

# Hourmeters



## TM Series

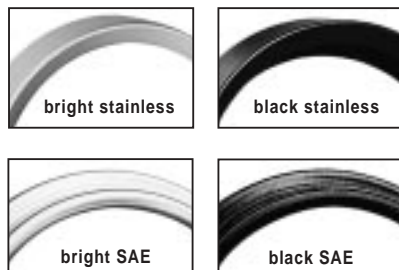
- 2 in. (51 mm) Diameter Dial
- Tamperproof and Environmentally Sealed
- Mechanical Counter—No Battery Needed to Maintain Elapsed Time
- Reversed Polarity Protected
- Quartz-Crystal Time Base for Accurate Long-Term Timekeeping
- Powered by 12 to 24 VDC

### Description

The TM Series hourmeters record the operating time of vehicles or powered equipment. They are electromechanical and have a quartz base time counter that insures accuracy (better than  $\pm 0.02\%$  over the entire range). They can record up to 99,999.9 hours (9,999.9 for TM612/624) and include an automatic recycle to zero hours feature. The TM Series models have a shock-proof and tamperproof, totally sealed case made of an engineered plastic. These small, light weight time meters are rugged and durable. They are the answer to applications requiring a low DC power, reliable hourmeter.

The TM612/624 model includes a 3-hole mounting shock ring for extreme-shock protection.

### Bezels



### Basic Models

#### 6-Digits Hourmeters

Model	Bezel Type
TM4592	Bright Stainless Steel Bezel
TM4593	Black Stainless Steel Bezel
TM4594	SAE Bright Stainless Steel Bezel
TM4595	SAE Stainless Steel Black Bezel

#### 5-Digits Hourmeter with Shock Ring Mounting

TM612/624	3-Hole Mount, Black Bezel
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### Applications

These hourmeters can be used on any engine where operating time needs to be recorded. All it requires is a DC power source (refer to Specifications, at right).

### Outstanding Features

- Solid-State Electronic Drive Circuit
- Quartz-Crystal for Accurate Timing
- Quiet Operation—Permanently Lubricated
- High-Impact, Tamperproof Plastic Case
- Sealed Against Moisture and Dirt
- Indicates Operating Time in Hours and Tenths
- No Battery Back Up Required
- Made in the U.S.A.

### Specifications

**Power Input:** 12 to 24 VDC

**Power Consumption:** Less than 0.03 W @ 12 VDC; 0.4 W @ 24 VDC.

**Accuracy:**  $\pm 0.02\%$  over entire range.

**Temperature Range:**  
 $-40^{\circ}\text{F}$  to  $185^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ ).

**Dial (Face Plate):** White numerals (over black background).

**Time Scale:**  
 TM4592-95 models: 6-digits 99,999.9 hours;  
 TM612/624 models: 5-digits 9,999.9 hours.  
 Automatic recycle to zero.

**Vibration Resistance:** Withstands 10 to 75 Hz @ 1 to 8 G's.

**Case Material:** Plastic.

**Bezel:** Stainless Steel.

**Terminations:** 1/4 in. (6 mm) male blade terminals.

**TM4592/4595 Shipping Weight:** 5 ozs. (140 g).

**Shipping Dimensions:** 3-1/8 x 3 x 3 in. (79 x 76 x 76 mm) approximately.

**TM612/624 Shipping Weight:** 8 ozs. (230 g).

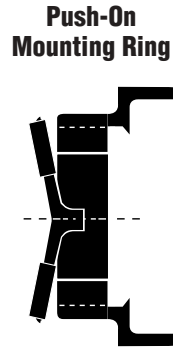
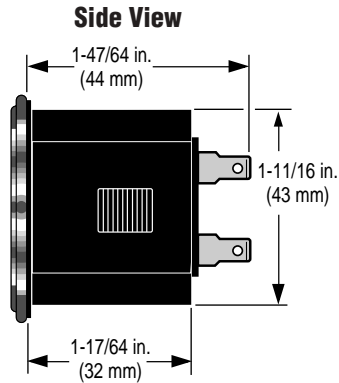
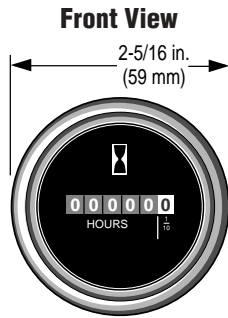
**TM612/624 Shipping Dimensions:** 5 x 5 x 3-1/4 in. (127 x 127 x 83 mm) approx.

