

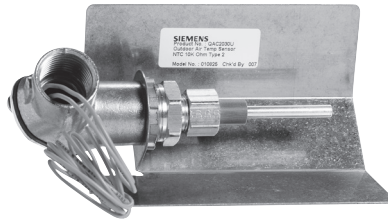
## Outdoor and Surface Temperature Sensors — Various Outputs



Energy & Atmosphere



Indoor Environmental Quality



Outdoor Temperature Sensor



Pipe Surface Temperature Sensor

### Description

Standard 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. All sensors incorporate precision temperature sensing elements to accurately and reliably measure temperature.

### Features

- Variety of output signals available
- Outdoor sensors are ruggedly constructed for use in all climates
- Responsive to temperature change
- Accurate and reliable indication of temperature
- Simple installation requires no special tools

### Applications

Outdoor temperature sensors are used to monitor the temperature of outdoor air. This variable is often used in a variety of HVAC control strategies, including outdoor reset and building ventilation.

Pipe surface temperature sensors are often used in place on immersion type sensors, particularly in cases where sensor installation occurs after the system is filled.

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# Standard Outdoor Temperature Sensor Specifications

## Output Signals

Active.....	4-20mA
Passive.....	Pt 1k $\Omega$ (375 alpha)
	Pt 1k $\Omega$ (385 alpha)
	Ni 1k $\Omega$ @32F
	Ni 1k $\Omega$ @70F
	NTC 100k $\Omega$
	NTC 10k $\Omega$ Type II
	NTC 10k $\Omega$ 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.....	$\pm 0.75^{\circ}\text{F}$ ( $\pm 0.4^{\circ}\text{C}$ )

# Standard Outdoor Temperature Sensor Product Ordering

Application	Output Signal	Part Number	Range	Data Sheet
Outdoor Air Temp Sensor	Platinum 1k $\Omega$ 375 alpha	<b>544-578</b>	Controller Dependent	149-261P25
	4-20 mA	<b>536-768</b>	-58 to 122F	149-263P25
	Nickel 1k $\Omega$ @ 32F	<b>QAC2020U</b>	Controller Dependent	149-920
	Nickel 1k $\Omega$ @ 70F	<b>QAC2021U</b>		149-920
	NTC 100k $\Omega$ Type 2	<b>536-778</b>		149-262P25
	NTC 10k $\Omega$ Type 2	<b>QAC2030U</b>		149-920
	NTC 10k $\Omega$ Type 3	<b>QAC2032U</b>		149-920
	Platinum 1k $\Omega$ 385 alpha	<b>QAC2012U</b>		149-920
Surface Mount Pipe Temp	Platinum 1k $\Omega$ 375 alpha	<b>544-089</b>	Controller Dependent	149-261P25
	4-20 mA	<b>536-780</b>	30 to 250F	149-263P25
	Nickel 1k $\Omega$ @ 32F	<b>QAD2020U</b>	Controller Dependent	149-918
	Nickel 1k $\Omega$ @ 70F	<b>QAD2021U</b>		149-918
	NTC 10k $\Omega$ Type 2	<b>QAD2030U</b>		149-918
	NTC 10k $\Omega$ Type 3	<b>QAD2032U</b>		149-918
	Platinum 1k $\Omega$ 385 alpha	<b>QAD2012U</b>		149-918

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