STM-110

DYNALCO CONTROLS

Dual Input

Temperature Monitor/Alarm

The STM-110[™] displays the temperature of one or two points sensed by thermocouples and provides a single overtemperature setpoint. Helps protect engines from costly failure.



FEATURES

- Provides a solid-state contact closure when the temperature of either setpoint exceeds an easily adjustable, single preset level.
- Monitors left bank and right bank exhaust temperatures.
- Designed to protect V-type engines in the 100 to 1000 horsepower range.
- SAE case fits 3-3/8" panel openings.
- Rugged and sealed: all solid-state, including the alarm contact closure.
- Easily adjustable setpoint. Over-temperature setting is displayed when pressing frontmounted push-button. Setpoint control located in back.
- Display contrast ratio increases with ambient light; ideal for outdoor installations,

SPECIFICATIONS

Display: 3½ digits, liquid crystal display, 0.5" high, 1° increments. Brightness increases with ambient light.



Environment Temperature: -5°F to +175°F (-20°C to +80°C). *Storage*: -40°F to +195°F (-40°C to +90°C). Less than 3°F (2°C) change in display reading with a 50°F (28°C) change in ambient temperature. Accuracy and stability of overtemperature trip point: 6°F (3°C).

Sensors: Ungrounded thermocouples. Integral cold junction compensation. Burned out thermocouple indicated by a number 1 in the thousands column with all other digits blanked. Effect of thermocouple extension wire resistance: approximately 1°F (0.05°C) per 20 feet of 20 gauge thermocouple extension wire.

Overtemperature Trip: Normally open solidstate contacts at terminals B (+) and A (–) close and latch when either thermocouple signal exceeds the common overtemperature setpoint. Power to the alarm device must be interrupted momentarily to reset. *Switch rating*: 400 volts, 0.15 amperes, maximum.

Power Requirements: 12 to 40 Vdc at terminals 6 (+) and 5 (–) and/or magnetic pickup at terminals 3 and 4.

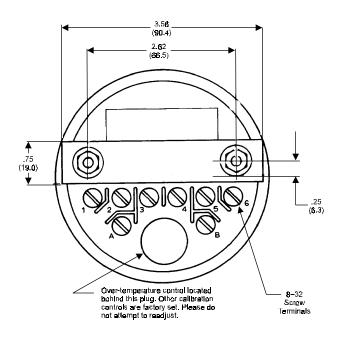
Typical current consumption of 1 mA at 12 Vdc; 3 mA at 24 Vdc; 5 mA at 32 Vdc.

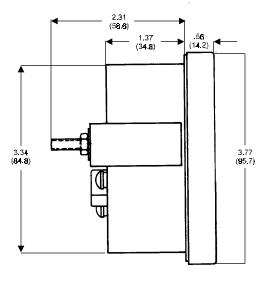
Typical 3 Vac rms required from the pickup, 2 mAac.

Weight: STM-110: 1 lb (.45 kgs) maximum. STM-110X (in Class I, Group D; Class II, Groups E, F, & G enclosure): 6 lbs (2.7 kgs) maximum.

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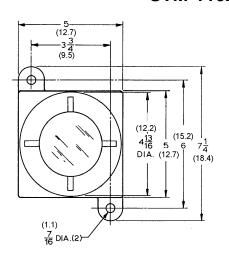
OUTLINE AND CONNECTION DRAWING

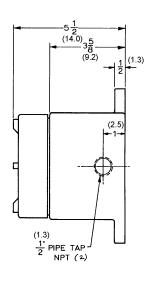


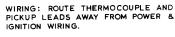


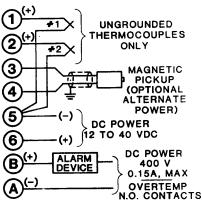
Dimensions in inches (millimeters)

STM-110X









| THERMOCOUPLE TYPE AND RANGE | | |
|-----------------------------|---------------------|-------------------|
| P/N | Sensor | Range |
| -11 | J (Iron-Constantan) | −50°F to +1400° F |
| -12 | J (Iron-Constantan) | −45°C to +760°C |
| -13 | K (Chromel-Alumel) | −50°F to +1800°F |
| -14 | K (Chromel-Alumel) | -45°C to +980°C |
| -19 | Platinum RTD | -300°F to +800°F |
| -20 | Platinum RTD | -185°C to +425°C |

HOW TO ORDER

Specify complete part number. For example: $\underline{STM-110} - \underline{11} - \underline{X}$ (A) (B) (C)

- (A) Dynalco basic number
- (B) Sensor type and range; see table
- (C) Hazardous enclosure; omit for standard

