



Fox River Tools

Directional Services

Fixed Rotary Pulsar

Our fixed rotary pulser kit is designed with increased reliability and decreased power consumption in mind and provides a rugged alternative to traditional positive pulse MWD systems. The pulser is a self cleaning system making it ideal for harsh, high LCM (Loss Circulation Material) drilling conditions. This tool is compatible and complimentary to Rotary Steerable Systems (RSS) and can provide surveys and deliver RSS data.

FEATURES

- ✓ Rugged Design, able to withstand down-hole vibration and agitation
- ✓ Ultra-reliable DC brushless motor increases efficiency and battery life
- ✓ Easily added to most tensor based MWD platforms
- ✓ High operating temperature (175°C)
- ✓ Self-clearing rotary motion, no screens to plug, pulses through LCM 50lbs/bbl
- ✓ Piggybacks onto Rotary Steerable systems to transmit telemetry data
- ✓ Places the gamma probe closer to the bit just above the motor dump sub
- ✓ Simple operation using a wide range of flow rates and rotary speeds
- ✓ Unique down-linking capabilities extending the range of operation without having to trip out of the hole
- ✓ Works with 29V and 36V MWD systems



TOOL SPECIFICATIONS

TOOL LENGTH	Tool including Gamma Module - 8m (26.25ft)
SIZE	47.625mm O.D. (1.875")
PRESSURE RATING	137,895 kPa, (20,000 psi)
BATTERY CONSUMPTION	220-320 hours (medium-rate dual battery) 180-260 hours (medium-rate dual battery w/gamma) Consumption factors include resolution and pulse width settings
MAXIMUM OPERATING TEMPERATURE	150 °C (302 °F) 175 °C (347 °F) available
OPERATIONAL MODES	Operator selectable survey and steering sequences, resolution and pulse width settings
DOWNLINK CAPABILITY	Pumps ON/OFF sequences allow for mode selection, steering and survey sequences, and pulse width settings

OPERATING SPECIFICATIONS AND LIMITS

DATA TRANSMISSION TYPE	Positive Mud Pulse
COLLAR SIZES	89mm-203mm (3.5"-9.5") Additional sizes available
OPERATING FLOW RATE	0.28 - 4.45 m ³ /min (75-1200 gpm)
WIRELINE RETRIEVABILITY	Non-Retrievable
FLOW SWITCH	Vibration
POWER SUPPLY	Lithium 28 - 40 VDC
SHOCK LIMIT	1000g, 0.5 msec, ½ sine all axes
VIBRATION LIMIT	5 - 30 Hz @ 1" double amplitude, 30 - 500 Hz, 20g all axes
BEND RADIUS	20° / 10m
LCM TOLERANCE	40 - 50 ppb concentration, any size, premixed
OPERATING PULSE WIDTH	0.600-2.00 sec
DATA TRANSMISSION RATE	10 - 28 sec
ROTARY SENSOR	Yes (RFS available)
MEAN TIME TO SERVICE	Pulser ≈ 500 - 700 hours Electronics ≈ 1200 - 1800 hours

SENSOR SPECIFICATIONS

PARAMETER	RANGE	ACCURACY
Inclination	0 - 180°	+/- 0.10°
Azimuth	0 - 360°	+/- 0.25°
Tool Face	0 - 360°	+/- 0.50°
Dip Angle	0 - +/- 90°	+/- 0.15°
Magnetic Field	0 - 100 μT	+/- 0.075 μT
Temperature	-35 - 200°C	+/- 0.5°C

