

## E-Link Transmitter

The E-Link Transmitter sends data recorded downhole, to surface, via the formation, by generating a sequence of electromagnetic pulses. MWD data, transmitted up to four times faster than with mud pulse systems, is detected at surface by specialised equipment and antennae.

### Description

As part of the E-Link System, the E-Link Transmitter forms a dipole; the upper pole is the main part of the drill string, and the lower pole is the insulated BHA section below the Transmitter. Data is transmitted to surface via a propagation signal which is detected at surface by specialised equipment and antennae. Pump cycles are detected by an integral flow switch which activates the required tool function change and a fall back continuous loop mode provides full redundancy.

### Features

- Reliable and consistent signal - ideal for UBD applications (lithology dependent)
- Downhole Programmable Speed - up to 4 times faster than mud pulse
- Signal Optimisation - downhole programmable transmission frequency
- Superior Battery Life - 250 to 1,000 hours (transmission and load dependent)
- Geolink Navigator surface software provides user friendly interface
- Simple design - fast make up & break down saves rig time
- No moving parts - easy and low cost maintenance

### Specification

<b>Transmitter Sub O.D.</b>	4.75in, 6.5in (12mm,165mm)
<b>Transmitter Sub Length</b>	84in (Longer on request) (2134mm)
<b>Transmission Data Rates</b>	Up to 4 BPS (Downhole Programmable)
<b>Signal Frequency</b>	Up to 20 Hz (Downhole Programmable)
<b>Power</b>	Independent Lithium Cartridge - Lifetime >250 hours
<b>Flow Rates</b>	Up to 1200 US gals/min (76 l/sec)
<b>Lithology</b>	Highly conductive or resistive lithology may dissipate or block signal
<b>Temperature Rating</b>	Maximum 150°C (302°F)
<b>Hydrostatic Pressure</b>	Maximum 20,000psi (137.9MPa)
<b>Shock</b>	1000g/0.5millisecond
<b>Vibration</b>	20g RMS 30-300 Hz Random, 30g 50-300 Hz Sine
<b>Mud Type</b>	Multiphase flow regimes, Minimum fluid phase 33 gpm (2.08 l/sec) , Nitrogen up to 1,600ft <sup>3</sup> /min (45m <sup>3</sup> /min)
<b>Mud Sand Content</b>	Less than 0.5% recommended
<b>Lost Circulation Material</b>	No Limit

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