmagnetic spacing).....23 ft (7.01 m)
 Drill collar diameter (OD).....6.5 in. (165 mm), 8 in. (203 mm)
 Flow rate.....1,000 GPM

Environmental

Operating temperature..... 32 to 347°F (0 to 175°C)
 Survival temperature.....-40 to 365°F (-40 to 185°C)
 Vibration, random.....20 g RMS, 15 to 500 Hz
 Shock.....1,000 g, 0.5 mS, half-sine
 Inclination range.....0 to 45°

Instrument accuracy

Inclination

Absolute.....±0.1°
 Spread.....±0.1°

Azimuth (magnetic dip angle at <70°)

at 5° inclination: absolute.....±1.2°
 at 5° inclination: spread.....±1.0°
 at 10° inclination: absolute.....±0.75°
 at 10° inclination: spread.....±1.0°

Total g field accuracy, absolute.....±3.0 mg
 Total H field accuracy, absolute.....±4.0 mGauss
 Battery life.....300-400 hrs

Gamma Specifications

Electrical

Operating voltage range.....20 to 30 VDC
 Maximum input voltage.....33 VDC
 Operating current.....10 to 25 mA
 Output pulse.....Neg (+5 to 0 V)
 Accuracy.....±5% at 347°F (175°C)

Mechanical (module)

Diameter (OD).....1.875 in. (48 mm)
 Length (w/caps).....51.57 in. (131 mm)

Environmental

Operating temperature range.....32 to 347°F (0 to 175°C)
 Survival temperature.....-40 to 365°F (-40 to 185°C)
 Maximum heat/cool range.....3°C/minute
 Vibration (three-axis).....45 G RMS, 15 to 500 Hz
 Shock (z-axis).....1,000 G, 0.5 mS
 Shock (y-axis).....1,000 G, 0.5 mS

