

DUCT TEMPERATURE SENSOR



STTD

STTD221, STTD222, STTD223, STTD224

Application

"STTD" Duct Temperature Sensor is intended for heating, ventilation, air conditioning and other industrial installations for control and receiving reference signals in an air duct system. Units contain either a high quality platinum or thermistor sensing element suitable for use in the range -30 ~ +130°C.

- Sensor for air supplying or distributing
- Limit Sensor (in case of limiting lowest value for air supplying)
- Shift Sensor (in case of revising room temperature depending on outside temperature)
- Measuring sensor (In case of displaying sensing value or using auto control system for building)

Technical Data

MODEL	ELEMENT	RANGE	ACCURACY	WIRE	SUITABLE
STTD221	Pt100Ω	-30 ~ 130°C	±0.15°C (at 0°C)	3wire/ 1.0mm ²	
STTD222	Pt1000Ω	-30 ~ 130°C	±0.3°C (at 0°C)	3wire/ 1.0mm ²	
STTD223	NTC3KΩ	-30 ~ 110°C	±0.2°C (at 25°C)	3wire/ 1.0mm ²	
STTD224	NTC10KΩ	-30 ~ 110°C	±0.2°C (at 25°C)	3wire/ 1.0mm ²	

- SENSING TIME : 28sec at 2m/sec Velocity
- AMBIENT TEMPERATURE : -10 ~ +80°C(Plobe: -30 ~ +110°C)
- AMBIENT HUMIDITY : 5 ~ 95%Rh
- APPLICATION : DDC System and controller
- CHARACTERISTICS : Table of Reference Values
- PROTECTION CLASS : IP 65 to EN60529
- CABLE FITTING : PF 1/2"
- HOUSING MATERIAL : PC
- WEIGHT : 70g

Mounting Guide

- On controlling supplying air temperature:
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 - For other case, install at minimum 1.5m away from the last air unit.
- Use a shield line which should be separated from power line (AC100/200V).
- Mounting position:

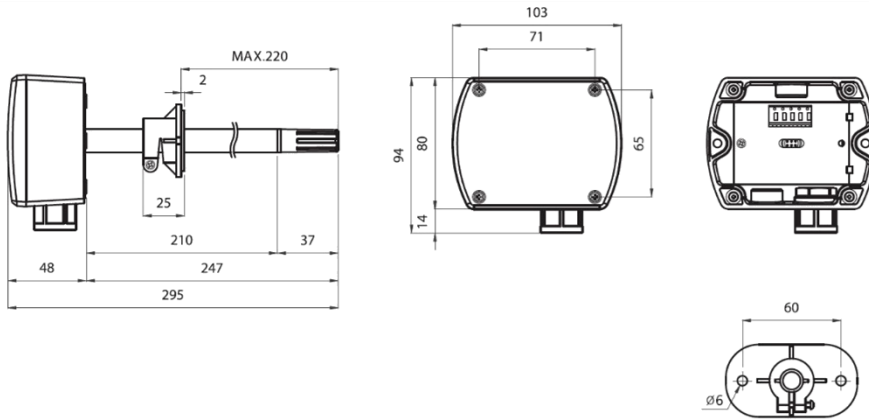
When the detector has to be mounted on supply duct the detector must be kept between 3 to 8 meters from the humidifier unit. For accurate measurement of the temperature follow recommendation as;

 - With spray water fogger; between 5 to 8 meters

Wiring Diagram



Shape Dimension



Product Data

RESISTANCE CURVE TABLE

Temperature		Pt100	Pt1000	NTC3K (ACI/3K)(22)	NTC10K (Type II)(CP)	NTC10K (Type III)(AN)	Temperature		Pt100	Pt1000	NTC3K (ACI/3K)(22)	NTC10K (Type II)(CP)	NTC10K (Type III)(AN)
Temp	Temp	Resistance	Resistance	Resistance	Resistance	Resistance	Temp	Temp	Resistance	Resistance	Resistance	Resistance	Resistance
°F	°F	Ω	Ω	Ω	Ω	Ω	°C	°F	Ω	Ω	Ω	Ω	Ω
-40	-40	84.3	843	100.701	332.15	239.78	50	122	119.4	1194	1.081	3.60	3.85
-35	-31	86.2	862	72.658	242.12	179.25	55	131	121.3	1213	896	2.99	3.23
-30	-22	88.2	882	53.196	173.34	135.23	60	140	123.2	1232	747	2.49	2.72
-25	-13	90.2	902	39.190	129.40	102.51	65	149	125.2	1252	625	2.08	2.30
-20	-4	92.2	922	29.162	96.46	79.01	70	158	127.1	1271	526	1.75	1.96
-15	5	94.1	941	21.909	71.25	61.02	75	167	129.0	1290	445	1.48	1.70
-10	14	96.1	961	16.611	54.99	47.55	80	176	130.9	1309	378	1.26	1.43
-5	23	98.0	980	12.705	42.17	37.55	85	185	132.8	1328	322	1.07	1.23
0	32	100	1000	9.800	32.56	29.99	90	194	134.7	1347	275	0.92	1.08
5	41	102.0	1020	7.620	25.34	23.90	95	203	136.6	1366	237	0.79	0.94
10	50	103.9	1039	5.971	19.87	19.03	100	212	138.5	1385	204	0.68	0.81
15	59	105.8	1058	4.713	15.93	15.26	105	221	140.4	1404	177	0.59	0.72
20	68	107.8	1078	3.747	12.49	12.28	110	230	142.3	1423	153	0.51	0.62
25	77	109.7	1097	3.000	10.00	10.00	115	239	144.2	1442	134	0.45	0.54
30	86	111.7	1117	2.416	8.06	8.17	120	248	146.1	1461	117	0.39	0.48
35	95	113.6	1136	1.959	6.53	6.71	125	257	148.0	1480	103	0.34	0.42
40	104	115.5	1155	1.597	5.33	5.55	130	266	149.8	1498	90	0.30	0.37
45	113	117.5	1175	1.310	4.37	4.61	135	275	151.7	1517	80	0.26	0.33
							140	284	153.6	1536	71	0.23	0.30