

# **IMMERSION TEMPERATURE TRANSMITTER w/ LCD TE511-512C Series**

The TE511/512C single point immersion temperature transmitter incorporates a precision 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 (See Product Selection Information). The LCD is provided in either °C (511) or °F (512).



#### **SPECIFICATION:**

Sensor	1000 ohm Platinum RTD		
Sensor Accuracy	±0.3°C (±0.54°F) @ 0°C (32°F)		
Probe Sensing Range	-20 to 105°C (-4 to 221°F)		
Wire Material	PVC insulated, parallel		
	bonded		
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	±0.1% of span, including		
	linearity		
Power Supply	4-20 mÁ: 15-35 Vdc or 22-32 Vac		
	<b>0-5 Vdc:</b> 10-35 Vdc or 10-32 Vac		
	<b>0-10 Vdc:</b> 15-35 Vdc or 15-32 Vac		
Consumption:	Current: 22.5 mA Max		
· · · · ·	(On open sensor)		
	Voltage: 5 mA nominal		
Input Voltage Effect	Voltage: 5 mA nominal Negligible over specified		
Input Voltage Effect	Negligible over specified		
	Negligible over specified operating range		
Input Voltage Effect	Negligible over specified operating range Good RFI rejection of normal		
RFI rejection	Negligible over specified operating range Good RFI rejection of normal frequencies		
	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected		
RFI rejection	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited		
RFI rejection Protection Circuitry Display Units	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series)		
RFI rejection	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series) 3 digit for -88.8 to 888 as		
RFI rejection Protection Circuitry Display Units Display Range	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series) 3 digit for -88.8 to 888 as necessary		
RFI rejection Protection Circuitry Display Units	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series) 3 digit for -88.8 to 888 as necessary 24 mm x 11 mm		
RFI rejection Protection Circuitry Display Units Display Range Display Size	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series) 3 digit for -88.8 to 888 as necessary 24 mm x 11 mm (0.95" x 0.45")		
RFI rejection Protection Circuitry Display Units Display Range	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series) 3 digit for -88.8 to 888 as necessary 24 mm x 11 mm (0.95" x 0.45") 0 - 70°C (32 - 158°F),		
RFI rejection Protection Circuitry Display Units Display Range Display Size Ambient Range	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series) 3 digit for -88.8 to 888 as necessary 24 mm x 11 mm (0.95" x 0.45") 0 - 70°C (32 - 158°F), 0-95% RH non-condensing		
RFI rejection Protection Circuitry Display Units Display Range Display Size Ambient Range Enclosure	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series) 3 digit for -88.8 to 888 as necessary 24 mm x 11 mm (0.95" x 0.45") 0 - 70°C (32 - 158°F), 0-95% RH non-condensing ABS, UL94V, IP65 (NEMA 4X)		
RFI rejection Protection Circuitry Display Units Display Range Display Size Ambient Range	Negligible over specified operating range Good RFI rejection of normal frequencies Reverse voltage protected and output limited °C (511 Series) or °F (512 Series) 3 digit for -88.8 to 888 as necessary 24 mm x 11 mm (0.95" x 0.45") 0 - 70°C (32 - 158°F), 0-95% RH non-condensing		

#### PART NUMBER SELECTED

### **PRODUCT SELECTION INFORMATION:**

MOD	DEL	Product Description					
TE51 TE51		Immersion Temperature Transmitter, c/w LCD Display °C Immersion Temperature Transmitter, c/w LCD Display °F					
		CODE	CODE Probe Length				
		A2 B2 C2 D2 E2 F2	100 mm 150 mm 200 mm 300 mm	50 mm (2″) 100 mm (4″) 150 mm (6″) 200 mm (8″) 300 mm (12″) 450 mm (18″)			
		CODE	Transmitter Output Signal				
			ACurrent 4-20 mADVoltage 0-5 VdcEVoltage 0-10 Vdc		-5 Vdc		
				CODE	Transmitter Scaled Range		
				1 2 3 *	0 - 35°C (32 - 95°F) 0 - 50°C (32 - 122°F) 0 - 100°C (32 - 212°F) Custom ranges available Contact Greystone		
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TE51	1C	B2	А	3			

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

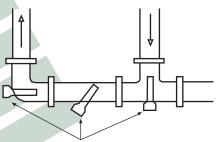


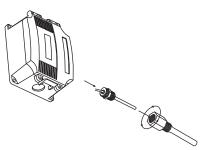
# **TYPICAL INSTALLATION:**

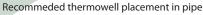
For complete installation and wiring details, please refer to the product installation instructions.

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

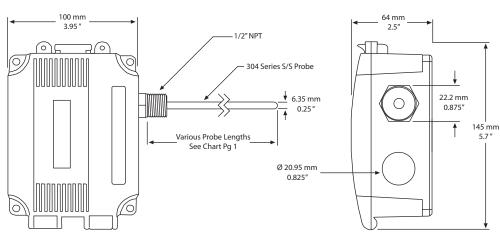
The immersion type probes are installed in the appropriate length thermowell for the pipe size. Thermal conductive compound should be added inside the thermowell to provide optimum thermal transfer.







# **DIMENSIONS:**



### **ACCESSORIES:**



#### THERMOWELL PART NUMBERING SYSTEM

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SERIES NUMBER	NPT THREAD SIZE	MATERIAL	STEM LENGTH
T-1	1/2"	P - 304 SS R - 316 SS	2" 4" 6" 8" 12" 18"

EXAMPLE: T-1 1/2 P 4 4" 304 STAIN

4" 304 STAINLESS THERMOWELL WITH 1/2" NPT PROCESS THREAD

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GREYSTONE HAS AN ISO 9001 REGISTERED QUALITY SYSTEM