

# tekmar® Submittal

## Humidity & Temperature Sensor 086



Accessories

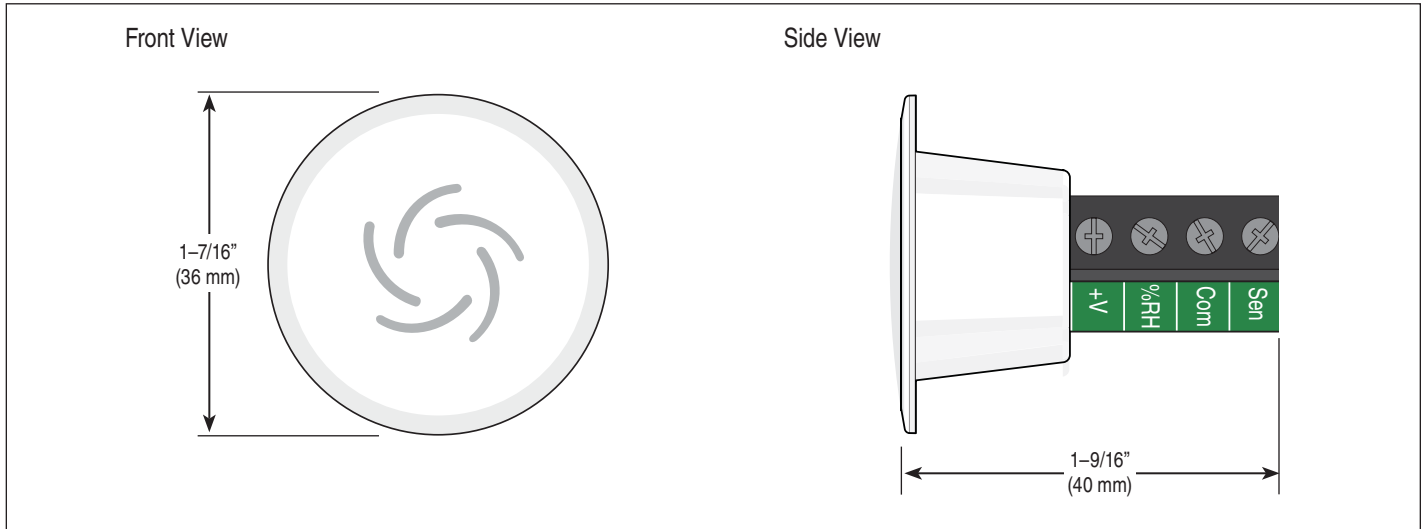
**C 086**

07/12

Replaces: New

Job \_\_\_\_\_ Designer \_\_\_\_\_ Contact \_\_\_\_\_

The Humidity & Temperature Sensor 086 can be connected to select tekmar thermostats to remotely measure relative humidity and temperature. The 086 mounts flush or nearly flush to the wall to allow the sensor to visually blend in with the surrounding wall.



### Specifications

Humidity and Temperature Sensor 086	
Literature	086_C, 086_D
Packaged weight	0.13 lbs (60g)
Dimensions	1-7/16" O.D. x 1-9/16" D (36 O.D. x 40 mm D)
Enclosure	White PC-ABS plastic, NEMA 1
Operating range	Indoor use only, 15 to 140°F (-10 to 60°C), non-condensing
Environmental	Compatible with chlorinated swimming pool environments. Do not use in presence of ammonia (animal barns), methanol, ethanol, acetone.
Power supply	2.7 to 5.5 V (dc), 0.5 mA max, 65 kΩ min impedance
Humidity sensor	0 to 90% ± 3% RH
Temperature sensor	NTC thermistor, 10 kΩ @ 77°F (25°C ± 0.2°C) β=3892
Warranty	Limited 3 Year (See D086 for full warranty)

### Features

- Hidden humidity and temperature sensing
- Compatible with tekmar thermostats that support auxiliary humidity sensors

### SPECIAL REQUIREMENTS

N / A

## Temperature vs. Resistance Table

Temperature		Resistance	Temperature		Resistance	Temperature		Resistance	Temperature		Resistance
°F	°C	Ω	°F	°C	Ω	°F	°C	Ω	°F	°C	Ω
-50	-46	490,813	20	-7	46,218	90	32	7,334	160	71	1,689
-45	-43	405,710	25	-4	39,913	95	35	6,532	165	74	1,538
-40	-40	336,606	30	-1	34,558	100	38	5,828	170	77	1,403
-35	-37	280,279	35	2	29,996	105	41	5,210	175	79	1,281
-30	-34	234,196	40	4	26,099	110	43	4,665	180	82	1,172
-25	-32	196,358	45	7	22,763	115	46	4,184	185	85	1,073
-20	-29	165,180	50	10	19,900	120	49	3,760	190	88	983
-15	-26	139,402	55	13	17,436	125	52	3,383	195	91	903
-10	-23	118,018	60	16	15,311	130	54	3,050	200	93	829
-5	-21	100,221	65	18	13,474	135	57	2,754	205	96	763
0	-18	85,362	70	21	11,883	140	60	2,490	210	99	703
5	-15	72,918	75	24	10,501	145	63	2,255	215	102	648
10	-12	62,465	80	27	9,299	150	66	2,045	220	104	598
15	-9	53,658	85	29	8,250	155	68	1,857	225	107	553

## Humidity vs. Voltage Table

Relative Humidity (%)	Voltage (%RH to Com)	Relative Humidity (%)	Voltage (%RH to Com)
5	0.59	55	1.61
10	0.69	60	1.72
15	0.79	65	1.82
20	0.90	70	1.92
25	1.00	75	2.03
30	1.10	80	2.13
35	1.20	85	2.23
40	1.31	90	2.33
45	1.41	95	2.44
50	1.51	100	2.54



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