



# GREYSTONE

ENERGY SYSTEMS INC

## STACK TEMPERATURE TRANSMITTER TE500H Series

The TE500H series single point rigid stack temperature transmitter utilizes a precision, high temperature rated platinum RTD sensor that is encapsulated in 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 resistance to moisture penetration. A weatherproof enclosure is provide for wire termination. A transmitter that provides a high accuracy signal with excellent long term stability, low hysteresis and fast response is provided.

### SPECIFICATION:

Sensor.....100 ohm Platinum RTD or  
1000 ohm Platinum RTD  
Wire wound, 3 Wire,  
IEC751, 385 Alpha

Sensor Accuracy..... $\pm 0.3^{\circ}\text{C}$  ( $\pm 0.54^{\circ}\text{F}$ ) @  $0^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ )

Probe Temperature Range..... $-100$  to  $600^{\circ}\text{C}$  ( $-148$  to  $1112^{\circ}\text{F}$ )

Wire Material.....22 AWG, Fiberglass jacket

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..... $\pm 0.1\%$  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

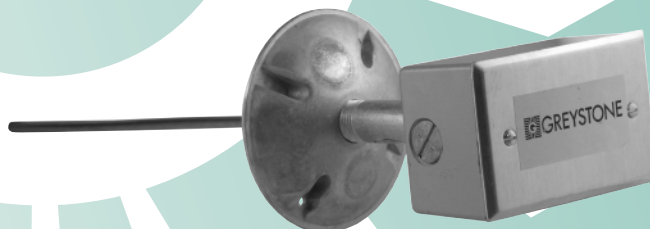
RFI rejection.....Good RFI rejection of normal  
frequencies

Protection Circuitry.....Reverse voltage protected  
and output limited

Ambient Conditions..... $0 - 70^{\circ}\text{C}$  ( $32 - 158^{\circ}\text{F}$ ), 0-95% RH  
non-condensing

Enclosure.....(W) - Cast Aluminum  
IP64 (NEMA3X)

Wiring Connections.....Screw terminal block  
(14 to 22 AWG)



### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

MODEL	Product Description
TE500H	Stack Temperature Transmitter

CODE	Sensor
4	100 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, wire wound
28	1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, wire wound

CODE	Probe Length
A2	50 mm (2")
B2	100 mm (4")
C2	150 mm (6")
D2	200 mm (8")
E2	300 mm (12")
F2	450 mm (18")

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

CODE	Transmitter Scaled Range
9H	$0 - 600^{\circ}\text{C}$
7N	$0 - 1000^{\circ}\text{F}$
*	Custom ranges available

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

### Custom Scaled Range:



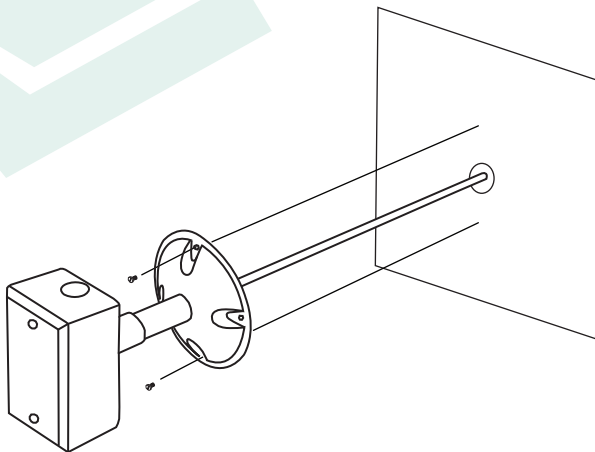
GREYSTONE ENERGY SYSTEMS, INC.

## TYPICAL INSTALLATION:

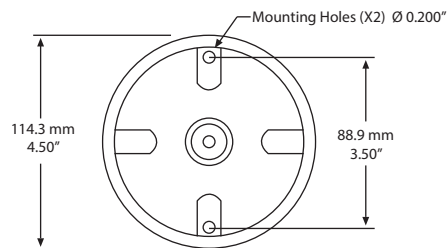
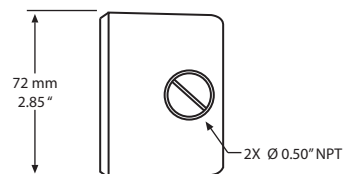
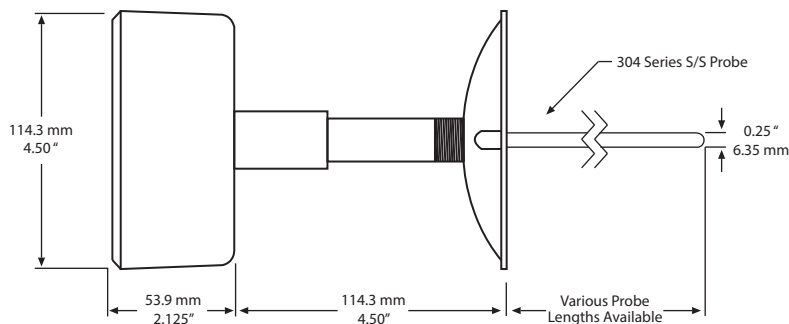
For complete installation and wiring details, please refer to the product installation instructions.

The stack type probes are installed in the side of an exhaust stack to monitor the flue gas temperatures. Select a probe length that allows the probe tip to close to the center of the stack. Install the probe through a hole in the side of the stack and mount by securing the flange directly on the side.

A weatherproof enclosure is provided for wiring connections.



## DIMENSIONS:



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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.*

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