



HVAC SENSORS

A complete range of  
**high quality sensors**

[usa.siemens.com/sensors](http://usa.siemens.com/sensors)

**SIEMENS**

# Accurate sensors easy to set and forget

Siemens offers a complete portfolio of sensors engineered to help ensure healthy and productive indoor climates. With sensors that measure air quality, flow, humidity, pressure and temperature, Siemens enables you to control the entire HVAC system effectively. This helps to ensure occupant comfort while also optimizing building efficiency and indoor air quality.

Our sensors are engineered for easy, simple installation and are maintenance-free. Built to Siemens standards, our rigorous testing ensures high quality sensors provide years of reliable, accurate performance in any HVAC or building automation system.

## Why use sensors?



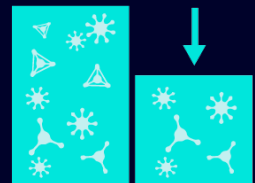
**CO<sub>2</sub> control**  
Increase occupant  
comfort and improve  
productivity



**VOC control**  
Address offensive  
odors



**Fine dust control**  
Reduce risk of lung  
diseases and other  
health issues



**Humidity control**  
Limit spread of colds,  
flu and other viruses



Siemens offers a 5-year warranty on  
valves, actuators, damper actuators,  
sensors, thermostats and meters.

## Temperature Sensors

Measure temperature at nearly any point in the building, including room, outdoor, air side and water side.



## Humidity Sensors

From basic measurement in an HVAC system to more precise applications in critical environments, humidity sensors provide a cost-effective and reliable solution.

## Air Quality Sensors

Siemens offers a wide variety of air quality sensors including simple CO<sub>2</sub> measuring devices and more sophisticated units that measure volatile organic compounds (VOCs) and particulate matter.



## Pressure Sensors, Flow Sensors and Switches

An extensive range of pressure sensors, flow sensors and flow switches for both the air side and the water side of your HVAC system are offered in the Siemens portfolio.

# A full range of temperature sensors

Temperature is one of the most identifiable aspects of HVAC systems. With an emphasis on occupant comfort and promoting both productive and efficient environments. Our sensors are reliable, long-lasting and many are maintenance-free.

## Room Temperature Sensors

Room temperature sensors enable HVAC control systems to address this fundamental comfort parameter accurately and efficiently. Temperature sensing room units add to the control and comfort of occupants with the addition of user-controlled settings built into the units.

## Duct Temperature Sensors

Monitoring temperature in air ducts provides valuable insight into the performance of an HVAC system. Temperature sensors can be applied simply and easily in residential applications as well as the largest of commercial HVAC air ducts.

## Immersion Temperature Sensors

Immersion temperature sensors are a staple in hydronic HVAC systems to monitor the health and performance of hydronic settings. These rugged sensors include a durable stainless steel thermowell that meets today's demands even with performance additives.

## Surface and Cable Temperature Sensors

Surface temperature sensors are typically used in hydronic systems when circumstances inhibit the use of immersion sensors. Surface sensors feature a wide variety of output signals and are offered with traditional metal boxes or more modern polycarbonate housings.

Cable temperature sensors have a wide variety of uses in ductwork, on surfaces or installed in dry piping as slab temperature sensors. The go-to sensor for something reliable and easy to install at a low-cost.



## Outdoor Temperature Sensors

Temperature sensors empower HVAC strategies and enable systems to operate at peak efficiency. Outdoor sensors have a robust construction to reliably operate in all climates.






## Rigid Probe Duct Temperature Sensors

An economical sensor that is easy to install in many types of HVAC ductwork is the rigid probe duct temperature sensor. Most are point-type probes that measure air temp near the tip of the probe. For larger ducts, or ducts that are subject to temperature stratification, averaging probes provide an output signal that indicates the average temperature along multiple points on the probe.

## Flexible Probe Duct Temperature Sensors





Large ducts require extended probes with multiple sensing elements to provide accurate average temperature reading. Siemens flexible duct sensors feature flexible probes and mounting clips that enable the sensor to be configured to register measurements at multiple elevations within the duct.

Siemens also offers unique single point short-probe flexible sensors that are easy to install in both smaller ducts and ducts that are not rectangular in profile.

