

Duct Temperature Sensors OE230 (6" Probe) & OE231 (12" Probe)

Caution!

The Duct Sensor Is Used For Sensing Supply Or Return Air Temperatures. Location Of The Sensors Is Very Important In Order To Obtain Accurate Temperature Readings. The Following Recommendations Should Be Followed:

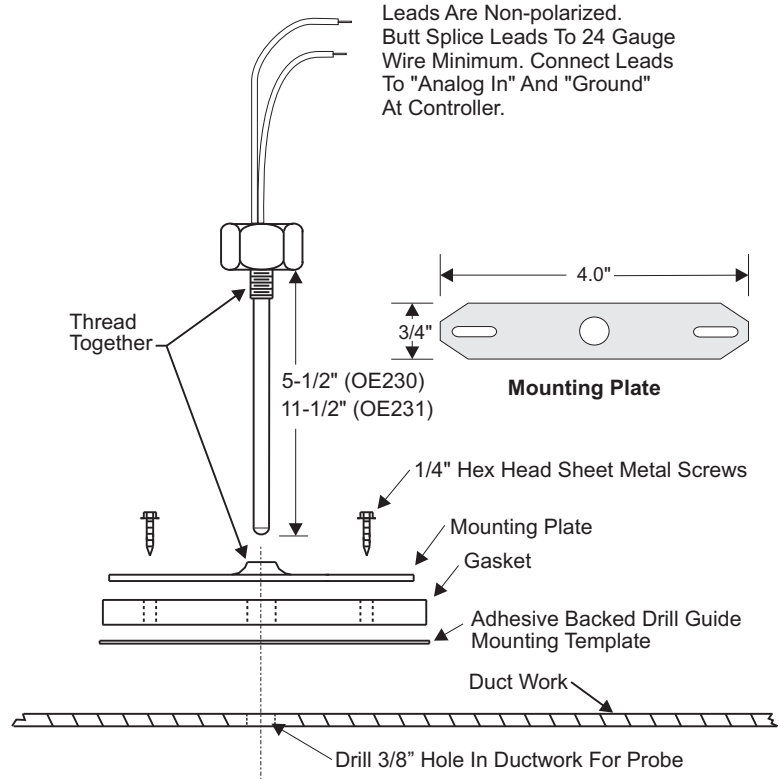
Supply Air

When Used As A Supply Air Sensor The Sensor Should Be Mounted In The Supply Air Duct As Close To The HVAC Unit As Possible And Upstream Of The Bypass Damper (If Used) For Best Results. For Best Accuracy, Apply Insulation On The Outside Of The Ductwork Over The Sensor. This Will Help Thermal Gradients From Affecting The Sensor.

Return Air

When Used As A Return Air Sensor The Sensor Should Be Mounted In The Return Air Duct As Close To The HVAC Unit As Possible And Upstream Of The Bypass Damper (If Used) For Best Results. For Best Accuracy, Apply Insulation On The Outside Of The Ductwork Over The Sensor. This Will Help Thermal Gradients From Affecting The Sensor.

See The Systems Installation And Operation Manual For Other Design Considerations And Recommendations Regarding Duct Temperature Sensor Location.



Temperature Sensor Resistance/Voltage Chart

Temp ° F	Resistance* Ohms	Voltage @ Input*	Temp ° F	Resistance* Ohms	Voltage @ Input*	Temp ° F	Resistance* Ohms	Voltage @ Input*	Temp ° F	Resistance* Ohms	Voltage @ Input*
-10	93333	4.620	45	21094	3.470	69	11906	2.780	84	8514	2.352
-5	80531	4.550	50	18655	3.330	70	11652	2.752	86	8153	2.297
0	69822	4.474	52	17799	3.275	71	11379	2.722	88	7805	2.242
5	60552	4.390	54	16956	3.217	72	11136	2.695	90	7472	2.187
10	52500	4.297	56	16164	3.160	73	10878	2.665	95	6716	2.055
15	45902	4.200	58	15385	3.100	74	10625	2.635	100	6047	1.927
20	40147	4.095	60	14681	3.042	75	10398	2.607	105	5453	1.805
25	35165	3.982	62	14014	2.985	76	10158	2.570	110	4923	1.687
30	30805	3.862	64	13382	2.927	78	9711	2.520	115	4449	1.575
35	27140	3.737	66	12758	2.867	80	9302	2.465	120	4030	1.469
40	23874	3.605	68	12191	2.810	82	8893	2.407	125	3656	1.369

*Chart Notes:

- Use the resistance column to check the thermistor sensor while disconnected from the controllers (not powered).
- Use the voltage column to check sensors while connected to powered controllers. Read voltage with meter set on DC volts. Place the "-" (minus) lead on GND terminal and the "+" (plus) lead on the sensor input terminal being investigated. If the voltage is above 5.08 VDC, the sensor or wiring is "open." If the voltage is less than 0.05 VDC, the sensor or wiring is shorted.

Technical Specifications

Sensor Element:	Type III Thermistor 10k ohm @ 77°F
Accuracy:	± 0.4° F between 40° F to 95° F
Range:	-30° F to 150° F

Notes:

- All Wiring To Be In Accordance With Local And National Electrical Codes And Specifications.

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1	OE230 & OE231 Duct Temperature Sensor