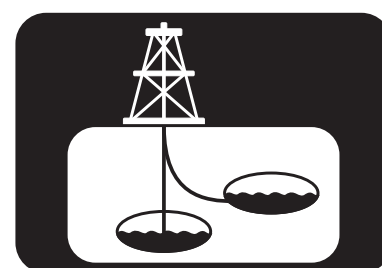


JA-5M36 accelerometer



Key features

- 150 °C operating temperature
- High accuracy with long term stability
- Shock and vibration resistant
- Ultimate reliability
- Easy to integrate

The 150 °C JA-5M36 accelerometers have been developed to meet the increasing high temperature needs of downhole applications. As one of the key suppliers of accelerometers to downhole applications JAE has used its wealth of knowledge to extend the working temperature of the accelerometer to provide reliable long term operation even at extreme temperatures without compromising performance.

An extreme product for extreme applications.

Accelerometers must only be exported in accordance with all relevant regulations.

Applications

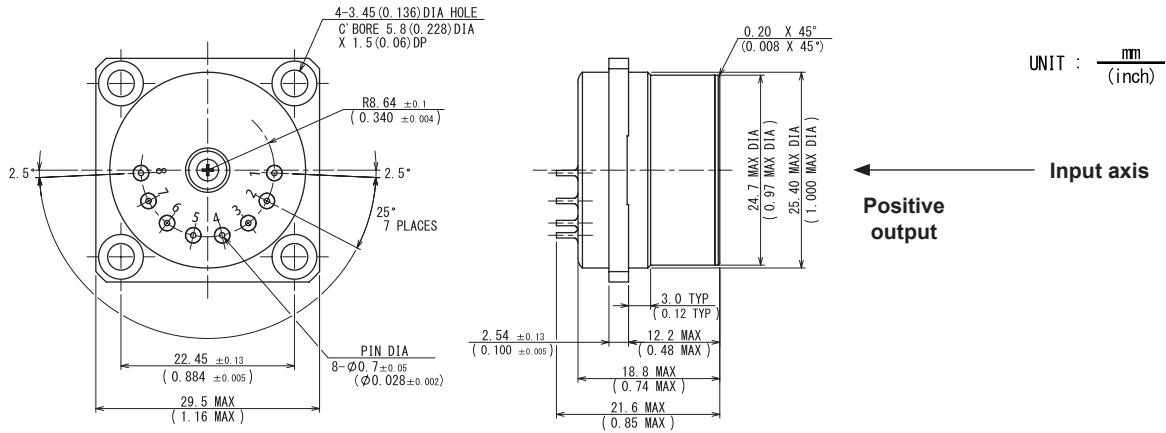
Designed for extreme downhole applications including:

- Directional Drilling
- MWD/LWD
- Wireline

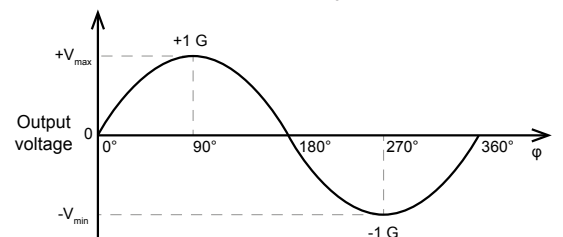
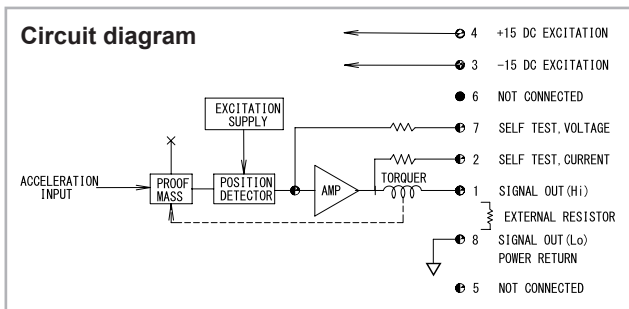
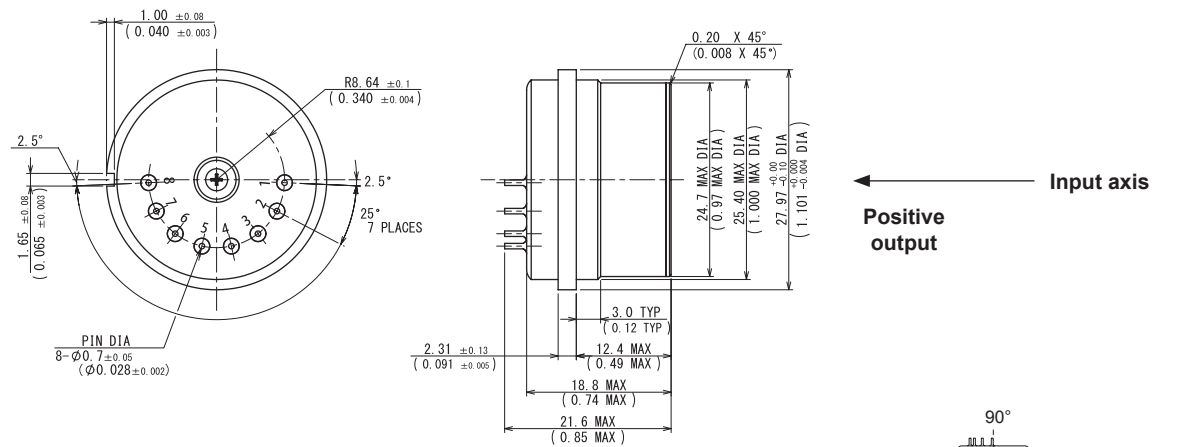
These high performance servo balanced quartz accelerometers have been specifically designed to survive the environmental challenges of downhole applications including Directional Drilling, MWD/LWD and Wireline. The proven rugged design provides reliable long term operation even at 150 °C.

