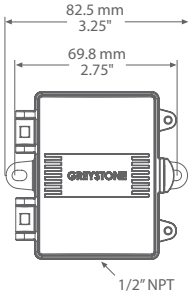
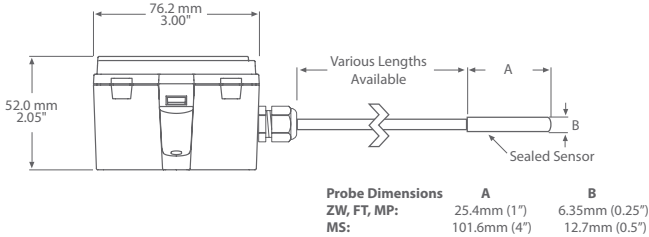




## SLAB TEMPERATURE TRANSMITTER







### TXSL SERIES

## PRODUCT DESCRIPTION

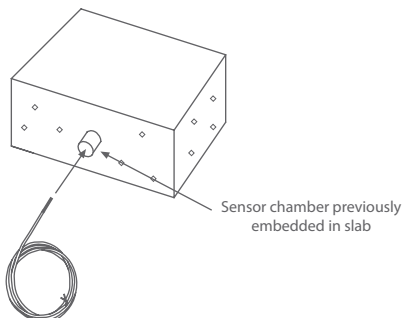
The TXSL single point slab temperature transmitter utilizes a precision sensor encapsulated in a thermal conductive coating (ZW, FT & MP) and used to measure the temperature of a concrete slab. The MS is encapsulated and potted in a 12.7 mm (0.5")D X 101.5 mm (4")L double walled, S/S probe that allows for total liquid submersion. All probes are constructed to provide excellent heat transfer, fast response and to resist and are available with various wire types and lengths. A transmitter that provides a high precision signal with excellent long term stability, low hysteresis and fast response is provided.

## TYPICAL INSTALLATION

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

Typically a predetermined area is defined where the temperature reading is required. During concrete installation a sufficient length of conduit or copper tubing is embedded from this point to an area that will be accessible once complete.

At the entrance to the sensor chamber, unravel the TXSL and carefully insert sensor and feed into chamber until the chamber end is reached.

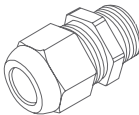


## SPECIFICATIONS

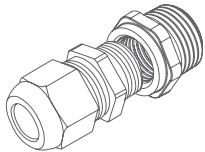
|                           |                                                                                                                                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SENSOR TYPE               | 1000 $\Omega$ 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       | <b>ZW:</b> $-40$ to $100^{\circ}\text{C}$ ( $-40$ to $212^{\circ}\text{F}$ )<br><b>FT:</b> $-40$ to $60^{\circ}\text{C}$ ( $-40$ to $140^{\circ}\text{F}$ )<br><b>MP/MS:</b> $-20$ to $80^{\circ}\text{C}$ ( $-4$ to $176^{\circ}\text{F}$ ) |
| WIRE MATERIAL             | <b>ZW:</b> PVC zip wire, 22 AWG<br><b>FT:</b> Plenum rated, FT-6, 22 AWG<br><b>MP:</b> EPC moisture proof, 20AWG<br><b>MS:</b> EPC moisture submersible, 20AWG                                                                               |
| WIRE LENGTH               | Numerous standard lengths available. See ordering chart                                                                                                                                                                                      |
| PROBE MATERIAL            | <b>ZW/FT/MP:</b> Thermal conductive coating<br><b>MS:</b> Double walled, 304 Stainless Steel                                                                                                                                                 |
| OUTPUT SIGNAL             | 4-20 mA current loop, 0-5 Vdc, or 0-10 Vdc (factory configured)                                                                                                                                                                              |
| TRANSMITTER ACCURACY      | $\pm 0.1\%$ of span, including linearity                                                                                                                                                                                                     |
| OUTPUT DRIVE @ 24 VDC     | <b>Current:</b> 600 mA maximum<br><b>Voltage:</b> 10 K $\Omega$ minimum                                                                                                                                                                      |
| POWER SUPPLY              | <b>0-5 Vdc:</b> 10-35 Vdc or 10-28 Vac<br><b>0-10 Vdc:</b> 15-35 Vdc or 15-28 Vac<br><b>4-20 mA:</b> 15-35 Vdc (loop-powered) or 22-28 Vac                                                                                                   |
| CURRENT CONSUMPTION       | <b>Current:</b> 20 mA<br><b>Voltage:</b> 5 mA                                                                                                                                                                                                |
| MAXIMUM CURRENT (VOLTAGE) | 5 mA nominal                                                                                                                                                                                                                                 |
| MAXIMUM OUTPUT (VOLTAGE)  | Limited to $<5.5$ Vdc or 0-5 Vdc, $<10.5$ for 0-10 Vdc                                                                                                                                                                                       |
| INPUT VOLTAGE EFFECT      | Negligible over specified operating range                                                                                                                                                                                                    |
| PROTECTION CIRCUITRY      | Reverse voltage protected and output limited                                                                                                                                                                                                 |
| AMBIENT OPERATING RANGE   | $-40$ to $50^{\circ}\text{C}$ ( $-40$ to $122^{\circ}\text{F}$ ), 5 to 95 %RH non-condensing                                                                                                                                                 |
| ENCLOSURE                 | <b>A:</b> ABS, UL94-V0, IP65 (NEMA 4X)<br><b>E:</b> Same as A, with thread adapter (1/2" NPT to M16), and cable gland fitting                                                                                                                |
| TERMINATION               | Screw terminal block (14 to 22 AWG)                                                                                                                                                                                                          |
| APPROVALS                 | CE                                                                                                                                                                                                                                           |
| COUNTRY OF ORIGIN         | Canada                                                                                                                                                                                                                                       |

