

# DXI-100/200-R Series Inclinometer



Making Sense out of Motion...

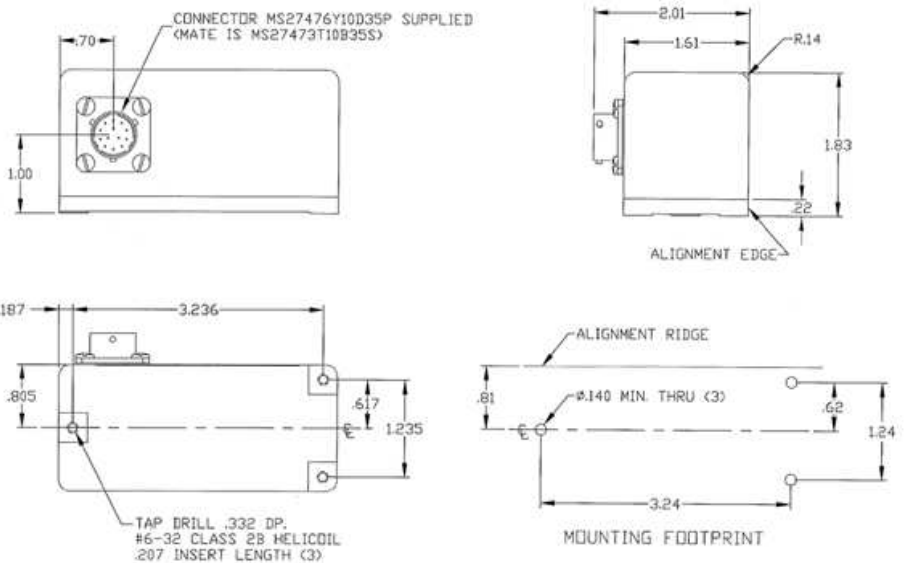
**Digital Output - Single or Dual Axis for a wide variety of applications.**

**Meets CENELEC/AREMA Standards**



The Jewell **DXI-100/200 Series** single or dual digital inclinometer takes Jewell's highly accurate analog closed loop sensor technology to the next level.

Outline Diagram: DXI-100/200 Series Digital Inclinometer

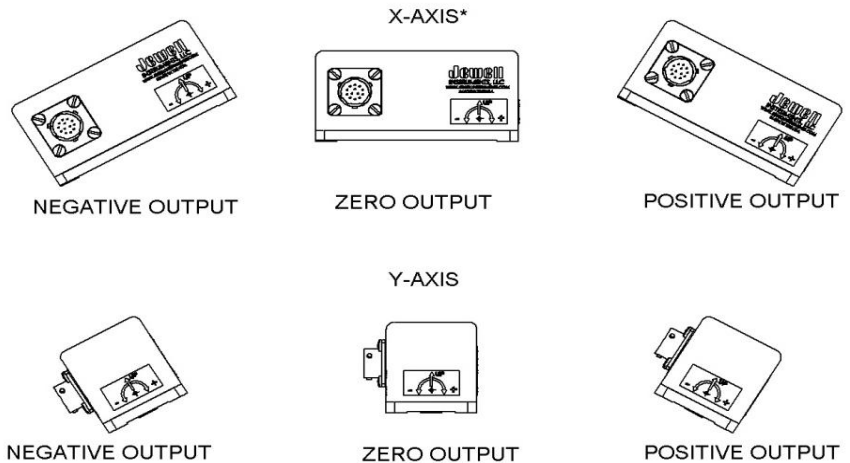


## Features & Benefits

- Digital output
  - Resolution 0.001°
  - Mechanical Shock 1500g 1msec 1/2 sine
  - Industry Standard EIA RS485 and EIA RS422 output
  - For use in high shock and vibration environments
  - High Precision and Performance
  - Low Noise
  - Meets CENELEC/AREMA Standards
- See Spec Table Page 2

## Applications

- Radar/Antenna Control
- Structural Monitoring
- Linear Acceleration/Deceleration Measuring
- Automatic Train Position Control
- Seismic Monitoring
- Platform Leveling



\*FOR DXI-100 SERIES SENSITIVE AXIS THIS DIRECTION ONLY

# DXI-100/200-R Series Inclinometer



*Making Sense out of Motion...*

## Performance

Input Range <sup>1</sup> , °	±1.0	±3.0	±14.5	±30.0	±60.0
Number of Axis	1,2	1,2	1,2	1,2	1,2
Non Linearity <sup>2</sup> , %FRO, Max	0.02	0.015	0.02	0.02	0.03
Scale Factor Tolerance, % Max	0.05	0.05	0.05	0.05	0.05
Scale Factor Temperature Sensitivity, % reading/°C, Max	0.01	0.01	0.01	0.01	0.01
Output at 0° Tilt, °Max	0.01	0.01	0.05	0.05	0.05
0° Output Temperature Sensitivity, °/°C, Max	0.001	0.001	0.005	0.005	0.005
Bandwidth (-3dB), Hz, Nom <sup>3</sup>	3	6	30	30	30
Transverse Axis Misalignment, °, Max	0.15	0.15	0.5	0.5	0.5
Hysteresis, °, Max	0.001	0.001	0.001	0.001	0.001
Resolution and Threshold, °, Max	0.001	0.001	0.001	0.001	0.001
Power On Repeatability, °Max	0.001	0.001	0.001	0.001	0.001
Repeatability, °Max	0.001	0.001	0.002	0.002	0.003

## Digital Output

Interface	EIA-RS485 (default)/EIA-RS422
Protocol	Proprietary (Custom)
Output Representation	Degrees
Baud Rate <sup>4</sup>	19200, 38400, 57600, 115200, 230400

## Electrical

Supply Voltage, Volts DC	10 to 30	
Input Current, mA, Max	Transmitting Not transmitting	DXI-100 32 mA & DXI-200 50 mA DXI-100 22 mA & DXI-200 40 mA

## Environmental

Operational Temp Range, °C	-40 to +70
Storage and Temp Range, °C	-40 to +70
Protection Class per IEC 529	IP67
NEMA Enclosure Rating	6
Seal	MILD-STD-202 Method 112
Shock Survival	1500g, 1msec, ½ sine
Vibration Survival, grms (20Hz to 2 KHz)	20

## Enclosure

Housing Material	Anodized and Alodine Aluminum
Weight	DXI-100 8oz [226.80 g]/ DXI-200 10oz [283.50 g]
Connector Type	MS27476Y10D35P
Recommended Mating Connector	MS27473T10B35S

- 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.
  - 4- Default Baud Rate is 38400

CENELEC EN 55022:2010

CENELEC EN 50155:2007

CENELEC EN 61000-4-8:2010

AREMA Part 11.5.1

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