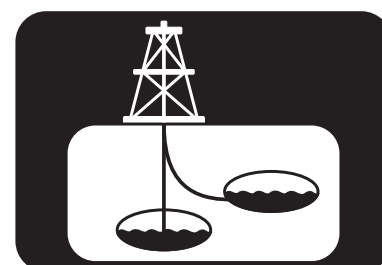


# JA-35H165 Accelerometer



## Key features

- 165 °C operating temperature
- High accuracy with long term stability
- Shock and vibration resistant
- Ultimate reliability
- Easy to integrate

The 165 °C JA-35H165 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.

## Applications

Designed for extreme downhole applications including:

- Directional Drilling
- MWD/LWD
- Wireline

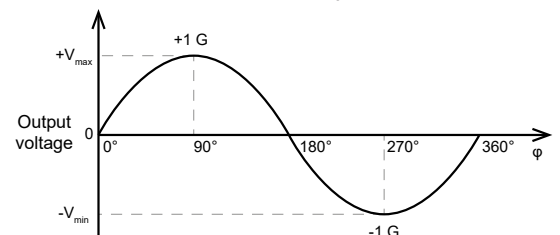
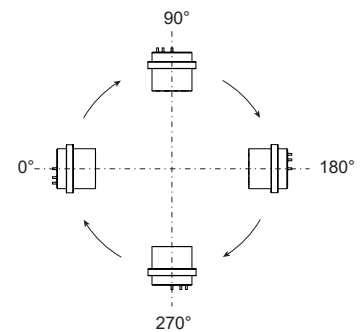
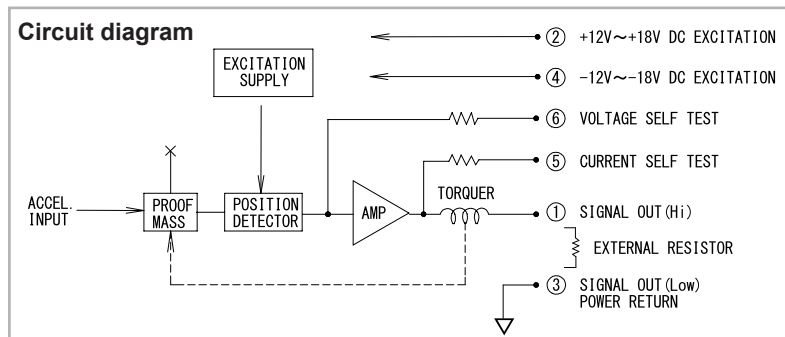
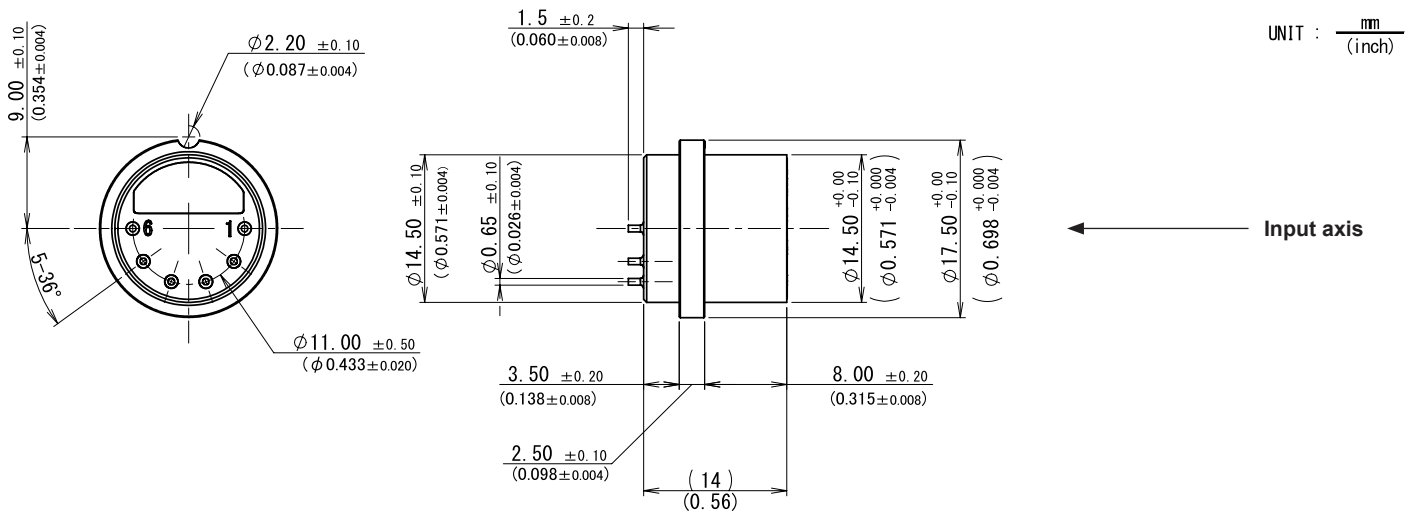
These high performance servo balanced quartz accelerometers have been specifically designed to survive the environmental challenges of downhole applications including Directional Drilling, MWD/LWD and Wireline. The proven rugged design provides reliable long term operation even at 165 °C.

