

DXA-100/200 Series Accelerometer

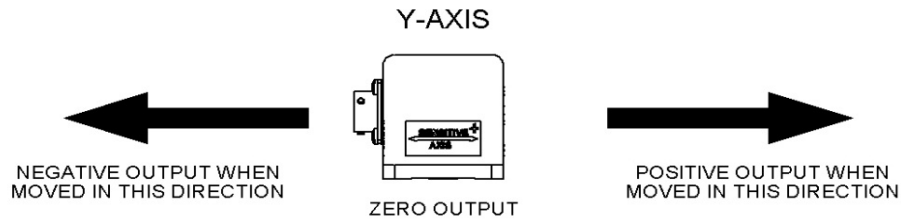
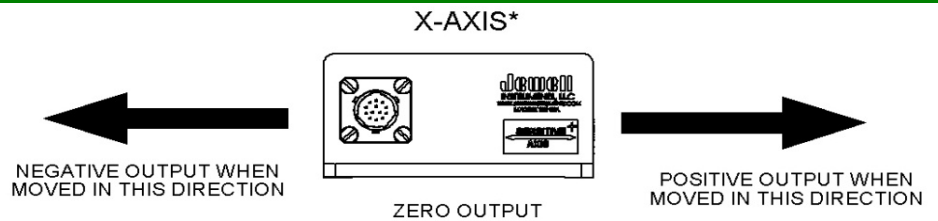
Making Sense out of Motion...

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.



Axis Orientation



*Standard DXA-100 includes X-axis only

Features & Benefits

- Digital output
- Resolution 8 μ g
- 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

Pin Out

Pin	Color	Pin Out
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

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DXA-100/200 Series Accelerometer



Making Sense out of Motion...

Performance

Input Range ¹ , g	±0.25	±0.50	±0.87	±1.00	±2.00
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 (Custom)				
Output Representation	g's				
Baud Rate ⁴	19200	38400	57600	115200	230400

Electrical

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

Environmental

Operational Temp Range, °C	-40 to +85				
Storage and Temp Range, °C	-40 to +85				
Protection Class per IEC 529	IP67				
NEMA Enclosure Rating	6				
Shock Survival	1500g, 1msec, ½ sine				
Vibration Survival, grms (20Hz to 2 KHz)	20				

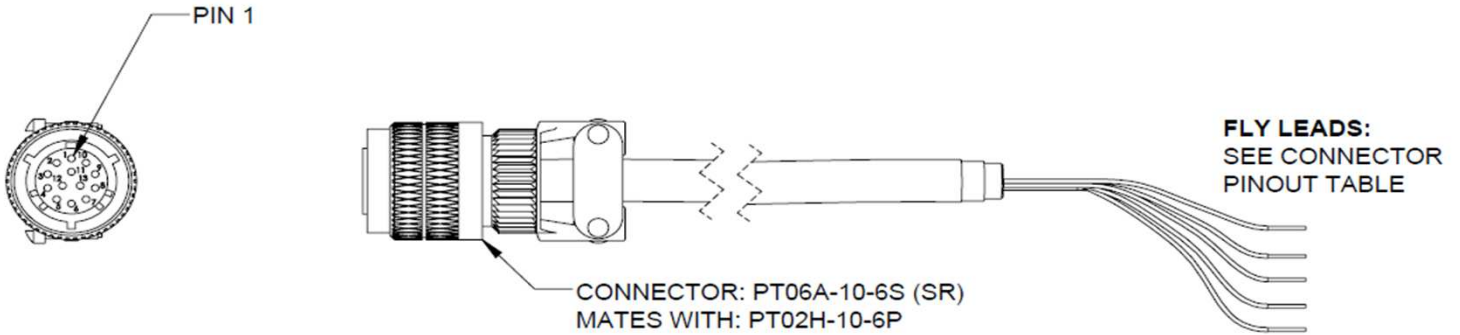
Enclosure

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

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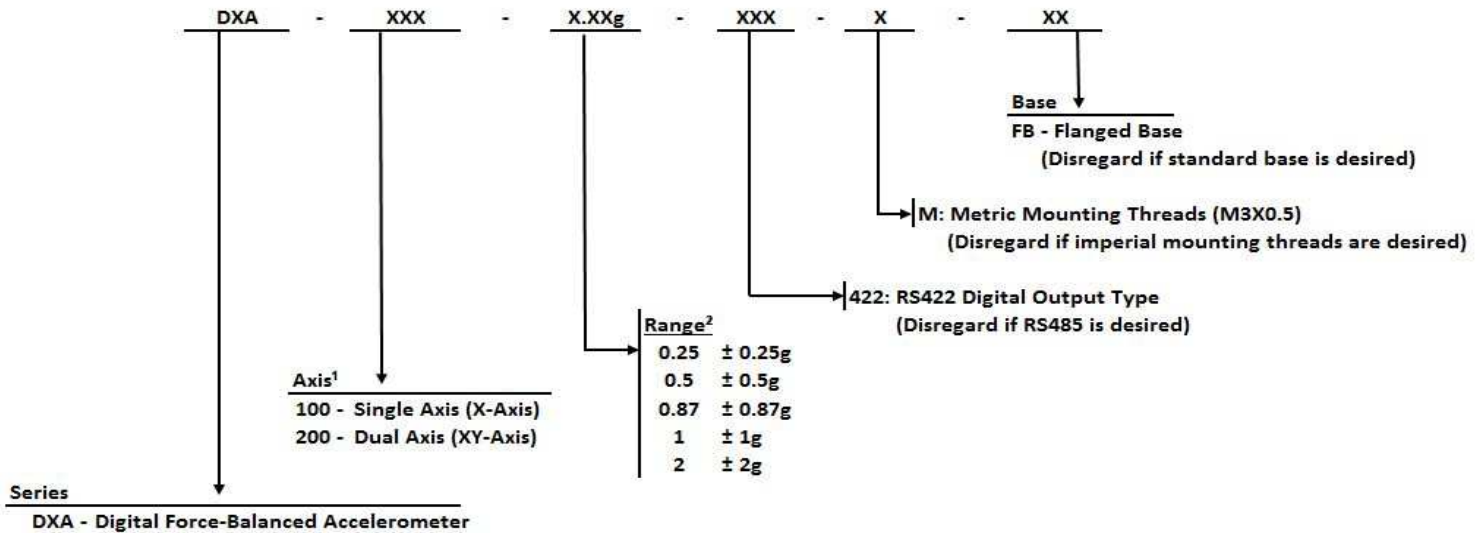
CABLE ACCESSORY (Part Number: 879839-XX)



