



GREYSTONE

ENERGY SYSTEMS INC

HIGH ACCURACY REMOTE PROBE IMMERSION TEMPERATURE TRANSMITTER WITH LCD HATLRN Series

The HATLR single point immersion temperature transmitter with remote probe for chilled water applications. It incorporates a high accuracy platinum RTD encapsulated in a 6.35 mm (0.25") OD, 304 stainless steel probe and is available in various lengths. All probes provide excellent heat transfer, fast response and resist moisture penetration. The transmitter provides a high accuracy signal with excellent long term stability, low hysteresis and fast response. It is available with various scaled ranges. The 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.....	FT-6 Rated Plenum Cable 22 AWG
Wire Length.....	1.524 m (5')
Probe Material.....	304 Series Stainless Steel
Probe Dimension.....	6.35 mm (0.25") Diameter
Fitting Thread Size.....	1/2" NPT
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.....	15-30 Vdc or 12-28 Vac
Consumption.....	Current: 20 mA Max Voltage: 11 mA nominal
Input Voltage Effect.....	Negligible over specified operating range
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.....	38.1 mm x 16.5 mm (1.5" x 0.65")
Ambient Operating Range.....	0 - 50°C (32 - 122°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
HATLRN	High Accuracy Remote Probe Immersion 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
A	50 mm (2")
B	100 mm (4")
C	150 mm (6")
D	200 mm (8")

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

CODE	Scaled Range
1	0 - 35°C (32 - 95°F)
2	0 - 50°C (32 - 122°F)



GREYSTONE ENERGY SYSTEMS, INC.

RoHS
COMPLIANT

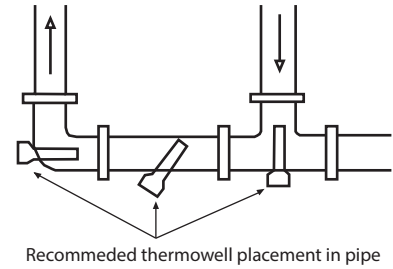
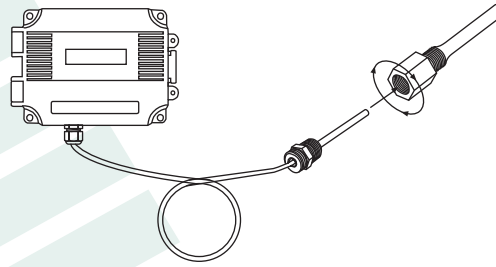


TYPICAL INSTALLATION:

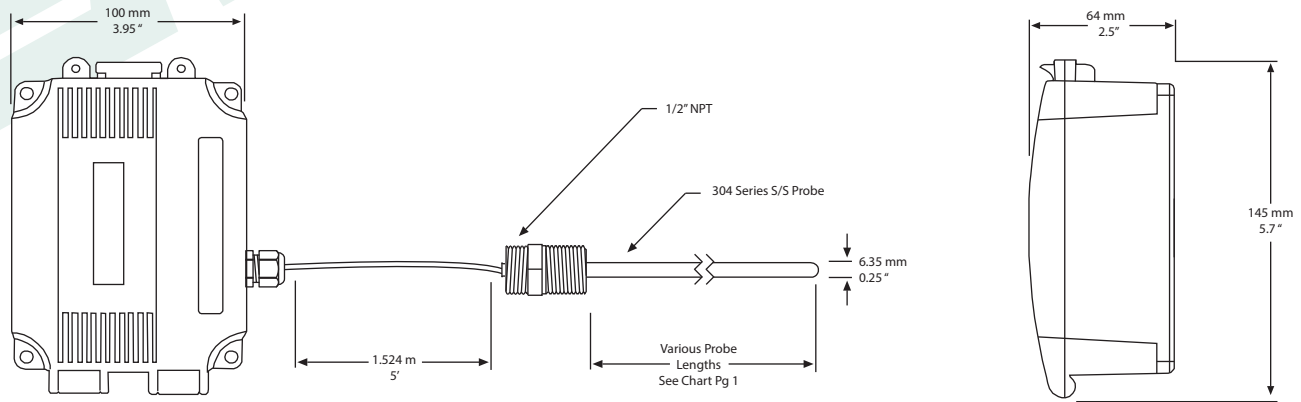
For complete installation and wiring details, please refer to the product installation instructions.

NOTE: All immersion sensors require a thermowell (sold separately)

The immersion type probes are installed in the appropriate length thermowell for the pipe size. Thermal conductive compound should be added inside the thermowell to provide optimum thermal transfer.



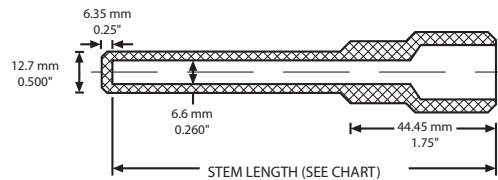
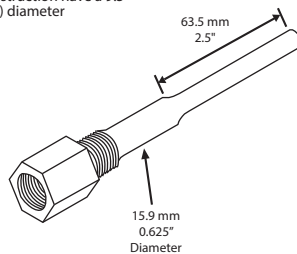
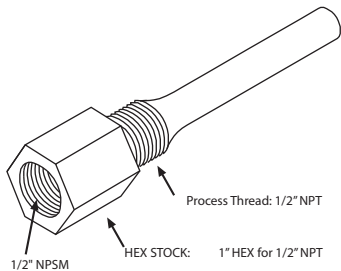
DIMENSIONS:



ACCESSORIES:



NOTE:
6" and up machined thermowells have a two step stem as shown. welded construction have a 9.5 mm (0.375") diameter



THERMOWELL PART NUMBERING SYSTEM

SERIES NUMBER	NPT THREAD SIZE	MATERIAL	STEM LENGTH	CONSTRUCTION
T1	1/2"	P - 304 SS R - 316 SS	2" 4" 6" 8" 12" 18"	- MACHINED W - WELDED (12" and up only)

EXAMPLE: T1 1/2 P 4
4" 304 STAINLESS THERMOWELL
WITH 1/2" NPT PROCESS THREAD

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



GREYSTONE
ENERGY SYSTEMS INC

Greystone Energy Systems, Inc.
150 English Drive, Moncton,
New Brunswick, Canada E1E 4G7
(506) 853-3057 Fax: (506) 853-6014
North America: 1-800-561-5611
e-mail: mail@greystoneenergy.com
www.greystoneenergy.com

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