

## MODEL TS141 THERMISTOR SENSOR PROBES

*Thermistor* is a generic term describing a semiconductor device that exhibits an electrical conductivity that is highly sensitive to temperature. The name was derived from the words, thermally sensitive resistor. These devices may be either *positive temperature coefficient (PTC)* or *negative temperature coefficient (NTC)* with respect to their resistance characteristics with temperature.

Oven Industries' Model TS141 Thermistor sensors have an NTC type resistance versus temperature characteristic. In addition, they have a matched resistance versus temperature curve and are interchangeable from one thermistor to another per the specified tolerance.



TS141-170



TS141-64



TS141-76



TS141-32

### Thermistor Specifications:

Base Resistance at 25°C. 5,000Ω

Interchangeable Tolerance ±1.0°C. over a -40°C. to 70°C. temperature range

### THERMISTOR SENSOR - TEMPERATURE (°C) VS. RESISTANCE (Ω)

-40	168,300	-18	43,270	4	13,340	26	4,787	48	1,944	70	875.5
-39	157,500	-17	40,860	5	12,700	27	4,583	49	1,871	71	846.5
-38	147,500	-16	38,610	6	12,090	28	4,389	50	1,801	72	818.5
-37	138,200	-15	36,490	7	11,510	29	4,204	51	1,734	73	791.0
-36	129,500	-14	34,500	8	10,960	30	4,029	52	1,670	74	765.0
-35	121,400	-13	32,630	9	10,440	31	3,861	53	1,608	75	740.0
-34	113,900	-12	30,880	10	9,950	32	3,702	54	1,549	76	716.0
-33	106,900	-11	29,230	11	9,485	33	3,549	55	1,493	77	692.5
-32	100,300	-10	27,670	12	9,045	34	3,404	56	1,439	78	670.5
-31	94,200	-9	26,210	13	8,630	35	3,266	57	1,387	79	649.0
-30	88,500	-8	24,830	14	8,230	36	3,134	58	1,337	80	628.0
-29	83,200	-7	23,540	15	7,855	37	3,008	59	1,290	81	608.0
-28	78,250	-6	22,320	16	7,500	38	2,888	60	1,244	82	589.0
-27	73,600	-5	21,170	17	7,160	39	2,773	61	1,200	83	570.5
-26	69,250	-4	20,080	18	6,840	40	2,663	62	1,158	84	552.5
-25	65,200	-3	19,060	19	6,535	41	2,559	63	1,117	85	535.5
-24	61,450	-2	18,100	20	6,245	42	2,459	64	1,079	86	519.0
-23	57,900	-1	17,190	21	5,970	43	2,363	65	1,041	87	503.0
-22	54,550	0	16,330	22	5,710	44	2,272	66	1,006	88	487.5
-21	51,450	1	15,520	23	5,460	45	2,184	67	971.0	89	472.6
-20	48,560	2	14,750	24	5,225	46	2,101	68	938.0	90	458.2
-19	45,830	3	14,030	25	5,000	47	2,021	69	906.5		



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