



GREYSTONE

ENERGY SYSTEMS INC

IMMERSION TEMPERATURE TRANSMITTER TE500C Series



The TE500C single point immersion temperature transmitter incorporates a precision platinum RTD encapsulated in a 6.35 mm (0.25") OD, 304 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	$\pm 0.3^{\circ}\text{C}$ ($\pm 0.54^{\circ}\text{F}$) @ 0°C (32°F)
Probe sensing Range	-20 to 105°C (-4 to 221°F)
Wire Material	PVC insulated, parallel bonded (Type 2, 100 Ω Plat. uses FT4)
Probe Material	304 Series Stainless Steel
Probe Dimension	6.35 mm (0.25") Diameter
Fitting Size	1/2" NPT
Fitting Material	A - Brass, E - Nylon
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°C (-40 - 185°F), 0-95% RH non-condensing
Enclosure	ABS, UL94-5VB, IP61 (NEMA 2) (E)-ABS, UL94-5VB, IP65 (NEMA 4X) (M)-Gal. Steel, IP50 (NEMA 1) (W)-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
TE500C	Immersion 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
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
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	Fitting
A	Brass, Spring loaded 1/2" NPT
E	Nylon, Non-spring loaded 1/2" NPT

CODE	Output
1A	4-20 mA
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)
3	0° - 100°C (32° - 212°F)
4	50° - 150°C (122° - 302°F)
5	50° - 250°C (122° - 482°F)
*	Custom range, please contact Greystone

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

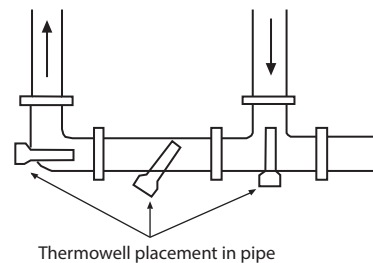
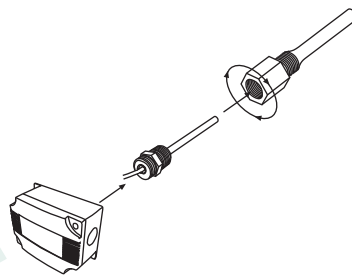
Custom Scaled Range:

TYPICAL INSTALLATION:

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

NOTE: All immersion sensors require a thermowell (sold separately)

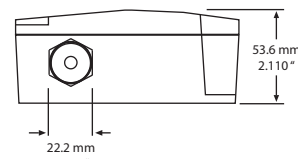
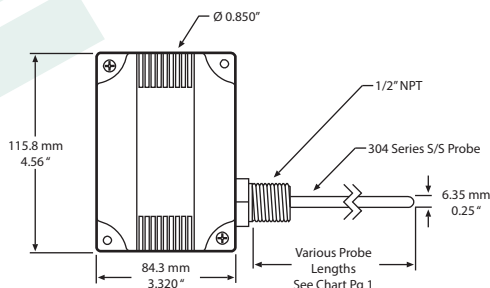
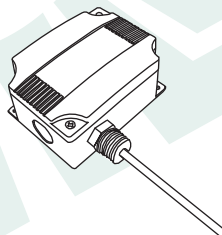
The immersion type probes are installed in the appropriate length thermowell for the pipe size. Thermal conductive compound should be added inside the thermowell to provide optimum thermal transfer.



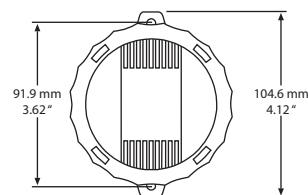
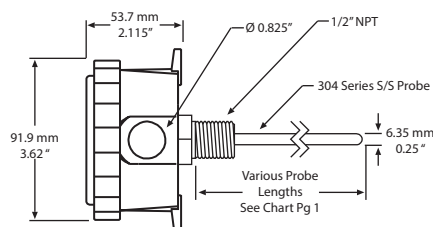
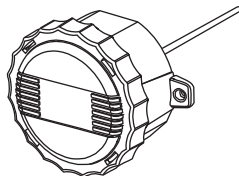
Thermowell placement in pipe

DIMENSIONS:

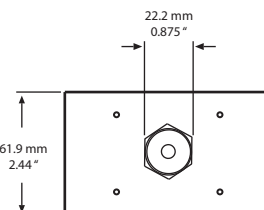
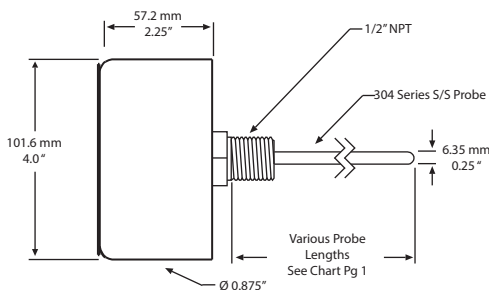
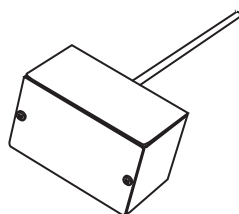
ABS Enclosure



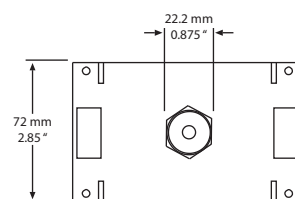
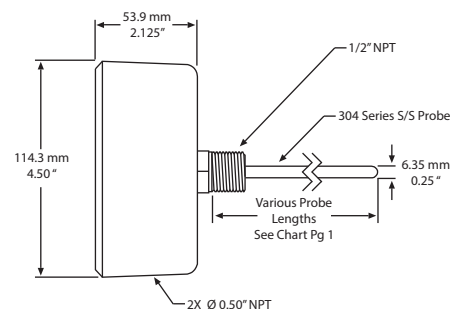
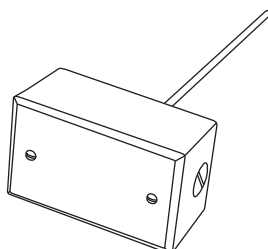
Round ABS Enclosure



Metal Enclosure



Weatherproof Enclosure



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



GREYSTONE
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

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