

# Differential Inclinator System

## DI-100-10-DFD-1R

The Columbia Model DI-100-10-DFD-1R Inclinator System is a unique Differential tilt measuring device which allows matching the slope of two remotely located surfaces. It is particularly useful in construction and shipbuilding. The readout can be set to indicate the absolute tilt of either sensor or the differential angle between them.

**Consult the factory for customized versions of these sensors.**

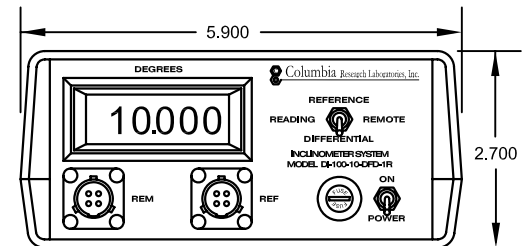
Note: Exports of accelerometers from the United States are subject to the licensing requirements of the Export Administration Regulations (EAR) and/or the International Traffic in Arms Regulations (ITAR).

SPECIFICATIONS	DI-100-10-DFD-1R
<b>Readout</b>	
Input Requirements	117 Volts AC @ 49-63Hz, 2.5 Watts Typ.
Operating Range	±10.000°
System Accuracy (All Modes)	±0.010° From 0 to 5°; ±0.030° from 5 to 10°
System Resolution	> 0.001°
System Null Stability	±0.005° Short Term. ±0.020° Long Term
Operating Temperature Range	+40°F to +110°F (+5°C to +45°C)
Storage Temperature Range	+30°F to +125°F (0°C to +52°C)
Operating Controls	AC Power switch. Display selection switch
Display	<ul style="list-style-type: none"> <li>4 1/2 Digit, 7 Segment 0.4" High readout indicating ±10.000° Full Scale</li> <li>Switch selects either sensor output of differential mode</li> <li>Display Blanks if one or both sensors are not connected</li> </ul>
Input Power Wire	6' Long
Input Connectors	PT02A-8-4P [ Sensors & Readout ]
Sensor Interface Cables	(1) 15' Long, (1) 150' Long PT08E-8-4S [ 90° Plug ] & PT06A-8-4S (SR) [ Straight Plug ]

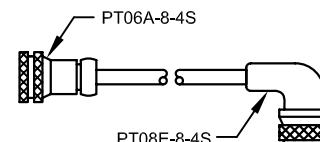
### Sensor

Output Voltage	±5VDC @ Full Range Output
Output Noise	<2mV RMS
Non-Linearity	±0.05%
Non-Repeatability	<0.5 Min. of Arc
Scale Factor Tolerance	±1%
Scale Factor Temp. Coefficient	±0.02% F.R.
Zero Bias	0.01 Volts
Zero Bias Temp. Coefficient	0.05 Min. of Arc / °C
Resolution	0.005% F.R.
Bandwidth	0 to 3Hz (-18dB / Octave Rolloff)
Orthogonal Sensitivity	0.001 G/G Exclusive of Sensitive Axis Alignment
Case Alignment	±0.1°
Vibration Rectification	50µ G/G <sup>2</sup>
Temperature, Operating	-20 to +75°C
Temperature, Storage	-40 to +85°C
Random Vibration (2 to 2000 Hz)	35G RMS
Shock Survival	50G RMS
Ambient Pressure	1500G, 1mSec
Humidity	95% R.H.
Weight	12oz. (340gm)
Size	3.64" L x 2.10" W x 1.69" H (92.5cm L x 53.4cm W x 49.0cm H)
Case Material	Aluminum
Sealing	Environmental

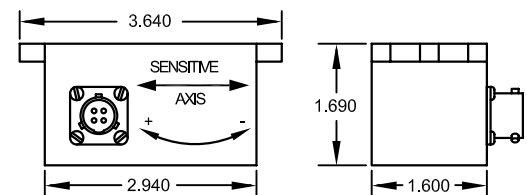
- Superior Force Balance Technology
- Extremely Rugged Inclinatorometers
- High Resolution



System (Depth 7.500)



Cable Assembly



Sensor

Ordering Information:  
DI-100-10-DFD-1R



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