

ROOM HUMIDITY TRANSMITTER

Wall mount transmitter for relative humidity (RH) & temperature (T)



FEATURES

- 0-10V fixed analog for both Humidity & Temperature signals
- 2% / 3% / 5% relative humidity accuracies
- Multiple factory programmed temperature output ranges
- Attractive, streamlined, low-profile ABS enclosure
- Quick Connect wire terminals for easy wiring
- High airflow and fast response
- Insulated back included
- CE & RoHS compliant
- 5 year limited warranty
- Made in the USA

GENERAL INFORMATION

High quality room or wall mount relative humidity and temperature sensor in the attractive, low-profile Aero plastic enclosure. The humidity transmitters are available with an accurate analog 0-10V temperature transmitter over multiple temperature ranges which are factory programmed. The humidity elements have high accuracy and very low drift over 5 years.

The Tasseron room humidity series are equipped with Quick Connect spring-loaded wire terminals which make installation easy and eliminates screw terminals and wire nuts.

SPECIFICATIONS

General:

Enclosure: Injection-molded ABS UL 94 HB
Cover: Quick snap, injection-molded ABS
Mounting: Direct mounting with quick snap faceplate. Fits standard single gang box or mounts directly to wall. Built in level for easy accurate installation.

Connection: AWG 22-16 / 0.35—1.5mm² spring-loaded, Quick Connect wire terminals
Humidity Transmitter: ±2% / ±3% / ±5%
Analog: 0 to 10V

Specifications continued on page 2

SPECIFICATIONS CONT.

Humidity Sensor:

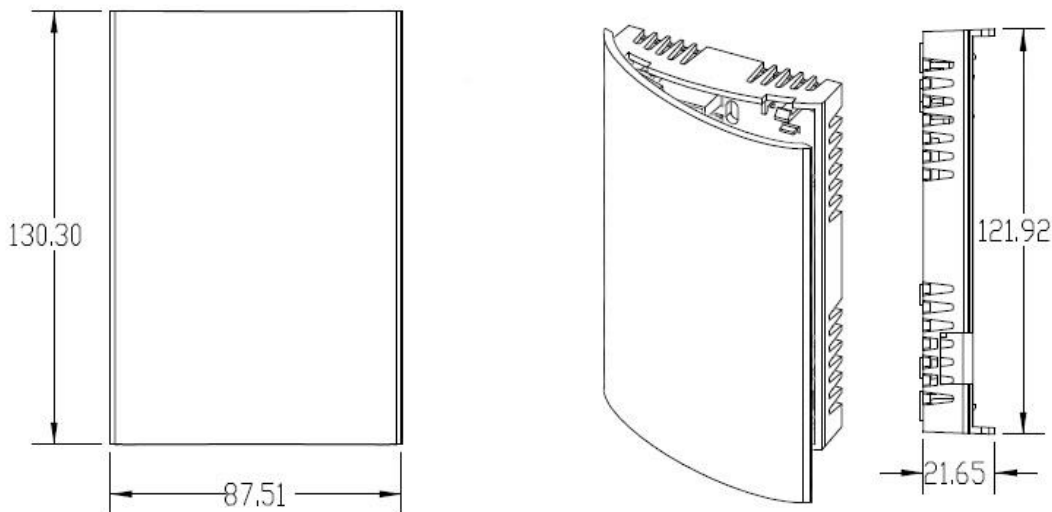
RH Supply Voltage (0-10V DC):	13 to 35 VDC / 13 to 35 VAC
Voltage Output Current:	10-12mA
Voltage Output Resistance:	1 kOhm
Supply Current:	Voltage mode 32-35mA
Long Term Stability:	Less than 0.25% per year
Repeatability:	0.8% RH @ average temp. 25°C / 77°F
Sensitivity:	0.1% RH
Accuracy:	2% & 3% versions, 10...90% RH; 5% 0...100% RH
Wiring:	3-wire (RH only) 4-wire (RH+T)
Range:	0...50°C / 32...122°F
RH Sensor Type:	Capacitive, non-condensing
RH Measurement Range:	0...100% RH

Temperature Sensor Active:

T Output	0-10V
T Range	Range 1: (Default) -40...+70°C / -40...158°F Range 2: 0...50°C / 32...122°F Range 3: 0...+100°C / 32°F...212°F Range 4: 20°F...120°F Range 5: 0°F...100°F
T Accuracy	±0.3°C / ±0.54°F
T Response Time	t63 < 120 sec (3 m/s)

Approvals:	CE & RoHS compliant
Warranty:	5 year limited warranty
Accessories:	<i>Optional customer logo printed on cover</i>

DIMENSIONS (in mm)



HOW TO BUILD A TASSERON ROOM HUMIDITY TRANSMITTER

PART NUMBER

Sample Part Number (THHRAX2c) —Humidity/Temperature Room Aero transmitter with active temp for range 1 (-40...+70°C), 2% RH accuracy with fixed 0-10V analog outputs.

