# GREYSTONE ENERGY SYSTEMS INC

RIGID DUCT AVERAGE HIGH LIMIT THERMOSTAT THDR Series

The multi point rigid duct average high limit thermostat incorporates several precision thermistor temperature sensors and provides a Form C relay output (NO/NC) with an adjustable setpoint. The sensor is encapsulated in 6 mm (0.236") OD, 304 series stainless steel probe and is available in various lengths (see ordering chart) All probes provide excellent heat transfer, fast response and resistance to moisture penetration. A Polycarbonate enclosure with a hinged and gasketed cover is provided for ease of installation.

## **SPECIFICATIONS:**

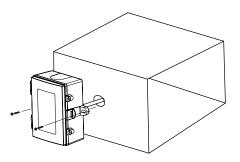
Power Supply:	12 to 28 Vac/dc
Consumption:	50 mA max
Relay Contacts:	SPDT, Form C contacts (N.O. and N.C.)
-	5 Amps @ 30 Vac/250 Vac resistive
	1.5 Amps @ 30 Vdc/250 Vac inductive
Relay Action:	Activates on temperature rise
Setpoint Operation:	
Adjustable Setpoint:	38 to 60°C (100 to 140°F)
Setpoint Temperature:	Low/Mid/High jumper selectable
	Differential 1.1, 2.8, 5.6℃ (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:	20 to 105°C (-4 to 221°F)
Probe Material:	304 Series Stainless Steel
Probe Diameter:	6 mm (0.236″)
Probe Length:	450 mm, 600 mm, 900 mm (18", 24", 36")
Wire Material:	PVC insulated, parallel bonded, 22 AWG
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:	Grey Polycarbonate UL94-V0, IP65 (NEMA 4X)
	F style includes thread adapter (1/2"NPT to M16)
	and cable gland fitting
Country of Origin:	Canada

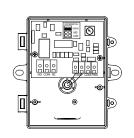
### **TYPICAL INSTALLATION:**

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

The duct type probes are installed through a hole in the side of the duct to monitor a single point temperature within the duct. Since the probes are tip sensitive, select a probe length that places the sensor well into the duct. Install the probe in a straight section of duct at a suitable distance downstream from any heating, cooling or humidification devices.

The enclosure provides mounting tabs for ease of installation.







PWR COM TEMP (2)

NO

NC

COM

#### **Function** Power Supply Power Supply Common

Temperature Sensor Input Relay Output - Normally Open Contact Relay Common

Relay Output - Normally Closed Contact



PART NUMBER SELECTED

## **PRODUCT SELECTION INFORMATION:**

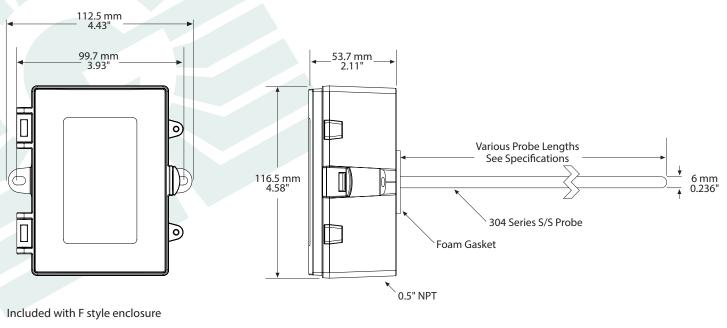
MODEL **Product Description** THDR Rigid Duct Average High Limit Thermostat CODE Enclosure Polycarbonate, with hinged & gasketed cover в Same as B, with thread adapter & cable gland E CODE **Display Units** 10,000  $\Omega$ , Type 2, NTC Thermistor, ±0.2°C 24 CODE **Probe Length** 450 mm (18") F G 600 mm (24") н 900 mm (36") CODE Adjustable Setpoint Range 38 to 60°C (100 to 140°F) 02

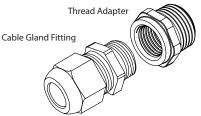
Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

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## **DIMENSIONS:**







#### ENERGY SYSTEMS INC Greystone Energy Systems, Inc.

150 English Drive, Moncton, New Brunswick, Canada E1E 4G7

(506) 853-3057 Fax: (506) 853-6014 North America: 1-800-561-5611 e-mail: mail@greystoneenergy.com www.greystoneenergy.com



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.

GREYSTONE HAS AN ISO 9001 REGISTERED QUALITY SYSTEM