Room Temperature Sensors				Temperature Output												Display	Color	Notes
Photo	Features	Model Number	Orderable Number	1k $\Omega$ Pt 375a RTD	1k $\Omega$ Pt 385a RTD	10k $\Omega$ Type II Thermistor	10k $\Omega$ Type III Thermistor	100k $\Omega$ Type II Thermistor	1k $\Omega$ Ni @ 32F RTD (Siemens)	1k $\Omega$ Ni @ 70F RTD (JCI)	4-20mA	0-10V	P1 (TEC)	PL-Link (DXR)	Modbus			
	Display	QAA2212.EWSN	QAA2212.EWSN		X												White	
		QAA2220.EWSN	QAA2220.EWSN						X								White	
		QAA2221.EWSN	QAA2221.EWSN							X							White	
		QAA2230.EWSN	QAA2230.EWSN			X											White	
		QAA2232.EWSN	QAA2232.EWSN				X										White	
		QAA2235.EWSN	QAA2235.EWSN					X									White	
		QAA2280.EWSN	QAA2280.EWSN										X				White	1
		QAA225S.EWSN	QAA225S.EWSN								X	X					White	
		QAA2280.DWSC	QAA2280.DWSC										X			X	White	1
	Flush Mount	536-984	536-984					X									Metal	
		540-984	540-984			X											Metal	
		540-995	540-995										X				Metal	1
		544-973	544-973	X													Metal	
		536-784B	536-784B					X									White	
		536-994B	536-994B			X											White	
		540-520B	540-520B										X				White	1
		544-374B	544-374B	X													White	
		536-784A	536-784A					X									Beige	
		536-994A	536-994A			X											Beige	
		540-520A	540-520A										X				Beige	1
		544-374A	544-374A	X													Beige	
	Button Style w/Wall Plate	QAA1011.AASU	QAA1011.AASU	X													Metal	
		QAA1031.AASU	QAA1031.AASU										X				Metal	1
		QAA1011.AATU	QAA1011.AATU	X													Metal	
		QAA1031.AATU	QAA1031.AATU										X				Metal	
		QMX3.P30	S55624-H103-A											X			White	2
		QMX3.P30-1BSC	S55624-H123											X			Black	2
	Semi-Flush Mount	QAA2570.2532	QAA2570.2532											X			White	2

1) For use with Siemens TEC controllers only

2) For use with Siemens PL-Link compatible controllers only

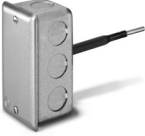
Temperature Sensing Room Units				Temperature Output														
Photo	Features	Model Number	Orderable Number	1 k $\Omega$ Pt 375a RTD	1 k $\Omega$ Pt 385a RTD	10k $\Omega$ Type II Thermistor	10k $\Omega$ Type III Thermistor	100k $\Omega$ Type II Thermistor	1k $\Omega$ Ni @ 32F RTD (Siemens)	1k $\Omega$ Ni @ 70F RTD (JCI)	4-20mA	0-10V	P1 (TEC)	PL-Link (DXR)	Modbus	Display	Color	Notes
		QAA2212.FWSN	QAA2212.FWSN		X											X	White	1
		QAA2220.FWSN	QAA2220.FWSN						X							X	White	1
		QAA2221.FWSN	QAA2221.FWSN							X						X	White	1
		QAA2230.FWSN	QAA2230.FWSN			X										X	White	1
		QAA2232.FWSN	QAA2232.FWSN				X									X	White	1
		QAA2280.FWSN	QAA2280.FWSN										X			X	White	2
		QAA2255.FWSN	QAA2255.FWSN								X	X				X	White	1
		QMX3.P34	S55624-H105-A											X		X	White	3
		QMX3.P34-1BSC	S55624_H126											X		X	Black	3
 	TRA Compatible	QMX3.P02	QMX3.P02											X			White	3, 4
		QMX3.P02-1BSC	S55624-H128											X			Black	3, 4
		QMX3.P37	QMX3.P37											X		X	White	3, 4
		QMX3.P37-1BSC	S55624-H129											X		X	Black	3, 4



1) Temperature setpoint signal is 0-10V, 55°F to 95°F; Override signal is momentary contact rated for 1A max @ 24Vac.

2) For use with Siemens TEC controllers only.

3) For use with Siemens PL-Link compatible controller only.



4) Includes configurable touch keys for lighting and shade control in Total Room Automation.