CABLE CONFIGURATIONS & PART NUMBERS

Part Number	Length
879839-01	5 m
879839-02	3 m
879839-03	1.8 m

How to Order



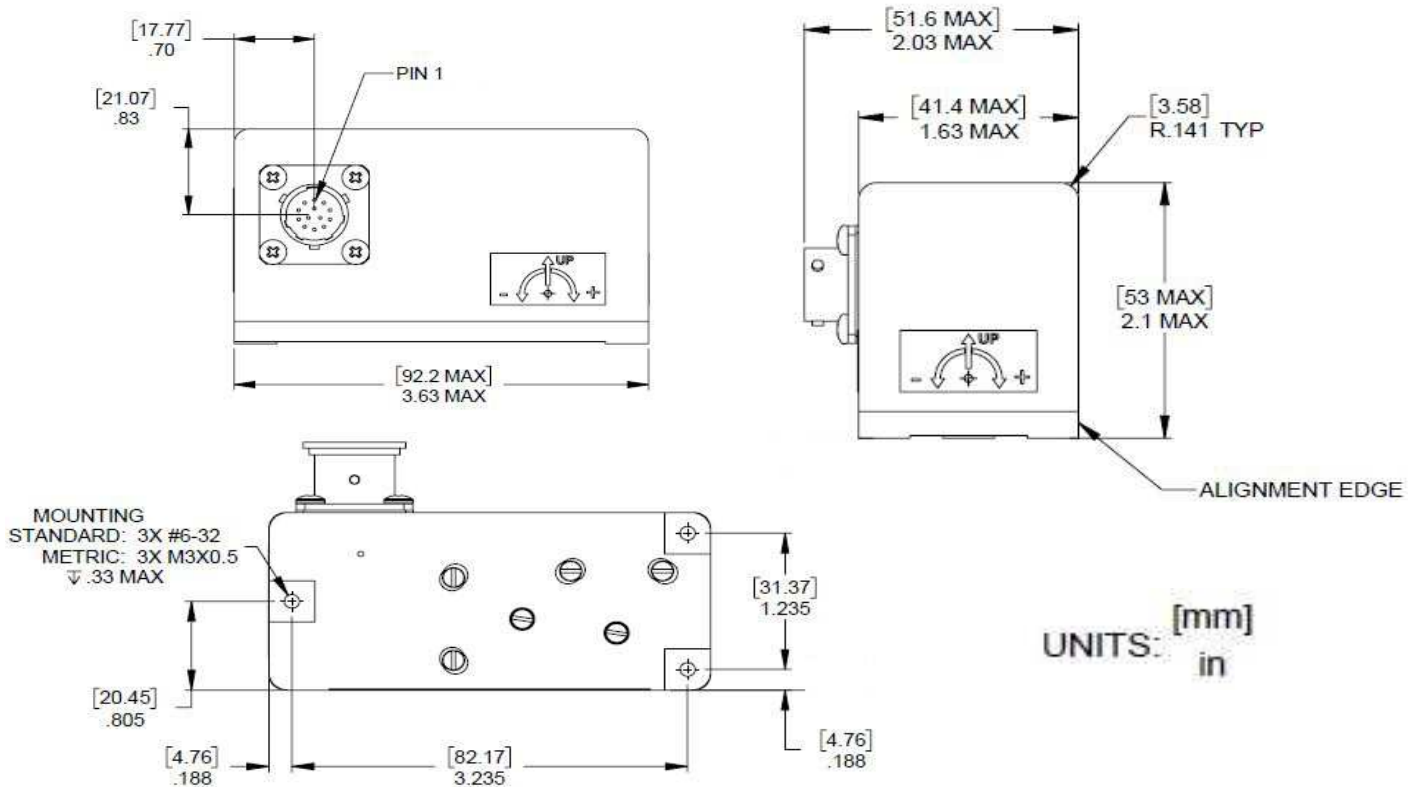
Example: DXA-100-0.25g = DXA series, single axis, ±0.25g range, RS485 output, imperial mounting threads, standard base

¹Call factory for customized axis configurations

²For dual axis, include the range for both axes. Ex: 0.25/0.25g

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Dimensions - Standard Base



Flanged Base

