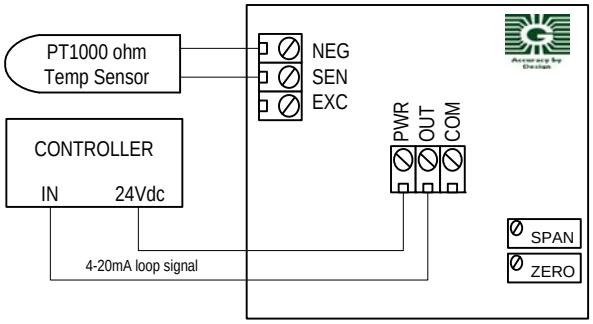
GREYSTONE
ENERGY SYSTEMS INC

Duct Temperature Transmitter

TE500B18FGS001 & 002 installation

Specifications

Power Supply:	15-35Vdc
Accuracy:	± 0.1% FSO
Calibration:	-58º/212ºF (-50º/100ºC) for 001 model -58º/122ºF (-50º/50ºC) for 002 model
Op Range:	5-95% RH
Output Signal:	4-20mA
Output Drive:	>550 ohms
Wiring:	Screw terminal block (14-22 AWG)
Sensor:	PT1000 ohm (Class A)
Probe:	18" (460mm) stainless steel
Protection:	Output limited, conformal coated pcb transmitter pcb rating -40°/185°F



Mounting

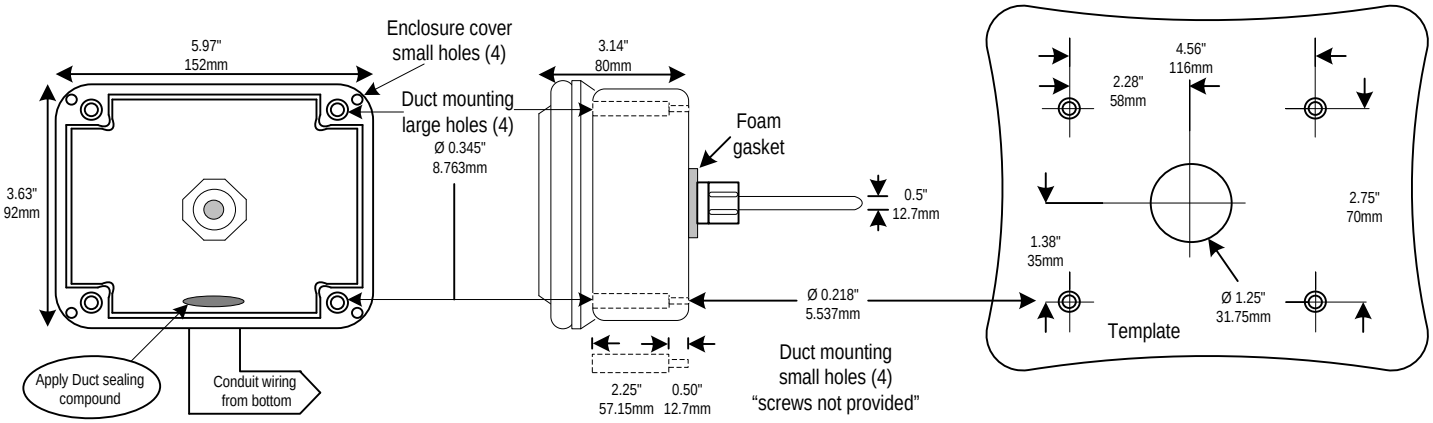
Drill a 1.25“ hole in the return air duct. Remove any protective material from the probe and place it through the hole. Secure the enclosure to the duct with sheet-metal screws (not supplied) using the pre-drilled duct mounting holes. Refer to the mounting template and enclosure drawing below. The recommended mounting orientation for the weatherproof enclosure has conduit entry from the bottom.

Wiring

Anti-static precautions should be followed to prevent damage to the device. The transmitter should be connected to the controller using 14-22 AWG wire and requires only two wires for DC 4-20mA loop-powered operation. Use shielded cable for the highest noise immunity. Do not route signal wires in the same conduit with power cables as signal degradation may occur. Disconnect the power supply before making any connections to prevent electrical shock or equipment damage. Follow the example wiring diagram and make all connections in accordance with national and local electrical codes. The unit comes factory set for 4-20mA loop powered operation with only the **PWR** and **OUT** required. The **COM** terminal is used for voltage output types or for AC power. Ensure the controller Analog Input (AI) matches the transmitter output signal type before power is applied. The device is reverse voltage protected and will not operate if connected backwards. Follow Specification ratings or inaccurate readings may result.

Operation

The product should be allowed to warm-up for 20 minutes before attempting to verify accuracy of the transmitter. The signal can be measured by inserting a mA meter in series with the **OUT** terminal and should read between 4-20mA. The unit can be calibrated in the field using precision resistance values equal to the zero and span of the temperature range. Simply replace the attached probe with the resistor, then adjust the ZERO and SPAN pots accordingly to obtain the correct output signal. Repeat the adjustments until both values are correct.



Enclosure

Material:	Fiberglass reinforced polyester (thermoset)
Gasket:	Polyurethane seamless provides watertight & dust-tight seal
Cover screws:	Recessed captive stainless steel screws
Rating:	NEMA-4X weatherproof
Approval:	UL/cUL 50, CSA Std 22.2
Flammability:	UL94-5V
Temp Range:	-40°/250°F (-40°/120°C)
Other:	UV resistant & Non-corrosive