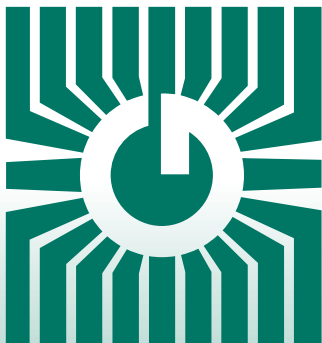


GREYSTONE

ENERGY SYSTEMS INC



TEMPERATURE TRANSMITTERS WITH LCD DISPLAY TD Series



Precision temperature control/sensing

FEATURES:

- Precision RTD sensing element
- Choice of scaled ranges and outputs
- LCD in either °C or °F
- Polycarbonate enclosure with hinged and gasketed cover

*Peace of mind
through reliable
temperature monitoring*

GREYSTONE HAS AN ISO 9001 REGISTERED QUALITY SYSTEM

TD - PROBE TEMPERATURE SENSOR CONFIGURATIONS

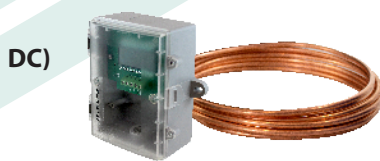
FEATURES:

The TD series temperature transmitters offer a platinum RTD's with transmitter which can be interfaced with a computerized monitoring or control system. Each model incorporates an LCD in either °C or °F. A wide variety of configurations are available such as:

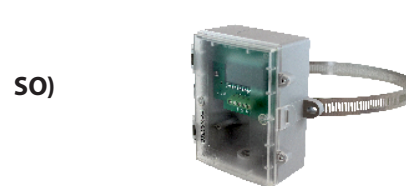
AP Duct/Immersion Sensor – The AP is for single point monitoring. Both duct and immersion are available with various probe lengths.



DC, DF & DR) Duct Averaging Sensor – All models incorporate numerous sensors along the assembly and act as a single sensor averaging the temperature across the sensors. They are available in various lengths. The DF probe is constructed of FT-6 rated plenum cable which allows for easy installation. The DC probe is constructed of bendable soft copper and the DR is a constructed of rigid stainless steel.



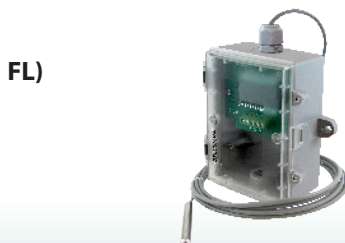
RP) & SO) Strap-on Sensor – The RP comes with stainless steel probe and is available in several lengths and 1.5 m (5') of cable for remote mounting. The SO has an aluminum plate with an expandable 10" clamp assembly to strap directly to a pipe. Various enclosures are available.



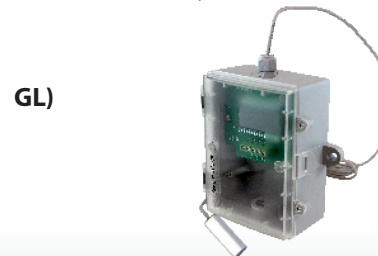
HR (Heavy Duty Room Sensor) – Comes in a weather-proof enclosure which incorporates a sun/windshield to protect the sensor.



FL) Flying Lead – The sensor is encapsulated in a 2" S/S probe with 6' of FT-6 rated cable and can be used in almost any application where temperature monitoring is required.



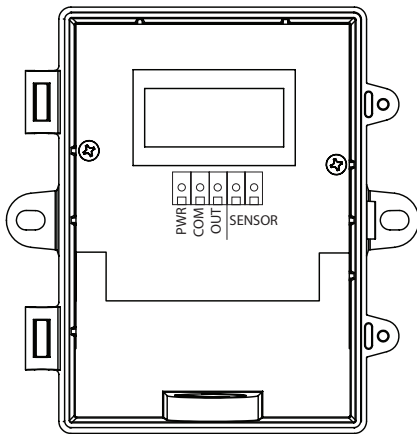
GL) – The sensor is encapsulated in a 1/2" square x 2" aluminum wafer that can be affixed to any surface. It comes with 5' of zip cable.



SPECIFICATIONS:

Sensor	1000 ohm platinum RTD
Sensor Accuracy	±0.3°C (±0.54°F) @ 0°C (32°F)
Power Supply.....	15 to 30 Vdc, 12 to 28 Vac
Consumption (max).....	20 mA for current, 11 mA for voltage
Ambient Operating Range	0 to 50°C (32 to 122°F)
Wire Material.....	AP, DR, HR, RP, SO, GL: PVC insulated, parallel bonded, 22 AWG DC, DF, FL : FT-6 rated plenum cable, 22 AWG
Probe Material	AP, DR, FL, RP: 6.00 mm (0.236") O.D., 304 series stainless steel DC: 7.94 mm (0.3125") O.D. soft copper DF: FT-6 rated plenum cable SO: 2" x 2" aluminum plate GL: 0.5" x 0.5" x 2" aluminum wafer
Output Signal	4-20 mA current loop, 0-5 Vdc, or 0-10Vdc (factory configured)
Transmitter Accuracy	±0.2% of span, including linearity
Output 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	38.1 mm W x 16.5 mm (1.5" x 0.65")
Digit Height.....	11.4 mm (0.45") plus °C/°F symbol
Operating Conditions	0 to 50°C (32 to 122°F), 5 to 95 %RH
Enclosure	B: Hinged cover - Polycarbonate - UL94-V0, IP65 (NEMA 4X) F: Hinged cover - Polycarbonate with thread adapter (1/2" NPT to M16) and cable gland fitting Conduit connection - 1/2" NPT threaded connection
Wiring Connections.....	Screw terminal block (14, 20, 22 AWG)
Country of Origin	Canada

NOTE: For higher temperature applications please contact Greystone.