Rigid Probe Duct Temperature Sensors				Temperature Output										Probe Length (Inches)	Probe Type	Measuring Range
Photo	Features	Model Number	Orderable Number	1k $\Omega$ Pt 375a RTD	1k $\Omega$ Pt 385a RTD	10k $\Omega$ Type II Thermistor	10k $\Omega$ Type III Thermistor	100k $\Omega$ Type II Thermistor	1k $\Omega$ Ni @ 32F RTD (Siemens)	1k $\Omega$ Ni @ 70F RTD (JCI)	4-20mA	0-10V	P1 (TEC)			
		535-741-18	535-741-18					X						18	Point	-40 to 180F
		535-741-4	535-741-4					X						4	Point	-40 to 180F
		535-741-8	535-741-8					X						4	Point	-40 to 180F
		538-871	538-871										X(1)	4	Point	-40 to 180F
		540-739	540-739										X(1)	18	Point	-40 to 180F
		544-339-18	544-339-18	X										18	Point	-40 to 180F
		544-339-4	544-339-4	X										4	Point	-40 to 180F
		544-339-8	544-339-8	X										8	Point	-40 to 180F
		QAM2012.010	QAM2012.010		X									4	Point	-40 to 180F
		QAM2012.020	QAM2012.020		X									8	Point	-40 to 180F
		QAM2012.045	QAM2012.045		X									18	Point	-40 to 180F
		QAM2020.010	QAM2020.010						X					4	Point	-40 to 180F
		QAM2020.020	QAM2020.020						X					8	Point	-40 to 180F
		QAM2020.045	QAM2020.045						X					18	Point	-40 to 180F
		QAM2021.020	QAM2021.020							X				8	Point	-40 to 180F
		QAM2021.045	QAM2021.045							X				18	Point	-40 to 180F
		QAM2030.010	QAM2030.010			X								4	Point	-40 to 180F
		QAM2030.020	QAM2030.020			X								8	Point	-40 to 180F
		QAM2030.045	QAM2030.045			X								18	Point	-40 to 180F
		QAM2032.010	QAM2032.010				X							4	Point	-40 to 180F
		QAM2032.020	QAM2032.020				X							8	Point	-40 to 180F
		QAM2032.045	QAM2032.045				X							18	Point	-40 to 180F
		533-376-18	533-376-18								X			18	Point	20 to 120F
		533-376-4	533-376-4								X			4	Point	20 to 120F
		533-376-8	533-376-8								X			8	Point	20 to 120F
		533-377-18	533-377-18								X			18	Point	30 to 250F
		533-377-4	S55624-H123								X			4	Point	30 to 250F
		533-377-8	533-377-8								X			8	Point	30 to 250F



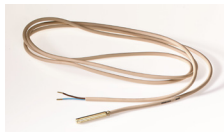
Rigid Probe Duct Temperature Sensors				Temperature Output												
Photo	Features	Model Number	Orderable Number	1k $\Omega$ pt 375a RTD	1k $\Omega$ Pt 385a RTD	10k $\Omega$ Type II Thermistor	10k $\Omega$ Type III Thermistor	100k $\Omega$ Type II Thermistor	1k $\Omega$ Ni @ 32F RTD (Siemens)	1k $\Omega$ Ni @ 70F RTD (JCI)	4-20mA	0-10V	P1 (TEC)			
		544-560-18	544-560-18								X			18	Point	-4 to +122F
		544-560-4	544-560-4								X			4	Point	-4 to +122F
		544-560-8	544-560-8								X			8	Point	-4 to +122F
	Bracket Mount	536-811	536-811					X						4	Point	-40 to 180F
		540-128	540-128										X(1)	4	Point	-40 to 180F
		QAM2030.010-BR	QAM2030.010-BR			X								4	Point	-40 to 180F
		535-490-18	535-490-18								X			18	Averaging	20 to 120F
		535-490-24	535-490-24								X			24	Averaging	20 to 120F
		535-490-36	535-490-36								X			36	Averaging	20 to 120F
		535-490-48	535-490-48								X			48	Averaging	20 to 120F
		540-244-18	540-244-18					X						18	Averaging	-40 to 180F
		544-343-18	544-343-18	X										18	Averaging	-40 to 180F
		544-343-24	544-343-24	X										24	Averaging	-40 to 180F
		544-343-36	544-343-36	X										36	Averaging	-40 to 180F
		544-343-48	544-343-48	X										48	Averaging	-40 to 180F



1) For use with Siemens TEC controllers only



Flexible Probe Duct Temperature Sensors				Temperature Output										Probe Length (Inches)	Probe Type	Measuring Range
Photo	Features	Model Number	Orderable Number	1k $\Omega$ Pt 375a RTD	1k $\Omega$ Pt 385a RTD	10k $\Omega$ Type II Thermistor	10k $\Omega$ Type III Thermistor	100k $\Omega$ Type II Thermistor	1k $\Omega$ Ni @ 32F RTD (Siemens)	1k $\Omega$ Ni @ 70F RTD (JCI)	4-20mA	0-10V	Modbus RTU			
		QAM2012.250	QAM2012.250	X										96	Averaging	-40 to 180F
		QAM2012.500	QAM2012.500	X										192	Averaging	-40 to 180F
		QAM2012.750	QAM2012.750	X										288	Averaging	-40 to 180F
		QAM2020.500	QAM2020.500					X						192	Averaging	-40 to 180F
		QAM2020.750	QAM2020.750					X						288	Averaging	-40 to 180F
		QAM2021.750	QAM2021.750						X					288	Averaging	-40 to 180F
		QAM2030.250	QAM2030.250			X								96	Averaging	-40 to 180F
		QAM2030.500	QAM2030.500			X								192	Averaging	-40 to 180F
		QAM2030.750	QAM2030.750			X								288	Averaging	-40 to 180F
		QAM2032.250	QAM2032.250				X							36	Averaging	-40 to 180F
		QAM2032.500	QAM2032.500				X							72	Averaging	-40 to 180F
		QAM2032.750	QAM2032.750				X							192	Averaging	-40 to 180F
		540-245-36	540-245-36					X						288	Averaging	-40 to 180F
		540-246-72	540-246-72					X						96	Averaging	-40 to 180F
		544-342-16	544-342-16	X										192	Averaging	-40 to 180F
		544-342-24	544-342-24	X										288	Averaging	-40 to 180F
		544-342-8	544-342-8	X										96	Averaging	-40 to 180F
		544-380-16	544-380-16							X				192	Averaging	20 to 120F
		533-380-24	533-380-24							X				288	Averaging	20 to 120F
		533-380-8	533-380-8							X				96	Averaging	20 to 120F
	Plastic Housing	QAM2120.040	QAM2120.040					X						16	Point	-58 to 176F
		QAM2130.040	QAM2130.040			X								16	Point	-40 to 176F
		QAM2151.040/MO	S55720-S466									X		16	Point	-58 to 122F
		QAM2161.040	QAM2161.040								X			16	Point	-58 to 122F
		QAM2171.040	QAM2171.040							X				16	Point	-58 to 122F
		QAM2112.040	QAM2112.040	X										16	Point	-58 to 122F
		QAM2112.200	QAM2112.200	X										78	Averaging	-58 to 176F
		QAM2120.200	QAM2120.200					X						78	Averaging	-58 to 176F
		QAM2112.600	QAM2112.600	X										236	Averaging	-58 to 176F