Dimensional drawings

JA-5M36



JA-5M36-1

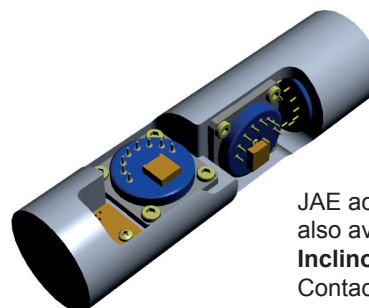


Technical data

Environmental			
Temperature (operating/non-operating)		-40 °C to +150 °C	
Vibration	Sine	30 G 0-peak, 30 Hz - 500 Hz	
	Random	20 Grms, 15 Hz - 500 Hz	
Shock (0.5 ms, half sine)	Operating	1,000 G *	
	Survival	1,500 G *	
Electrical			
Input voltage		$\pm 12.0 V_{DC}$ to $\pm 18.0 V_{DC}$	
Input current (quiescent)		4.5 mA max.	
Insulation resistance (power return to case)		50 M Ω min. @ 50 V _{DC}	
Mechanical			
Weight		50 grams max.	
Material		Stainless steel (non-magnetic)	
Performance			
Measurement range		± 4.0 G min.	
Output voltage		$\pm 10.0 V_{DC}$ min. @ $\pm 15.0 V_{DC}$ excitation	
Scale factor	Nominal (@ 25 °C)		3.00 mA/G ± 5 %
	Temperature coefficient	-40 °C to +100 °C	± 180 ppm/°C max.
		+100 °C to +150 °C	± 280 ppm/°C max.
Bias	Nominal (@ 25 °C)		± 10.0 mG max.
	Temperature coefficient		± 100 μ G/°C max.
Axis alignment	Nominal (@ 25 °C)		± 2.0 mrad max.
	Temperature coefficient		± 5 μ rad/°C max.
Noise	1 Hz to 500 Hz		4 μ A rms max.
	500 Hz to 10 kHz		14 μ A rms max.
Resolution and Threshold		± 1.0 μ G max.	
Linearity		± 0.01 % full scale max.	
Frequency response (bandwidth)		500 Hz min.	
Long term stability (1 year)	Combined Scale factor and Bias shift		1,800 μ G max.
	Axis alignment		± 400 μ rad max.

1 G = 9.80665 m/s²

* Please contact JAE for further information



JAE accelerometers are also available as custom **Inclinometer** packages. Contact us for details.

Contact information

North and South America

JAE Electronics, Inc.
1100 W. Park One Drive
Sugar Land
TX 77478
United States

T: +1 281 325 5760
E: support.aerospace@jae.com

Europe

JAE Europe, Ltd.
200 Fowler Avenue
Farnborough Business Park
Hampshire
GU14 7JP
United Kingdom

T: +44 1252 55 11 00
E: support.aerospace@jae.co.uk

Japan and Rest of World

Japan Aviation Electronics
Industry, Ltd.
1-19, Aobadai 3-chome
Meguro-ku
Tokyo 153-8539
Japan

T: +81 3 3780 2925
E: aeroinfo@jae.co.jp

More accelerometers from JAE



JA-5 series
Φ25 mm



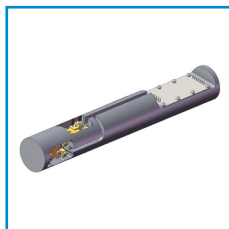
JA-25 series
Φ19 mm



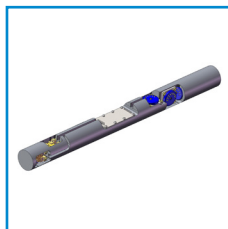
JA-35 series
Φ15 mm

For more information on
these products and other
product ranges visit
www.jae.com/aero

More downhole products from JAE



Magnetometers



Directional Modules

Document revision table

Document number	Issue	Revision date	Changes
JA-5M36_DS	01	01/03/2016	New document

JAE reserves the right to modify specifications without prior notice.