

# Model 451 Miniature Tubular Probe



- 400 series nominal resistance response curve
- 2252.4 ohm Resistance @ 25°C (including lead wire resistance)
- Tested to  $\pm 0.1^\circ\text{C}$ ,  $0^\circ\text{C}$  to  $70^\circ\text{C}$  for laboratory use
- Pressed Disk Ceramic Sensor
- High sensitivity to temperature change
- $\frac{1}{4}$ " phone plug connector
- 1 mm (0.042") tube diameter
- Rugged PVC cable

## DESCRIPTION

400-series miniature stainless steel tubular probe.

## FEATURES

- Fast response through SS tube wall
- Standard 400 series resistance response
- Standard  $\frac{1}{4}$ " phone plug connector
- Reuse after cleaning

## APPLICATIONS

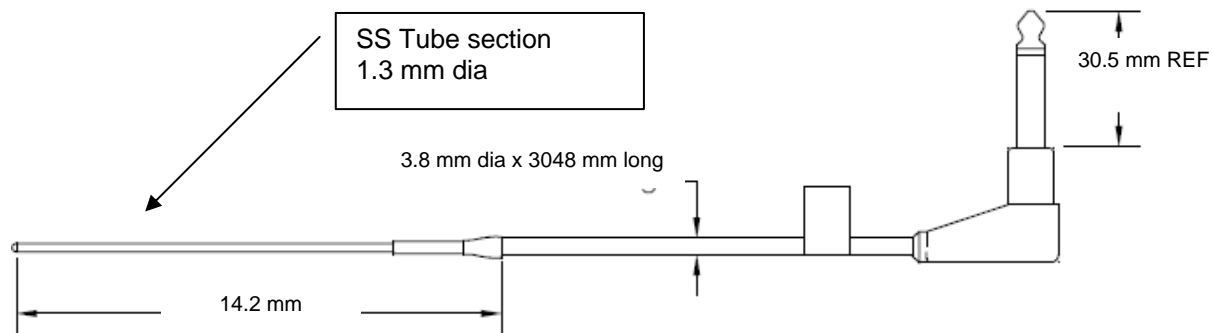
- Liquid temperature measurement
- Subsurface temperature measurement
- Laboratory vermin temperature measurement

## PERFORMANCE SPECS

Parameter	Units	Value
Resistance @ 25°C (including lead resistance)	Ohms	2252.4
Tolerance $0^\circ\text{C}$ to $70^\circ\text{C}$	$^\circ\text{C}$	$\pm 0.1$
Beta Value 25/85	K	3976
Tolerance on Beta Value	%	0.4
Typical response time in stirred fluid	Seconds	< 4
Liquid immersion with 15VDC applied	Ohms	> 15Meg

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## MECHANICAL DETAILS



## TYPICAL PERFORMANCE CURVES

Temp °C	K-Ohms	Temp °C	K-Ohms	Temp °C	K-Ohms
0	7.3554	25	2.2524	50	0.8117
1	6.9894	26	2.1564	51	0.7815
2	6.6444	27	2.0644	52	0.7526
3	6.3194	28	1.9774	53	0.7249
4	6.0114	29	1.8944	54	0.6983
5	5.7194	30	1.8154	55	0.6729
6	5.4444	31	1.7394	56	0.6485
7	5.1834	32	1.6674	57	0.6252
8	4.9374	33	1.5994	58	0.6028
9	4.7034	34	1.5334	59	0.5813
10	4.4824	35	1.4714	60	0.5607
11	4.2734	36	1.4124	61	0.5409
12	4.0744	37	1.3554	62	0.5219
13	3.8864	38	1.3014	63	0.5037
14	3.7084	39	1.2494	64	0.4862
15	3.5394	40	1.2004	65	0.4694
16	3.3784	41	1.1524	66	0.4533
17	3.2264	42	1.1074	67	0.4378
18	3.0814	43	1.0644	68	0.4229
19	2.9444	44	1.0234	69	0.4086
20	2.8144	45	0.9842	70	0.3949
21	2.6904	46	0.9466		
22	2.5724	47	0.9106		
23	2.4604	48	0.8762		
24	2.3544	49	0.8432		

# Model 451 Miniature Tubular Probe

## ORDERING INFORMATION

Part Number	Description	$\Omega$ @25°C	MOQ
046451	451 CUVETTE PROBE	2252.4	20

\* For quantities less than Minimum Order Quantity – contact distribution

### NORTH AMERICA

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