GREYSTONE
ENERGY SYSTEMS INC

HIGH ACCURACY IMMERSION TEMPERATURE SENSOR
HATSC Series

The HATSC series single point immersion temperature sensor utilizes a high accuracy sensor encapsulated in a 6.35 mm (0.25") OD, 304 series stainless steel probe and is available in various lengths. All probes provide excellent heat transfer, fast response and resistance to moisture penetration. It is available with a variety of enclosures.

SPECIFICATION:

Sensor Type .... Platinum RTD 1000 Ω, 385 Alpha @ 0˚C
NTC Thermistor, 10,000 Ω @ 25˚C, Type 2 or 3
NTC Thermistor, 20,000 Ω @ 25˚

Temperature Range .. -20 to 105 ˚C (-4 to 221 ˚F)

Accuracy .... **RTD Class A:** ±0.15˚C @ 0˚C
RTD 1/3 DIN: ±0.1˚C @ 0˚C
RTD 1/10 DIN: ±0.03˚C @ 0˚C
NTC Thermistor Type 39 : ±0.05˚C, 0-70˚C
NTC Thermistor Type 55 : ±0.03˚C, 0-70˚C
NTC Thermistor Type 40/46 : ±0.1˚C, 0-70˚C

Wire Material .... PVC insulated, parallel bonded

Probe Material .... 304 Series Stainless Steel

Probe Dimensions ..... 0.25" (6.35 mm) Diameter

Enclosure .... Round (E) - Grey ABS - UL94-V0 - IP65 (NEMA 4X)
Weatherproof PVC (P) - IP65 (NEMA 4X))

Termination .... Pigtail 2 or 3 wire

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.
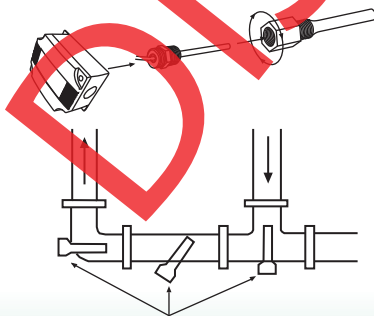
Thermowell placement in pipe

PART NUMBER SELECTED

PRODUCT SELECTION INFORMATION:

CODE	Product Description
HATSCN	High Accuracy Immersion Temperature Sensor w/ 1/2" NPT Nylon Fitting

CODE	Enclosure
E	Round ABS, with gasket cover
P	PVC Weatherproof

CODE	Sensor
18	1000 Ω Platinum, 2 Wire, IEC 751, 385 Alpha, thin film, Class A
48	1000 Ω Platinum, 2 Wire, IEC 751, 385 Alpha, thin film, 1/3 DIN
22	1000 Ω Platinum, 2 Wire, IEC 751, 385 Alpha, thin film, 1/10 DIN
41	1000 Ω Platinum, 3 Wire, IEC 751, 385 Alpha, thin film, Class A
49	1000 Ω Platinum, 3 Wire, IEC 751, 385 Alpha, thin film, 1/3 DIN
50	1000 Ω Platinum, 3 Wire, IEC 751, 385 Alpha, thin film, 1/10 DIN
39	10,000 Ω, Type 2, NTC Thermistor, ±0.05 C
55	10,000 Ω, Type 2, NTC Thermistor, ±0.03 C
40	10,000 Ω, Type 3, NTC Thermistor, ±0.1 C
46	20,000 Ω, NTC Thermistor, ±0.1 C

CODE	Probe Length
A	50 mm (2")
B	100 mm (4")
C	150 mm (6")
D	200 mm (8")

GREYSTONE ENERGY SYSTEMS, INC.

RoHS COMPLIANT

ISO9001

DIMENSIONS:

Round ABS Enclosure (E)

53.7 mm
2.115"

Ø 0.825"

1/2" NPT

304 Series S/S Probe

91.9 mm
3.62"

6.35 mm
0.25"

Various Probe Lengths
See Chart Pg 1

91.9 mm
3.62"

104.6 mm
4.12"

PVC Enclosure (P)

74 mm
2.9"

1/2" NPT

304 Series S/S Probe

100 mm
3.93"

6.35 mm
0.25"

Various Probe Lengths
See Chart Pg 1

2X Ø 0.50" NPT

126 mm
4.97"

114 mm
4.48"

87 mm
3.44"

Mounting Holes
(X4) 6mm Ø 0.24"
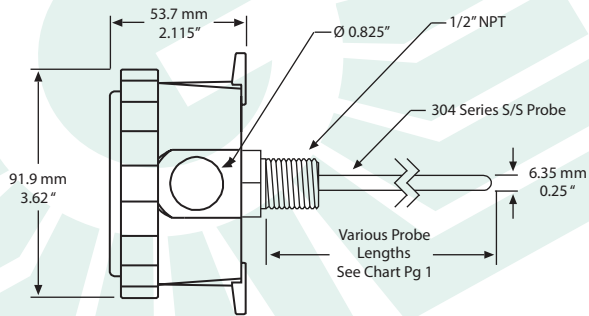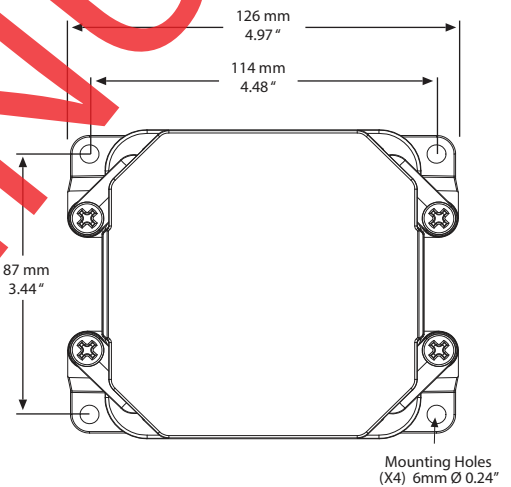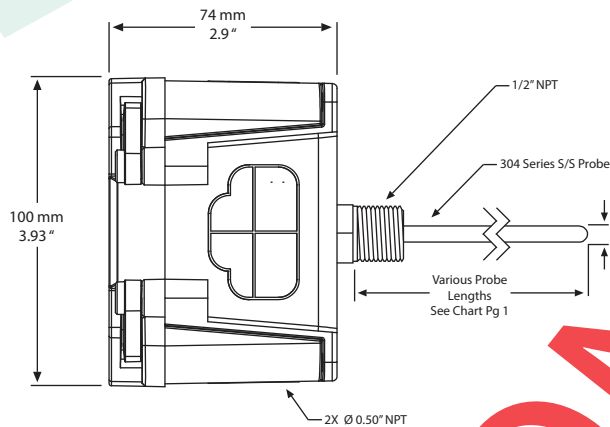
Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

GREYSTONE
E N E R G Y   S Y S T E M S   I N C

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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.

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GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM