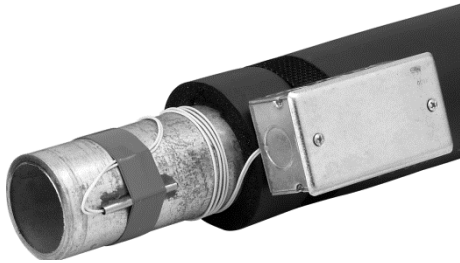


## Surface Mount Temperature Sensors



**With Electrical Box**



**Strap-on Cable Only**



**Self-Contained**

### Description

Siemens Surface Temperature Sensors monitor and transmit changes in temperature to the HVAC control system. The sensor resistance varies proportionally to the actual temperature being measured.

The self-contained sensors and units with electrical boxes are ideal for measuring pipe surface temperature as a surrogate for actual fluid temperature when it is not possible to retrofit a full immersion type sensor.

The strap-on cable style sensors can be used to acquire pipe surface temperature and can also be used to quickly acquire duct air temperature. When fitted with an appropriate protection tube, it can acquire temperature within a concrete slab.

The QAH11.1 is designed specifically for use as a changeover temperature sensor with Siemens RDG Series room thermostats.

Multiple output signals are available to ensure compatibility with most common HVAC control systems.

### Features

- Variety of sensing elements.
- Suitable for hot or chilled fluids.
- Responsive to temperature change.
- Accurate and reliable indication of temperature.
- Easy installation requires no special tools.

### Specifications

Output Signals	100K $\Omega$ Thermistor 10K $\Omega$ Type 2 Thermistor 10K $\Omega$ Type 3 Thermistor 1K $\Omega$ @ 32°F Ni RTD 1K $\Omega$ @ 70°F Ni RTD 1K $\Omega$ Pt RTD (375a) 1K $\Omega$ Pt RTD (385a) 4 to 20 mA
Accuracy	See Table 1.

**Table 1. Product Ordering Information.**

Configuration	Output Signal	Measuring Range	Cable Length	Accuracy	Product Number
With 2" x 4" Electrical Box	10K $\Omega$ Type II Thermistor	-40°F to 240°F (-40°C to 121°C)	26 inches	$\pm 0.4^\circ\text{F}$ ( $\pm 0.2^\circ\text{C}$ ) @ 77°F (25°C)	QAD2030U
	10K $\Omega$ Type III Thermistor		26 inches		QAD2032U
	1K $\Omega$ @ 3°F Ni RTD		26 inches	$\pm 0.72^\circ\text{F}$ ( $\pm 0.4^\circ\text{C}$ ) @ 32°F (0°C)	QAD2020U
	1K $\Omega$ @ 70°F Ni RTD		26 inches		QAD2021U
	1K $\Omega$ Pt RTD (375a)		26 inches	$\pm 0.54^\circ\text{F}$ ( $\pm 0.3^\circ\text{C}$ ) @ 32°F (0°C)	544-089
	1K $\Omega$ Pt RTD (385a)		26 inches		QAD2012U
	4 to 20 mA		30°F to 250°F (-1°C to 121°C)		26 inches
Strap-on Cable Only	100K $\Omega$ Thermistor	-40°F to 248°F (-40°C to 120°C)	8 inches	$\pm 0.50^\circ\text{F}$ ( $\pm 0.28^\circ\text{C}$ ) @ 77°F (25°C)	540-258
	10K $\Omega$ Type II Thermistor	-13°F to 203°F (-25°C to 95°C)	6.5 Feet	$\pm 0.81^\circ\text{F}$ ( $\pm 0.45^\circ\text{C}$ ) @ 77°F (25°C)	QAP1030.200
	1K $\Omega$ @ 32°F Ni RTD		6 Feet	$\pm 0.36^\circ\text{F}$ ( $\pm 0.2^\circ\text{C}$ ) @ 32°F (0°C)	QAP22
	1K $\Omega$ Pt RTD (385a)	-22°F to 266°F (-30° to 130°C)	5 Feet	$\pm 1^\circ\text{F}$ ( $\pm 0.5^\circ\text{C}$ ) @ 32°F (0°C)	QAP2012.150
	3K $\Omega$ Thermistor	32°F to 104°F (0°C to 40°C)	8 feet	$\pm 0.54^\circ\text{F}$ ( $\pm 0.3^\circ\text{C}$ ) @ 77°F (25°C)	QAH11.1*
Self-Contained with Plastic Housing	10K $\Omega$ Type II Thermistor	-11°F to 257°F (-30°C to 125°C)	Not Applicable	$\pm 0.81^\circ\text{F}$ ( $\pm 0.45^\circ\text{C}$ ) @ 77°F (25°C)	QAD2030
	1K $\Omega$ @ 32°F Ni RTD	0°F to 250°F (-18°C to 121°C)	Not Applicable	$\pm 0.36^\circ\text{F}$ ( $\pm 0.2^\circ\text{C}$ ) @ 32°F (0°C)	QAD22
	1K $\Omega$ Pt RTD (385a)	-11°F to 266°F (-30°C to 130°C)	Not Applicable	$\pm 0.54^\circ\text{F}$ (0.3°C) @ 32°F (0°C)	QAD2012

\* For use as a heating/cooling changeover sensor with Siemens RDG Series room thermostats.

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