NOTE: This product is factory calibrated and any field adjustment will void the warranty.

## ACCESSORIES - INCLUDED WITH E ENCLOSURE OPTION





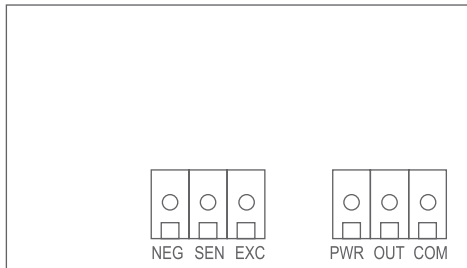


CABLE GLAND FITTING

THREAD ADAPTER 1/2" NPT TO M16



## WIRING INFORMATION



| TERMINAL | FUNCTION                 |
|----------|--------------------------|
| PWR      | Power Supply             |
| OUT      | Analog Output            |
| COM      | Common                   |
| NEG      | Temperature Sensor Input |
| SEN      |                          |
| EXC      |                          |

## ORDERING

|              |                                               |                                                                                                                                     |
|--------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| PRODUCT      | TXSL                                          | Slab Temperature Transmitter                                                                                                        |
| ENCLOSURE    | A<br>E                                        | ABS, with hinged and gasketed cover<br>Same as A, with thread adapter (1/2" NPT to M16) and cable gland fitting                     |
| SENSOR       | 12                                            | 1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film                                                                               |
| WIRE TYPE    | ZW<br>FT<br>MP<br>MS                          | PVC Zip Wire - 22 AWG<br>Plenum Rated FT-6 - 22 AWG<br>EPC Moisture Proof Burial - 20 AWG<br>EPC Moisture Proof Submersible - 20AWG |
| WIRE LENGTH  | 001<br>003<br>005<br>010<br>020<br>030<br>*** | 1m (3.3')<br>3 m (9.8')<br>5 m (16.4')<br>10 m (32.8')<br>20 m (65.6')<br>30 m (98.5')<br>Custom lengths available                  |
| OUTPUT       | A<br>D<br>E                                   | 4-20 mA<br>0-5 Vdc<br>0-10 Vdc                                                                                                      |
| SCALED RANGE | 001<br>002<br>***                             | 0 to 35°C (32 to 95°F)<br>0 to 50°C (32 to 122°F)<br>Custom ranges available                                                        |

## PART NUMBER

|      |
|------|
| TXSL |
|      |
|      |
|      |
|      |
|      |
|      |

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