

# TI SERIES

## Corrosion Resistant Stainless Steel Probe



These immersion probe type temperature sensors are both highly accurate and cost effective. Installation could not be easier. The sensor is encased in a corrosion-resistant stainless steel probe for durability, with a choice of service entry body, indoor junction box, or threaded enclosures. A variety of RTD or thermistor sensor options and probe lengths are available for maximum application versatility.

### SPECIFICATIONS

Wiring	22 AWG; 2-wire: RTD/Thermistor
Probe	Stainless steel
Test Pressure	200 psi
Operating Temp	-25 to 105 °C (-13 to 221 °F)*

#### WARRANTY

Limited Warranty	5 years
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#### AGENCY APPROVALS



\*Room temperature offset documented on each unit.  
 \*\* CE compatibility based on the RoHS standard.

### Cost effective

Cost-effective, high-accuracy thermistors/RTDs

### Easy selection

1/2" NPT threads standard

### Durable

Corrosion resistant stainless steel probe design

### Easy servicing

Thermowells available

### Variety of enclosures

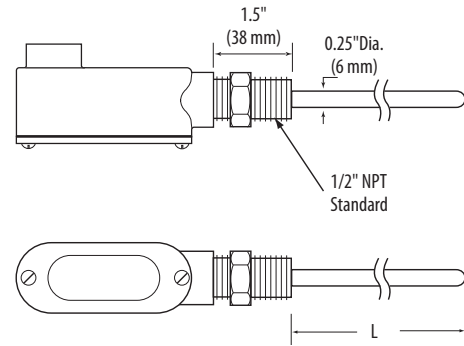
Duct mount, service entry body, threaded, and water resistant to fit your application

