

Servo Accelerometers for Downhole Application

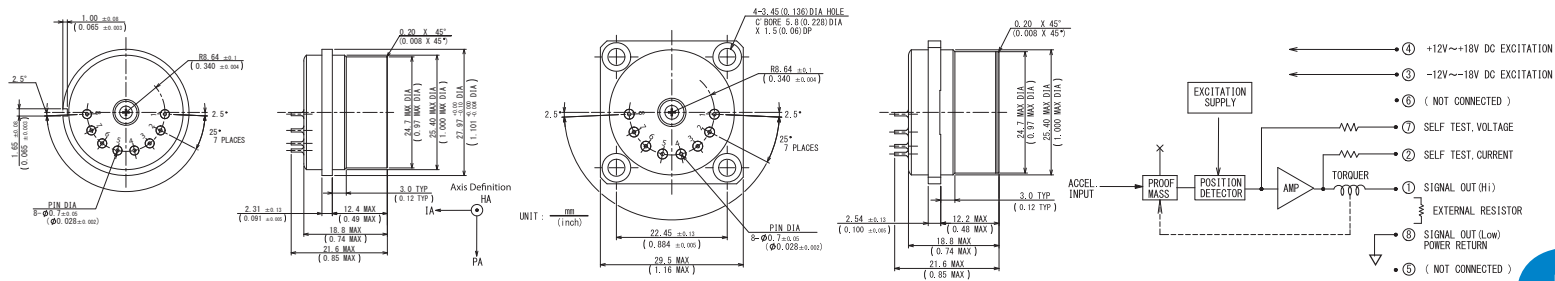


TECHNICAL DATA

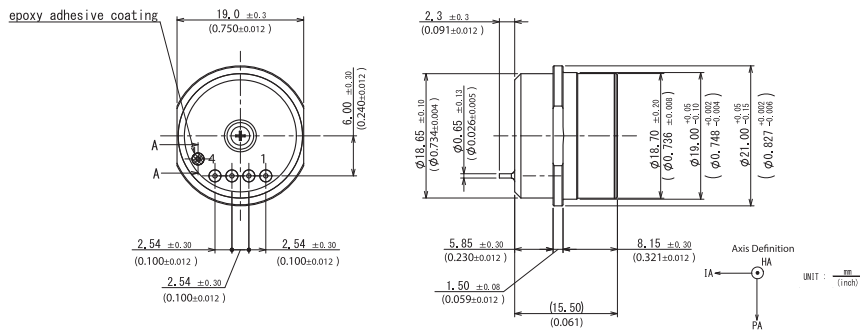
| Model Number | JA-5M36 | JA-5H175 | JA-5H200 | JA-25GA | JA-25H200A | JA-35H165 | JA-35H185 | |
|--|---------------------------------------|---|---|--------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|
| Flange Type | JA-5M36 (Square) JA-5M36-1 (Round) | JA-5H175-1 (Square) JA-5H175-2 (Round) | JA-5H200 (Square) JA-5H200-1 (Round) | (Round) | (Round) | (Round) | (Round) | |
| Environmental | | | | | | | | |
| Temp. Operating | -40 to +150°C | -40 to +175°C | -40 to +200°C | -40 to +175°C | -40 to +200°C | -40 to +165°C | -40 to +185°C | |
| Vibration, sine | 30 G 0 - peak, 30 - 500 Hz | | | | | 30 G 0 - peak, 30 - 2,000 Hz | | |
| Vibration, Random | 15 - 500 Hz, 20 Grms | | | | | | | |
| Shock Operating (0.5 msec, Half Sine) | 1,000 G (-40 to +70°C) | | | | | 1,000 G (-40 to +165°C) | 1,000 G (-40 to +185°C) | |
| | 400 G (+70 to +150°C) | 400 G (+70 to +175°C) | 400 G (+70 to +200°C) | 400 G (+70 to +175°C) | 400 G (+70 to +200°C) | | | |
| Shock Survival (0.5 msec, Half Sine) | 1,000 G (-40 to 70°C) | | | | | 1,500 G (-40 to +165°C) | 1,500 G (-40 to +185°C) | |
| | 1,500 G | | | | | | | |
| Electrical | | | | | | | | |
| Input Voltage | ±12 to ±18 V _{DC} | | | | | | | |
| Input Current (quiescent) | 5.5 mA max. | | | | | | | |
| Insulation Resistance (Power return to Case) | 50 MΩ min. @50 V _{DC} | | | | | | | |
| Mechanical | | | | | | | | |
| Dimensions | See Figure 1 (on back) | | | See Figure 2 (on back) | | See Figure 3 (on back) | | |
| Weight | 50 grams max. | | | 20 grams max. | | 15 grams max. | | |
