

Duct Temperature Sensors — Various Outputs



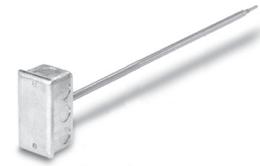
Energy & Atmosphere



Indoor Environmental Quality



Duct Sensor with Flexible Probe



Duct Sensor with Rigid Probe



536-811 Bracket Mounted Duct Sensor

Description

The Duct Temperature Sensors monitor and transmit changes in temperature to the building control system. Specific devices within the range are compatible with most North American building automation systems. They install directly into the duct and are equipped with necessary mounting hardware. All sensors incorporate precision temperature sensing elements to accurately and reliably measure temperature.

Features

- Variety of sensing elements
- Responsive to temperature change
- Accurate and reliable indication of duct temperature
- Simple installation requires no special tools

Applications

Duct temperature sensors are used throughout forced air HVAC systems to monitor air temperature within the ductwork. Single point sensors include one sensing element. Averaging sensors incorporate multiple sensing elements and are typically used in larger ducts where some temperature stratification may occur.

Specifications

Output Signals

Active.....	4-20mA
Passive.....	Pt 1k Ω (375 alpha)
	Pt 1k Ω (385 alpha)
	Ni 1k Ω @32F
	Ni 1k Ω @70F
	NTC 100k Ω
	NTC 10k Ω Type II
	NTC 10k Ω Type III

Accuracy

NTC Thermistors, mid-range.....	$\pm 1.0^{\circ}\text{F}$ ($\pm 0.5^{\circ}\text{C}$)
Pt RTD and Ni RTD, mid-range.....	$\pm 0.75^{\circ}\text{F}$ ($\pm 0.4^{\circ}\text{C}$)

Conduit Connection Threads 1/2-inch – 14 NPSMI

Housing Standard NEC approved 2 x 4 inch (5 x 10 cm) utility box with 1/2 inch (13 mm) knockouts