Immersion Temperature Sensors				Temperature Output									Measuring Range		
Photo	Features	Model Number	Orderable Number	1k $\Omega$ pt 375a RTD	1k $\Omega$ Pt 385a RTD	10k $\Omega$ Type II Thermistor	10k $\Omega$ Type III Thermistor	100k $\Omega$ Type II Thermistor	1k $\Omega$ Ni @ 32F RTD (Siemens)	1k $\Omega$ Ni @ 70F RTD (JCI)	4-20mA			Probe Length (inches)	
		536-777-25	536-777-25					X				2.5	0 to 250F		
		536-777-40	536-777-40					X				4	0 to 250F		
		536-777-60	536-777-60					X				6	0 to 250F		
		544-577-25	544-577-25	X									2.5	0 to 250F	
		544-577-40	544-577-40	X									4	0 to 250F	
		544-577-60	544-577-60	X									6	0 to 250F	
		QAE2012.005	QAE2012.005		X								2.5	0 to 250F	
		QAE2012.10	QAE2012.10		X								4	0 to 250F	
		QAE2012.010	QAE2012.010		X								6	0 to 250F	
		QAE2020.005	QAE2020.005							X					
		QAE2020.010	QAE2020.010							X					
		QAE2020.015	QAE2020.015							X					
		QAE2021.005	QAE2021.005								X		2.5	0 to 250F	
		QAE2021.010	QAE2021.010								X		4	0 to 250F	
		QAE2021.015	QAE2021.015								X		6	0 to 250F	
		QAE2030.005	QAE2030.005			X								2.5	0 to 250F
		QAE2030.010	QAE2030.010			X								4	0 to 250F
		QAE2030.015	QAE2030.015			X								6	0 to 250F
		QAE2032.005	QAE2032.005					X						2.5	0 to 250F
		QAE2032.010	QAE2032.010					X						4	0 to 250F
		QAE2032.015	QAE2032.015					X						6	0 to 250F
		536-767-25	536-767-25										X	2.5	30 to 250F
		536-767-40	536-767-40										X	4	30 to 250F
		536-767-60	536-767-60										X	6	30 to 250F
		536-774-25	536-774-25										X	2.5	20 to 70F
		536-774-40	536-774-40										X	4	20 to 70F
		536-774-60	536-774-60										X	6	20 to 70F
		544-562-25	544-562-25										X	2.5	32 to 212F
		544-562-40	544-562-40										X	4	32 to 212F
		544-562-60	544-562-60										X	6	32 to 212F

Surface and Cable Temperature Sensors				Temperature Output								Housing Style	Measuring Range	
Photo	Features	Model Number	Orderable Number	1k $\Omega$ pt 375a RTD	1k $\Omega$ Pt 385a RTD	10k $\Omega$ Type II Thermistor	10k $\Omega$ Type III Thermistor	100k $\Omega$ Type II Thermistor	3k Ohm Thermister	1k $\Omega$ Ni @ 32F RTD (Siemens)	1k $\Omega$ Ni @ 70F RTD (JCI)			4-20mA
		QAD2012	QAD2012		X								Plastic	-11 to 266F
		QAD2030	QAD2030			X							Plastic	-11 to 257F
		QAD22	QAD22							X			Plastic	0 to 250F
		QAD2012U	QAD2012U		X								Metal	-40 to +240F
		QAD2020U	QAD2020U							X			Metal	-40 to +240F
		QAD2021U	QAD2021U								X		Metal	-40 to +240F
		QAD2030U	QAD2030U			X							Metal	-40 to +240F
		QAD20320U	QAD20320U				X						Metal	-40 to +240F
		536-780	536-780									X	Metal	30 to 250F
		544-089	544-089	X									Metal	30 to 250F
	8" Leads	540-258	540-258					X					Cable	-40 to 248F
	78" Cable	QAP1030.200	QAP1030.200			X							Cable	-13 to +203F
	60" Cable	QAP2012.150	QAP2012.150		X								Cable	-22 to 266F
	72" Cable	QAP22	QAP22							X			Cable	-13 to +203F
	For use with RDG Thermostats; 96" Cable	QAH11.1	QAH11.1							X			Cable	32 to 104F

