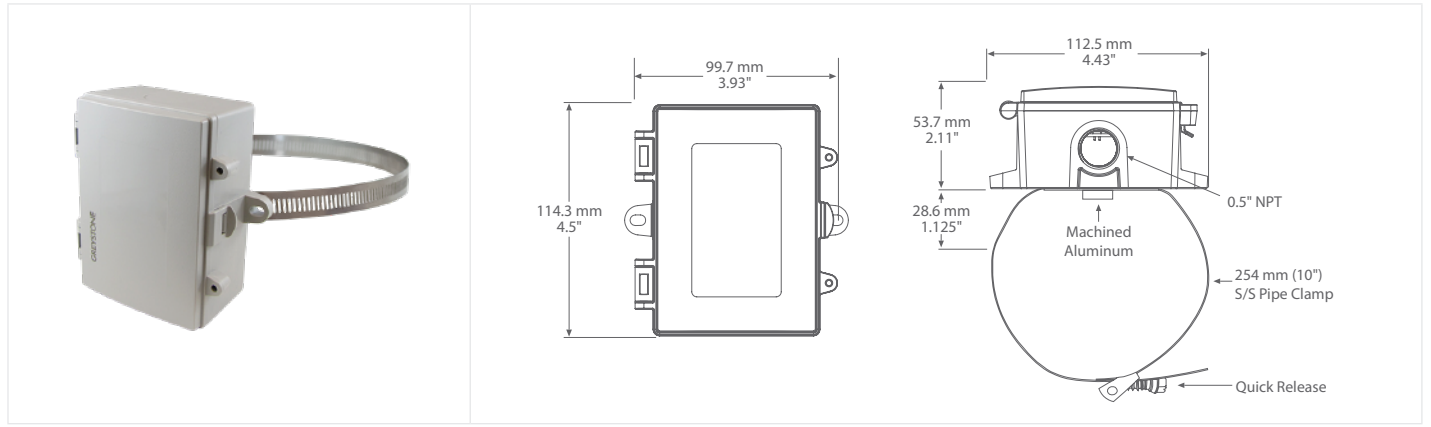




## STRAP-ON HIGH LIMIT THERMOSTAT



### THSO SERIES

### PRODUCT DESCRIPTION

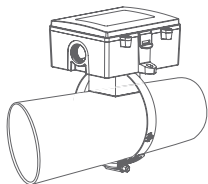
The single point strap-on high limit thermostat incorporates a precision thermistor temperature sensor and provides a Form C relay output (NO/NC) with an adjustable setpoint. The sensor is encapsulated in a 38.1 mm x 12.7 mm (1.5" x 0.5") machined aluminum heat sink. A 254 mm (10") S/S Pipe clamp is provided to secure the assembly to various sizes of pipe. All probes are constructed to provide excellent heat transfer, fast response and are potted to resist moisture penetration. A hinged and gasketed Polycarbonate enclosure is included for ease of installation.

### TYPICAL INSTALLATION

**For complete installation and wiring details, please refer to the product installation instructions.**

The strap-on temperature transmitter series can be mounted directly to various sizes of pipes and secured using a 254 mm (10") S/S pipe clamp. If necessary, remove a section of insulation from the pipe. The 254 mm (10") S/S pipe clamp is a "Quick Release" type and can be separated by moving the tightening screw so that it is perpendicular to the clamp and slide the clamp apart. Position the aluminum plate on the pipe so it makes the best contact, wrap the clamp around the pipe and re-assemble and tighten. Any excess clamp may be cut off. For best results, thermal conductive compound should be applied to pipe prior to mounting the probe.

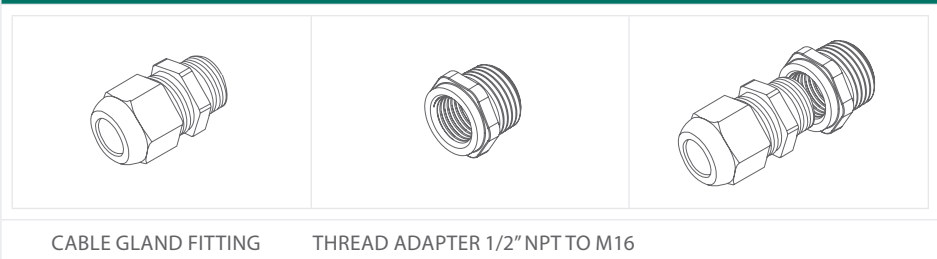
Wiring connections are made inside the enclosure.



