



ISSPRO Turbo Temperature Monitor
R4130, R4130-24VDC: Diesel Version
R4131, R4131-24VDC: Gas Version

Description:

The ISSPRO Turbo Temperature Monitor (TTM) is an engine run/stop controller, which keeps the engine operating until a safe exhaust temperature for the turbocharger bearings has been reached. Temperature is sensed by using a “K” type thermocouple installed in the exhaust pipe AFTER the turbocharger.

Operation:

In the event of the exhaust temperature being above the safe limit when the ignition switch is turned off, the TTM will maintain a high voltage level at the ignition switch, effectually disallowing the engine to shut off until a safe temperature has been reached. NOTE: *Once the TTM has shut off, there will be no power drain on the electrical system.*

Optional Indicator Lamp:

The optional indicator lamp will turn on whenever the exhaust temperature is above the safe shut off limit. NOTE: *The TTM switches the lamp to ground when turned on.*

Optional Disable Switch:

The optional disable switch adds the feature of being able to disable the TTM from controlling the engine shutdown. NOTE: *The switch is normally closed.*

Max. Operating Temperature:	-40°C to +85°C
Set Point:	Diesel: 300°F (±5% @ 70°F) Gas: 600°F (±5% @ 70°F)
Operating Voltage:	R4130 / R4131: 10-16 VDC, Negative ground only R4130-24VDC / R4131-24VDC: 16-30 VDC, Negative ground only
Protection:	Reverse voltage connection: Indefinitely Positive transients: +250 V Negative transients: -400 V
Max. Current Rating:	Indicator Lamp: 0.200 Amps “IGN SW” Terminal: 15 Amps

Installation:

The TTM should be mounted inside the vehicle cab, as it is not sealed against harsh environments or water. Connect wires according to the diagram (see side 2).

NOTE: The wires for the connections to “IGN SW” and “BATT+” must be equal to or greater than the size of the wire connector to the “BATT” terminal of your ignition’s switch (#16 AWG minimum)

NOTE: If the Disable Switch is installed, then use the following chart to select the minimum current rating for your switch:

Wire Size at Battery Terminal of Ignition Switch	Minimum Ampacity
16 AWG	8 Amps
14 AWG	15 Amps

Note: A type “K” thermocouple installed for an existing pyrometer can be used for both the TTM and the pyrometer. It is connected as follows: Connect wires from the pyrometer terminals to the thermocouple inputs of the TTM (copper wire is acceptable). Polarity is important. The yellow pyrometer lead wire, terminal (+), connects to “T/C+” and the red leadwire, terminal (-), connects to “T/C-“.

Field Adjustment:

Adjustment of the set point can be performed as follows: Remove the cover and turn the adjustment trimmer counter-clockwise (CCW) to lower the set point. Operate engine and allow it to idle down to the desired shut off temperature. Slowly turn the adjustment trimmer clockwise (CW) until the engine shuts off. Restart the engine and check operation. Make small adjustments as necessary.

**Installation Diagram – ISSPRO Turbo Temp Monitor
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