Probe Material 0.028 Wall SAE J526 ZTEW or Galvan steel tubing

Standard Duct Temperature Sensor Ordering

Application	Description	Output Signal	Part Number	Range	Data Sheet	
Duct Averaging	Duct Averaging Sensor with 16 ft. Probe	Platinum 1k Ω 375 alpha	544-342-16	Controller Dependent	149-261P25	
	Duct Averaging Sensor with 18 in. Probe		544-343-18		149-261P25	
	Duct Averaging Sensor with 24 ft. Probe		544-342-24		149-261P25	
	Duct Averaging Sensor with 24 in. Probe		544-343-24		149-261P25	
	Duct Averaging Sensor with 36 in. Probe		544-343-36		149-261P25	
	Duct Averaging Sensor with 48 in. Probe		544-343-48		149-261P25	
	Duct Averaging Sensor with 8 ft. Probe		544-342-8		149-261P25	
	Duct Averaging Sensor with 16 ft. Probe	4-20 mA	533-380-16	20 to 120F	149-263P25	
	Duct Averaging Sensor with 18 in. Probe		535-490-18		149-263P25	
	Duct Averaging Sensor with 24 ft. Probe		533-380-24		149-263P25	
	Duct Averaging Sensor with 24 in. Probe		535-490-24		149-263P25	
	Duct Averaging Sensor with 36 in. Probe		535-490-36		149-263P25	
	Duct Averaging Sensor with 48 in. Probe		535-490-48		149-263P25	
	Duct Averaging Sensor with 8 ft. Probe		533-380-8		149-263P25	
	Duct Averaging Sensor with 16 ft. Probe	Nickel 1k Ω @ 32F	QAM2020.500	Controller Dependent	149-916	
	Duct Averaging Sensor with 24 ft. Probe		QAM2020.750		149-916	
	Duct Averaging Sensor with 24 ft. Probe	Nickel 1k Ω @ 70F	QAM2021.750		149-916	
	Duct Averaging Sensor with 18 in. Probe	NTC 100k Ω Type 2	540-244-18		149-916	
	Duct Averaging Sensor with 36 in. Probe		540-245-36		149-916	
	Duct Averaging Sensor with 72 in. Probe		540-246-72		149-916	
	Duct Averaging Sensor with 16 ft. Probe	NTC 10k Ω Type 2	QAM2030.500	Controller Dependent	149-916	
	Duct Averaging Sensor with 16 ft. Probe	NTC 10k Ω Type 3	QAM2032.500		149-916	
	Duct Averaging Sensor with 24 ft. Probe	NTC 10k Ω Type 2	QAM2030.750		149-916	
	Duct Averaging Sensor with 24 ft. Probe	NTC 10k Ω Type 3	QAM2032.750		149-916	
	Duct Averaging Sensor with 8 ft. Probe	NTC 10k Ω Type 2	QAM2030.250		149-916	
	Duct Averaging Sensor with 8 ft. Probe	NTC 10k Ω Type 3	QAM2032.250		149-916	
	Duct Averaging Sensor with 16 ft. Probe	Platinum 1k Ω 385 alpha	QAM2012.500			149-916
	Duct Averaging Sensor with 24 ft. Probe		QAM2012.750			149-916
	Duct Averaging Sensor with 8 ft. Probe		QAM2012.250			149-916
	Duct Temp Sensor with 18" Probe	Platinum 1k Ω 375 alpha	544-339-18			149-916
Duct Temp Sensor with 4" Probe	544-339-4			149-916		
Duct Temp Sensor with 8" Probe	544-339-8			149-916		
Duct Temp Sensor with 18" Probe	4-20 mA	533-376-18	20 to 120F	149-263P25		
Duct Temp Sensor with 18" Probe		533-377-18	70 to 220F	149-263P25		
Duct Temp Sensor with 18" Probe		544-560-18	4 to 122F	149-263P25		
Duct Temp Sensor with 4" Probe		533-376-4	20 to 120F	149-263P25		
Duct Temp Sensor with 4" Probe		533-377-4	70 to 220F	149-263P25		
Duct Temp Sensor with 4" Probe		544-560-4	4 to 122F	149-263P25		
Duct Temp Sensor with 8" Probe		533-376-8	20 to 120F	149-263P25		
Duct Temp Sensor with 8" Probe		533-377-8	70 to 220F	149-263P25		
Duct Temp Sensor with 8" Probe		544-560-8	4 to 122F	149-263P25		
Duct Temp Sensor with 18" Probe		Nickel 1k Ω @ 32F	QAM2020.045	Controller Dependent	149-915	
Duct Temp Sensor with 4" Probe	QAM2020.010		149-915			
Duct Temp Sensor with 8" Probe	QAM2020.020		149-915			
Duct Temp Sensor with 18" Probe	Nickel 1k Ω @ 70F	QAM2021.045		149-915		
Duct Temp Sensor with 8" Probe		QAM2021.020		149-915		
Duct Temp Sensor with 18" Probe		NTC 100k Ω Type2	535-741-18		149-262P25	
Duct Temp Sensor with 4" Probe (2" x 4" box)	535-741-4			149-262P25		
Duct Temp Sensor with 4" Probe (bracket mount)	536-811			149-134P25		
Duct Temp Sensor with 8" Probe	535-741-8			149-262P25		
Duct Temp Sensor with 18" Probe	NTC 10k Ω Type 2	QAM2030.045		149-915		
Duct Temp Sensor with 18" Probe	NTC 10k Ω Type 3	QAM2032.045		149-915		
Duct Temp Sensor with 4" Probe	NTC 10k Ω Type 2	QAM2030.010		149-915		
Duct Temp Sensor with 4" Probe	NTC 10k Ω Type 3	QAM2032.010		149-915		
Duct Temp Sensor with 8" Probe	NTC 10k Ω Type 2	QAM2030.020		149-915		
Duct Temp Sensor with 8" Probe	NTC 10k Ω Type 3	QAM2032.020		149-915		
Duct Temp Sensor with 18" Probe	Platinum 1k Ω 385 alpha	QAM2012.045		149-915		
Duct Temp Sensor with 4" Probe		QAM2012.010		149-915		
Duct Temp Sensor with 8" Probe		QAM2012.020		149-915		