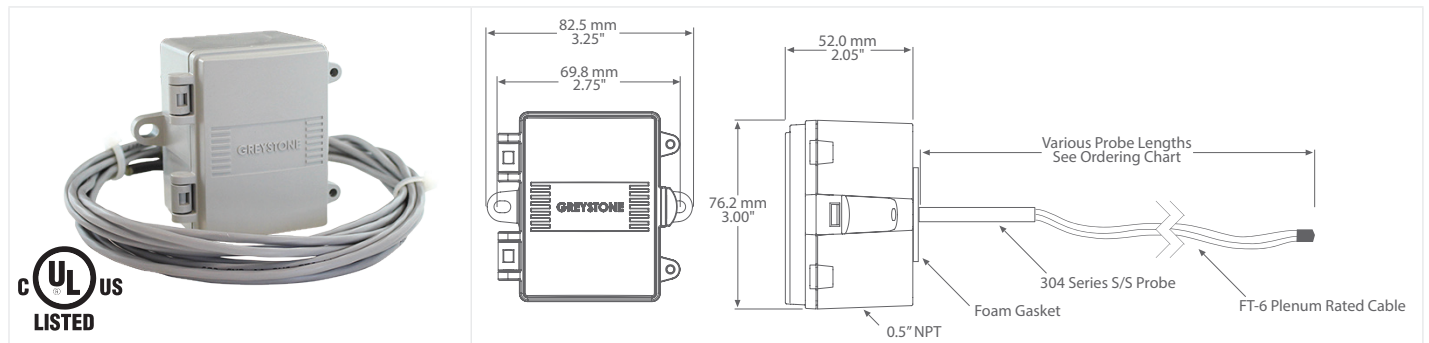




FLEXIBLE CABLE DUCT AVERAGE TEMPERATURE SENSOR



TSDF SERIES

PRODUCT DESCRIPTION

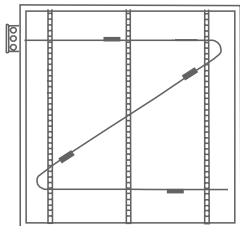
The flexible multi-point duct average temperature sensor utilizes several precision sensors spaced at equal distances. The probe is FT-6 rated plenum cable and is available in various lengths. All probes are constructed to provide excellent heat transfer and a fast response.

TYPICAL INSTALLATION

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

The flex-duct average probes are installed through a hole in the side of the duct to monitor an average temperature within the duct. Select a probe length that allows for criss-crossing the duct multiple times. Install the probes in a straight section of duct at a suitable distance downstream from any heating, cooling, or humidification devices. **The cable probe needs to be fastened onto hangers using tube clamps or wire ties and should be secured every 100 cm or 3' maximum to prevent movement of the wire and prevent wear. If sensor is to be used in high velocity or vibration environment use of rigid style duct probe is recommended.**

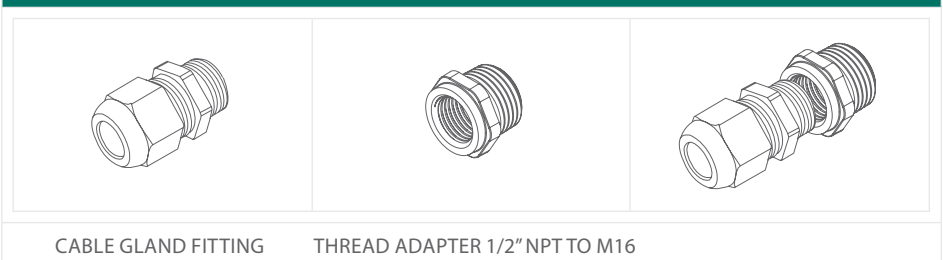
The enclosure provides mounting tabs for ease of installation.



SPECIFICATIONS

SENSOR TYPE	Thermistor or RTD (see ordering chart)
SENSOR ACCURACY	Thermistors: $\pm 0.2^{\circ}\text{C}$ ($\pm 0.36^{\circ}\text{F}$) @ 25°C (77°F) Platinum RTD's: $\pm 0.3^{\circ}\text{C}$ ($\pm 0.54^{\circ}\text{F}$) @ 0°C (32°F) Nickel RTD's: $\pm 0.4^{\circ}\text{C}$ ($\pm 0.72^{\circ}\text{F}$) @ 0°C (32°F)
PROBE SENSING RANGE	-20 to 60°C (-4 to 140°F)
AMBIENT OPERATING RANGE	-40 to 60°C (-40 to 140°F), 5 to 95 %RH non-condensing
WIRE MATERIAL	FT-6 rated plenum cable, 22 AWG
STANDARD LENGTHS	1.8m, 3.6m, 6.1m, 7.3m, 15.2m (6', 12', 20', 24', 50')
ENCLOSURE	ABS, UL94-V0, IP65 (NEMA 4X) C: includes terminal block E: same as C, with thread adapter (1/2" NPT to M16), and cable gland fitting
TERMINATION	A: pigtail, 2 or 3 wire C & E: terminal block, 2 or 3 wire
PROTECTION CLASS	III
POWER SOURCE UL	SELV, Limited Energy (<15W)
EU CONFORMITY	CE
CERTIFICATION	UL 60730 & CSA E60730
UL 2043 / CSA / ULC S142 COMPLIANT	Suitable for Use in Air Handling Spaces in Accordance with Section 300.22, (C) of the National Electrical Code
PURPOSE OF CONTROL	Temperature Sensor
TYPE OF ACTION	Type 1
IMPULSE VOLTAGE	330V
POLLUTION DEGREE	2
COUNTRY OF ORIGIN	Canada

ACCESSORIES - INCLUDED WITH E ENCLOSURE OPTION





ORDERING			PART NUMBER
PRODUCT	TSD	Flexible Cable Duct Average Temperature Sensor	TSD
ENCLOSURE	A C E	ABS, with hinged and gasketed cover Same as A, with terminal block Same as C, with thread adapter and cable gland fitting	
SENSOR	02 05 06 07 08 12 13 14 20 24 59	100 Ω Platinum, IEC 751, 385 Alpha, thin film 1801 Ω NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 3000 Ω NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 10,000 Ω Type 3, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 2.252K Ω NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 1000 Ω Platinum, IEC 751, 385 Alpha, thin film 1000 Ω Nickel, Class B, DIN 43760 10,000 Ω Type 3, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ c/w 11K shunt resistor 20,000 Ω NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 10,000 Ω Type 2, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ 10,000 Ω , 25°C , $\pm 1\%$, B = 3435 $\pm 1\%$ (25/85)	
PROBE LENGTH	I J K L Q	1.8m (6') 4-sensors 3.6m (12') 4-sensors 6.1m (20') 4-sensors 7.3m (24') 9-sensors 15.2m (50') 16-sensors	

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