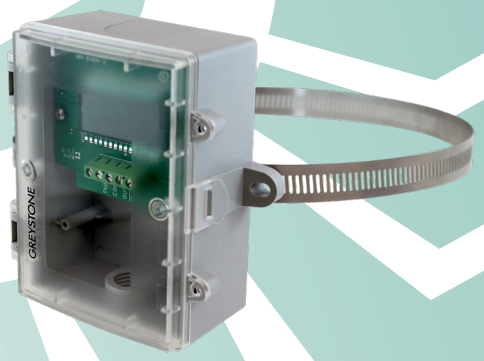
GREYSTONE
ENERGY SYSTEMS INC

HIGH ACCURACY STRAP-ON TEMPERATURE TRANSMITTER with LCD
HATDSO Series

The high accuracy single point strap-on temperature transmitter has a precision platinum RTD bonded to a 38.1 mm x 38.1 mm (1.5" x 1.5") aluminum plate and adhered to a 25.4 mm (1") compressible foam. A 25.4 cm (10") S/S Pipe clamp is provided to secure the assembly to various sizes of pipes. All probes are constructed to provide excellent heat transfer, fast response and are potted to resist moisture penetration. A weatherproof Polycarbonate enclosure with a hinged and gasketed cover is provided for ease of installation. An LCD is provided in either °C or °F.



SPECIFICATIONS:

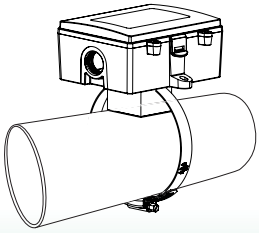
Sensor Type:	1000 ohm platinum RTD
Sensor Accuracy:	**RTD Class A:** ±0.15°C @ 0°C **RTD 1/3 DIN:** ±0.1°C @ 0°C **RTD 1/10 DIN:** ±0.03°C @ 0°C
Wire Material:	PVC insulated, parallel bonded, 22 AWG
Probe Sensing Range:	-20 to 105°C (-4 to 221°F)
Probe Material:	Aluminum plate
Probe Size:	2" x "2 square
Output Signal:	4-20 mA current loop, 0-5 vdc, or 0-10 vdc (factory configured)
Transmitter Accuracy:	±0.2% of span, including linearity
Power Supply:	15 to 30 Vdc, 12 to 28 Vac
Consumption (max):	20 mA for current, 11 mA for voltage
Protection Circuitry:	Reverse voltage protected and output limited
Ouput Drive @ 24 Vdc:	700 ohms max for current output, 20K ohms min for voltage output
LCD Display Units:	°C or °F (factory configured)
Display Range:	3 digit for -88.8 to 888 as required
Display Size:	38.1mm W x 16.5 mm H (1.5" to 0.65")
Digit Height:	11.4 mm (0.45") plus °C/°F symbol
Ambient Operating Range:	0 to 50°C (32 to 122°F), 0-95 %RH
Enclosure:	Grey polycarbonate UL94-V0, IP65 (NEMA 4X)
Wiring Connections:	Screw terminal block (14 to 22 AWG)
Country of Origin:	Canada

TYPICAL INSTALLATION:

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

For best results, thermal conductive compound should be applied to pipe prior to mounting the probe.

Find a suitable location along the pipe where both the probe and remote enclosure can be mounted. If necessary, remove a section of insulation from pipe. Position probe directly on the pipe and secure using a pipe clamp. For added security, make 1 to 3 loops of the sensor cable around the pipe and feed through wire hole on the enclosure and secure using the supplied grommet. If applicable, the pipe insulation can be re-applied to the pipe over the probe.



PART NUMBER SELECTED

PRODUCT SELECTION INFORMATION:

MODEL	Product Description
HATDSO	High Accuracy Strap-on Temperature Transmitter with Display

CODE	Enclosure
B	Polycarbonate, with hinged & gasketed cover
F	Same as B, with thread adapter & cable gland fitting

CODE	Display Units
C	Celsius
F	Fahrenheit

CODE	Sensor
18	1000 Ω, Platinum, wire 2, 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

CODE	Output
A	4-20 mA 2 or 3 wire
D	0-5 Vdc 3 wire
E	0-10 Vdc 3 wire

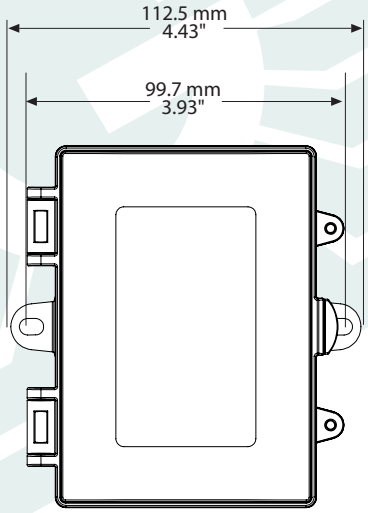
CODE	Scaled Range
001	0 to 35°C (32 to 95°F)
002	0 to 50°C (32 to 122°F)

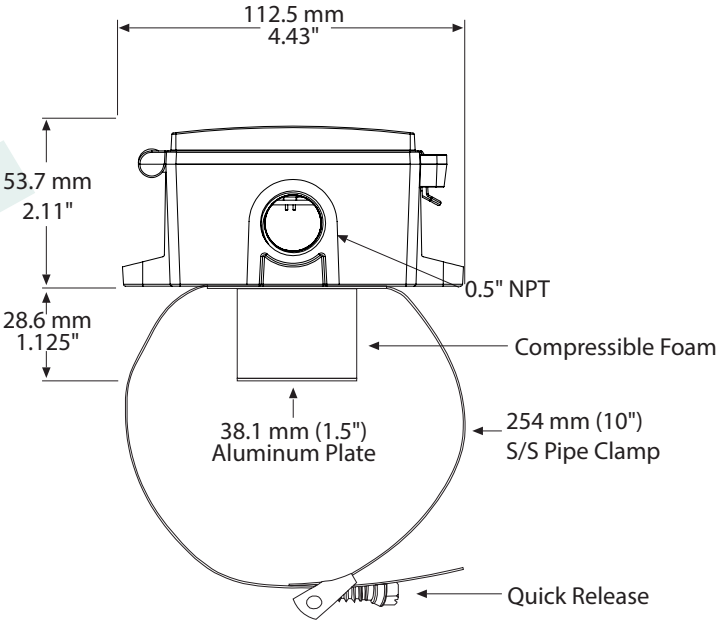
Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

Wiring:

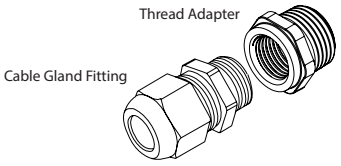
Terminal	Function
PWR	Power Supply
COM	Power Supply Common
TEMP (2)	Temperature Sensor Input
NO	Relay Output - Normally Open Contact
COM	Relay Common
NC	Relay Output - Normally Closed Contact

DIMENSIONS:





Included with F style enclosure



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

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