eDXI-100-200 Single or Dual-Axis Digital Inclinometer

Fluid-damped Ethernet Inclinometer

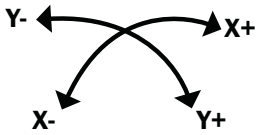
ALTHEN SENSORS & CONTROLS

Introduction

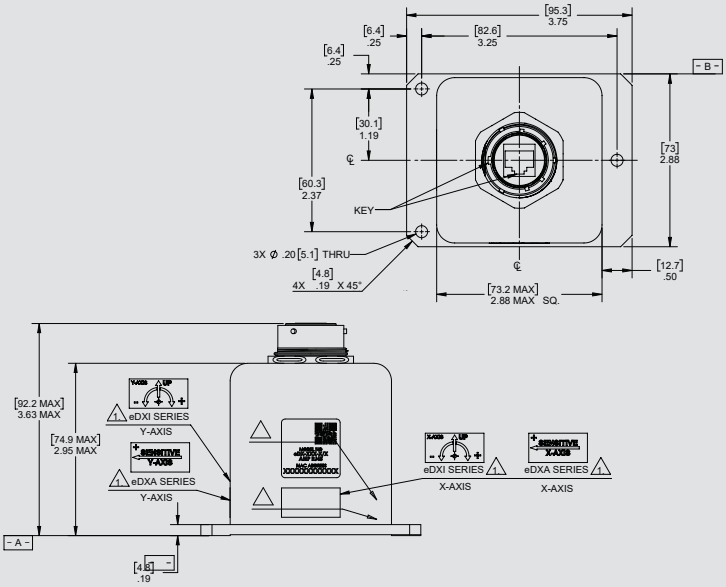
The eDXI-100/200 Series is a single or dual digital inclinometer with the convenience of Ethernet output. With its power over ethernet capability, no power source is needed. Simply plug it in to your computer.

Features

- Digital output
- Resolution 0.001°
- Mechanical Shock 1500g 1msec 1/2 sine
- Industry Standard Ethernet 10 Base T or 100 Base TX (Auto-sensing)
- For use in high shock and vibration environments
- PoE (power over Ethernet)
- Low Noise



*Standard eDXI-100 includes X-axis only








Application

- Radar/Antenna Control
- Structural Monitoring
- Linear Acceleration/Deceleration Measuring
- Automatic Train Control (ATC, ATP)

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Performance specifications eDXI-100/200

Performance

Input range (°)	±1.0	±3.0	±14.5	±30.0	±60.0
Non linearity (%fro max)2	0.02	0.015	0.02	0.02	0.03
Scale factor tolerance (% max)			0.1		
Scale factor temp. Sensitivity (ppm/°c, max)			100		
Output at 0° tilt (max)	±0.01	±0.01	±0.05	±0.05	±0.05
0° Output temp. Sensitivity (°/°c, max)			0.005		
Bandwidth (-3db hz, nominal) 3	3	6	30	30	30
Transverse axis misalignment (° max)	0.15	0.15	0.5	0.5	0.5
Resolution & threshold (° max)			0.001		
Power on repeatability (° max)			0.001		
Hysteresis (° max)			0.001		
Repeatability (° max)	0.001	0.001	0.002	0.002	0.003

Electrical

Number of axes	1 or 2
Supply voltage range (vdc)	36 to 57
Start-up voltage (vdc, min)	42
Input current (ma, max)	250
Input to output isolation (vpeak impulse)	1500
Noise (milli-degrees rms, max)	2

Environmental

Operating temp. Range	-40° to +85°C
Storage temp. Range	-40° to +85°C
Vibration	20 grms
Shock	1500g, 1 msec, ½ sine

Pin outs

1	TX+
2	TX-
3	RX+
4	PoE45+
5	PoE45-
6	RX-
7	PoE78+
8	PoE78-

Notes

1. Full range is defined as “from negative full input angle to positive full input angle”
2. Non-linearity is specified as deviation of output referenced to a best fit straight line, independent of misalignment.
3. In default condition without averaging enabled.

*Specifications subject to change without notice on account of continued product development

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Performance specifications

Enclosure

Housing material	Anodized & Alodine Aluminum
Weight	eDXI-100 345 g, max eDXI-200 390 g, max
Protection class (per iec 529)	IP65
Nema enclosure rating	1.5mV / V at rated load (nominal)
Seal	MIL-STD-202 Method 112
Connector type	Amphenol RJF72B00
Recommended mating conn.	Amphenol RJF6B

Digital output

Interface	Ethernet 10Base-T or 100Base-TX (Auto-sensing)
Protocol	TCP / IP, UPD / IP, ARP, Telnet, ICMP, SNMP, DHCP, BOOTP, TFTP, AutoIP, and HTTP
Output rep.	Degrees

Ordering information

How to order

±1.0	1	eDXI-100-1	02550380-101
	2	eDXI-200-1/1	02550380-201
±3.0	1	eDXI-100-3	02550380-102
	2	eDXI-200-3/3	02550380-202
±14.5	1	eDXI-100-14.5	02550380-103
	2	eDXI-200-14.5/14.5	02550380-203
±30.0	1	eDXI-100-30	02550380-104
	2	eDXI-200-30/30	02550380-204
±60.0	1	eDXI-100-60	02550380-105
	2	eDXI-200-60/60	02550380-205

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