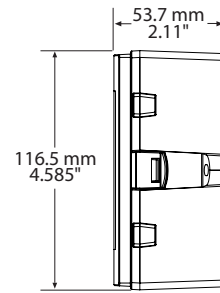
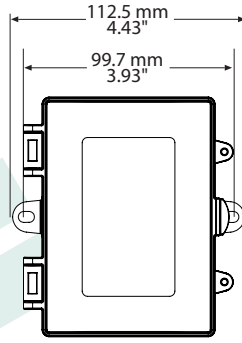
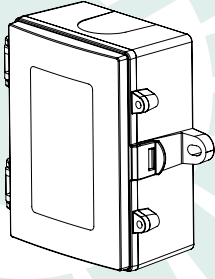
Wiring:

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

PRODUCT ORDERING INFORMATION:

MODEL	Product Description						
TD	Temperature Transmitter with Display Series						
CODE	Mounting Style						
AP	All Purpose (Duct/Immersion)						
DC	Duct Average, copper probe						
DF	Duct Average, flexible cable						
DR	Duct Average, rigid stainless steel probe						
RP	Strap-On – remote probe						
SO	Strap-On – assembly clamps around pipe with aluminum plate with 254 mm (10") stainless clamp						
HR	Heavy Duty Room						
FL	Flying Lead						
GL	Glass						
CODE	Enclosure						
B	Polycarbonate, with hinged and gasketed cover						
F	Same as B, with thread adapter and cable gland fitting (Not available with HR mounting style)						
CODE	Display						
C	Celsius						
F	Fahrenheit						
CODE	Sensor						
12	1000 Ω platinum, IEC 751, 385 alpha, thin film						
CODE	Probe Length	Lengths are applicable to these mounting styles					
X	Not applicable	SO, OS, FL, & GL					
A	50 mm (2")	AP & RP					
B	100 mm (4")	AP & RP					
C	150 mm (6")	AP & RP					
D	200 mm (8")	AP & RP					
E	300 mm (12")	AP					
F	450 mm (18")	AP & DR					
G	600 mm (24")	DR					
H	900 mm (36")	DR					
I	1800 mm (6')	DC & DF					
J	3600 mm (12')	DC & DF					
K	6100 mm (20')	DC & DF					
L	7300 mm (24')	DC & DF					
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°C to 35°C (32°F to 95°F)						
002	0°C to 50°C (32°F to 122°F)						
003	0°C to 100°C (32°F to 212°F)						
006	-50°C to 50°C (-58°F to 122°F)						
TD	AP	B	C	12	A	A	001

ENCLOSURE DIMENSIONS:

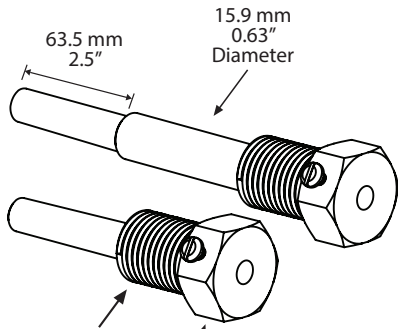
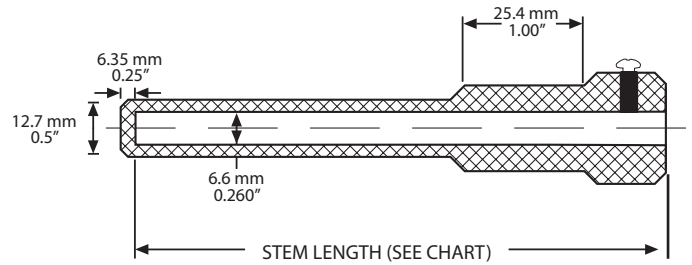


THERMOWELLS:



NOTE:

6" and up machined thermowells have a two step stem as shown. Welded construction have a 12.7 mm (0.5") diameter



Process Thread: 1/2" NPT or BSPT

HEX Stock: 1" HEX for 1/2" NPT

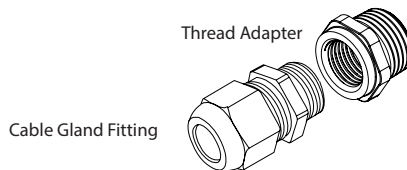
THERMOWELL PART NUMBERING SYSTEM

SERIES NUMBER	NPT THREAD SIZE	THREAD TYPE	STEM LENGTH	MATERIAL
T2	1/2"	N = NPT B = BSP	2" 4" 6" 8" 12" 18"	P - 304 SS R - 316 SS

EXAMPLE: T2 1/2 N 4 P
4" 304 STAINLESS THERMOWELL
WITH 1/2" NPT PROCESS THREAD

ACCESSORIES:

Thread adapter and cable gland fitting are included with the F style enclosure option.



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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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