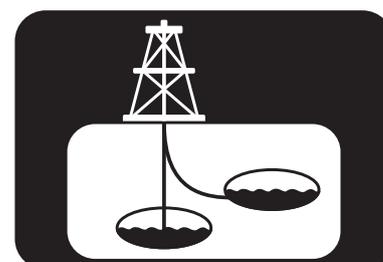


# JA-25H200 accelerometer



## Key features

- 200 °C operating temperature
- High accuracy with long term stability
- Shock and vibration resistant
- Ultimate reliability
- Easy to integrate

The 200 °C JA-25H200 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

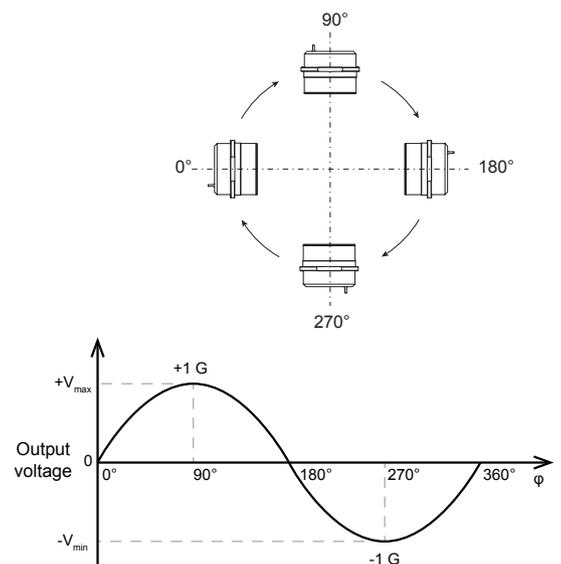
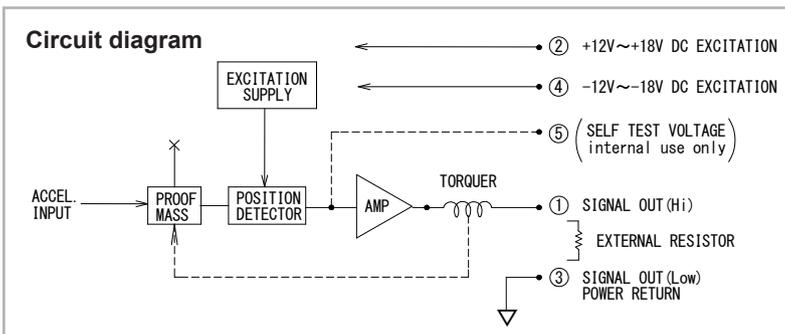
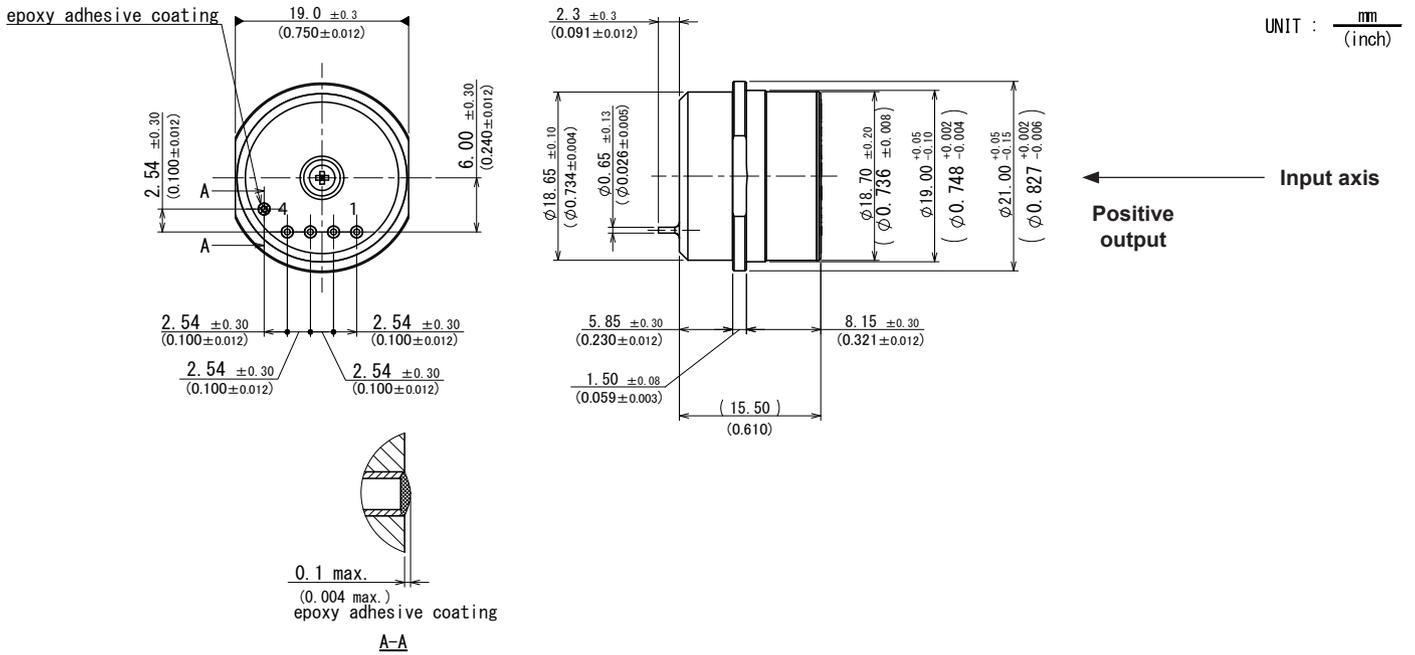
These high performance servo balanced quartz accelerometers have been specifically designed to survive the environmental challenges of downhole applications including Directional Drilling, MWD/LWD and Wireline. The proven rugged design provides reliable long term operation even at 200 °C.