### APPLICATIONS

- Tanks
- Pipes
- Chillers

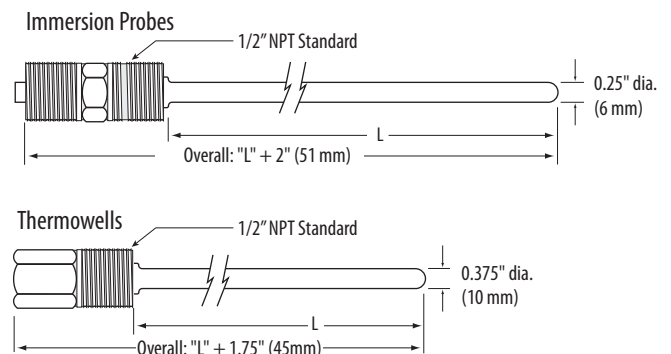
#### TIG

Dimensional Drawing

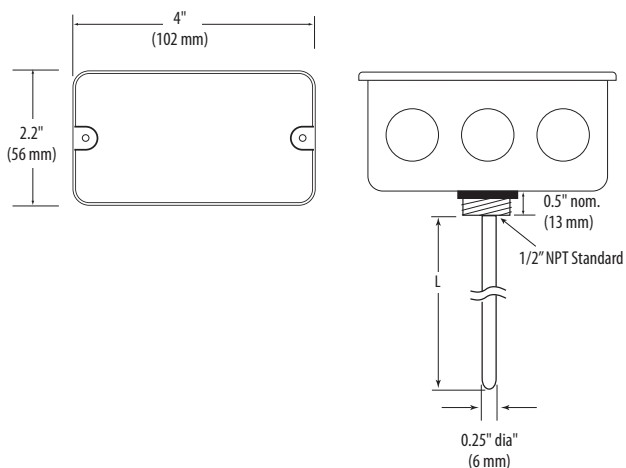


#### TIH

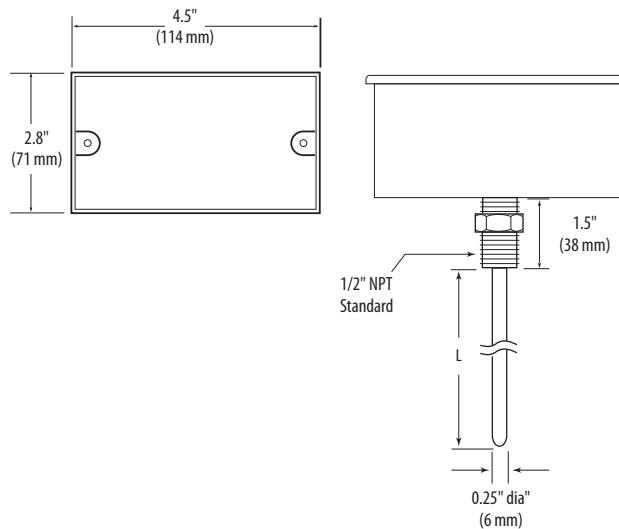
Dimensional Drawing



**TID**  
Dimensional Drawing



**TIW**  
Dimensional Drawing



**ORDERING INFORMATION**

<p><b>TI</b></p> <p>Enclosure</p> <p>D = Duct G = Service Entry Body H = Threaded NPT Only W = Water Resistant Housing</p>	<p>Immersion Probe Length "L"</p> <p>A = 3 1/2" (89 mm) B = 5" (127 mm) C = 7" (178 mm) E = 13" (330 mm)</p>	<p>Thermowell</p> <p>0 = None 1 = Add Thermowell</p>	<p>Sensor Type</p> <p>B = 100R platinum, RTD C = 1k platinum, RTD D = 10k T2, Thermistor E = 2.2k, Thermistor F = 3k, Thermistor H = 10k T3, Thermistor I = 1k Balco (Nickel-iron) RTD J = 10k Dale, Thermistor</p>	<p>Options</p> <p>Calibration Certificate</p> <p>0 = None 2 = 3-point NIST calibration</p> <p>Threads</p> <p>Blank = NPT</p>	<p>Example:</p> <p>TI W D O H O</p> <p>Thermowell Sizing</p> <table border="1"> <thead> <tr> <th>Probe Length</th> <th>Thermowell Length</th> </tr> </thead> <tbody> <tr> <td>A (3 1/2") (89 mm)</td> <td>2 1/2" (64 mm)</td> </tr> <tr> <td>B (5") (127 mm)</td> <td>4" (102 mm)</td> </tr> <tr> <td>C (7") (178 mm)</td> <td>6" (152 mm)</td> </tr> <tr> <td>E (13") (330 mm)</td> <td>12" (305 mm)</td> </tr> </tbody> </table> <p>Thermowells can be ordered as an option on all TI Series sensors. They can also be ordered separately using the table below.</p> <table border="1"> <tbody> <tr> <td>AA24</td> <td>2-1/2" (64 mm) thermowell</td> </tr> <tr> <td>AA22</td> <td>4" (102 mm) thermowell</td> </tr> <tr> <td>AA25</td> <td>6" (152 mm) thermowell</td> </tr> </tbody> </table>	Probe Length	Thermowell Length	A (3 1/2") (89 mm)	2 1/2" (64 mm)	B (5") (127 mm)	4" (102 mm)	C (7") (178 mm)	6" (152 mm)	E (13") (330 mm)	12" (305 mm)	AA24	2-1/2" (64 mm) thermowell	AA22	4" (102 mm) thermowell	AA25	6" (152 mm) thermowell
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**STANDARD RTD AND THERMISTOR VALUES**

Class	Pt RTD		Balco RTD		THERMISTOR						
	100 Ohm	1000 Ohm	1000 Ohm	2.2k	3k	10k Type 2	10k Type 3	10k Dale	20k	10k Type 2	10k Type 3
Accuracy	±0.3°C	±0.3°C	±1% @70°C	±0.2°C	±0.2°C	±1.0°C	±0.2°C	±0.2°C	Consult	±0.1°C 20/70°C	±0.1°C
Temp. Response*	PTC	PTC	PTC	NTC	NTC	NTC	NTC	NTC	NTC	NTC	NTC
										High Accuracy	

\*PTC: Positive Temperature Coefficient  
\*NTC: Negative Temperature Coefficient

**STANDARD RTD AND THERMISTOR VALUES (Ohms Ω)**

°C	°F	100 Ohm	1000 Ohm	1000 Ohm	2.2k	3k	10k Type 2	10k Type 3	10k Dale	20k NTC	10k Type 2	10k Type 3
-50	-58	80.306	803.06	740.46	154,464	205,800	692,700	454,910	672,300	1,267,600	692,700	454,910
-40	-40	84.271	842.71	773.99	77,081	102,690	344,700	245,089	337,200	643,800	344,700	245,089
-30	-22	88.222	882.22	806.02	40,330	53,730	180,100	137,307	177,200	342,000	180,100	137,307
-20	-4	92.160	921.60	841.00	22,032	29,346	98,320	79,729	97,130	189,080	98,320	79,729
-10	14	96.086	960.86	877.46	12,519	16,674	55,790	47,843	55,340	108,380	55,790	47,843
0	32	100.000	1,000.00	913.66	7,373	9,822	32,770	29,588	32,660	64,160	32,770	29,588
10	50	103.903	1,039.03	952.25	4,487	5,976	19,930	18,813	19,900	39,440	19,930	18,813
20	68	107.794	1,077.94	991.82	2,814	3,750	12,500	12,272	12,490	24,920	12,500	12,272
25	77	109.735	1,097.35	1,013.50	2,252	3,000	10,000	10,000	10,000	20,000	10,000	10,000
30	86	111.673	1,116.73	1,035.18	1,814	2,417	8,055	8,195	8,056	16,144	8,055	8,195
40	104	115.541	1,155.41	1,077.68	1,199	1,598	5,323	5,593	5,326	10,696	5,323	5,593
50	122	119.397	1,193.97	1,120.52	811.5	1,081	3,599	3,894	3,602	7,234	3,599	3,894
60	140	123.242	1,232.42	1,166.13	561.0	747	2,486	2,763	2,489	4,992	2,486	2,763
70	158	127.075	1,270.75	1,210.75	395.5	527	1,753	1,994	1,753	3,512	1,753	1,994
80	176	130.897	1,308.97	1,254.55	284.0	378	1,258	1,462	1,258	2,516	1,258	1,462
90	194	134.707	1,347.07	1,301.17	207.4	-	919	1,088	917	1,833	919	1,088
100	212	138.506	1,385.06	1,348.38	153.8	-	682	821	679	1,356	682	821
110	230	142.293	1,422.93	1,397.13	115.8	-	513	628	511	1,016	513	628
120	248	146.068	1,460.68	1,447.44	88.3	-	392	486	389	770	392	486
130	266	149.832	1,498.32	1,496.28	68.3	-	303	380	301	591	303	380
Sensor Codes		B	C	I	E	F	D	H	J	M	W	Y

