



# GREYSTONE

## ENERGY SYSTEMS INC

The TE500ES single point strap-on temperature transmitter has a precision platinum RTD bonded to a 1.5" x 1.5" Aluminum plate and adhered to a 1" compressible foam. A 25.4 cm (10") S/S Pipe clamp is provided to secure the assembly to various sizes of pipes. All probes are constructed to provide excellent heat transfer, fast response and are potted to 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..... $\pm 0.3^{\circ}\text{C}$  ( $\pm 0.54^{\circ}\text{F}$ ) @  $0^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ )  
Probe Sensing Range..... $-20$  to  $105^{\circ}\text{C}$  ( $-4$  to  $221^{\circ}\text{F}$ )  
Wire Material.....PVC insulated, parallel bonded  
(Type 2, 100 $\Omega$  Plat. uses FT4)  
Probe Material.....Aluminum plate  
w/ compressible foam backing  
Probe Dimension.....38.1 mm (1.5") Square  
Pipe-strap.....25.4 cm (10") Stainless steel  
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 Operating Range..... $-40$  -  $85^{\circ}\text{C}$  ( $-40$  -  $185^{\circ}\text{F}$ ), 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)  
\*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)

### TYPICAL INSTALLATION:

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

The TE500ES series can be mounted directly to various sizes of pipes and secured using a 10" S/S pipe clamp. If necessary, remove a section of insulation from the pipe. The 10" S/S pipe clamp is a "Quick Release" type and can be separated by moving the tightening screw so that it is perpendicular to the clamp and slide the clamp apart. Position the aluminum plate on the pipe so it makes the best contact, wrap the clamp around the pipe and re-assemble and tighten. Any excess clamp may be cut off.

**For best results, thermal conductive compound should be applied to pipe prior to mounting the probe.**

Wiring connections are made inside the enclosure.

## STRAP-ON TEMPERATURE TRANSMITTER TE500ES Series



### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

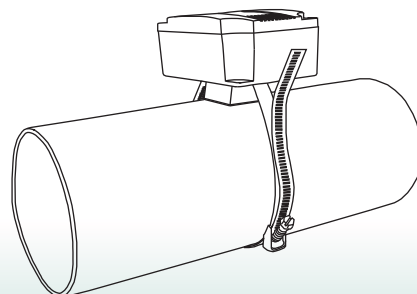
MODEL	Product Description
TE500ES	Strap-on Temperature Transmitter

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

CODE	Sensor
2	100 $\Omega$ Plat. IEC 751, 385 Alpha, thin film
12	1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film (Standard)

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

CODE	Scaled Range
1	$0-35^{\circ}\text{C}$ ( $32-95^{\circ}\text{F}$ )
2	$0-50^{\circ}\text{C}$ ( $32-122^{\circ}\text{F}$ )
3	$0-100^{\circ}\text{C}$ ( $32-212^{\circ}\text{F}$ )
*	Custom ranges available

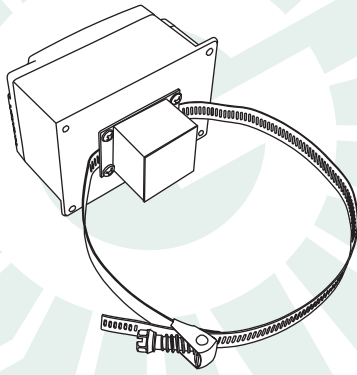


GREYSTONE ENERGY SYSTEMS, INC.

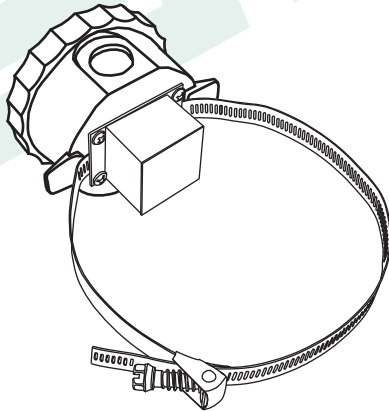
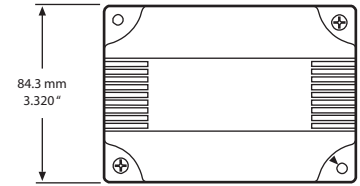
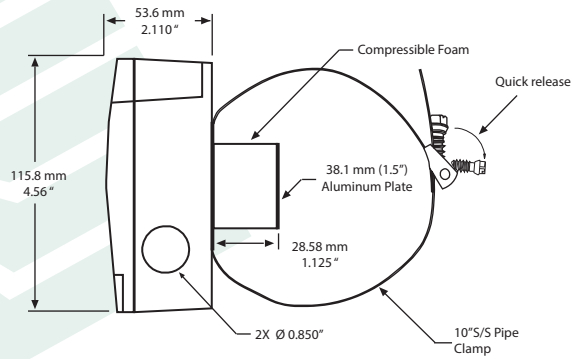
**RoHS**  
COMPLIANT



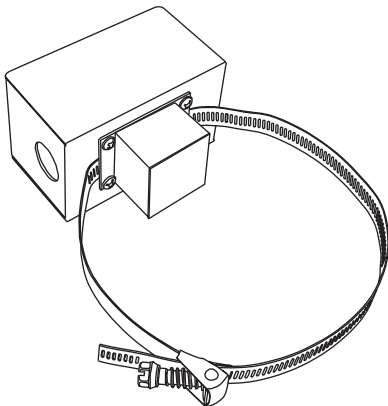
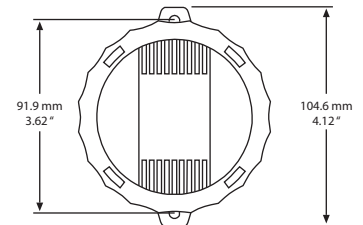
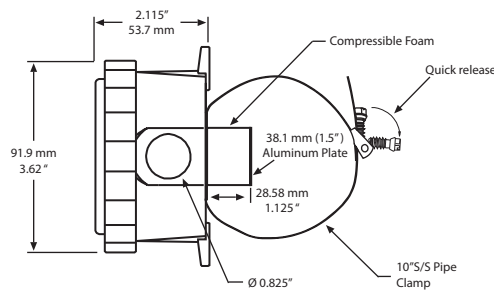
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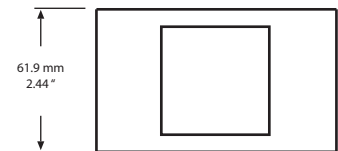
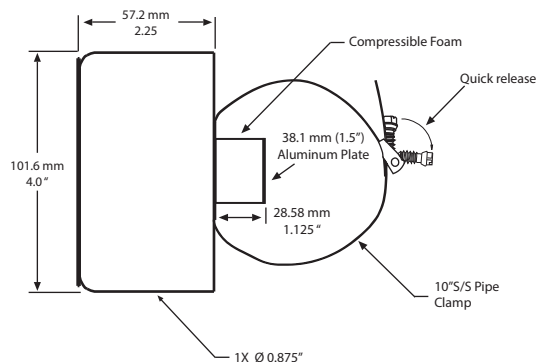
**ABS Enclosure**



**Round ABS Enclosure (E)**



**Metal Enclosure (M)**



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



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**RoHS**  
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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 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