



GREYSTONE

ENERGY SYSTEMS INC

HIGH ACCURACY FLEX-DUCT AVERAGE TEMPERATURE TRANSMITTER WITH LCD HATLDF Series

The HATLDF Flex-duct averaging temperature transmitter incorporates numerous high accuracy platinum RTD's encapsulated at equal distances along a FT-6 plenum rated cable and is available in various lengths. 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 for measurement of duct temperatures. A LCD is provided in either °C or °F.



SPECIFICATION:

Sensor..... 1000 ohm Platinum RTD
Accuracy..... **RTD Class A:** $\pm 0.15^{\circ}\text{C}$ @ 0°C
RTD 1/3 DIN: $\pm 0.1^{\circ}\text{C}$ @ 0°C
RTD 1/10 DIN: $\pm 0.03^{\circ}\text{C}$ @ 0°C
Probe Sensing Range..... -20 to 60°C (-4 to 140°F)
Wire Material..... FT6 Plenum rated, 22 AWG
Output Signal..... 4-20mA current loop, 0-5 vdc, or 0-10 Vdc (factory configured)
Transmitter Accuracy..... $\pm 0.25\%$ of span, including linearity
Power Supply..... **4-20 mA:** 15-35 Vdc or 22-32 Vac
0-5 Vdc: 10-35 Vdc or 10-32 Vac
0-10 Vdc: 15-35 Vdc or 15-32 Vac
Consumption..... **Current:** 22.5 mA Max (On open sensor)
Voltage: 5 mA nominal
Input Voltage Effect..... Negligible over specified operating range
RFI rejection..... Good RFI rejection of normal frequencies
Protection Circuitry..... Reverse voltage protected and output limited
Display Units..... $^{\circ}\text{C}$ or $^{\circ}\text{F}$
Display Range..... 3 digit for -88.8 to 888 as necessary
Display Size..... 24 mm x 11 mm (0.95" x 0.45")
Ambient Operating Range..... $0 - 70^{\circ}\text{C}$ (32 - 158°F), 0-95% RH non-condensing
Enclosure..... Grey ABS, UL94-V0, IP65 (NEMA 4X)
Wiring Connections..... Screw terminal block (14 to 22 AWG)

PART NUMBER SELECTED

PRODUCT SELECTION INFORMATION:

MODEL	Product Description
HATLDF	High Accuracy Flex-Duct Average Temperature Transmitter with LCD Display

CODE	LCD Display
C	LCD display $^{\circ}\text{C}$
F	LCD display $^{\circ}\text{F}$

CODE	Sensor
18	1000 Ω Platinum, IEC 751, 385 Alpha, thin film, Class A
22	1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN
48	1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN

CODE	Probe Length	No. of Sensors
I	1800 mm (6')	4 Sensors
J	3600 mm (12')	4 Sensors
K	6100 mm (20')	4 Sensors
L	7300 mm (24')	9 Sensors

CODE	Output
A	4-20mA
D	0-5 VDC
E	0-10 VDC

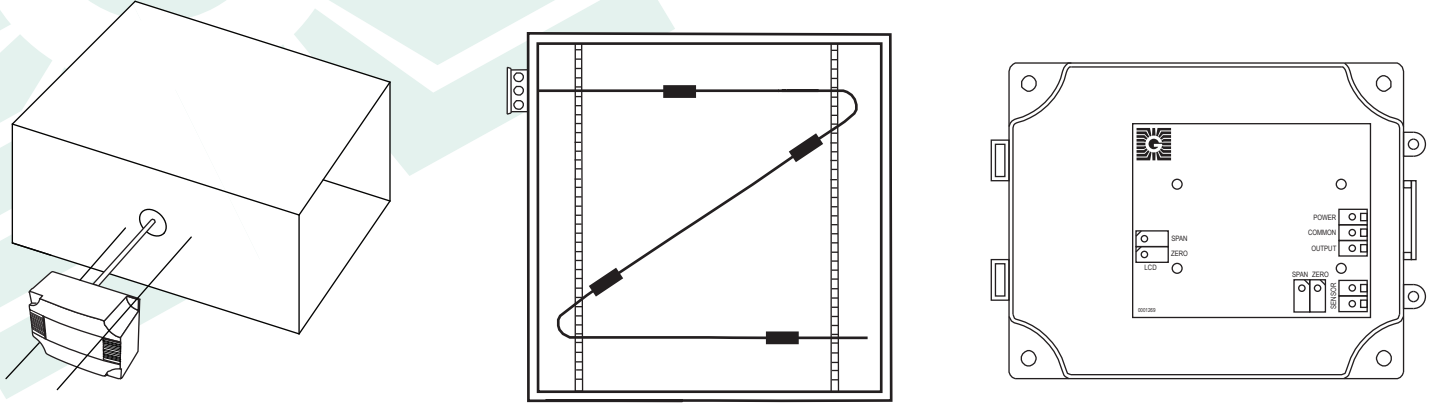
CODE	Scaled Range
1	$0 - 35^{\circ}\text{C}$ (32 - 95°F)
2	$0 - 50^{\circ}\text{C}$ (32 - 122°F)

TYPICAL INSTALLATION:

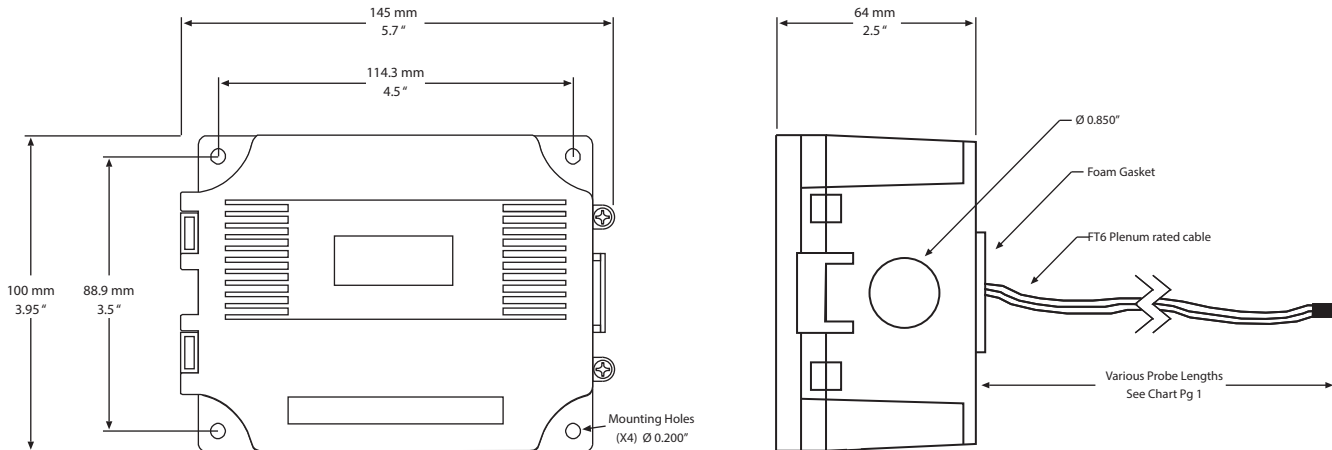
For complete installation and wiring details, please refer to the product installation instructions.

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 enclosure provides mounting tabs for ease of installation.



DIMENSIONS:



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



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RoHS
COMPLIANT



Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC/R sensors and transmitters for Building Automation Management Systems.

We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9001 certified, assuring our customers of consistent product reliability.

GREYSTONE HAS AN ISO 9001 REGISTERED QUALITY SYSTEM