Demod-DIGITAL

Displacement Signal Conditioner



Demod-DIGITAL - High-performance signal conditioner for digital or analog acquisition

LORD Sensing Linear Variable Differential Transducer (LVDT) systems enable precise micro-position measurement for a wide variety of applications. Each system includes a sensor, cable, and signal conditioning module calibrated as one unit to ensure accurate, repeatable measurement.

The Demod-DIGITAL stores specific calibration values in an internal lookup table and provides a highly accurate displacement output on both digital serial and analog output channels.

NOTE: Designed for use with LORD Sensing LVDT sensors. With a Demod-DIGITAL purchase, current LORD Sensing customers may return sensors for calibration free of charge.

PRODUCT HIGHLIGHTS

- Internal calibration data delivers unmatched accuracy
- · Digital serial and analog outputs
- 10X to 50X more accuracy than other Demods
- Output in engineering units
- · Clean, high-level signals to output connections

FEATURES AND BENEFITS

HIGH PERFORMANCE

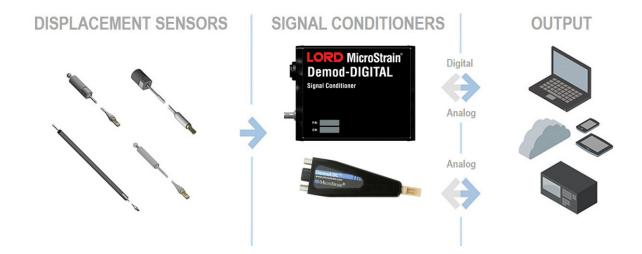
- · Precision synchronous demodulation
- Calibrated with each sensor for high accuracy outputs
- Line voltage transient filtering and pure sine wave excitation source to the sensor bridge

EASE OF USE

- · No conversion needed for digital output
- Compatible with LORD Sensing SensorConnect[™] software
- Factory-set output filtering and calibration-model options
- · Rapid warm-up time
- · Complete solution no other system integration required

APPLICATIONS

- · Linear and angular position measurements
- Strain, deflection and deformation measurements
- Dimensional gauging

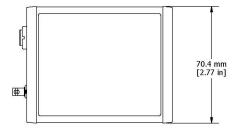


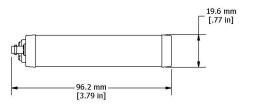


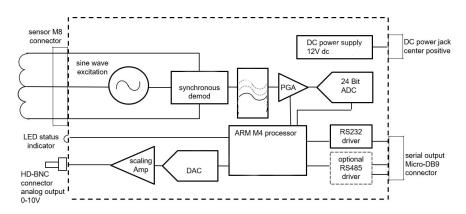
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Specifications

General	
Sensor input channels	Single channel, inductive LVDT
Sensor Input Channel	
Demodulation	Synchronous, DC output
Sensor excitation	AC Sine Wave, 140 kHz typical
Analog Output	
Analog output voltage	0 to 10 V dc (standard), 0 to 5 V dc (optional)
Output gain	Adjustable from 14 to 10,000 (factory set during calibration)
Analog low pass filter	Two-pole, active Butterworth, -3 dB at 10 Hz
Digital Output	
Format	RS232 (RS485 upon request)
Data	Timestamp, Displacement (mm)
Operating Parameters	
Power source	12 V dc nominal ±1 V dc (universal voltage wall AC/DC converter provided)
Power consumption	70 mA typical
Power indicator	Multi-color status indicator
Operating temperature	-20°C to +60°C
Device warm-up time	5 minutes recommended
Physical Specifications	
Dimensions	70 mm x 96 mm x 20 mm
Weight	113 grams
Enclosure material	Black anodized aluminum
Mounting	Desktop with rubber feet
Integration	
Connectors	Center-positive DC barrel socket (power supply); 4 pin M8 receptacle (sensor input); HDBNC (analog output); Micro-DB9
Sensor cable	4-pin receptacle to 4-pin mini, calibrated with sensor and signal conditioner
Compatible sensors	LORD Sensing LVDT sensors
Software	SensorConnect™ and SensorCloud™
Regulatory compliance	CE, ROHS







LORD Sensing MicroStrain

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