



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 | ±0.3°C (±0.54°F) @ 0°C (32°F) |
| Probe sensing Range | -20 to 105°C (-4 to 221°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 |
| 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 | 15-35 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.

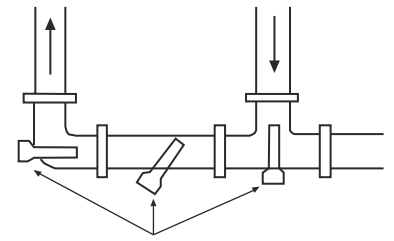
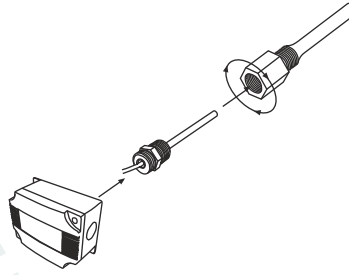
Custom Scaled Range:

TYPICAL INSTALLATION:

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

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

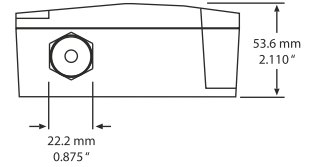
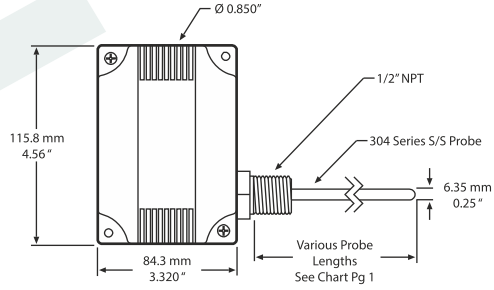
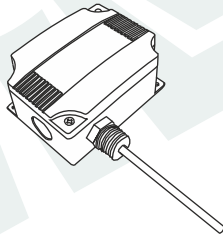
The immersion type probes are installed in the appropriate length thermowell for the pipe size. Thermal conductive compound should be added inside the thermowell to provide optimum thermal transfer.



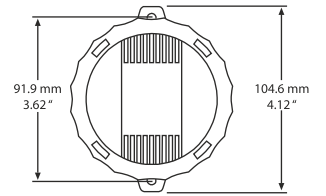
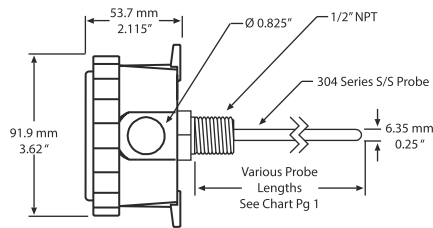
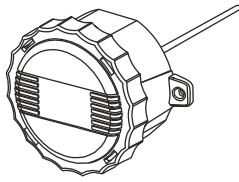
Thermowell placement in pipe

DIMENSIONS:

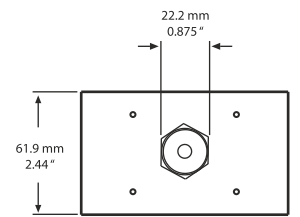
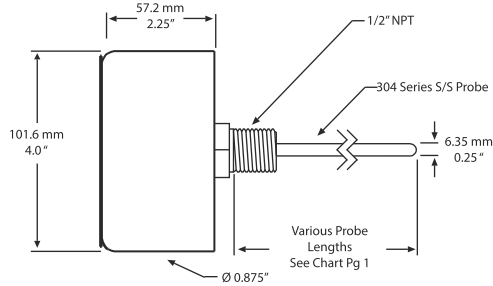
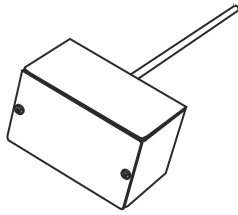
ABS Enclosure



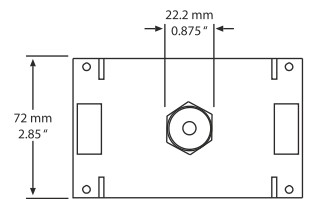
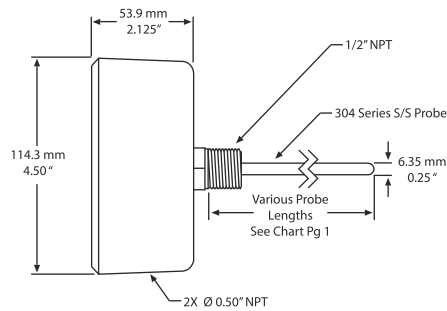
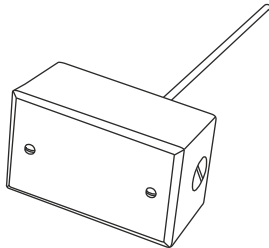
Round ABS Enclosure



Metal Enclosure



Weatherproof Enclosure



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