

# AA-5S25-175 NEW 175C AA-5R25-175



**CURRENT OUTPUT MEMS** 

**ACCELEROMETER** 

The AA-5S25-175 and AA-5R25-175 MEMS Accelerometers provide an easy 'drop-in' replacement of existing single axis current output Quartz-Flex Accelerometers. Operating from identical power supplies and providing a current output, makes it simple and straight-forward to increase the robustness and reliability of your Directional Modules.

As a further development from Azimuth, we have extended the range of MEMS based AA Accelerometers to 175°C operating temperature. Available in square or round flange configuration, the 'AA' Accelerometers immediately provides measurable improvement to reliability in high shock and vibration conditions.

All this, whilst maintaining excellent Survey and Continuous INC quality.



## **Highlights**

- · 'Drop-in' Quartz-Flex replacement
- · Extended range shock and vibration rating
- Square/round flange configurations
- · Increased operating temperature

#### **Features**

- · Lower power consumption
- Current output
- · Wide dynamic range
- 175°C operating temperature range
- · Excellent bias and scale stability
- · Non-magnetic

### **Applications**

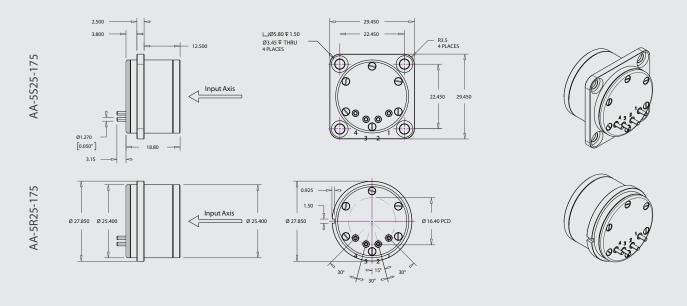
- MWD Directional Modules
- Near Bit Systems
- Rotary Steerable Systems

Quality, precision and reliability.

# Product Specification Sheet AA-5S25-175 / AA-5R25-175

| Description                          | Value          | Units | Comments                 |
|--------------------------------------|----------------|-------|--------------------------|
| Performance                          | <u>'</u>       |       | <u> </u>                 |
| Initial Bias                         | +/-5           | mG    | Typical                  |
| Bias Temperature Coefficient         | 100            | μG/°C | Typical                  |
| Initial Scale Factor Tolerance       | +/-10          | %     |                          |
| Scale Factor Temperature Coefficient | 1              | %     | Over temp range, typical |
| Electrical                           |                |       |                          |
| Input                                |                |       |                          |
| Voltage Supply                       | +/-6 to +/-18  | Volts |                          |
| Current Consumption (quiescent)      | 7.0            | mA    | @13.5V Nominal           |
| Output                               |                |       |                          |
| Scale Factor                         | 2.7            | mA/G  | Nominal                  |
| Acceleration Range                   | +/-5.0         | G     | Nominal                  |
| Frequency Response                   | 100            | Hz    | -3dB Point               |
| Mechanical                           |                |       |                          |
| Mass                                 | 40             | grams | Max.                     |
| Material                             | Titanium Alloy |       | Non-magnetic             |
| Environmental                        |                |       |                          |
| Operating Temperature - AA-5x25-175  | -40 to 175     | °C    |                          |
| Survival Temperature                 | -55 to 185     | °C    |                          |
| Vibration Random                     | 50             | Grms  | 50 – 1000Hz              |
| Shock                                | 2000           | G     | 0.5mS, Half-Sine         |

| Order No.  | Model No.   | Description                              |
|------------|-------------|--|
| A243-866-5 | AA-5R25-175 | MEMS Accelerometer, Round Flange, 175°C  |
| A833-888-8 | AA-5S25-175 | MEMS Accelerometer, Square Flange, 175°C |



#### **Contact Us**

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#### **Product Support**

Azimuth Oilfield Systems Ltd. provides a responsive repair, calibration and product support service. Experienced personnel are available to troubleshoot or repair equipment, and provide general product technical assistance. If you need effective sensor support for your business, then contact **support@azimuthmwd.com** for more information.