

Solid-state gyro wellbore surveying service

High Accuracy, precision, robust with fast survey times.

Applications

- Onshore and offshore
- Collision avoidance
- Relief wells
- Survey validation
- Extended reach wells
- Gross error detection

Features

- Very fast surveying times
- Two single-axis, solid-state high accuracy gyro sensors, three single-axis solid state accelerometers
- Temperature rating of 175 degrees C
- Rugged design - reliable in extreme drilling environments
- Precise accuracy unaffected by magnetic interference
- Micro dog leg surveys
- Real-time and memory capabilities
- Extended calibration intervals
- All latitudes
- No mass imbalance, very stable calibration

Services

- Drop gyro survey
- Wireline gyro compassing survey
- High speed wireline rate continuous survey
- Wireline singleshot or orientation
- Slickline survey
- Orientation of perforating guns
- Logging tool combinations



How the Meridian gyro surveying service adds value

The Meridian definitive gyro service delivers precise wellbore surveying for a wide range of applications and well types. With no limitations on inclination, orientation¹ or geographical location, the system ensures highly accurate wellbore surveying even in challenging and longer wellbore profiles. Meridian service solves operational challenges including deep wells, high-angle wells, brown field developments, and complex anti-collision environments.

The robust and reliable multi-axis, solid-state sensor technology delivers more reliable, faster, and higher accuracy surveys with no mass unbalance shifts - often seen with competing clunky mechanical gyro systems.

With reduced ellipse of uncertainty, Meridian service accommodates vertical, through-the-curve, horizontal, and extended-reach lateral surveying operations.

Meridian service gyro-compassing survey times are between 15s and 60 seconds with no warm up time. Transparent quality control with horizontal earth rate and gravity checks ensure the highest level of survey data reliability and accuracy.

¹ Excludes reference zone, +/- 20 degrees of East/West at horizontal for gyro-compassing. No restriction for rate-continuous survey mode.

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Surveying specifications

Type of gyro sensor	2-axis solid state, 8-axis for rate continuous
Survey collection time	15 s - 60 s
Instrument Performance Model	Contact Icefield Energy for tool IPM file.
Inclination	0 to 180 degrees (± 0.05 degrees)
Azimuth ¹	0 to 360 degrees (± 0.10 degrees)
Tool face orientation	0 to 360 degrees (± 0.10 degrees)
Azimuth repeatability	0.20 degrees
Battery life (memory mode)	>30 hours

Environmental specifications

H2S resistant	Yes, subject to concentrations
Standard pressure rating	18,000 psi
Temperature range	-5 degrees C to 175 degrees C
Maximum vibration	20 g rms (5-1000 Hz)
Maximum shock	250g, 1/2 sine, 1/2 msec

Dimensions

Diameter (175 Degrees C)	46 mm (1.80")
Length	2.36 m (93.1")

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No restriction for rate-continuous survey mode.