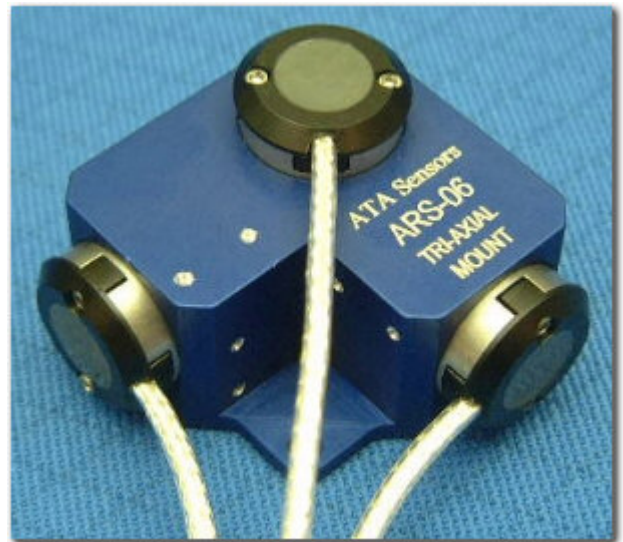


ARS-06 & 06S Triaxial MHD Angular Rate Sensor Arrays

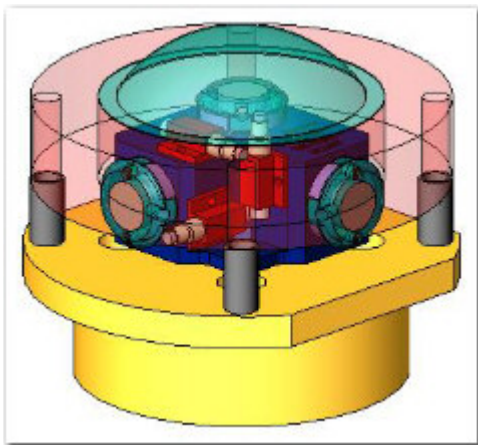
The triaxial kit includes three **ARS-06** or **ARS-06S** sensors, three CA-06 cable assemblies, and a triaxial mounting block, which becomes a 6 degree-of-freedom measurement system with 3 optional linear accelerometers added to its mounting surfaces.

The type of linear accelerometers to be mounted must be specified at time of order to ensure correct mounting holes are included in the triaxial block. If none is specified, the block will be supplied predrilled for use with the Endevco model 7264A/7265 series accelerometers.

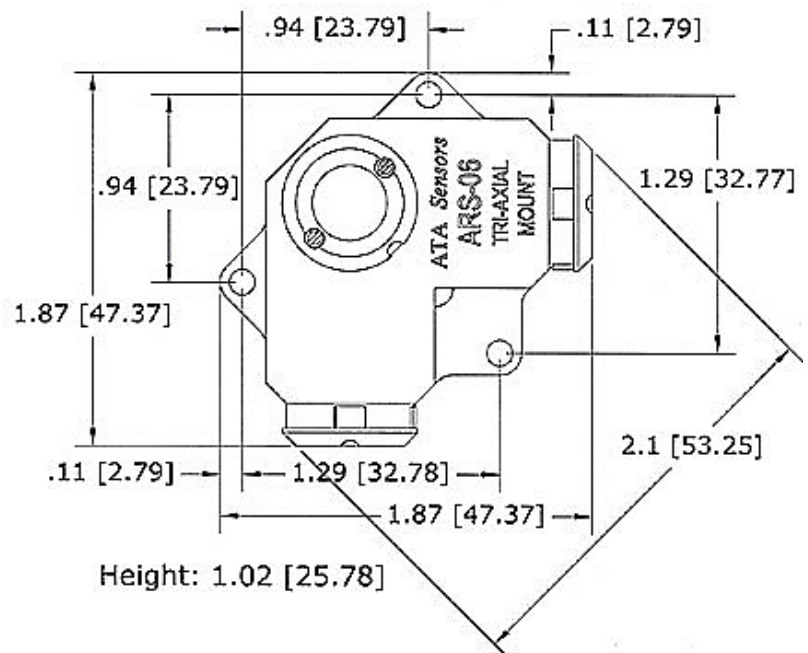
Custom scale factors and ranges are available.



ARS-06 & 06S Triaxial



3-Axis and 6-Axis Packages are 1.02 inches high and 2.1 inches on the diagonal. They're small enough to fit inside the 12 month CRABI dummy head.