Outdoor Temperature Sensors				Temperature Output								Housing Style	Measuring Range	
Photo	Features	Model Number	Orderable Number	1k $\Omega$ pt 375a RTD	1k $\Omega$ Pt 385a RTD	10k $\Omega$ Type II Thermistor	10k $\Omega$ Type III Thermistor	100k $\Omega$ Type II Thermistor	1k $\Omega$ Ni @ 32F RTD (Siemens)	1k $\Omega$ Ni @ 70F RTD (JCI)	4-20mA			0-10V
		QAC2012	QAC2012		X								Plastic	-40 to 158F
		QAC2030	QAC2030			X							Plastic	-40 to 158F
		QAC22	QAC22						X				Plastic	-40 to 158F
		QAC3161	QAC3161									X	Plastic	-58 to 122F
		QAC3171	QAC3171								X		Plastic	-58 to 122F
		536-768	536-768								X		Metal	-58 to 122F
		536-778	536-778					X					Metal	-40 to 150F
		544-578	544-578	X									Metal	-40 to 150F
		QAC2012U	QAC2012U		X								Metal	-40 to 150F
		QAC2020U	QAC2020U						X				Metal	-40 to 150F
		QAC2021U	QAC2021U							X			Metal	-40 to 150F
		QAC2030U	QAC2030U			X							Metal	-40 to 150F
		QAC2032U	QAC2032U				X						Metal	-40 to 150F

# Proven accuracy for any environment

Humidity is a key component to maintaining occupant comfort and health, as well as total air quality. Siemens offers relative humidity sensors for basic HVAC applications as well as specialized devices for laboratory and pharmaceutical environments, or other critical environments.

## Room Humidity Sensors








Room mounted relative humidity sensors have been proven to perform in standard HVAC applications, as well as in the most demanding critical environments.

Two for one: our humidity sensing room unit contains both humidity and temperature sensors that allow room occupants to fine tune temperature setpoints and optimize comfort.



## Duct Humidity Sensors

A robust lineup of duct mounted humidity sensors includes a combination RH & temperature variants and third-party certification to meet the requirements of critical environment installations.



Room Humidity Sensors				Output Signal(s)											
Photo	Features	Model Number	Orderable Number	4-20mA	0-10V	ON/OFF (SPDT)	P1 (TEC)	PL-Link (DXR)	Modbus						
		QFA3212.ESWN	QFA3212.ESWN	X	X					±2%	X			White	1
		QFA3280.DWSC	QFA3280.DWSC				X			±2%	X	X		White	2
		QFA3280.ESWC	QFA3280.ESWC				X			±2%	X			White	2
		QFA32SS.ESWN	QFA32SS.ESWN	X	X					±2%	X			White	
		QFA3100	QFA3100		X					±2%				White	3
		QFA3101	QFA3101	X						±2%				White	3
		QFA3160	QFA3160		X					±2%	X			White	3
		QFA3160D	QFA3160D		X					±2%	X	X		White	
		QFA3171	QFA3171	X						±2%	X			White	3
		QFA3171D	QFA3171D	X						±2%	X	X		White	
		QFA4160	QFA4160		X					±2%	X		X	White	3, 4
		QFA4160D	QFA4160D		X					±2%	X	X	X	White	4
		QFA4171	QFA4171	X						±2%	X		X	White	3, 4
		QFA4171D	QFA4171D	X						±2%	X	X	X	White	
		QFA2050/MO	S55720-S508						X	±3%	X			White	
		QFA2050D/MO	S55720-S509						X	±3%	X	X		White	
	Semi Flush Mount	QFA2570.2535	QFA2570.2535					X		±3%	X			White	5
		QMX3.P40	S55624-H116					X		±4%	X			White	5
		QMX3.P40-1BSC	S55624-H124					X		±4%	X			Black	5
	Hygostat with Exposed Setpoint Dial	QFA1000	QFA1000			X								White	
	Hygostat with concealed setpoint dial	QFA1001	QFA1001			X								White	
	Condensation Monitor	QXA2100	QXA2100			X								White	
	Condensation Monitor with Remote Sensor	QXA2101	QXA2101			X								White	

- 1) Temperature output is 1k Ohm @ 32F Pt RTD (385a)
- 2) For use with Siemens BACnet TEC controllers only
- 3) Suitable for outdoor use with optional AQF3100 weathershield
- 4) Includes 3rd party three-point calibration certificate
- 5) For use with Siemens PL-Link compatible controllers only

