



TRIAxIAL ANGULAR RATE SENSOR

ARS-E332-2A
ARS-E332-3A

Description:

Watson Industries has manufactured and developed inertial systems since 1980. The company holds numerous patents and is committed to being a leader in the development of inertial products.

This sensor system is very rugged. The rate gyros are capable of surviving 500 g's of shock. Various output ranges are available. Watson Industries manufactures other systems including angle sensing devices, magnetic instruments, magnetic heading systems, as well as a complete line of individual gyros.



Applications:

This ARS can be used for marine, automotive, antenna stabilization, robotics and many applications where accurate measurement of angular rate is required.

- Low Unit Price
- Good Environmental Performance
- Analog Voltage Output
- Available Angular Rate Ranges of 50 to 300°/second
- Solid State Reliability
- Two Year Limited Warranty
- Engineering Support

ARS-E332 Models

Model	Range	Output	Scale Factor
ARS-E332-2A	±100°/sec	0 to 5 VDC	40°/sec
ARS-E332-3A	±100°/sec	±5 VDC	20°/sec



Watson Industries, Inc.

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ARS-E332 Specifications

Angular Rate

Range: Roll, Pitch, Yaw	±100°/sec	
Resolution:	0.025°/sec	
Analog Scale Factor:	20°/sec/V (Typical)	See table above
Scale Factor Accuracy:	1%	Constant temperature
Scale Factor Temp Coefficient:	±1%	Over temperature range
Bias: Zero Bias	±1.0°/sec	
Bias: Over Temp Range	±1.0°/sec	
Non-Linearity:	< 0.03%	Full scale range
Bandwidth:	> 50 Hz	
Noise:	< 0.03°/sec rms	

Environmental

Temperature: Operating	-40°C to +85°C	
Temperature: Storage	-55°C to +85°C	
Vibration: Operating	5g rms	20 Hz to 2 kHz
Vibration: Survival	10g rms	20 Hz to 2 kHz
Shock: Survival	500g	10ms ½ sine wave

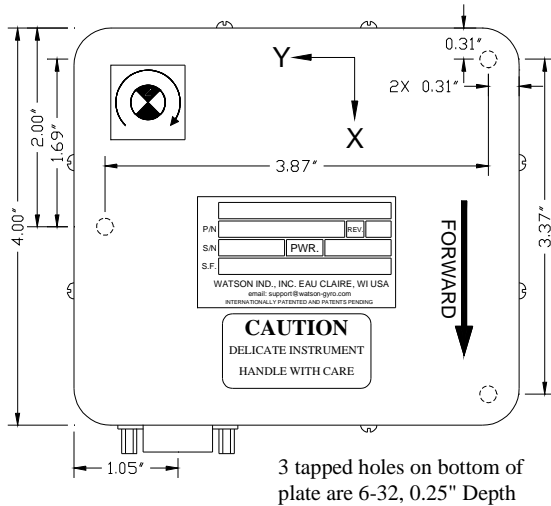
Electrical

Startup Time: Data	< 300 mS	
Input Power:	10 to 30VDC	3.6W
Input Current:	300mA @ 12VDC	
Analog Output	±5VDC (Typical)	See table above
Output Impedance:	1000 Ohm	

Physical

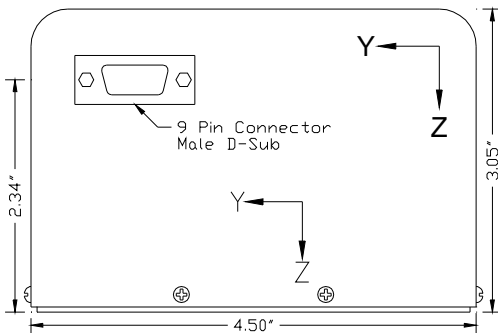
Axis Alignment:	< 1°	
Size:	4.00"W x 4.50"L x 3.05"H	10.2 x 11.4 x 7.7 (cm)
Weight:	26oz (1.6lb)	740 grams (0.7Kg)
Connection:	9 pin male "D" subminiature	
Life:	> 50,000 Hrs MTBF	

- Specifications are subject to change without notice.
- This product may be subject to export restrictions. Please consult the factory.



ARS-E332 Pinout (Male D-sub 9 pin)

Pin 1	Ground
Pin 2	+12 VDC at <300 mA
Pin 3-5	No connection
Pin 6	X Rate Output*
Pin 7	Y Rate Output*
Pin 8	Z Rate Output*
Pin 9	No connection



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