PM Instrumentation

DXA-100

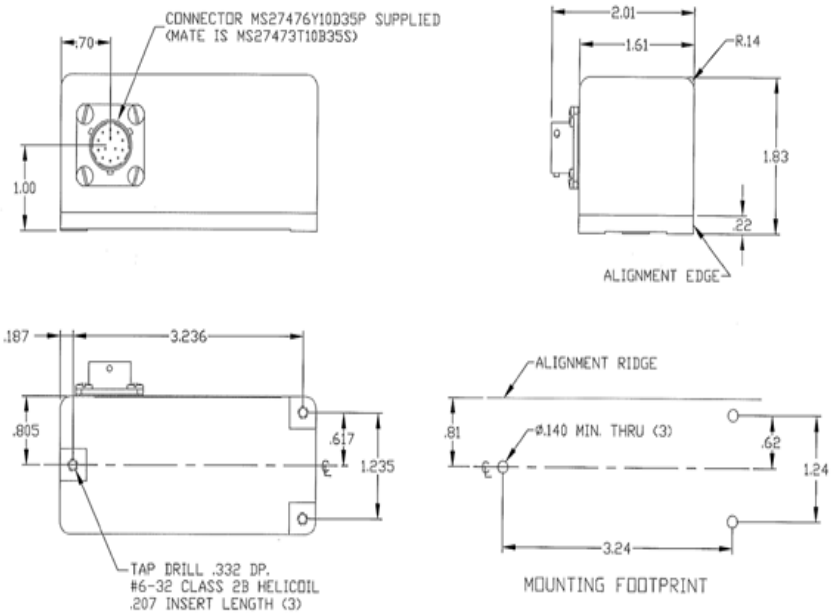
DXA-Digital-100/200 Series Accelerometer

Jewell Instruments

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

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

Outline Diagram: ***DXA-100/200 Series Digital Accelerometer***

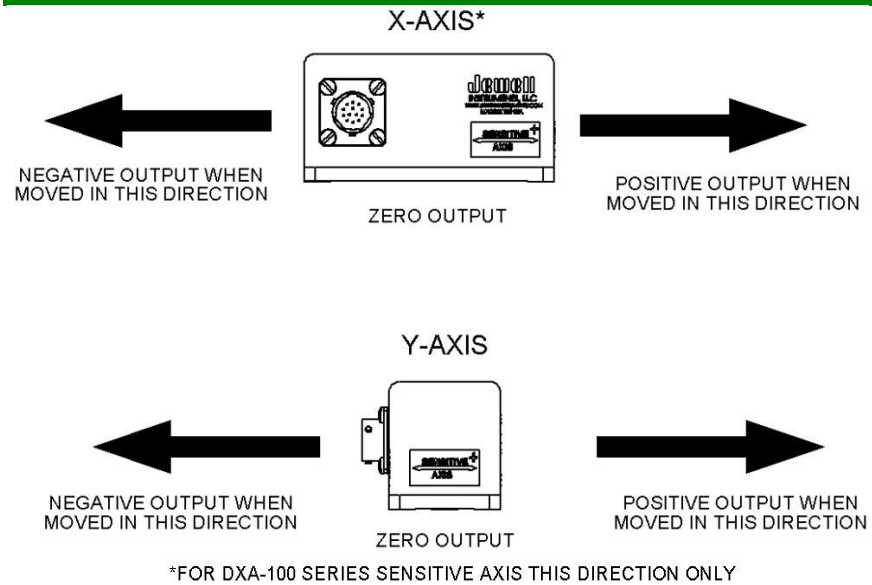


Features & Benefits

- Digital output
- Resolution 8 µg
- Mechanical Shock 1500g 1msec half sine
- Industry Standard EIA-RS485 and EIA-RS422 output
- For use in high shock and vibration environments
- High Precision and Performance
- Low Noise

Applications

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



*FOR DXA-100 SERIES SENSITIVE AXIS THIS DIRECTION ONLY

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Performance

Input Range[1], g	±0.25g	±0.50g	±0.87g	±1.00g	±2.00g
Number of Axis	1,2	1,2	1,2	1,2	1,2
Non Linearity[2], %FRO, Max	0.02	0.02	0.03	0.05	0.03
Scale Factor Tolerance, % Max	0.05	0.05	0.05	0.05	0.05
Bias, mg	1.00	1.00	1.00	1.00	1.00
Bias Thermal Sensitivity, mg	90	90	90	90	90
Bandwidth (-3dB), Hz, Nom[3]	30	30	30	30	30
Transverse Axis Misalignment, °, Max	0.5	0.5	0.5	0.5	0.5

Digital Output

Interface	EIA-RS485 (default)/EIA-RS422
Protocol	Proprietary
Output Representation	g's

Baud Rate[4]	19200	38400	57600	115200	230400

Electrical

Supply Voltage, Volts DC	10 to 30
Input Current, mA, Max	DXA-100 80 mA/DXA-200 70 mA

Environmental

Operational Temp Range, °C	-40 to +70
Storage and Temp Range, °C	-40 to +75
Protection Class per IEC 529	IP67
NEMA Enclosure Rating	6
Shock Survival	1500g, 1msec, ½ sine
Vibration Survival, grms (20Hz to 2 KHz)	20

Enclosure

Housing Material	Anodized Aluminum
Weight	DXA-100 8 oz [226.80 g]/ DXA-200 10 oz [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.
4- Default Baud Rate is 38400
5 - Not factory set - Operator depended EIA-485 or EIA-422

How to Order

DXA 100 -.25g	02550282-001	DXA 200 -.25g/.25g	02550283-001
DXA 100 -.5g	02550282-002	DXA 200 -.5g/.5g	02550283-002
DXA 100 -.87g	02550282-003	DXA 200 -.87g/.87g	02550283-003
DXA 100 -1g	02550282-004	DXA 200 -1g/1g	02550283-004
DXA 100 -2g	02550282-005	DXA 200 -2g/2g	02550283-005

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