Humidity Sensing Room Units				Output Signal(s)					RH Accuracy	Display	Color	Notes
Photo	Features	Model Number	Orderable Number	4-20mA	0-10V	P1 (TEC)	PL-Link (DXR)	Temperature Output				
		QFA3212.FWSN	QFA3212.FWSN	X	X			X	±2%	X	White	1, 2
		QFA3230.FWSN	QFA3230.FWSN	X	X			X	±2%	X	White	1, 3
		QFA3232.FWSN	QFA3232.FWSN	X	X			X	±2%	X	White	1, 4
		QFA3280.FWSC	QFA3280.FWSC			X		X	±2%	X	White	5
		QFA3255.FWSN	QFA3255.FWSN	X	X			X	±2%	X	White	1
		QMX3.P44	S55624-H143-A				X	X	±4%	X	White	6
		QMX3.P44-1BSC	S55624-H144				X	X	±4%	X	Black	6

1) Setpoint output is 0-10V, 55-95F; Override is momentary contact, 1A @ 24 Vac max



2) Temperature output is output is 1k Ohm @ 32F Pt RTD

3) Temperature output is output is 10k Ohm type 2 thermistor

4) Temperature output is output is 10k Ohm type 3 thermistor

5) For use with Siemens BACnet TEC controllers only

6) For use with Siemens PL-Link compatible controllers only

Duct Humidity Sensors				Output Signal(s)				Accuracy	Temp Output	Display	Certified	Notes
Photo	Features	Model Number	Orderable Number	4-20mA	0-10V	Modbus	ON/OFF (SPDT)					
		QFM2100	QFM2100		X			±5%				
		QFM2101	QFM2101	X				±5%				
		QFM2120	QFM2120		X			±5%	X(2)			
		QFM2150/MO	S55720-S467			X		±5%	X			
		QFM2160U	QFM2160U		X			±5%	X			
		QFM2171	QFM2171	X				±5%	X			
		QFM3100	QFM3100		X			±2%				
		QFM3101	QFM3101	X				±2%				
		QFM3150/MO	S55720-S468			X		±2%	X			
		QFM3160	QFM3160		X			±2%	X			
		QFM3160D	QFM3160D		X			±2%	X	X		
		QFM3171	QFM3171	X				±2%	X			
		QFM3171D	QFM3171D	X				±2%	X	X		
		QFM4160	QFM4160		X			±2%	X		X	1
		QFM4171	QFM4171	X				±2%	X		X	1
	Exposed Setpoint Dial	QFM81.2	QFM81.2				X					
	Covered Setpoint Dial	QFM81.21	QFM81.21				X					

1) Includes 3rd party three-point calibration certificate

2) Temperature output is 1k Ohm @ 32F Ni RTD (Siemens)

# Ensure the well-being of your most important assets

Air quality is critical to maintaining occupant health, comfort and productivity. Our offering includes air quality sensors for carbon dioxide, particulate matter (PM) and volatile organic compounds (VOCs).

## Room Air Quality Sensors






Room air quality sensors optimize room comfort by enabling demand-controlled ventilation. Our units feature non-dispersive IR CO<sub>2</sub> sensors that experience less than 1% of drift per year for the first two years, and negligible drift thereafter. Recalibration is never required so maintenance is worry-free.

Combination units allow one sensor to take the place of up to three individual units: CO<sub>2</sub>, CO<sub>2</sub>/Temp, CO<sub>2</sub>/Temp/RH and CO<sub>2</sub>/VOC.

## Duct Air Quality Sensors

Duct air quality sensors monitor and transmit changes to the building control unit. Our offering includes CO<sub>2</sub>, CO<sub>2</sub>/Temp, CO<sub>2</sub>/Temp/RH and CO<sub>2</sub>/VOC. Duct air quality sensors feature NDIR sensors with less than 1% drift yearly for the first two years of operation.



Room Air Quality Sensors				Primary Measured Value		Output Signal(s)										
Photo	Features	Model Number	Orderable Number	CO <sub>2</sub>	VOC	PM2.5	0-10V	4-20mA	P1 (TEC)	P1 Link	Modbus RTU	RH Output	Temp Output	Display	Color	Notes
		QPA2000	QPA2000	X			X	X							White	1
		QPA2002	QPA2002	X	X		X	X							White	1, 2
		QPA2002D	QPA2002D	X	X		X	X						X	White	1, 2
		QPA2052/MO	S55720-S510	X							X	X	X		White	1
		QPA2060	QPA2060	X			X	X					X		White	1
		QPA2060D	QPA2060D	X			X	X					X	X	White	1
		QPA2062	QPA2062	X			X	X				X	X		White	1
		QPA2062D	QPA2062D	X			X	X				X	X	X	White	1
		QPA2080	QPA2080	X									X		White	1, 6
		QPA2080D	QPA2080D	X									X	X	White	1, 6
		QPA1000	S55720-S119		X		X	X							White	2
		QSA2700	S55720-S457			X	X				X				White	
		QSA2700D	S55720-S458			X	X				X			X	White	
		QMX3.P70	S55624-H104-A	X						X		X	X		White	3, 4
		QMX3.P70-1BSC	S55624-H125	X						X		X	X		Black	3, 4
	Semi Flush Mount	QPA2576.2535	QPA2576.2535	X						X		X	X		White	3, 4
		QPA2282.EWSC	QPA2282.EWSC	X					X				X		White	1, 5
		QPA2284.EWSC	QPA2284.EWSC	X					X			X	X		White	1, 5