### Warranty

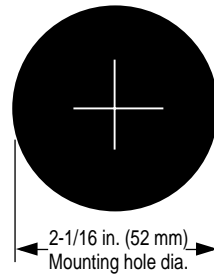
A two-year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

\* Products covered by this bulletin comply with EMC Council directive 89/336/EEC regarding electromagnetic compatibility except as noted.  
 The CE mark does not apply to the TM612 and TM624 models.

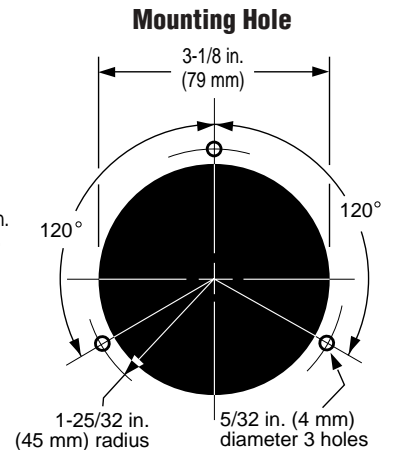
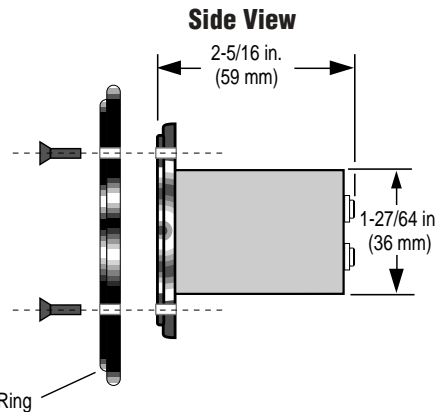
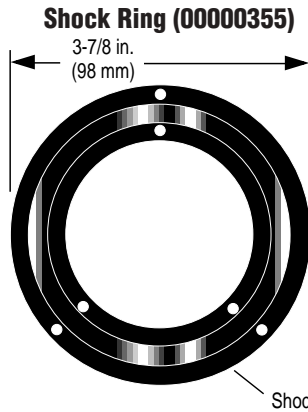
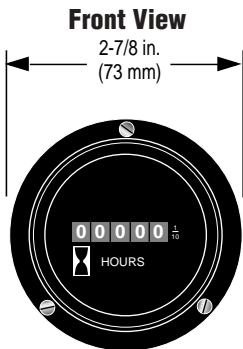
## TM4592-TM4595 Models



### Mounting Hole



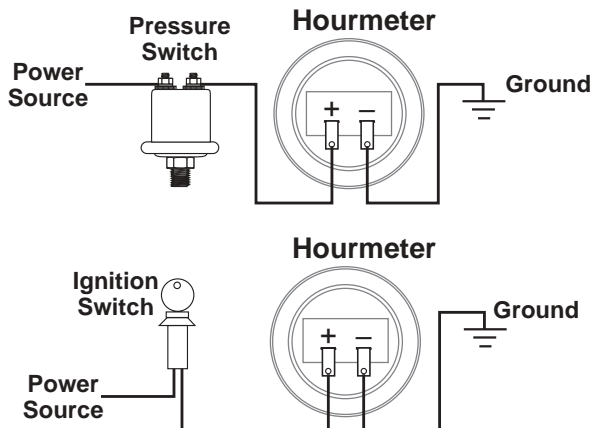
## TM612/624 Model with Shock Ring



## Typical Wiring Diagrams



**WARNING:** Turn the power source OFF before wiring.



## How to Order

Example: **TM4592**

### Model Designation

Model	Description
TM4592	6-digits w/Bright Stainless Steel Bezel
TM4593	6-digits w/Black Stainless Steel Bezel
TM4594	6-digits w/SAE Bright Stainless Steel Bezel
TM4595	6-digits w/SAE Stainless Steel Black Bezel
TM612/624	5-digits w/Shock Ring Mount Black Bezel
00000355	Shock Ring only for TM612/624



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