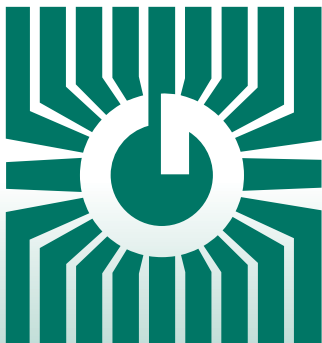
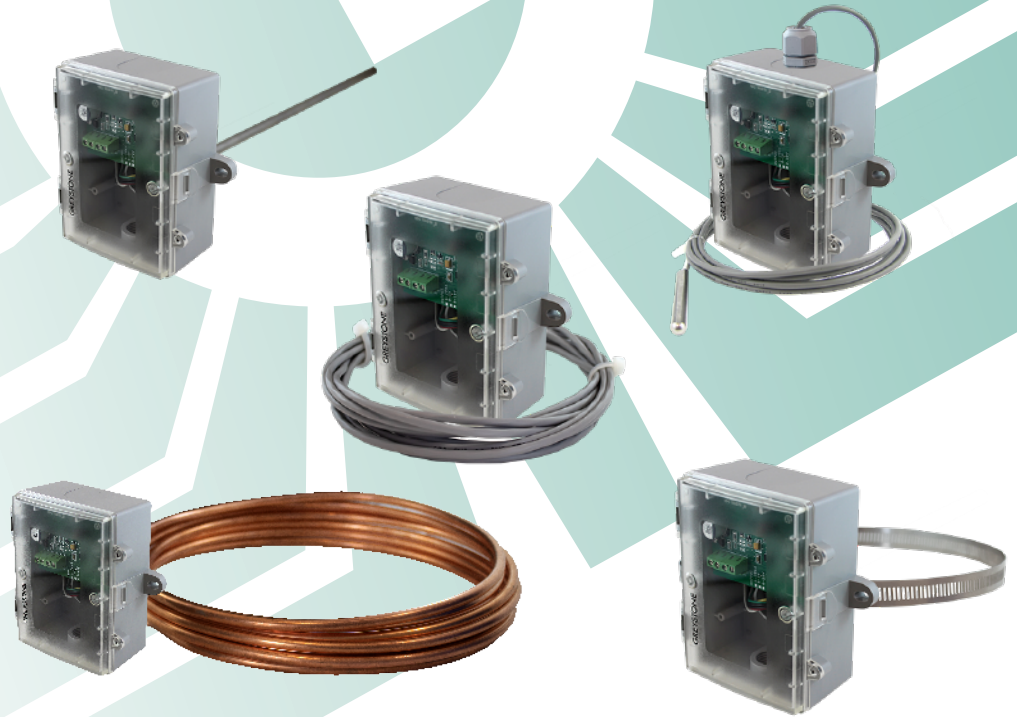


# GREYSTONE ENERGY SYSTEMS INC



## HIGH LIMIT THERMOSTAT TH Series



### Precision Temperature sensing/control

#### FEATURES:

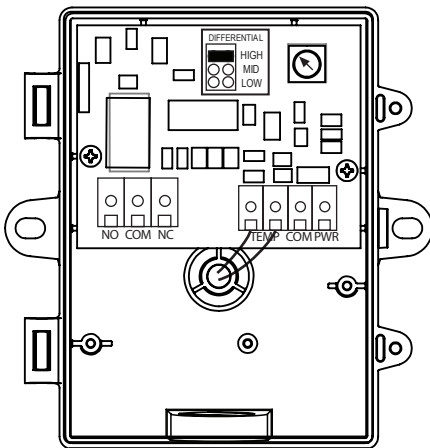
- Precision Thermistor
- Various Configurations Available
- Polycarbonate enclosure with hinged and gasketed cover
- Relay Output with Adjustable Setpoint

