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MicroPulse 3 Directional Controller Datasheet

FEATURES

- Single rugged module - integrates power supplies, directional sensors, and control
- Integrated azimuthal gamma controller function (works with any focused gamma)
- Azimuthal gamma compression support
- Telemetry survey compression
- Pulse OverDrive for 30% increased telemetry speed
- Accurate continuous inclination and azimuth
- Rotational telemetry mode to support lost circulation drilling environments
- Schlumberger Babel Fish integration for connection to PowerDrive RSS
- QDT Compatible M-ary telemetry
- Real-time shock & vibration telemetry
- High-reliability tri-axial MEMS accelerometers and solid-state magnetometers
- Low power consumption and sleep modes
- Flow and rotation downlink
- Dynamic sequence support
- Advanced shock and vibration logging
- Environmental lifetime tracking
- 24MB on-board storage
- RS-485/UART/CAN communication interfaces
- Easy to use configuration software
- Customizable software/firmware platform*

**(requires Apps add-on)*

SUMMARY

The Erdos Miller Directional Controller tool is designed to reduce the operating cost and complexity of MWD service. With significantly reduced size and power consumption, the Directional Controller streamlines drilling operations for the vertical and curve sections of directional wells, greatly reducing the costs and increasing reliability.

This single module integrates power supplies, directional sensors, and telemetry control into a single rugged module. The Erdos Miller Directional Controller replaces what is typically 56" of electronics in a traditional QDT-style MWD system, with a rugged and highly integrated 19" module. New possibilities are opened by integrating a complete MWD tool into a single 8-foot barrel. No more inter-connects, no more 30-foot MWD tools. Reliability is increased by eliminating connectors within the system, and reducing the overall size and weight of the MWD tool.

With over 1000 wells drilled and 150,000+ downhole hours, the Erdos Miller Directional Controller is proven and trusted.





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SPECIFICATIONS

Electrical	Min	Typical	Max	Units
Input Voltage	12	28	36	VDC
Current Consumption (at 28V)		45	55	mA
Shock and Vibration Measurement		±250		g's
Logging Memory			24	MB
Mechanical				
Length		18.96" (48.16cm)		
Diameter		1.37" (3.48cm)		
Weight		1.46lb (664g)		
Environmental				
Operating Temperature Rating		150°C (302°F)		
Survival Temperature Rating		150°C (302°F)		
Shutdown Temperature Rating		150°C (302°F)		
Vibration (g_{RMS} random, three-axis)		50 g_{RMS}		
Shock		1000g, 0.5msec, half-sine		

DIRECTIONAL ACCURACY

Parameter	Accuracy	Range
Inclination	±0.10°	0-180°
Azimuth (10-90° Inclination)	±0.25°	0-360°
Gravity Toolface Accuracy	±0.75°	0-360°
Magnetic Toolface Accuracy	±0.75°	0-360°
Dip Angle	±0.4°	
Total Gravity Field	±2.5mG	±2g
Total Magnetic Field	±300nT	±0.8 Gauss

Parameter	Accuracy	Range
Continuous Inclination	±0.2°	<10gRMS
Continuous Azimuth	±0.5°	<10gRMS

CONNECTOR PIN-OUT

Pin	Signal
1	GND
2	BATTERY 1
3	BATTERY 2
4	BATTERY BUS
5	QMIX
6	PULSE
7	FLOW
8	GAMMA I
9	CANL
10	CANH
11	GAMMA2
12	GAMMA3
13	PASSTHROUGH
14	PASSTHROUGH
15	PASSTHROUGH