### SPECIFICATIONS

|                          |   |
|--------------------------|---|
| POWER SUPPLY             | 12 to 28 Vac/dc   |
| SENSOR ACCURACY          | ±0.2°C, 0 to 70°C (±0.36°F, 32 to 158°F)  |
| PROBE SENSING RANGE      | -40 to 100°C (-40 to 212°F)   |
| PROBE MATERIAL           | Machined aluminum heat sink   |
| PROBE DIMENSIONS         | 38.1 mm x 12.7 mm (1.5" x 0.5")   |
| WIRE MATERIAL            | PVC insulated, parallel bonded  |
| CONSUMPTION              | 50 mA max   |
| RELAY CONTACTS           | SPDT, Form C contacts (N.O. and N.C.)<br>5 Amps @ 30 Vdc/250 Vac resistive<br>1.5 Amps @ 30 Vdc/250 vac inductive                         |
| RELAY ACTION             | Activates on temperature rise   |
| SETPOINT OPERATION       | Single-turn knob-pot on PCB   |
| ADJUSTABLE SETPOINT      | <b>Range 1:</b> 38 to 104°C (100 to 220°F)<br><b>Range 2:</b> 38 to 60°C (100 to 140°C)   |
| TEMPERATURE DIFFERENTIAL | <b>Low:</b> 1.1°C (2°F) <b>Mid:</b> 2.8°C (5°F) <b>High:</b> 5.6°C (10°F)<br>Jumper selectable  |
| TEMPERATURE SENSOR       | 10,000Ω curve matched precision thermistor  |
| OPERATING CONDITIONS     | -10 to 50°C (14 to 122°F), 5 to 95 %RH, non-condensing  |
| STORAGE CONDITIONS       | -30 to 70°C (-22 to 158°F), 5 to 95 %RH, non-condensing   |
| WIRING CONNECTIONS       | Screw terminal block (14 to 22 AWG)   |
| ENCLOSURE                | <b>B:</b> Grey polycarbonate UL94-V0, IP65 (NEMA 4X)<br><b>F:</b> Same as B with thread adapter (1/2" NPT to M16) and cable gland fitting |
| COUNTRY OF ORIGIN        | Canada  |

### ACCESSORIES - INCLUDED WITH F STYLE ENCLOSURE

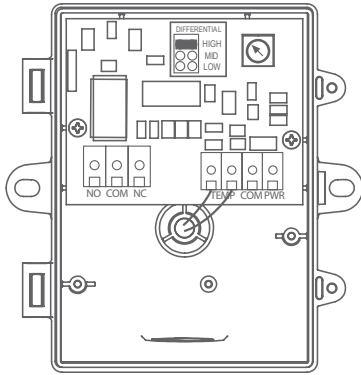


CABLE GLAND FITTING

THREAD ADAPTER 1/2" NPT TO M16



## WIRING INFORMATION



| TERMINAL | FUNCTION                               |
|----------|--|
| PWR      | Power Supply                           |
| COM      | Power Supply Common                    |
| TEMP (2) | Temperature Sensor Input               |
| NO       | Relay Output - Normally Open Contact   |
| COM      | Relay Common                           |
| NC       | Relay Output - Normally Closed Contact |

## ORDERING

| PRODUCT                   | THSO                   | Strap-on High Limit thermostat  |
|---------------------------|------------------------|---|
| ENCLOSURE                 | <b>B</b><br><b>F</b>   | Polycarbonate, with hinged and gasketed cover<br>Same as B, with thread adapter and cable gland fitting |
| SENSOR                    | <b>24X</b>             | 10,000Ω, Type 2, NTC Thermistor, ±0.2°C   |
| ADJUSTABLE SETPOINT RANGE | <b>01</b><br><b>02</b> | 38 to 104°C (100 to 220°F)<br>38 to 60°C (100 to 140°F)   |

## PART NUMBER

| THSO |
|------|
|      |
|      |
|      |

NOTE: Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.