*Peace of mind  
through reliable  
temperature monitoring*

GREYSTONE HAS AN ISO 9001 REGISTERED QUALITY SYSTEM

## SPECIFICATIONS:

Power Supply.....	12 to 28 Vac/dc
Consumption.....	50 mA max
Relay Contacts.....	SPDT, Form C contacts (N.O. and N.C.) 5 Amps @ 30 Vdc / 250 Vac resistive 1.5 Amps @ 30 Vdc / 250 Vac inductive
Relay Action.....	Activates on temperature rise
Setpoint Operation.....	Single-turn knob-pot on pcb
Adjustable Setpoint.....	(1) 38°-104°C (100°-220°F) (2) 38°-60°C (100°-140°F)
Setpoint Temperature .....	Low/Mid/High jumper selectable Differential 1.1/2.8/5.6°C (2/5/10 °F)
Temperature Sensor.....	10K ohm curve matched precision thermistor
Sensor Accuracy.....	±0.2°C, 0 to 70°C (±0.36°F, 32 to 158°F)
Probe Sensing Range.....	<b>AP, DR, GL, RP, SO:</b> -20 to 105°C (-4 to 221°F) <b>DC, DF, FL:</b> -20 to 60 °C (-4 to 140 °F)
Probe Material .....	<b>AP, DR, FL, RP:</b> 304 Series Stainless Steel <b>DC:</b> Soft copper <b>GL:</b> Aluminum <b>SO:</b> Aluminum plate w/ compressible foam backing
Probe Dimensions.....	<b>AP, DR, FL, RP:</b> 6 mm (0.236") Diameter <b>DC:</b> 7.94 mm (0.3125") Diameter <b>GL:</b> 31.75mm L x 95.25mm W x 9.525mm H (1.25" x 0.375" x 0.375") <b>SO:</b> 38 mm (1.5") square
Wire Material.....	<b>AP, DR, GL, OS, RP, SO:</b> PVC insulated, parallel bonded <b>FL, DC, DF:</b> FT-6 Plenum-rated
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
Enclosure.....	Grey Polycarbonate with hinged and gasketed cover, UL94-V0, IP65 (NEMA 4X) F style includes thread adapter (1/2" NPT to M16) and cable gland fitting
Wiring Connections.....	Screw terminal block (14 to 22 AWG)



## WIRING:

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

# PRODUCT ORDERING INFORMATION:

MODEL	Product Description
TH	Thermostat - High Limit

CODE	Mounting Style
AP	All Purpose Duct/Immersion
DC	Duct Average, copper probe
DF	Duct Average, flexible cable
DR	Duct Average, rigid stainless steel probe
RP	Remote Probe - strap-on
SO	Strap-On - assembly clamps around pipe with aluminum plate with 254 mm (10") stainless clamp
OS	Outside Air
FL	Flying Lead
GL	Glass

CODE	Enclosure
B	Polycarbonate with hinged & gasketed cover
F	Same as B with thread adapter and cable gland fitting (Not available with OS mounting style)

CODE	Display Units
24	10,000 $\Omega$ , Type 2, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$

CODE	Probe Length	Lengths are applicable to these mounting styles
X	Not applicable	SO, OS, FL, & GL
A	50 mm (2")	AP & RP
B	100 mm (4")	AP & RP
C	150 mm (6")	AP & RP
D	200 mm (8")	AP & RP
E	300 mm (12")	AP
F	450 mm (18")	AP & DR
G	600 mm (24")	DR
H	900 mm (36")	DR
I	1800 mm (6')	DC & DF
J	3600 mm (12')	DC & DF
K	6100 mm (20')	DC & DF
L	7300 mm (24')	DC & DF

