

# HIGH LIMIT SLAB TEMPERATURE THERMOSTAT TTHSL Series

The TTHSL single point slab temperature thermostat incorporates a precision thermistor temperature sensor and provides a Form C relay output (NO/NC) with an adjustable setpoint. The TTHSL is used to measure the temperature of a concrete slab. They are available with various wire types and lengths. All probes are constructed to provide excellent heat transfer, fast response and to resist moisture penetration. Two enclosure styles are available.



## **SPECIFICATION:**

Power Supply	. 12 to 28 Vac/dc
Consumption	.50 mA max
	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	. 38 -104 °C (100 - 220°F)
Setpoint Temperature Differential	. Low/Mid/High jumper selectable 1.1/2.8/5.6 °C (2/5/10 °F)
Temperature Sensor	. 10K ohm curve matched precision thermistor
Sensor Accuracy	. ±0.2°C (±0.36°F), 0 - 70°C (32 - 158°F)
Probe Sensing Range	. <b>ZW:</b> -20 - 105°C (-4 - 221°F) <b>FT:</b> -20 - 60°C (-4 - 140°F) <b>MP/MPS:</b> -20 - 80°C (-4 - 176°F)
Wire Material	.ZW: PVC Zip wire, 22 AWG FT: Plenum rated FT-6, 22 AWG MP: EPC Moisture proof, 20AWG MPS: EPC Moisture proof, 20AWG
Probe Material	. MPS: Double walled, 304 S/S
Probe Dimension	. 12.7 mm D X 101.5 mm L(0.5" X 4")
Operating Conditions	10 - 50°C (14 - 122°F), 5 to 95% RH non-condensing
Storage Conditions	30 - 70°C (-22 - 158°F), 5 to 95%RH, non-condensing
Enclosure	. (A) ABS, UL94-5VB, IP61 (NEMA 2) (D)-ABS, UL94-5VB, IP65 (NEMA 4X)
Wiring Connections	. Screw terminal block (14 to 22 AWG)

#### **PART NUMBER SELECTED**

PRODUCT	<b>SELECTION</b>	LINEORMA	
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MOI	DEL	Product Description
TTHSL High Limit Slab Temperature Thermostat		High Limit Slab Temperature Thermostat

CODE	Enclosure
	ABS Enclosure ABS Enclosure, Hinged Cover

**Adjustable Setpoint Range** 

FT

MP

MPS

1	l 2	38 -104°C (100-220°F) 38 -60°C (100-140°F)		ZW ALL	
		CODE	Wire Type		
		zw	PVC Zip Wire - 22 AV	VG	

Plenum rated FT-6 - 22 AWG

Moisture Proof Burial - 20 AWG Moisture Proof Submersible - 20 AWG		
CODE Wire Length		
5′(1.5 m)		
10' (3 m)		
25' (7.6 m)		
50' (15.25 m)		
100′ (30.5 m)		
Custom, Please contact Greystone		

**Applicable Wire Type** 

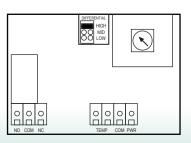
#### **WIRING:**

TerminalFunctionPWRPower SupplyCOMPower Supply CommonTEMP (2)Temperature Sensor Input

NO Relay Output - Normally Open Contact

COM Relay Common

NC Relay Output - Normally Closed Contact













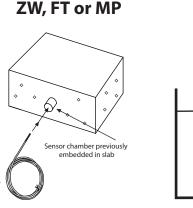
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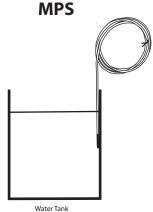
## **TYPICAL INSTALLATION:**

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

**ZW, FT & MP:** Typically a predetermined area is defined where the temperature reading is required. During concrete installation a sufficent length of conduit or copper tubing is imbedded from this point to an area that will be accessible once complete. At the entrance to the sensor chamber, unravel the TTHSL and carefully insert sensor and feed into chamber until the chamber end is reached.

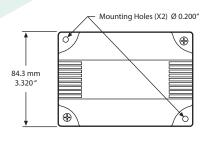
**MPS:** Unravel the sensor and lower the probe in the tank until below the liquid line or at desired depth. Secure cable to maintain depth. The probe may also be attached to the tank wall with some form of clamp at desired depth.

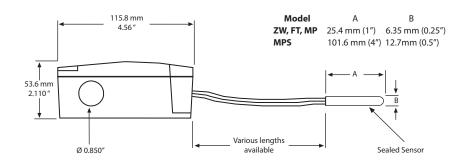




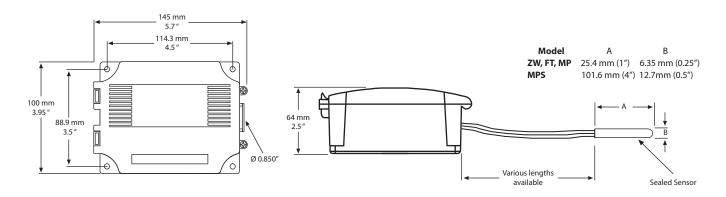
## **DIMENSIONS:**

**ABS Enclosure (A)** 





#### Hinged ABS Enclosure (D)



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



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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 leadingedge 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.