*An extreme product for extreme applications.*

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

# Dimensional drawings

## JA-25H200

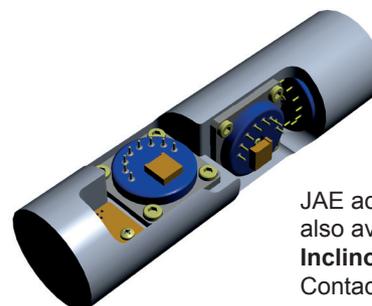


## Technical data

| Environmental                                |                                      |   |                           |
|--|--------------------------------------|---|---------------------------|
| Temperature (operating/non-operating)        |                                      | -40 °C to +200 °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)                    |                                      | 5.5 mA max.   |                           |
| Insulation resistance (power return to case) |                                      | 50 M $\Omega$ min. @ 50 $V_{DC}$                      |                           |
| Mechanical                                   |                                      |   |                           |
| Weight                                       |                                      | 20 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)                    |   | 1.30 mA/G $\pm 5$ %       |
|  | Temperature coefficient              | -40 °C to +100 °C                                     | $\pm 180$ ppm/°C max.     |
|  |                                      | +100 °C to +200 °C                                    | $\pm 1,000$ 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)                    |   | $\pm 3.0$ 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                     |                                      | $\pm 1.0$ $\mu$ G max.                                |                           |
| Linearity                                    |                                      | $\pm 0.01$ % full scale max.                          |                           |
| Frequency response (bandwidth)               |                                      | 600 Hz min.   |                           |
| Long term stability (1 year)                 | Combined Scale factor and Bias shift |   | 1,800 $\mu$ G max.        |
|  | Axis alignment                       |   | $\pm 400$ $\mu$ rad max.  |

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

\* Please contact JAE for further information



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

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## 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](http://www.jae.com/aero)

## More downhole products from JAE



Magnetometers



Directional Modules

## Document revision table

| Document number | Issue | Revision date | Changes      |
|-----------------|-------|---------------|--------------|
| JA-25H200_DS    | 01    | 01/03/2016    | New document |

JAE reserves the right to modify specifications without prior notice.