

Immersion Temperature Sensors — Various Outputs



Energy &
Atmosphere



Indoor
Environmental
Quality



Liquid Immersion Temperature
Sensor with Well

Description

The Immersion Temperature Sensors with Well 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. The sensors include a well to enable service and repair without draining the system. All sensors incorporate precision temperature sensing elements to accurately and reliably measure temperature.

Features

- Variety of output signals / probe lengths
- Suitable for hot or chilled fluids
- Responsive to temperature change
- Accurate and reliable indication of temperature
- Simple installation requires no special tools

Applications

Immersion temperature sensors are used throughout HVAC and processing systems to monitor fluid temperatures in piping and vessels.

E-15

Sensors

Immersion Temperature Sensor 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.....	$\pm 0.75^{\circ}\text{F}$ ($\pm 0.4^{\circ}\text{C}$)

External Installation Threads 1/2-inch – 14 NPT

Conduit Connection Threads 1/2-inch – 14 NPSMI

Housing Material..... Cast zinc

Immersion Well Material.....300 Series Stainless Steel

Immersion Temperature Sensors Product Ordering

Application	Description	Output Signal	Part Number	Range	Data Sheet	
Liquid Immersion	2.5" Immersion Temp Sensor With Well	Platinum 1k Ω 375 alpha	544-577-25	Controller Dependent	149-261P25	
	4" Immersion Temp Sensor With Well		544-577-40		149-261P25	
	6" Immersion Temp Sensor With Well		544-577-60		149-261P25	
	2.5" Immersion Temp Sensor With Well	4-20 mA	536-767-25	30 to 250F	149-263P25	
	2.5" Immersion Temp Sensor With Well		536-774-25	20 to 70F	149-263P25	
	2.5" Immersion Temp Sensor With Well		544-562-25	32 to 212F	149-263P25	
	4" Immersion Temp Sensor With Well		536-767-40	30 to 250F	149-263P25	
	4" Immersion Temp Sensor With Well		536-774-40	20 to 70F	149-263P25	
	4" Immersion Temp Sensor With Well		544-562-40	32 to 212F	149-263P25	
	6" Immersion Temp Sensor With Well		536-767-60	30 to 250F	149-263P25	
	6" Immersion Temp Sensor With Well		536-774-60	20 to 70F	149-263P25	
	6" Immersion Temp Sensor With Well		544-562-60	32 to 212F	149-263P25	
	2.5" Immersion Temp Sensor With Well		Nickel 1k Ω @ 32F	QAE2020.005	Controller Dependent	149-919
	4" Immersion Temp Sensor With Well			QAE2020.010		149-919
	6" Immersion Temp Sensor With Well			QAE2020.015		149-919
	2.5" Immersion Temp Sensor With Well	Nickel 1k Ω @ 70F	QAE2021.005	149-919		
	4" Immersion Temp Sensor With Well		QAE2021.010	149-919		
	6" Immersion Temp Sensor With Well		QAE2021.015	149-919		
	2.5" Immersion Temp Sensor With Well	NTC 100k Ω Type 2	536-777-25	149-262P25		
	4" Immersion Temp Sensor With Well		536-777-40	149-262P25		
	6" Immersion Temp Sensor With Well		536-777-60	149-262P25		
	2.5" Immersion Temp Sensor With Well	NTC 10k Ω Type 2	QAE2030.005	149-919		
	4" Immersion Temp Sensor With Well		QAE2030.010	149-919		
	6" Immersion Temp Sensor With Well		QAE2030.015	149-919		
	2.5" Immersion Temp Sensor With Well	NTC 10k Ω Type 3	QAE2032.005	149-919		
	4" Immersion Temp Sensor With Well		QAE2032.010	149-919		
	6" Immersion Temp Sensor With Well		QAE2032.015	149-919		
	2.5" Immersion Temp Sensor With Well	Platinum 1k Ω 385 alpha	QAE2012.005	149-919		
	4" Immersion Temp Sensor With Well		QAE2012.010	149-919		
	6" Immersion Temp Sensor With Well		QAE2012.015	149-919		