| Performance | | | | | | | | |
| Scale Factor | Nominal (@25°C) | 3.0 mA/G ±5% | | | 1.3 mA/G ±5% | | 2.9 mA/G ±5% | |
| | Temp. Coefficient (-40 to +100°C) | ±180 ppm/°C max. | | | | | | |
| | Temp. Coefficient (High Temp) | ±280 ppm/°C max. (100 to 150°C) | ±280 ppm/°C max. (100 to 175°C) | N/A | ±300 ppm/°C max. (100 to 175°C) | ±1,000 ppm/°C max. (100 to 200°C) | ±300 ppm/°C max. (100 to 165°C) | ±300 ppm/°C max. (100 to 185°C) |
| Bias | Nominal (@25°C) | ±10 mG max. | ±15 mG max. | | | | | |
| | Temp. Coefficient | ±100 µG/°C max. | ±150 µG/°C max. | | ±100 µG/°C max. | ±150 µG/°C max. | ±100 µG/°C max. | |
| Axis Alignment | Nominal (@25°C) | ±2.0 mrad max. | ±3.0 mrad max. | | | | ±5.0 mrad max. | |
| | Temp. Coefficient | ±5 µrad/°C max. | ±7 µrad/°C max. | | ±5 µrad/°C max. | | | |
| Noise, 0 to 500 Hz | 4 µA rms max. | | | | | 1.4 mG rms max. | | |
| Noise, 500 to 10 kHz | 14 µA rms max. | | | | | 4.8mG rms max. | | |
| Measurement Range | ±4 G min. | | | | | | | |
| Resolution | 1 µG | | | | | | | |
| Linearity | ±0.01% Full Scale max. | | | | | | | |
| Frequency Response | 500 Hz min. | | | 600 Hz min. | | 200 Hz min. | | |
| Long Term Stability (1 year) | 1,800 µG max. | | | | | 2,000 µG max. | | |

Specifications may change without notice.

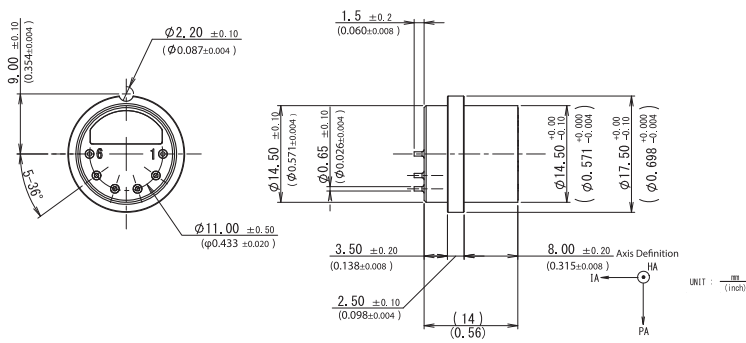
∴ 1G = 9.80665 m/s²



DIMENSIONS – FIG. 1



DIMENSIONS – FIG. 2



DIMENSIONS – FIG. 3

This product is designed and manufactured for downhole applications. (Please refer to 7A001/7A101 under Category 7 on the Commerce Control List.) Please do not use for other purposes.



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