

GeoGuidance STORMBREAKER EM MWD Tool

Self-Aware Tool Delivers Reduced Downtime and Optimal Value



The STORMBREAKER EM MWD is GeoGuidance Drilling's electromagnetic MWD system, ensuring safer operations, maximum reliability, precision wellbore placement, and deeper reach.

The Stormbreaker EM MWD is engineered to transmit downhole data to surface at speeds up to 12 bps. The telemetry transfer rate ensures drilling efficiency by transmitting surveys during pipe connections, enabling greater ROP, and increased data density for high-resolution reservoir analysis.

For more information on improving your drilling efficiency contact your GeoGuidance Drilling sales representative or visit: <http://geoguidancedrilling.com/mwd>

Stormbreaker EM MWD provides the following borehole measurements in real-time:

- Survey inclination & azimuth
- High side & magnetic tool face
- Scintillation/API calibrated gamma ray
- Drilling dynamics: axial and lateral vibration, stick slip, temperature
- Continuous inclination
- Annulus and pipe pressure
- Gamma, inclination, and resistivity

Applications

- Harsh drilling environments
- Unconventional resource plays
- Under-balanced drilling with aerated fluids
- Directional/horizontal drilling
- Relief well and re-entry
- Magnetic ranging (passive and Active)
- Geothermal
- Steam assisted gravity drainage (SAGD)

Benefits

- Supports all drilling fluid types (air, mist, foam, & mud)
- Unlimited LCM tolerance, eliminating trips required due to plugged MWD components
- Allows survey transmission during connections, significantly reducing Flat-Time & NPT
- Self-Aware "Smart Tool" automatically adjusts operating parameters for maximum battery life and power output
- 4 transmit power levels controllable via timers and rotary command for parameter customization while downhole
- Configurable data streams enable flexibility for changing well conditions
- Proven electronics and mechanical design provide superior reliability
- No moving parts for reduced failure potential

Features

- Supports BHA sizes 3" to 12.5"
- Downhole to surface data transmission speeds up to 12 bps
- Retrievable option for security & low risk
- Remote Operations Control option
- Real-Time signal processing
- WITS Interface
- Optional focused windowed Gamma
- 25g dual accelerometers for shock and vibration

GeoGuidance Stormbreaker™ Specifications

	SB475	SB650	SB800	SB900
Hole size, in. (mm)	6 to 6 1/8 (152.4 to 155.6)	7 7/8 to 8 3/4 (200 to 222.25)	8 3/4 to 12 1/4 (222.25 to 311.2)	12 1/4 to 12 1/2 (311.2 to 317.5)
Tool length, ft (m)	11.9 (-)	11.9 (-)	11.9 (-)	11.9 (-)
Nominal OD, in. (mm)	4.75 (-)	6.50 (-)	8.0 (-)	9.0 (-)
Gap Sub length, in. (mm)	40 ()	40.5 ()	40.5 ()	40.5 ()
Threads	3.5 IF	4.5 XH or 4.5 IF	6-5/8 Reg	
Make Up Torque , lbs/ft. ()	10,000 ()	18,000 ()	55,000 ()	10,000 ()
Retrievable Max ID, in (cm) Passthrough	2.25 (5.72)	2.25 (5.72)	2.25 (5.72)	2.25 (5.72)
Pressure Case OD, in (cm)	2.0 (5.1)	2.0 (5.1)	2.0 (5.1)	2.0 (5.1)
Max DLS passthrough - sliding, (rotating), °/100' ¹	28 (12)	20 (10)	12 (7)	12 (7)
Flow range, gpm (lpm) ²	0 to 400 (0 to 1,514)	0 to 670 (0 - 2,540)	0 to 900 (0 to 3,407)	0 to 1,200 (0 to 4,550)
Max mud density, lb/gal US (kg/L)	Material Independent	Material Independent	Material Independent	Material Independent
Max LCM concentration, lb/bbl (kg/L) ⁴	Material Independent	Material Independent	Material Independent	Material Independent
Max pressure, PSI (MPa)	15,000 (103.4)	15,000 (103.4)	15,000 (103.4)	15,000 (103.4)
Max pressure, Gap Sub PSI (MPa)	25,000 (172.4)	25,000 (172.4)	25,000 (172.4)	25,000 (172.4)
Max temperature, °F (°C) ⁵	257 (125), 302 (150)	257 (125), 302 (150)	257 (125), 302 (150)	257 (125), 302 (150)

¹ Contact your GeoGuidance rep if your DLS exceeds what is provided.

² Tool operation is independent of Flow Rate.

³ Tool operation is unaffected by mud weight.

⁴ LCM concentration does not affect tool operation. Unlimited LCM concentration.

⁵ Battery Dependent.