

Drawing Title: ARS-09 INSTALLATION AND OPERATION MANUAL	Drawing Number: S009004	ATA Sensors A Division of A-Tech, Inc. Albuquerque, New Mexico
Model: ARS-09 and ARS-09S	CAGE Code: 6M566	

INSTALLATION AND OPERATION MANUAL
FOR
MODEL ARS-09
ANGULAR RATE SENSOR

Rev.	Description	By	Date	Approved
-	Original Release	DMcIntire	06/15/02	

APPROVALS		
	Date:	File name: S009004-
	Date:	Generated by: Microsoft Word 2000
		Total Pages: 4
		Size: A

Handling

⚠ ESD Risk: *The ARS contains sensitive electronic devices, observe proper ESD handling procedures.*

Unpacking

Unpack the ARS at a clean and static safe workstation. The handler should be properly grounded with a wrist strap.

Transporting

The ARS should only be transported in a static dissipative or conductive container. Remove the ARS from the container only at a clean and static safe workstation. Take care not to drop the ARS as sharp impacts can damage it.

Storage

The ARS should be stored in a static dissipative or conductive container.

Storage/Operating Temperature: -18°C to +50°C

Storage/Operating Humidity: 20% to 80%

Cleaning

The ARS was cleaned at the manufacturer before shipment. If necessary, the ARS can be recleaned with a lint-free cloth and 2-Propanol.

Electrical Connection

The cable from the ARS is normally pig-tailed with no connector. The leads are stranded 30 gauge. If the cable is supplied with a connector, disregard the connection instructions given below.

Lead Color	ARS-09	ARS-09S
	Connection	Connection
Red	+5 VDC to +18 VDC	+10 VDC
White	-5 VDC to -18 VDC	Power Common (0 VDC)
Black	Common (0 VDC)	Signal Common*
Yellow	Output Signal	Output Signal

*The signal common for the ARS-09S model is an internally generated reference voltage. If multiple ARS-09S sensors are used, the signal commons should not be tied together.

Health and Status

When power is applied to the ARS the signal voltage will swing between its maximum output voltages before settling out at the null. The signal voltage should settle to its null within 2-3 minutes. When the ARS is quiescent (no motion) the signal voltage should remain between +/- 100 mV. Note that very small motions are detectable by the ARS and can cause the signal voltage to change.

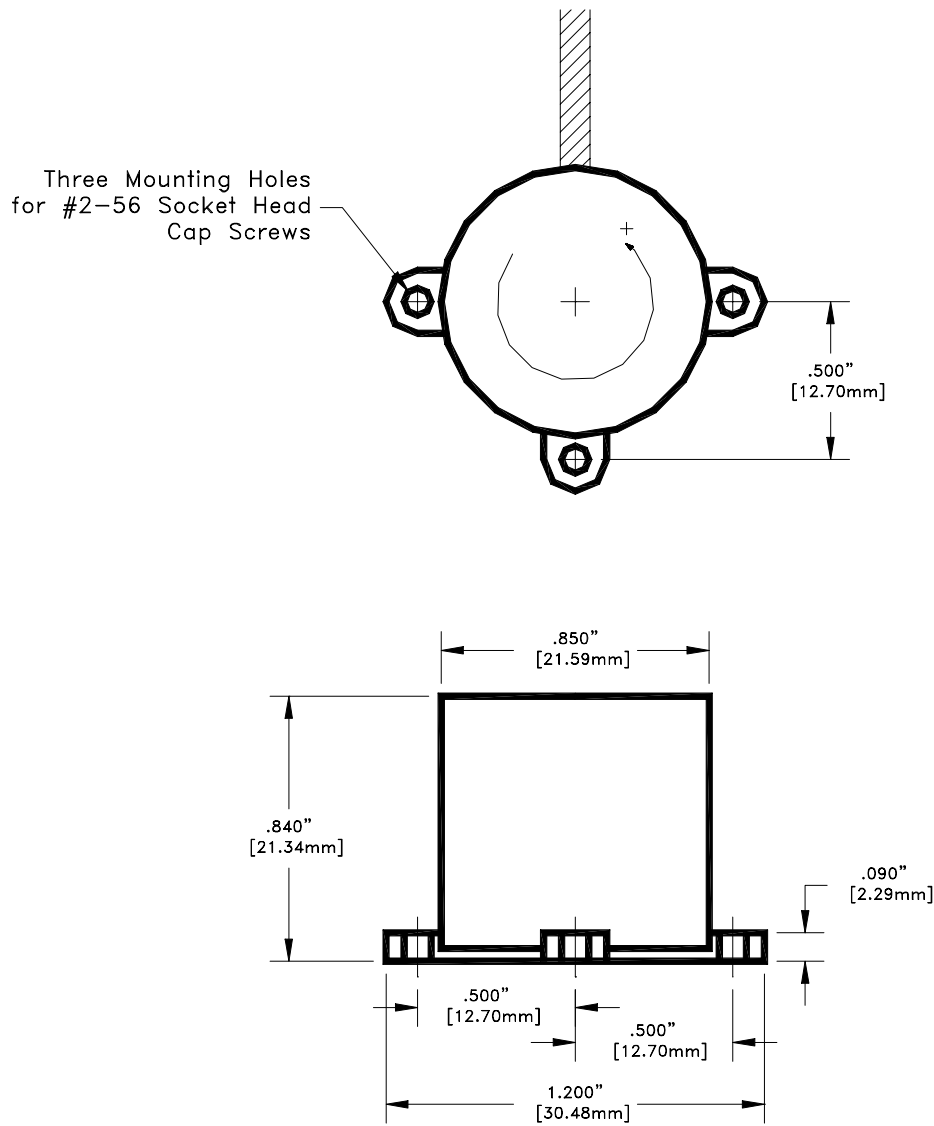
Mounting

⚠ ESD Risk: The ARS contains sensitive electronic devices, observe proper ESD handling procedures.

Individual Sensors

There are three through holes for #2 screws on the ARS mounting flanges. Use appropriate screws through these holes to mount the ARS. To avoid flexing the bottom surface of the ARS, the recommended torque on each screw is 30 in-oz.

The case of the ARS is connected to signal common. For best results, make sure that the case is electrically isolated from the mounting surface and any other surrounding surfaces.



Triaxial Kit

The triaxial kit consists of a mounting block, three ARS-09 or ARS-09S sensors, nine 2-56 x 3/16" cap head screws, and four 4-40 x 1-1/4" cap head screws.

The sensors mount to the mounting block with the 2-56 screws. The X and Y axis sensors mount to outside faces of the mounting block. The Z axis sensor mounts inside the mounting block. The three remaining faces of the mounting block each have two 4-40 threaded holes and one 10-32 threaded hole for mounting linear accelerometers if desired.

The 4-40 screws are used to mount the mounting block. The torque on the 4-40 screws should not be greater than 96 in-oz.