1) CO<sub>2</sub> Measuring accuracy =  $\pm(50 \text{ ppm} + 2\% \text{ of measured value})$

2) VOC Measuring range = 0-100% of relative CO<sub>2</sub> equivalent (0-2000ppm)



3) CO<sub>2</sub> Measuring accuracy =  $\pm(30 \text{ ppm} + 4\% \text{ of measured value})$

4) For use with Siemens PL-Link compatible controllers only

5) For use with Siemens BACnet TEC controllers only

6) Includes selectable resistive temperature sensing modules (10k Ohm Type 2 thermistor, LG-Ni RTD, 100k Pt RTD and 1000k Ohm @ 32F Pt RTD)




Air Quality Sensing Room Units (CO <sub>2</sub> )				Output Signal(s)		RH Output	Temp Output	Display	Color	Notes
Photo	Features	Model Number	Orderable Number	P1 (TEC)	PL-Link (DXR)					
		QMX3.P74	S55624-H106-A		X	X	X	X	White	1, 3
		QMX3.P74-1BSC	S55624-H127		X	X	X	X	Black	1, 3
		QPA2284.FWSC	QPA2284.FWSC	X		X	X	X	White	2, 4

1) CO<sub>2</sub> Measuring accuracy =  $\pm(30 \text{ ppm} + 4\% \text{ of measured value})$

2) CO<sub>2</sub> Measuring accuracy =  $\pm(50 \text{ ppm} + 2\% \text{ of measured value})$

3) For use with Siemens PL-Link compatible controllers only

4) For use with Siemens BACnet TEC controllers only

Duct Air Quality Sensors				Primary Measured Value			Output Signal(s)		RH Output	Temp Output	Display	Notes
Photo	Features	Model Number	Orderable Number	CO <sub>2</sub>	VOC	PM2.5	0-10V	4-20mA	Modbus RTU			
		QPM2100	QPM2100	X			X	X				1
		QPM2102	QPM2102	X	X		X	X				1, 2
		QPM2102/MO	S55720-S469	X	X				X			1, 2
		QPM2102D	QPM2102D	X	X		X	X			X	1, 2
		QPM2150/MO	S55720-S470	X					X		X	1
		QPM2152/MO	S55720-S471	X					X	X	X	1
		QPM2160	QPM2160	X			X	X			X	1
		QPM2160D	QPM2160D	X			X	X			X	1
		QPM2162	QPM2162	X			X	X		X	X	1
		QPM2162D	QPM2162D	X			X	X		X	X	1
		QPM2180	QPM2180	X			X	X			X	1, 3
		QPM1100	S55720-S123		X		X	X				2
		QSM2100	S55720-S491			X	X	X				
		QSM2162	S55720-S492			X	X	X		X	X	

1) CO<sub>2</sub> Measuring accuracy =  $\pm(50 \text{ ppm} + 2\% \text{ of measured value})$

2) VOC Measuring range = 0-100% of relative CO<sub>2</sub> equivalent (0-2000ppm)

3) Includes selectable resistive temperature sensing modules (10k Ohm Type 2 thermistor, LG-Ni RTD, 100k Pt RTD and 1000k Ohm @ 32F Pt RTD)

# Reliable pressure and flow sensors for all HVAC systems

Our wide range of differential pressure and flow sensors combine well-proven technology and extensive testing to provide you with accurate, reliable, maintenance-free functionality.

## Air Differential Pressure and Air Velocity Sensors

Air differential pressure and air velocity sensors offer accurate, field tested, repeatable data in applications that require differential pressure monitoring.

## Wet Differential Pressure Sensor

Wet differential pressure sensors are low maintenance and feature industry established ceramic technology that are compatible with both water and water/glycol mixtures.

## Liquid Pressure Sensors

Liquid pressure sensors feature a Piezo-resistive measuring system, which is unaffected by changes in temperature. Due to their high temperature stability and lack of mechanical aging or creepage, they reliably and effectively measure static and dynamic pressure in HVAC facilities.

## Liquid Flow Switches

High pressure liquid flow switches excel in hydraulic systems, especially in refrigeration, heat pump and heating installations. They feature a nominal pressure maximum of 365 psi, and the housing is IP65 rated.



