

# Tachometers and Tach/Hourmeters – AT and ATH Series



## Features

- 4000 RPM –0 to 100,000 hours
- Sensing from Magnetic Sensor, Battery Charging Alternator or Ignition Signal
- High Visibility Analog Readout
- Air Core Movement
- Easy Calibration through Dip Switches
- Through Dial Lighting
- Powered by 11-28 VDC Battery Available



\* Products covered by this bulletin comply with EMC Council directive 89/336/EEC regarding electromagnetic compatibility except as noted.

The AT Series tachometers are rugged, transistorized instruments with solid-state circuitry for indication of engine RPM. They are equipped with a bracket for mounting into a standard 3- 3/8 in. (86 mm) dash mounting hole. A full 270° sweep of the pointer gives an accurate indication on a large easy-to-read scale and the dial can be illuminated for night reading. The ATH Series models are also equipped with hourmeter to record the elapsed running time of an engine.

**Models available for Alternator, Magnetic Sensor or Ignition signal** These instruments are designed to function from pulses generated by an alternator with 4, 8, 12, 14, or 16 poles on the rotor. The pulses can also be obtained from the ring gear of an engine by means of an **electromagnetic sensor** (magnetic pickup). Murphy's magnetic sensor driven models are designed to function with flywheels having anywhere from 50 to 304 teeth. **Ignition signal** model available for 4, 6 or 8 cylinder, spark-ignited engines. All models are for negative ground, positive ground or isolated electrical systems and are protected against reverse polarity hookup.

All models are powered by a 11-28 VDC battery and are reverse polarity protected.

## Series Models

### ATS Series Magnetic Sensor Signal Tach

50-304 flywheel teeth\* 11-28 VDC, 2733 Hz to 13.62 kHz @ 4000 RPM

### ATHS Series Magnetic Sensor Signal Tachometer/Hourmeter

50-304 flywheel teeth\* 11-28 VDC, 2733 Hz to 13.62 kHz @ 4000 RPM

\* To determine pulses per engine revolution, work the formulas on the back page and use the pulses per revolution number to determine if the tachometer can be used for your application.

### ATA Series Alternator Signal Tachometer

3-32 pulses\* 12 VDC, 137 to 1330 Hz @ 4000 RPM

### ATHA Series Alternator Signal Tachometer/Hourmeter

3-32 pulses\* 12 VDC, 137 to 1330 Hz @ 4000 RPM or 193 to 1815 Hz @ 4000 RPM

### ATHI Series Ignition Signal Tachometer/Hourmeter

4, 6 or 8 cylinder engines @ 4000 RPM

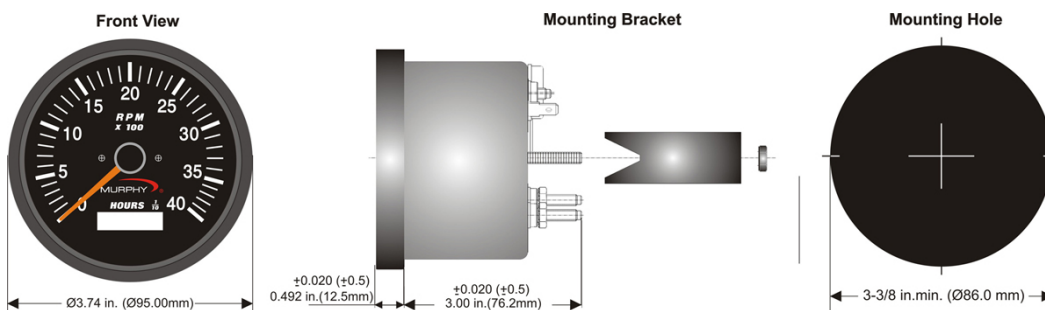
## Bezel Styles



## Applications

These tachometers are specially designed for use on truck, marine, industrial, or stationary engines.

## Dimensions



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## Specifications

### Magnetic Sensor Driven Models

**Power Input:** 11-28VDC (70mA – 120mA except lamp load)

**Backlight:** 3.4W T-10 wedge base bulb

**RPM Input Signal Voltage:** 1.5Vrms minimum

**Accuracy:** Tachometer: +2% full scale

Hourmeter: +0.01% hours, +1 count

**Temperature Range:** -40°C to +82°C (no permanent damage shall occur)

**Dial (Face Plate):** 270° sweep with white numerals (over black background)

**Bezel:** 304 stainless steel for bright and IS 513 E.E.E. CRCA steel for black

**Scale:** 0-4000RPM

**Case Material:** Plastic

**Hourmeter Range:** 99999.9 hours in 0.1 increments.

### Alternator Driven and Ignition Driven Models

**Power Input:** 11-28VDC (70mA-120mA except lamp load)

**Backlight:** 3.4W T-10 wedge base bulb

**RPM Input Signal Voltage:** V low: 0.5V max, V high: 8.0V min.

**Accuracy:** Tachometer: +2% full scale

Hourmeter: +0.01% hours, +1 count

**Temperature Range:** -40°C to +82°C (no permanent damage shall occur)

**Dial (Face Plate):** 270° sweep with white numerals (over black background)

**Bezel:** 304 stainless steel for bright and IS 513 E.E.E. CRCA steel for black

**Scale:** 0-4000RPM

**Case Material:** Plastic

**Hourmeter Range:** 99999.9 hours in 0.1 increments.

## How to Order

Order the Tachometer or Tachometer/Hourmeter by model number.

**Magnetic Sensor Tachometer 4000 RPM; 50 - 304 flywheel teeth 11-28 VDC**

Model #	Designation
<b>ATS-40</b>	Bright Stainless Steel Bezel
<b>ATS-40-A</b>	Black Stainless Steel Bezel
<b>ATS-40-B</b>	SAE Bright Stainless Steel Bezel
<b>ATS-40-C</b>	SAE Black Stainless Steel Bezel

**Magnetic Sensor Tach/Hourmeter 4000 RPM; 50-304 flywheel teeth 11-28 VDC**

Model #	Designation
<b>ATHS-40</b>	Bright Stainless Steel Bezel
<b>ATHS-40-A</b>	Black Stainless Steel Bezel
<b>ATHS-40-B</b>	SAE Bright Stainless Steel Bezel
<b>ATHS-40-C</b>	SAE Black Stainless Steel Bezel

**Alternator Signal Tachometer 4000 RPM; 3 - 32 pulses 11-28 VDC**

Model #	Designation
<b>ATA-40</b>	Bright Stainless Steel Bezel
<b>ATA-40-A</b>	Black Stainless Steel Bezel
<b>ATA-40-B</b>	SAE Bright Stainless Steel Bezel

**Alternator Signal Tach/Hourmeter 4000 RPM; 3 - 32 pulses 11-28 VDC**

Model #	Designation
<b>ATHA-40</b>	Bright Stainless Steel Bezel
<b>ATHA-40-A</b>	Black Stainless Steel Bezel
<b>ATHA-40-B</b>	SAE Bright Stainless Steel Bezel
<b>ATHA-40-C</b>	SAE Black Stainless Steel Bezel

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**Warranty** - A limited warranty on materials and workmanship is given with this FW Murphy product.  
A copy of the warranty may be viewed or printed by going to <http://www.fwmurphy.com/warranty>