



ERDOSMILLER

MICROPULSE 4

DIRECTIONAL CONTROLLER DATASHEET

The **Erdos Miller MicroPulse 4 Directional Controller** tool is designed to increase reliability, reduce operating costs, and simplify MWD operations. A rugged and highly integrated 24.5" module that integrates power supplies, directional sensors, and telemetry control into a single module. With significantly reduced size and power consumption, the **MicroPulse 4** conserves battery life and can be integrated into a single 8-foot barrel to create a complete MWD tool.

The **MicroPulse 4** is assembled with high-reliability tri-axial MEMS accelerometers, solid-state magnetometers, RS-485/UART/CAN communication interfaces, and 24MB of on-board storage. Backed by our 1-year or 2000 hours warranty.

MicroPulse 4 offers the following industry standard functionality: **Dynamic Sequence Support, Flow and Rotational Downlinking, Real-Time Shock and Vibe Telemetry, Advanced Shock and Vibe Logging, and Environmental Lifetime Tracking.**



Proven and
Trusted:

1,000,000+ downhole hours



MICROPULSE Innovative Features

Plug and Play Integration

- ✓ Internal Flow Switch (can be enabled/disabled via rotational downlink)
- ✓ Native Babbelfish support and Orbit Compatible
- ✓ Integrated Azimuthal Gamma Controller (works with any focused Gamma)

Continuous Inclination/Azimuth

- ✓ Gyro Proven Accuracy

Unique Telemetry Solutions

- Rotation Telemetry Mode

Unlock the full potential of the MICROPULSE 4

Run the **MicroPulse 4** with Erdos Miller's surface software and decoder, **Eclipse Touch**, and take advantage of these game changing features that delight field hands and company men alike.

- ✓ Pulse Overdrive - Increase pulse width and decode confidence without sacrificing data speed
- ✓ Manual Sync - Eliminate pump recycles
- ✓ Azimuthal Gamma Compression Support
- ✓ Continuous Inclination and Azimuth Compression

SPECIFICATIONS

Electrical	Minimum	Typical	Maximum	Units
Input Voltage	12	28	36	VDC
Current Consumption (at 28V)		45	60	mA
Shock and Vibration Measurement		±200		g's
Logging Memory			24	MB
Mechanical				
Length	24.50" (62.23cm)			
Diameter	1.44" (3.65cm)			
Weight	2.46lb (1,115g)			
Environmental				
Operating Temperature Rating	175°C (347°F)			
Survival Temperature Rating	185°C (365°F)			
Vibration (g _{RMS} random, three-axis)	50g _{RMS}			
Shock	1000g, 0.5msec, half-sine			

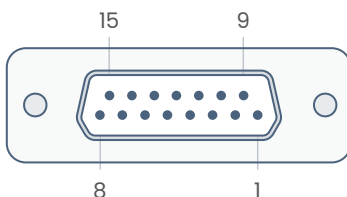
DIRECTIONAL ACCURACY

Parameter	Accuracy	Range
Indication	±0.10°	0-180°
Azimuth (10-90 Indication)	±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°	<10g _{RMS}
Continuous Azimuth	±0.5°	<10g _{RMS}

CONNECTOR PIN-OUT

Pin	Signal
1	GND
2	BATTERY 1
3	BATTERY 2
4	BATTERY BUS
5	QMIX
6	PULSE
7	FLOW
8	GAMMAI
9	CANL
10	CANH
11	GAMMA2
12	GAMMA3
13	<i>Passthrough</i>
14	<i>Passthrough</i>
15	<i>Passthrough</i>

MDM-15 Pin



MDM-15 Socket