*An extreme product for extreme applications.*

*To be exported in accordance with all relevant regulations.*

## Dimensional drawings

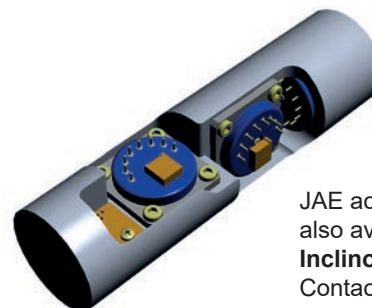
### JA-35H165



## Technical data

Environmental			
Temperature (operating/non-operating)		-40 °C to +165 °C	
Vibration	Sine	30 G 0-peak, 30 Hz - 2,000 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)		5.5 mA max.	
Insulation resistance (power return to case)		50 M $\Omega$ min. @ 50 $V_{DC}$	
Mechanical			
Weight		15 grams max.	
Material		Stainless steel (non-magnetic)	
Performance			
Measurement range		$\pm 4.0$ G min.	
Output voltage		$\pm 10.0 V_{DC}$ min. @ $\pm 15.0 V_{DC}$ excitation	
Scale factor	Nominal (@ 25 °C)		2.90 mA/G $\pm 5$ %
	Temperature coefficient	-40 °C to +100 °C	$\pm 180$ ppm/°C max.
		+100 °C to +165 °C	$\pm 300$ ppm/°C max.
Bias	Nominal (@ 25 °C)		$\pm 15.0$ mG max.
	Temperature coefficient		$\pm 100$ $\mu$ G/°C max.
Axis alignment	Nominal (@ 25 °C)		$\pm 5.0$ mrad max.
	Temperature coefficient		$\pm 5$ $\mu$ rad/°C max.
Noise	1 Hz to 500 Hz		4 $\mu$ A rms max.
	500 Hz to 10 kHz		14 $\mu$ A rms max.
Resolution and Threshold		1 $\mu$ G max.	
Linearity		$\pm 0.01$ % full scale max.	
Frequency response (bandwidth)		200 Hz min.	
Long term stability (1 year)	Scale factor		$\pm 1,500$ ppm max.
	Bias shift		$\pm 2,000$ $\mu$ G max.
	Axis alignment		$\pm 800$ $\mu$ rad max.

1 G = 9.80665 m/s<sup>2</sup>



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

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## More accelerometers from JAE



JA-5 series  
Ø25 mm



JA-25 series  
Ø19 mm



JA-35 series  
Ø15 mm

## More downhole products from JAE



Magnetometers



Directional Modules

For more information on these products and other product ranges visit  
[www.jae.com](http://www.jae.com)

## Document revision table

Document number	Issue	Revision date	Changes
VCL001-000014	01	01/07/2021	New document

JAE reserves the right to modify specifications without prior notice.