Product Specifications

ARS-06 & 06S Triaxial MHD Angular Rate Sensor

Dynamic

ARS-06 Range ¹	± 200 radian/sec (± 11,500 degree/sec)
ARS-06S Range ²	± 200 radian/sec (± 11,500 degree/sec)
ARS-06 Scale Factor ³	50 mV/radian/sec (0.87 mV/degree/sec)
ARS-06S Scale Factor ³	6.5 mV/radian/sec (0.11 mV/degree/sec)
Bandwidth ⁴	0.38 to 1000 Hz
Cross-axis Angular Error	< 2 %
Linear Acceleration Sensitivity	< 0.005 radians/sec/g (<0.3 degrees/sec/g)
ARS-06 Voltage Noise PSD ⁵	$1.1 \times 10^{-10} \text{ V}^2/\text{Hz}$
ARS-06S Voltage Noise PSD ⁵	$1.5 \times 10^{-9} \text{ V}^2/\text{Hz}$
ARS-06 Noise Equivalent Angle	< 80 microradians (rms)
ARS-06S Noise Equivalent Angle	< 2.5 milliradians (rms)
Non-linearity	< 0.1 %
Temperature Coefficient ⁶	< 0.05 % Scale Factor / °C

Electrical

Power Dissipation.	< 0.3 Watts
Output Impedance.	< 100 Ohms
Grounding.	Base isolated from signal return

Wiring

ARS-06 (requires CA-06 cable assembly)

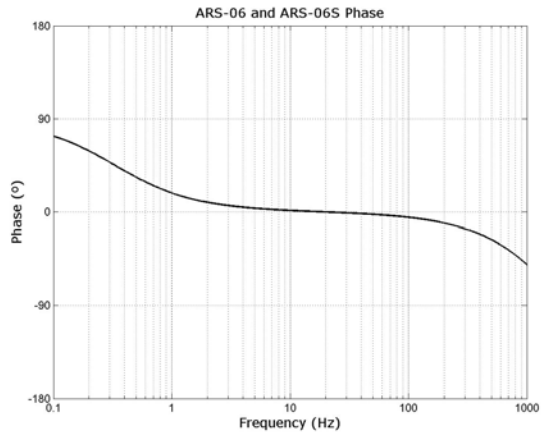
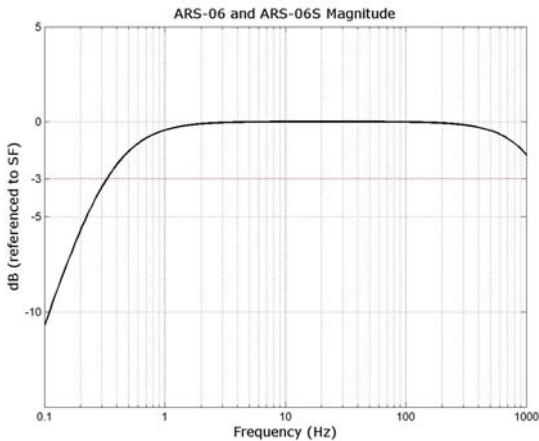
Red Lead.(Pin 1).	+Power (+5 Vdc to +15 Vdc)
Black Lead (Pin 2).	Power and Signal Common (0 Vdc)
White Lead (Pin 3)	-Power (-5 Vdc to -15 Vdc)
Yellow Lead.(Pin 5).	Signal

ARS-06S (requires CA-06 cable assembly)

Red Lead.	+Power (+5 Vdc to +20 Vdc)
Black Lead.	Power and Signal Common
White Lead.	Power and Signal Common
Yellow Lead	Signal

Environmental

Temperature – operating.	-20 °C to +50 °C (-4 to +122 °F)
Temperature - Non-operating	-20 °C to +50 °C (-4 to +122 °F)
Humidity.	Unaffected - Hermetically sealed unit
Linear Acceleration, Max. Operating ⁷	TBD g any axis
Linear Acceleration, Max. Survivable ⁷	TBD g any axis



Notes:

1. Based on a ± 10V output voltage swing.
2. Based on a ± 1.3V output voltage swing.
3. Measured @ 10 Hz.
4. The standard frequency response of MHD sensors can be extended significantly by the use of digital filtering in post processing of signal data as covered in ATA Sensors' application note AN-01.
5. Power spectral density flat to angular velocity over specified bandwidth.
6. Percent change in Scale Factor per °C @ 100 Hz.
7. Peak, 100 Hz half sine.