Pressure and Flow Sensors				ON/OFF (SPDT)	4-20mA	0-10V	Modbus	Display	Measuring Range	Notes
Photo	Features	Model Number	Orderable Number							
	Differential Pressure Sensor – Air Selectable Range Selectable Output LCD Display	QBM3230U03UD	S55720-S522		X	X		X	-0.3" to + 0.3"	
		QBM3230U10D	S55720-S527		X	X		X	0 to 10"	
		QBM3230U1D	S55720-S523		X	X		X	0 to 1"	
		QBM3230U20D	S55720-S528		X	X		X	0 to 20"	
		QBM3230U2D	S55720-S524		X	X		X	0 to 2"	
		QBM3230U3D	S55720-S525		X	X		X	0 to 3"	
		QBM3230U5D	S55720-S526		X	X		X	0 to 5"	
	Differential Pressure Sensor – Air Modbus RTU	QBM3700-13/MO	S55720-S485				X		0 to 5"	1
		QBM3700-25/MO	S55720-S486				X		0-10"	1
		QBM3700-5/MO	S55720-S487				X		0 to 2"	1
	Differential Pressure Switch – Air SPDT Adjustable Range	QBM81-10	QBM81-10	X					0.4 to 4"	2
		QBM81-3	QBM81-3	X					0.8 to 8"	2
		QBM81-5	QBM81-5	X					0.2 to 2"	2
	Air Velocity Sensor	QVM62.1	QVM62.1		X	X			0 to 49 ft/s	
	Differential Pressure – Liquid With 3-Valve Manifold	QBE3190UD100	QBE3190UD100		X				0 to 100 PSID	
		QBE3190UD25	QBE3190UD25		X				0 to 25 PSID	
		QBE3190UD50	QBE3190UD50		X				0 to 50 PSID	
	Differential Pressure – Liquid	QBE3100UD100	QBE3100UD100		X				0 to 100 PSID	
		QBE3100UD25	QBE3100UD25		X				0 to 25 PSID	
		QBE3100UD50	QBE3100UD50		X				0 to 50 PSID	
	Liquid Flow Switch (MAWP: 160 PSIG)	QVE1900U	QVE1900U	X					To 395 GPM (1.25 - 8" Pipe)	
	Liquid Flow Switch (MAWP: 365 PSIG)	QVE1901U	QVE1901U	X					To 800 GPM (0.75 to 8" Pipe)	
	Single Point Pressure Sensor – Liquid	7MF15654BB005EA1	7MF15654BB005EA1		X				0 to 15 PSIG	
		7MF15654BB105EA1	7MF15654BB105EA1			X			0 to 15 PSIG	
		7MF15654BE005EA1	7MF15654BE005EA1		X				0 to 30 PSIG	
		7MF15654BE105EA1	7MF15654BE105EA1			X			0 to 30 PSIG	
		7MF15654BF005EA1	7MF15654BF005EA1		X				0 to 60 PSIG	
		7MF15654BF105EA1	7MF15654BF105EA1			X			0 to 60 PSIG	
		7MF15654BG005EA1	7MF15654BG005EA1		X				0 to 100 PSIG	
		7MF15654BG105EA1	7MF15654BG105EA1			X			0 to 100 PSIG	
		7MF15654CA005EA1	7MF15654CA005EA1		X				0 to 150 PSIG	
		7MF15654CA105EA1	7MF15654CA105EA1			X			0 to 150 PSIG	
		7MF15654CB005EA1	7MF15654CB005EA1		X				0 to 200 PSIG	
		7MF15654CB105EA1	7MF15654CB105EA1			X			0 to 200 PSIG	
		7MF15654CD005EA1	7MF15654CD005EA1		X				0 to 300 PSIG	
		7MF15654CD105EA1	7MF15654CD105EA1			X			0 to 300 PSIG	

1) System connections are metric – order installation kit (S55843-Z220-A101) separately

2) System connections are metric – installation kit included

Siemens offers a complete portfolio of maintenance-free, easy to install sensors engineered to help promote a healthy and productive indoor climate. Our high-quality sensors enable you to control the entire HVAC system effectively and efficiently to ensure occupant comfort while optimizing building efficiency and indoor air quality.



#### Complete Product Portfolio

Sensors for every HVAC application



#### Quality

Rigorous testing to meet Siemens high standards



#### Less Effort

Easy to install and maintenance-free



#### Indoor Air Quality

Ensure healthy indoor climates



#### Maximize Comfort

Ensure occupant comfort and productivity



#### System Performance

Optimize building efficiency

#### Legal Manufacturer

Siemens Industry, Inc.  
Smart Infrastructure  
1000 Deerfield Parkway  
Buffalo Grove, IL 60089  
Tel: (847) 215-1000

All rights reserved.

© 2021 Siemens Industry, Inc.

This document contains a general description of available technical options only, and its effectiveness will be subject to specific variables including field conditions and project parameters. Siemens does not make representations, warranties, or assurances as to the accuracy or completeness of the content contained herein. Siemens reserves the right to modify the technology and product specifications in its sole discretion without advance notice.