

PRODUCT SPEC SHEET

GYROGUIDE

Real-Time Gyro Surveying

GENERAL SPECS

| | | |
|-------------------------------------|---|----------------|
| Tool Length | 10 - 22 ft | 3 - 6.7 m |
| Tool OD (standard probe) | 1.75 - 2.5 in | 44.5 - 63.5 mm |
| Tool OD (heat shield probe) | 2.09 - 3.60 in | 53.1 - 91.4 mm |
| Tool Weight | 66 - 275 lbs | 30 - 125 kg |
| Max Pressure | 30,000 psi | 206.8 MPa |
| Temperature Range (standard probe) | 32° - 300°F | 0° - 150°C |
| Max Temperature (heat shield probe) | 500°F | 260°C |
| Operating Time | Unlimited or up to 24 hrs with heat shield probe, depending on wellbore temperature | |

SENSOR SPECS

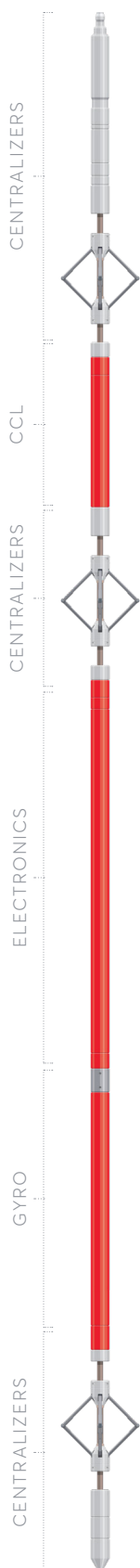
| | | |
|---------------------|---------------------------------------|------------------|
| Sensor Type | Spinning mass north finding gyroscope | |
| Running Mode | Continuous or Gyrocompass | |
| Max Surveying Speed | 500 ft/min | 152 m/min |
| Measurement | Range | Accuracy* |
| Inclination | Continuous Mode | 0 - 180° ± 0.05° |
| | Gyrocompass Mode | 0 - 70° ± 0.05° |
| Azimuth | 0 - 360° | ± 0.1° |
| Gyro Tool Face | 0 - 360° | ± 0.1° |
| Gravity Tool Face | -180° - +180° | ± 0.05° |

* ISCWSA / SPE WTS compliant error ellipse reports are available upon request for specific well profiles.

SERVICE SUITE

| | |
|------------------------------|--|
| Continuous | High speed, high resolution continuous surveying while running |
| Steering | Continuous orientation and multishot surveying while running |
| Multishot | Gyrocompass multishots to determine wellbore trajectory |
| Orientation | Gyrocompass orientation of drilling assemblies and other downhole tools |
| Advanced Logging Combination | Continuous or gyrocompass surveying run in combination with logging tools, geophones or guns |

Specifications are subject to change based on well profile, conditions, and tool configuration. Contact your Gyrodata representative for details. Updated April 2019. Copyright ©2019 Gyrodata, Inc. Patent: www.gyrodata.com/patents



Gyrodata's GyroGuide real-time services provide high accuracy wellbore placement with a comprehensive suite of e-line services including positional, orientation, steering, and continuous surveys. Advancements to our gyro sensor technology, electronics, and housing design allows the tool to be run in most drillpipe and casing sizes (down to 1.9-in.) as well as in an extensive range of pressures and temperatures. Additionally, Gyrodata provides expert data interpretation for even the most complex situations.

DESIGN + PERFORMANCE

- Utilizes a rate-gyro and accelerometer sensor package in a rugged housing to withstand high pressure, high temperature operations
- Communicates to surface in real-time via electric line
- Capable of running up to 500 feet per minute in continuous mode from vertical to horizontal while traversing in or out of the well
- Continuous surveys can be recalculated, post-acquisition, to shorter survey intervals if required

MARKET + APPLICATIONS

- Vertical & Directional Wells
 - Cased Hole - Large Conductor, Casing/Liner, Drillpipe, Tubing
 - Open Hole
- Multishot Surveying
 - Definitive Surveying
 - Survey Areas of Magnetic Interference
 - Gross Error Detection
- Survey Validation
- Depth Correlation
- EOU Reduction
- Orientation & Steering
 - BHA/Motor
 - Whipstock/Packers
 - Subsea Wellhead
 - Perforating Operations
 - Geophones (VSP)

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