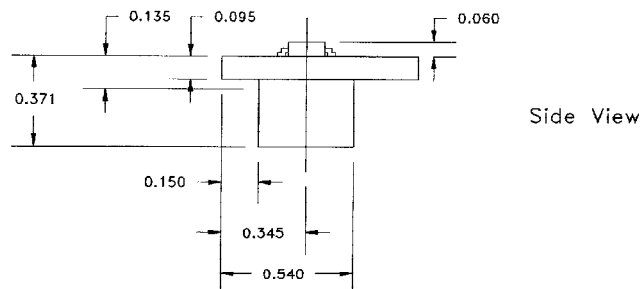
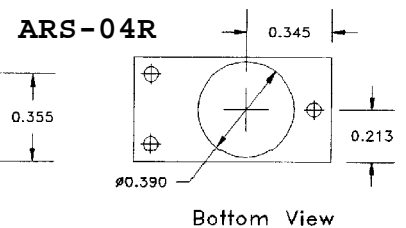
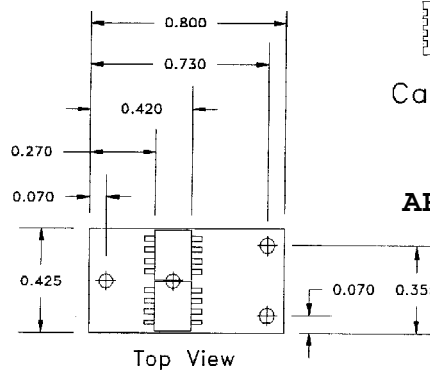
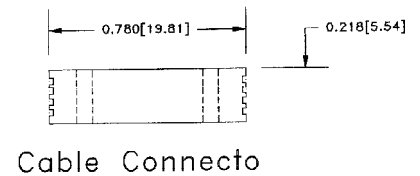
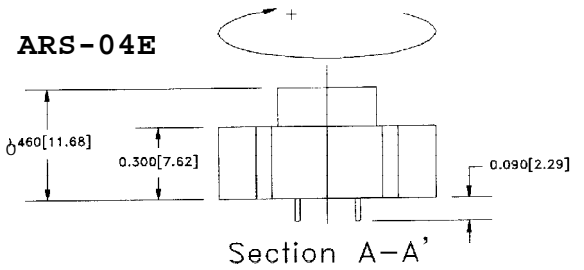
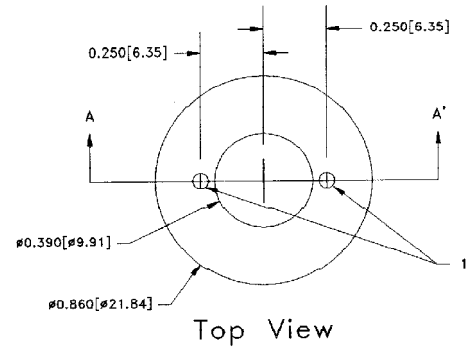


ARS-04E

ARS-04R

MHD Angular Rate Sensors

The ARS-04 is our smallest, lightest and least expensive angular rate sensor. Designed for automotive and aerospace applications, the ARS-04 has become a standard component of our Dynacube™ products. Small enough to be mounted in hand-held instruments, within the vertebrae, arms and legs of anthropomorphic test devices, or in 2.75" missile electronic sensor modules, the ARS-04 is available in two standard models. The ARS-04E has fully encapsulated electronics. The ARS-04R is supplied with an exposed electronics board for integration into higher level customer assemblies before encapsulation. With our optional ILC units, single voltage input and acceleration or amplified outputs are available.



Automobile motion or crash testing - aircraft ejection testing - modal analysis - aerospace controls - machinery monitoring - human motion analysis. No matter what your application, ATA Sensors are "sensing ways to make the world better"™.

ARS-04E / ARS-04R Angular Rate Sensor

Dynamic

ATA Sensors patented MHD angular motion sensors utilize the finest materials and workmanship combined in durable packages that feature:

- No moving parts
- Dynamic range > 100 dB
- Hermetically sealed units
- Low power consumption
- Low cross axis angular sensitivity
- Low linear acceleration sensitivity
- Integral Electronics / low noise
- High survivable shock limits
- Superior applications support
- One-year warranty against defects in materials and workmanship on sensors, 90 days on cables.

Requires interface cable CA-01A

ARS-04 Range ¹ :	± 100 Radian/sec (± 5,750 Degrees/sec)
Sensitivity ² :	100 mv/radian/sec (1.7 mv/degree/sec)
Bandwidth:	0.5 to 1000 Hz
Cross-axis Angular Error:	< 2 %
Linear Acceleration Sensitivity:	<0.005 radians/sec/g (<0.5 degrees/sec/g)
Voltage Noise PSD:	$1.1 \times 10^{-8} \text{ V}^2/\text{Hz}^3$
Noise Equivalent Angle:	< 400 Microradians (rms)
Non-linearity:	< 0.1 %
Temperature Coefficient ⁴ :	< 0.001 % Scale Factor / °C ⁵

Electrical

Excitation Voltage:	± 5.0 to ± 15.0 Vdc
Power Dissipation:	< 0.3 Watts
Output Impedence:	< 100 Ohms
Grounding:	Connector pin / cable

Mechanical

Diameter:	21.9 mm (0.86 inches)
Height:	17.3 mm (0.70 inches)
Weight:	7 gm (0.25 oz.)
Case material:	Stainless Steel 430
Mounting:	0-80 x 5/8 screw (2)

Environmental

Temperature - operating:	-35 to +60 °C (-31 to +140 °F)
Temperature - Non-operating:	-35 to +100 °C (-31 to +212 °F)
Humidity:	Unaffected - Hermetically sealed unit
Linear Acceleration ⁶ , Max. Operating:	500 g any axis
Linear Acceleration ⁶ , Max. Survivable:	800 g any axis

