

# 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 European Council electromagnetic compatibility directive 89/336/EEC, 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 (3 - 40 PPR). 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 2 - 10 cylinder, 4 cycle 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, 3333 Hz to 20.27 kHz @ 4000 RPM

### ATHS Series Magnetic Sensor Signal Tachometer/Hourmeter

50-304 flywheel teeth\* 11-28 VDC, 3333 Hz to 20.27 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

3-40 pulses\*/engine revolution 12 VDC, 200 Hz to 2667 Hz @ 4000 RPM

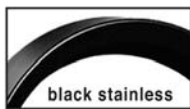
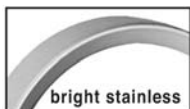
### ATHA Series Alternator Signal Tachometer/Hourmeter

3-40 pulses\*/engine revolution 12 VDC, 200 Hz to 2667 Hz @ 4000 RPM

### ATHI Series Ignition Signal Tachometer/Hourmeter

2 - 10 cylinder, 4 cycle engines, 66.7 Hz to 333.3 Hz @ 4000 RPM

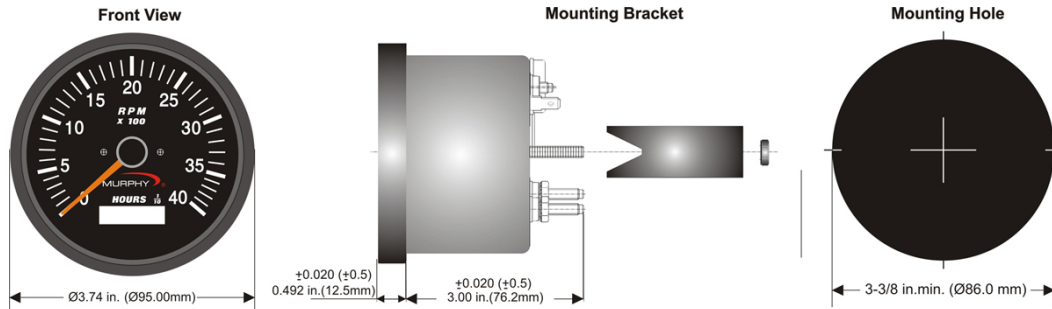
## Bezel Styles



## Applications

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

## Dimensions



## 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
ATS-40	Bright Stainless Steel Bezel
ATS-40-A	Black Stainless Steel Bezel
ATS-40-B	SAE Bright Stainless Steel Bezel
ATS-40-C	SAE Black Stainless Steel Bezel

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

ATHS-40	Bright Stainless Steel Bezel
ATHS-40-A	Black Stainless Steel Bezel
ATHS-40-B	SAE Bright Stainless Steel Bezel
ATHS-40-C	SAE Black Stainless Steel Bezel

**Alternator Signal Tachometer 4000 RPM; 3 - 40 pulses/rev 11-28 VDC**

ATA-40	Bright Stainless Steel Bezel
ATA-40-A	Black Stainless Steel Bezel
ATA-40-B	SAE Bright Stainless Steel Bezel

**Alternator Signal Tach/Hourmeter 4000 RPM; 3 - 40 pulses/rev 11-28 VDC**

ATHA-40	Bright Stainless Steel Bezel
ATHA-40-A	Black Stainless Steel Bezel
ATHA-40-B	SAE Bright Stainless Steel Bezel
ATHA-40-C	SAE Black Stainless Steel Bezel

**Ignition Signal Tach/Hourmeter 4000 RPM; 1-5 pulses/engine rev**

ATHI-40-A	Black Stainless Steel Bezel
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