

Exhaust Pyrometers for Diesel Engines

Models 10705146 and 10705147

Excessive exhaust temperature is a major damaging factor to all engines. The best way to monitor this temperature is with the use of a pyrometer. Excessive exhaust temperature is caused by an upset fuel/air ratio or more fuel in the engine than there is air to support it. This condition can occur as a result of over throttling, a dirty air cleaner, different fuels, a malfunctioning fuel system, change of altitude, an out-of-tune engine and many other causes. But whatever the cause, a pyrometer indicates this condition before serious damage occurs.

The Single 10705147 and Dual 10705146 Port Pyrometers monitor exhaust temperatures in all types of engines. The Dual Port Pyrometer can monitor each bank of a V-type engine allowing you to compare readings at all times. Both pyrometers feature an easy-to-read illuminated dial with scales in both Fahrenheit and Celsius. They require no outside power (except for dial lighting). Spring-loaded jewels and alloy pivots increase durability. Murphy offers pyrometer accessories such as thermocouples and wire lead assembly suitable for stationary or mobile engines, power units, agricultural and construction equipment, as well as marine and trucking.



Features

- Large sweep scales for maximum legibility
- Internal illumination for night use
- Accuracy: 2% full scale
- Sealed housing
- Ambient temperature compensation
- Calibrated permanently at 2/3 scale
- Flush type mounting on any plane

Benefits of Using a Pyrometer

- Longer engine life
- Better fuel economy
- Less lubrication oil dilution
- Lubrication oil stays clean much longer
- Exhaust emissions drop to a minimum
- Malfunctions indicated before excessive damage occurs

Specifications

Dial Scale

Single: 300° to 1300°F (150° to 700°C)
Dual: 300° to 1200°F (150° to 649°C)*

Dial Sweep (both models): 100°

Accuracy: Full scale 2%

Illumination: Internal 12 or 24 VDC

Bezel: Polished stainless steel*

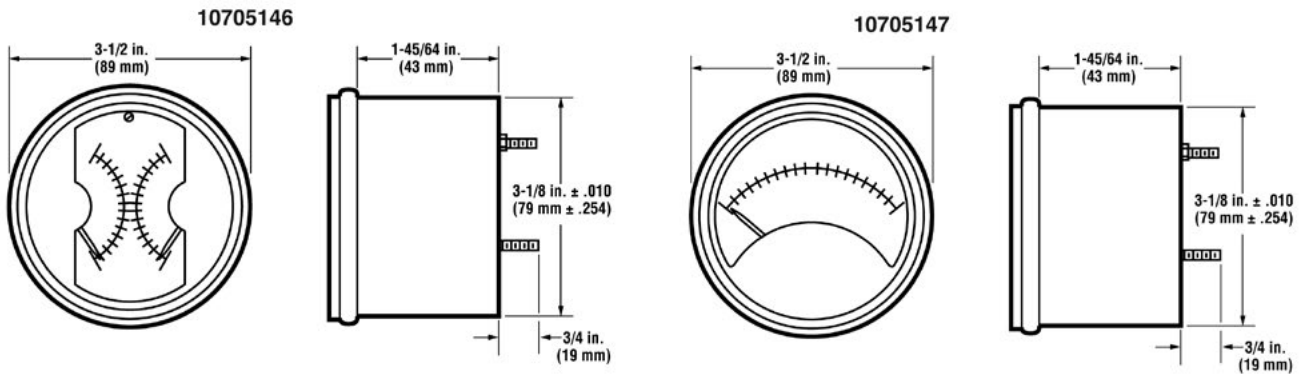
Case: PVC

Pointer(s): Fire Orange

* Celsius only dials available

* Black Bezel available. See special order.

Dimensions



Accessories

Type K thermocouples can mount in the engine manifold or in 2 to 3-1/2 in. (51 to 89 mm) diameter exhaust ports. In turbocharged engines, a thermocouple mounts between the engine and the turbo. Thermocouple 00000818 is a grounded, type K (Chromel Alumel). Thermocouple 00003488 is ungrounded type K (Chromel Alumel).

Thermocouple Specifications

Element K: type (NiCr/Ni) solid wire
 Hot Junction: fusion welded
 Protecting Tube: inconel for no carbon absorption, end closed by heliarc melt down
 Wire Insulation: Q-glass with stainless steel overbraid

Wire Lead Assembly 00000817 is a 14 ft. (4.27 m) extension with mating plug connections for the 00000818 and 00003488 thermocouples. The wire is PVC covered, non-shielded, 18 AWG (1.0 mm²), with heat shrinkable sleeve provided for insulating terminals after installation. Extension up to 100 ft. (30.48 m) can be made with 18 AWG (1.0 mm²) or larger copper wire at the gage head.



00000818
Thermocouple



00000817
Wire Lead Assembly

How to Order

| Part Number | Model and Description | Notes |
|-------------|---|-------------|
| 00000819 | 10705146 Dual Pyrometer | |
| 00000956 | 10705147 Single Pyrometer | |
| 00000817 | 14 ft. (4.27m) Wire Lead Assembly | Accessories |
| 00000818 | Thermocouple, grounded, Type K, 3/8 NPT * | |
| 00003488 | Thermocouple, ungrounded, Type K, 1/4 NPT * | |
| 00003578 | 3/8 NPT Adaptor | |
| 00003577 | 1/8 NPT Adaptor | |
| 00003450 | 1/4 NPT Adaptor | |
| 00003579 | 1/2 NPT Adaptor | |

*1/8 NPT, 1/4 NPT and 1/2 NPT adaptors available.