T	H	H	R	A	X	2	C
Tasseron	HVAC	Humidity	Room	Aero	Temp	Accuracy	Output
						2—2%	C—0-10V
					Transmitter:	3—3%	
					W—Range 1	5—5%	
					-40...+70°C		
					X—Range 2		
					0...+50°C		
					T—Range 3		
					0...+100°C		
					(32°F...212°F)		
				*Other elements available on request	U—Range 4		
					20°F...120°F		
					V—Range 5		
					0°F...100°F		

HVAC temperature measuring elements

R/T TABLES

Temp		NTC thermistors					RTD elements			
		curve A	curve B	curve G	curve C	curve D	curve E	curve F	curve H	curve K
		NTC 10K type 2	NTC 10K type 3	NTC 10K type 4	NTC 20KOhm	NTC 3KOhm	Pt1000/B	Ni1000-891	Pt100/B	Ni1000-TC5
°C	°F	R (kOhm)	R (kOhm)	R (kOhm)	R (kOhm)	R (kOhm)	R (Ohm)	R (Ohm)	R (Ohm)	R (Ohm)
-40	-40	341.4	242.1	191.9	784.6	97.40	843	697	84.3	831
-35	-31	246.2	181.0	146.6	558.8	71.53	862	719	86.2	851
-30	-22	179.5	136.6	112.9	402.7	52.80	882	743	88.2	872
-25	-13	132.2	103.9	87.59	293.6	39.16	902	766	90.2	893
-20	-4	98.34	79.64	68.47	216.3	29.24	922	790	92.2	914
-15	5	73.73	61.54	53.91	160.7	22.04	941	815	94.1	935
-10	14	55.78	47.91	42.74	120.5	16.74	961	839	96.1	956
-5	23	42.59	37.57	34.11	91.07	12.79	980	864	98.0	978
0	32	32.82	29.66	27.40	69.40	9.856	1000	891	100.0	1000
5	41	25.52	23.57	22.14	53.33	7.663	1020	916	102.0	1022
10	50	19.97	18.85	17.99	41.28	5.999	1039	942	103.9	1045
15	59	15.75	15.17	14.72	32.18	4.729	1058	968	105.8	1068
20	68	12.51	12.28	12.09	25.28	3.754	1078	994	107.8	1091
25	77	10.00	10.00	10.00	20.00	3.000	1097	1021	109.7	1114
30	86	8.048	8.184	8.308	15.92	2.416	1117	1048	111.7	1138
35	95	6.516	6.735	6.936	12.75	1.957	1136	1075	113.6	1162
40	104	5.306	5.577	5.819	10.27	1.595	1155	1102	115.5	1186
45	113	4.345	4.641	4.904	8.320	1.307	1175	1130	117.5	1210
50	122	3.578	3.877	4.151	6.779	1.076	1194	1158	119.4	1235
55	131	2.962	3.261	3.529	5.556	0.888	1213	1187	121.3	1260
60	140	2.464	2.756	3.012	4.577	0.737	1232	1216	123.2	1285
65	149	2.060	2.340	2.582	3.788	0.616	1252	1245	125.2	1311
70	158	1.730	1.996	2.221	3.150	0.518	1271	1274	127.1	1337
75	167	1.460	1.707	1.918	2.630	0.441	1290	1304	129.0	1364
80	176	1.236	1.466	1.663	2.206	0.377	1309	1334	130.9	1390
85	185	1.051	1.264	1.446	1.857	0.324	1328	1365	132.8	1417
90	194	0.896	1.095	1.262	1.570	0.278	1347	1396	134.7	1444
95	203	0.767	0.952	1.105	1.333	0.239	1366	1427	136.6	1472
100	212	0.659	0.831	0.970	1.136	0.206	1385	1459	138.5	1500
105	221	0.569	0.728	0.855	0.972	0.179	1404	1491	140.4	1528
110	230	0.493	0.640	0.755	0.834	0.156	1423	1524	142.3	1557
115	239	0.428	0.564	0.669	0.719	0.136	1442	1556	144.2	1586
120	248	0.374	0.499	0.594	0.621	0.119	1461	1590	146.1	1615
125	257	0.327	0.443	0.529	0.539	0.105	1479	1623	147.9	1645

* Other elements on request

Tasseron Sensors Inc.

140 Choate Circle

Montoursville, PA 17754

Tel: +1 (570) 601-1971

Fax: +1 (570) 601-1972

Email: sales@tasseronusa.com