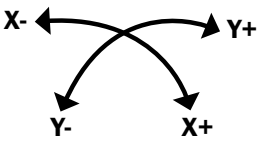
Jewell Instruments

MAKING SENSE OUT OF MOTION

DXI-100/200

Single or Dual Axis Digital Inclinometer

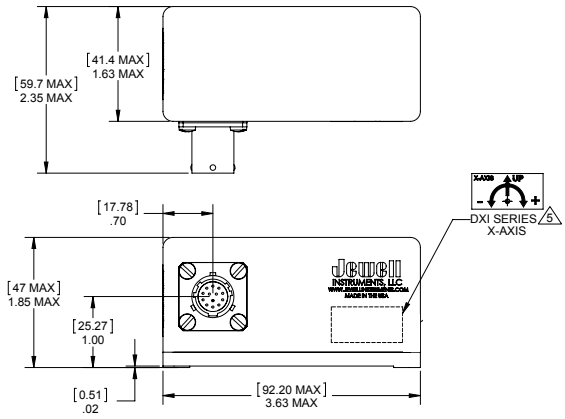


*Standard DXI-100 includes X-axis only

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. The DXI-100/200 is available with either RS422 or RS485 (Standard) digital interfaces. With a variety of options, including metric mounting threads or flanged base, this product is easily customized to suit your specific application.

FEATURES:

- Digital output
- Resolution 0.001°
- Mechanical Shock 1500g 1msec ½ sine
- Industry Standard EIA RS485 and EIA RS422 output
- For use in high shock and vibration environments
- High Precision and Performance
- Low Noise



Dimensions: in [mm]

APPLICATIONS:

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

PERFORMANCE SPECIFICATIONS DXI-100/200

PERFORMANCE

INPUT RANGE (°)	±1.0	±3.0	±14.5	±30.0	±60.0
NON LINEARITY (%FRO max)[2]	0.06	0.025	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)	0.2	0.2	0.5	0.5	0.5
RESOLUTION & THRESHOLD (° max)	0.001				
POWER ON REPEATABILITY (° 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)	10 to 30	
NOISE (g rms, max)	0.005	
INPUT CURRENT (mA, max)	Transmitting Not Transmitting	DXI-100 32 mA & DXI-200 50 mA DXI-100 22 mA & DXI-200 40 mA

ENVIRONMENTAL

OPERATING TEMP. RANGE	-40° to +85°C
STORAGE TEMP. RANGE	-40° to +85°C
VIBRATION	20 grms
SHOCK	1500g, 1 msec, ½ sine

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

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

PERFORMANCE SPECIFICATIONS DXI-100/200

ENCLOSURE

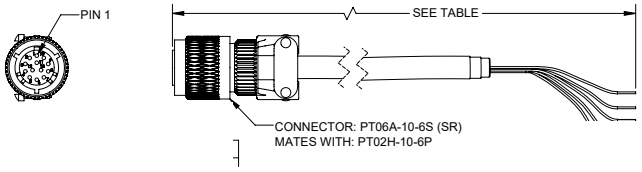
HOUSING MATERIAL	Anodized & Alodine Aluminum
WEIGHT	DXI-100 8oz [226.80 g] DXI-200 10oz [283.50 g]
PROTECTION CLASS (per IEC 529)	IP67
NEMA ENCLOSURE RATING	6
SEAL	MILD-STD-202 Method 112
CONNECTOR TYPE	MS27476Y10D35P
RECOMMENDED MATING CONN.	MS27473T10B35S

DIGITAL OUTPUT

INTERFACE	EIA-RS485 (default) EIA-RS422
PROTOCOL	Proprietary (custom)
BAUD RATE[4]	19200, **38400**, 57600, 115200, 230400

ACCESSORIES

CONNECTOR CABLE



PART #	MODEL #	LENGTH m (ft)
F847774-001	13-Pin Circular Connector	-
879839-02	DXX-CBL-03M-2 (3M)	3 (9.84)
879839-01	DXX-CBL-05M-2 (5M)	5 (16.4)
Contact manufacturer for custom lengths		

PIN OUTS

1	-	N/C
2	-	N/C
3	GREEN	CASE GROUND
4	BLUE	+ SERIAL PORT
5	YELLOW	- SERIAL PORT
6	-	N/C
7	-	N/C

8	-	N/C
9	-	N/C
10	-	N/C
11	BLACK	POWER RETURN
12	RED	+ POWER
13	-	N/C

ORDERING INFORMATION

HOW TO ORDER

Model Numbers are comprised of the series, the axis, the input range, and options.

EXAMPLE: DXI Series, dual axis, ±30° Input, RS422 Output, CENELEC/AREMA certified (R), with metric mounting threads (M), and a flange base (FB).

SERIES	-	AXIS	-	INPUT RANGE	-	OPTIONS*	-	OPTIONS*	-	OPTIONS*	-	OPTIONS*
DXI	-	200	-	30/30	-	422	-	R	-	M	-	FB

*Leave options blank if not needed

Standard Version

	AXES	MODEL #	PART #
±1.0	1	DXI-100-1	02550284-001
	2	DXI-200-1/1	02550285-001
±3.0	1	DXI-100-3	02550284-002
	2	DXI-200-3/3	02550285-002
±14.5	1	DXI-100-14.5	02550284-003
	2	DXI-200-14.5/14.5	02550285-003
±30.0	1	DXI-100-30	02550284-004
	2	DXI-200-30/30	02550285-004
±60.0	1	DXI-100-60	02550284-005
	2	DXI-200-60/60	02550285-005

NOTE: Numbers provided are for the standard RS485 digital interface with no additional options.

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ISO9001 CERTIFIED