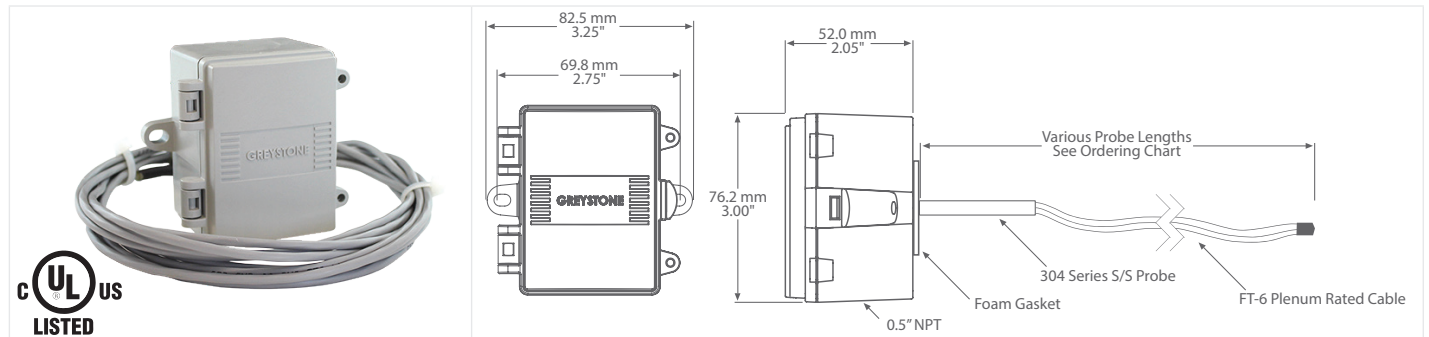




## HIGH ACCURACY FLEX-DUCT AVERAGE TEMPERATURE TRANSMITTER



### HATXDF SERIES

## PRODUCT DESCRIPTION

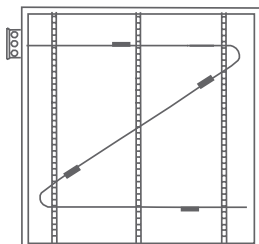
The high accuracy flexible, multi-point duct averaging mounted temperature transmitter is available with a selection of platinum RTD sensors and a transmitter that provides a high accuracy signal with excellent long term stability, low hysteresis and fast response. They are available with various scaled ranges. The sensing cable is constructed to provide excellent heat transfer, fast response time and is available in several lengths and quantity of sensing elements.

## 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.

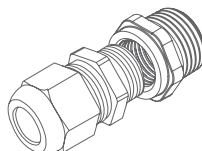
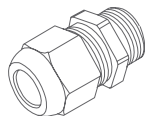


## SPECIFICATIONS

SENSOR TYPE	1000Ω Platinum, IEC 751, 385 Alpha, thin film
SENSOR ACCURACY	<b>RTD Class A:</b> $\pm 0.15^{\circ}\text{C}$ ( $\pm 0.27^{\circ}\text{F}$ ) @ $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ ) <b>RTD 1/3 DIN:</b> $\pm 0.1^{\circ}\text{C}$ ( $\pm 0.18^{\circ}\text{F}$ ) @ $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ ) <b>RTD 1/10 DIN:</b> $\pm 0.03^{\circ}\text{C}$ ( $\pm 0.054^{\circ}\text{F}$ ) @ $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ )
PROBE SENSING RANGE	$-20$ to $60^{\circ}\text{C}$ ( $-4$ to $140^{\circ}\text{F}$ )
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')
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
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
PROTECTION CIRCUITRY	Reverse voltage protected and output limited
AMBIENT OPERATING RANGE	$-40$ to $60^{\circ}\text{C}$ ( $-40$ to $140^{\circ}\text{F}$ ), 5 to 95 %RH non-condensing
ENCLOSURE	<b>A:</b> ABS, UL94-V0, IP65 (NEMA 4X) <b>E:</b> Same as E, with thread adapter (1/2" NPT to M16), and cable gland fitting
TERMINATION	Screw terminal block (14 to 22 AWG)
PROTECTION CLASS	III
POWER SOURCE UL	0-5 Vdc: 10-35 Vdc or 10-28 Vac SELV (Class 2) 0-10 Vdc: 15-35 Vdc or 15-28 Vac SELV (Class 2) 4-20 mA: 15-35 Vdc (loop-powered) or 22-28 Vac Limited Energy, $<15\text{W}$
CONSUMPTION	Current @ 20 mA Voltage @ 5 mA
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	Operating Control
TYPE OF ACTION	Type 1
IMPULSE VOLTAGE	330V
POLLUTION DEGREE	2
COUNTRY OF ORIGIN	Canada

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

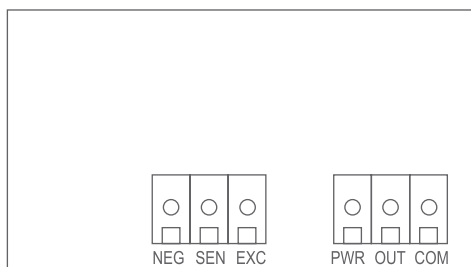
## ACCESSORIES - INCLUDED WITH E ENCLOSURE OPTION



CABLE GLAND FITTING

THREAD ADAPTER 1/2" NPT TO M16

## WIRING INFORMATION



### TERMINAL

PWR  
OUT  
COM

NEG  
SEN  
EXC

### FUNCTION

Power Supply  
Analog Output  
Common

Temperature Sensor Input

## ORDERING

PRODUCT	HATXDF	High Accuracy Flexible cable duct average temperature Transmitter
ENCLOSURE	A E	ABS, with hinged and gasketed cover Same as A, with thread adapter and cable gland fitting
SENSOR	18 48 22	1000 Ω Platinum, IEC 751, 385 Alpha, thin film, Class A 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN
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
OUTPUT	A D E	4-20 mA 0-5 Vdc 0-10 Vdc
SCALED RANGE	001 002 *	0 to 35°C (32 to 95°F) 0 to 50°C (32 to 122°F) Additional ranges available

## PART NUMBER

HATXDF

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