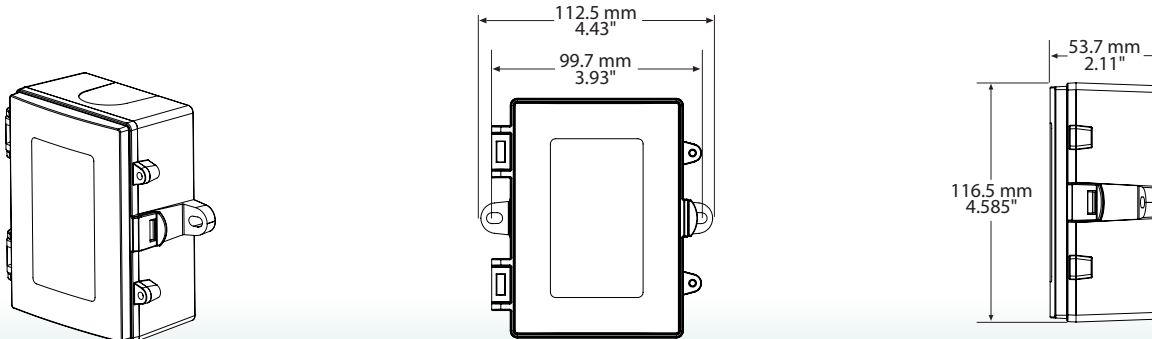
  

CODE	Adjustable Setpoint Range	Applicable to these mounting styles
01	38°-104°C (100°-220°F)	AP, DR, GL, RP, SO
02	38°-60°C (100°-140°F)	ALL

TL	AP	A	24	E	01
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## ENCLOSURE DIMENSIONS:



# TH - PROBE TEMPERATURE SENSOR CONFIGURATIONS

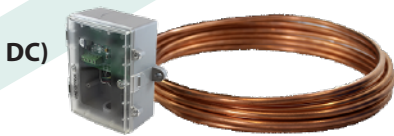
## FEATURES:

The TH Series High Limit Temperature Thermostat combines a precision thermistor and a relay output with adjustable setpoint in a wide variety of mounting configurations. The TH series can be interfaced with a computerized monitoring or control system.

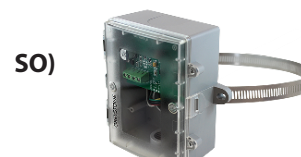
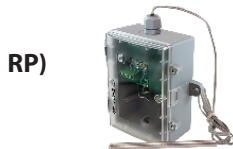
**AP) Duct Sensor** – The AP is for single point monitoring. It comes with a stainless steel probe which is available with various probe lengths.



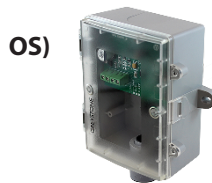
**DC, DF & DR) Duct Averaging Sensor** – All models incorporate numerous sensors along the assembly and act as a single sensor averaging the temperature across the sensors. They are available in various lengths. The DF probe is constructed of FT-6 rated plenum cable which allows for easy installation. The DC probe is constructed of bendable soft copper and the DR is a constructed of rigid stainless steel.



**RP) & SO) Strap-on Sensor** – The RP comes with stainless steel probe and is available in several lengths and 1.5 m (5') of cable for remote mounting. The SO has an aluminum plate with an expandable 10" clamp assembly to strap directly to a pipe. Various enclosures are available.



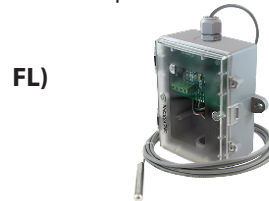
**OS (Outside Sensor)** – Comes in a weather-proof enclosure which incorporates a sun/windshield to protect the sensor.



**GL)** – The sensor is encapsulated in a 1/2" square x 2" aluminum wafer that can be affixed to any surface. It comes with 5' of zip cable.



**FL) Flying Lead** – The sensor is encapsulated in a 2" S/S probe with 6' of FT-6 rated cable and can be used in almost any application where temperature monitoring is required.



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**RoHS**  
COMPLIANT



*Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC/R sensors and transmitters for Building Automation Management Systems.*

*We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9001 certified, assuring our customers of consistent product reliability.*

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