The TE500CR is single point immersion temperature transmitter with remote probe for chilled water applications. It 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 Platuinum 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...................................FT-6 Rated Plenum Cable 22 AWG
Wire Length ....1.524 m (5')
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 ....±0.1% of span, including linearity
4-20 mA loop power Supply .....15-30 Vdc or 22-28 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 ....10-30 Vdc or 10-28 Vac
0-10 Vdc Power Supply................15-30 Vdc or 15-28 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.........-20 - 60˚C (-4 - 140˚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)
Wiring Connections.......................Screw terminal block (14 to 22 AWG)

PART NUMBER SELECTED

PRODUCT SELECTION INFORMATION:

MODEL	Product Description
TE500CR	Immersion Temperature Transmitter w/Remote Probe

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)
*	Custom range, please contact Greystone

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

Custom Scaled Range:

RoHS COMPLIANT

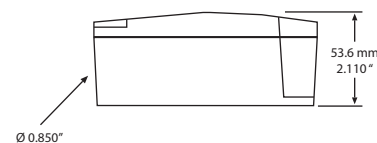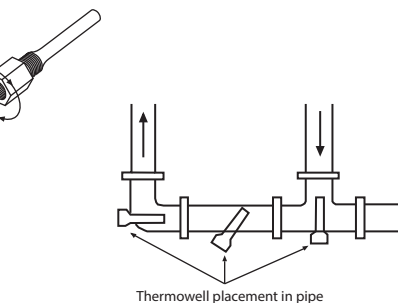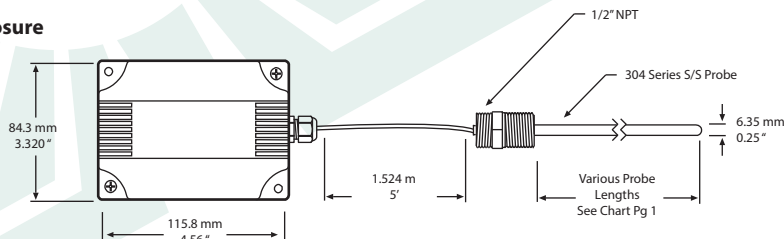ISO9001 CE

TYPICAL INSTALLATION:

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

NOTE: All immersion sensors require a thermowell (sold separately)
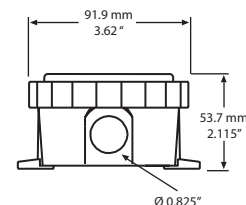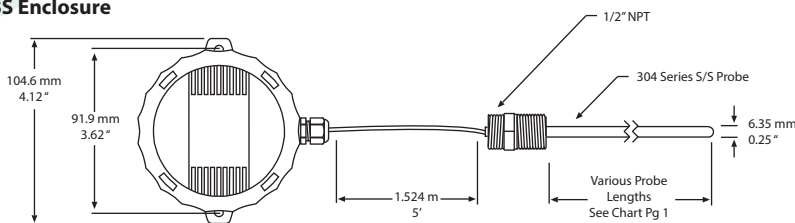
The immersion type probes are installed in the appropriate length thermowell for the pipe size. Thermal conductive compound should be added inside the thermowell to provide optimum thermal transfer.
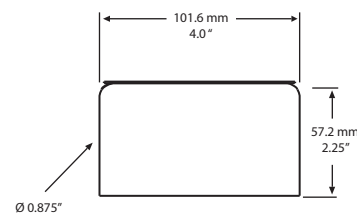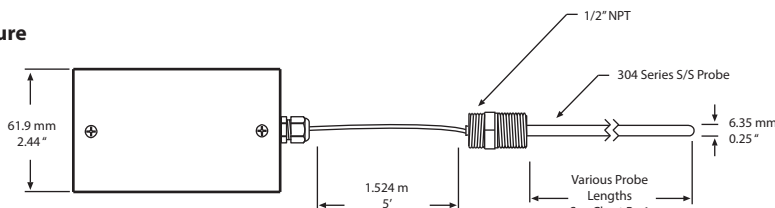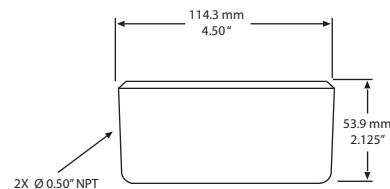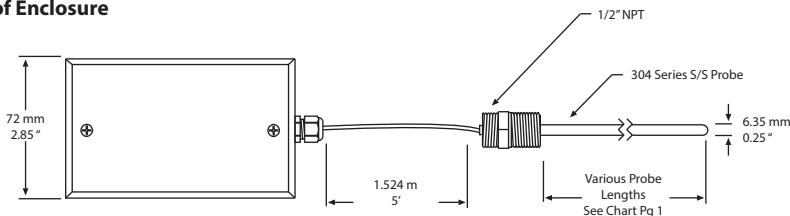
Thermowell placement in pipe

DIMENSIONS:

ABS Enclosure

84.3 mm
3.320"

115.8 mm
4.56"

1/2" NPT

304 Series S/S Probe

6.35 mm
0.25"

1.524 m
5'

Various Probe Lengths
See Chart Pg 1

Ø 0.850"

53.6 mm
2.110"

Round ABS Enclosure

104.6 mm
4.12"

91.9 mm
3.62"

1/2" NPT

304 Series S/S Probe

6.35 mm
0.25"

1.524 m
5'

Various Probe Lengths
See Chart Pg 1

91.9 mm
3.62"

53.7 mm
2.115"

Ø 0.825"

Metal Enclosure

61.9 mm
2.44"

1/2" NPT

304 Series S/S Probe

6.35 mm
0.25"

1.524 m
5'

Various Probe Lengths
See Chart Pg 1

Ø 0.875"

101.6 mm
4.0"

57.2 mm
2.25"

Weatherproof Enclosure

72 mm
2.85"

1/2" NPT

304 Series S/S Probe

6.35 mm
0.25"

1.524 m
5'

Various Probe Lengths
See Chart Pg 1

2X Ø 0.50" NPT

114.3 mm
4.50"

53.9 mm
2.125"

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GREYSTONE
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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