



# GREYSTONE

ENERGY SYSTEMS INC

## RIGID DUCT AVERAGE TEMPERATURE TRANSMITTER TE500DR Series

The TE500DR series multi point rigid duct average temperature transmitter incorporates numerous precision platinum RTD's at equal distances and 6.35 mm (0.25") OD, 304 series stainless steel probe and is available in various lengths (see ordering chart) All probes provide excellent heat transfer, fast response and resist moisture penetration. A transmitter that provides a high accuracy signal with excellent long term stability, low hysteresis and fast response is available with various ranges. (See ordering chart).

### SPECIFICATION:

Sensor.....	100 ohm Platinum RTD or 1000 ohm Platinum RTD
Sensor Accuracy.....	±0.3°C (±0.54°F) @ 0°C (32°F)
Probe Sensing Range.....	-20 to 60°C (-4 to 140°F)
Wire Material.....	PVC insulated, parallel bonded (Type 2, 100Ω Plat. uses FT4)
Probe Material.....	304 Series Stainless Steel
Probe Dimension.....	6.35 mm (0.25") Diameter
Output Signal.....	4-20mA current loop, 0-5 vdc, or 0-10 Vdc (factory configured)
Transmitter Accuracy.....	±0.1% of span, including linearity
4-20 mA loop power Supply.....	15-35 Vdc or 22-32 Vac
Minimum Current Loop.....	2 mA nominal (occurs with shorted sensor)
Maximum loop Current.....	22.5 mA nominal (occurs with open sensor)
Maximum Loop Load.....	>600 ohms
0-5 Vdc Power Supply.....	10-35 vdc or 10-32 Vac
0-10 Vdc Power Supply.....	15-35 Vdc or 15-32 Vac
Maximum Current (Voltage).....	5 mA nominal
Maximum Output (Voltage).....	limited to <5.5 Vdc for 0-5 Vdc, <10.5 for 0-10 vdc
Input Voltage Effect.....	Negligible over specified operating range
RFI rejection.....	Good RFI rejection of normal frequencies
Protection Circuitry.....	Reverse voltage protected and output limited
Ambient Operating Range.....	-40 - 85°C (-40 - 185°F), 0-95% RH non-condensing
Enclosure.....	ABS, UL94-5VB, IP61 (NEMA 12) (E)-ABS, UL94-5VB, IP65 (NEMA 4X) (M)- Gal. Steel, IP50 (NEMA 1) (W)-Cast Aluminum IP64 (NEMA3X) *In order to maintain the published NEMA/IP ratings, properly rated conduit or cable gland adapters must be used.
Wiring Connections.....	Screw terminal block (14 to 22 AWG)



### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

MODEL	Product Description
TE500DR	Rigid Duct Average Temperature Sensor

CODE	Enclosure (ABS enclosure is standard)
-	ABS enclosure, standard (no code required, leave blank)
E	Round ABS, w/gasketed cover
M	Metal utility box
W	Aluminum weatherproof box

CODE	Sensor
2	100 Ω Platinum, IEC 751, 385 Alpha, thin film
12	1000 Ω Platinum, IEC 751, 385 Alpha, thin film (Standard)

CODE	Probe Length
K2	450 mm (18")
L2	600 mm (24")
M2	900 mm (36")

CODE	Output
1A	4-20mA
1D	0-5 Vdc
1E	0-10 Vdc

CODE	Scaled Range
1	0 - 35°C (32 - 95°F)
2	0 - 50°C (32 - 122°F)
6	-50 - 50°C (-58 - 122°F)
*	Custom range, please contact Greystone

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

## TYPICAL INSTALLATION:

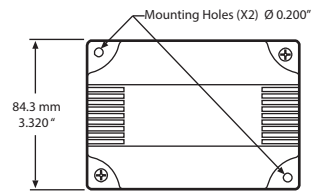
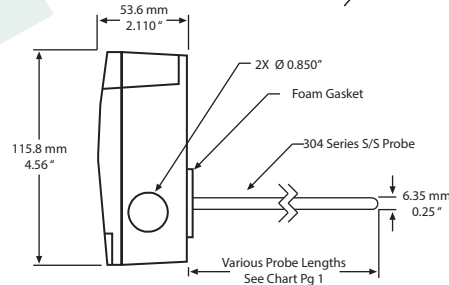
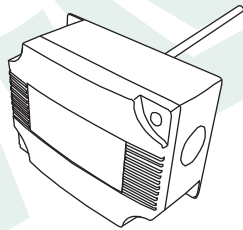
For complete installation and wiring details, please refer to the product installation instructions.

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.

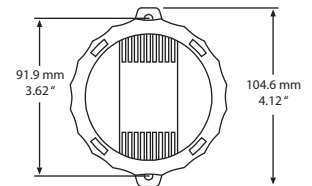
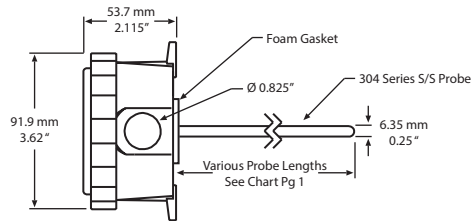
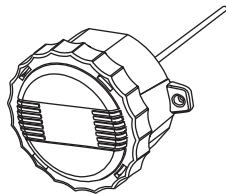
Each enclosure style provides mounting tabs or holes for ease of installation.

## DIMENSIONS:

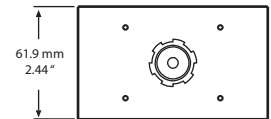
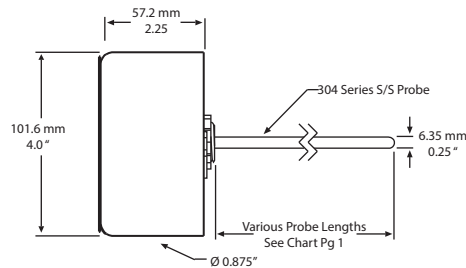
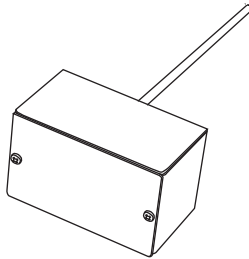
**ABS Enclosure**



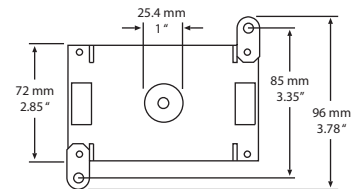
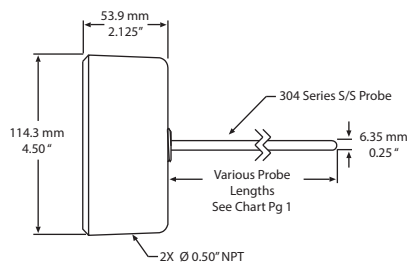
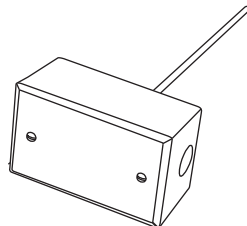
**Round ABS Enclosure**



**Metal Enclosure**



**Weatherproof Enclosure**



**GREYSTONE**  
ENERGY SYSTEMS INC

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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 transducers 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.*

GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM