



## Symaro – portfolio overview



Answers for infrastructure.

**SIEMENS**



## Symaro – energy-efficient, innovative measurement that pays off over the long term

Saving energy thanks to highly accurate measurements – Symaro™ sensors record and transmit readings extremely quickly and accurately, providing an optimal basis for precise and therefore energy- and cost-efficient control of the entire HVAC plant.




With innovations such as integrated self-monitoring and highly versatile multisensors for different applications, Symaro sensors are a secure investment in the future. And thanks to an installation concept that has remained unchanged for decades, they can be quickly installed and put into operation – so your investment pays off right from the start.

# Symaro – simply a better way to measure

- Perceptible energy and cost savings thanks to fast, high-precision measurement and efficient measuring techniques
- Innovative sensor technology – self monitoring, service mode, integrated installation concept, and functional design
- High level of comfort provided by demand-controlled ventilation
- Symaro multisensors for multiple parameter and increasing comfort thanks to user-friendly interface and reduced installation and cabling effort
- Guaranteed quality – the result of many years of experience, in-depth applications expertise, and systematic sensor tests
- Comprehensive support from experts worldwide



## Symaro temperature – reliable and precise measurement at any place





			
<b>Model</b>	<b>Room</b>	<b>Duct</b>	<b>Immersion</b>
<b>Type</b>	<b>QAA../..D</b>	<b>QAM..</b>	<b>QAE..</b>
<b>Range</b>	-15...50 °C	-50...80 °C	-30...130 °C
<b>Supply</b>	AC 24 V / DC 13.5...35 V		
<b>Output</b>	DC 0...10 V / 4...20 mA		
	LG-Ni1000 / Pt100 / Pt1000 / NTC 10k		
<b>Protection</b>	IP30	IP42/54	IP42/54

- Wide choice of products covering all usual measurement ranges and output signals
- Energy-efficient heat requirements and high room comfort – the result of balanced measurement weighting, short reaction times, and high measuring precision
- Innovative and simple installation – thanks to a construction and housing design that comply to all measuring technology and installation requirements





		
<b>Outside</b>	<b>Strap-on</b>	<b>Cable</b>
<b>QAC..</b>	<b>QAD..</b>	<b>QAP..</b>
-50...70 °C	-30...130 °C	
AC 24 V / DC 13.5...35 V	-	-
DC 0...10 V / 4...20 mA	-	-
LG-Ni1000 / Pt100 / Pt1000 / NTC 10k		
IP54/65	IP42	IP65



# Symaro humidity – highly stable measurement even under difficult conditions

				
<b>Model</b>	<b>Room</b>			
<b>Type</b>	<b>Standard</b>	<b>High quality</b>	<b>Hygrostat</b>	<b>Dew point</b>
	QFA20../20..D	QFA31/31..D	QFA10..	QXA2000
<b>Version</b>	r.h.; r.h./T		r.h.	
<b>Range</b>	0...95% r.h. / -15...50 °C	0...100% r.h. / -40...70 °C	30...90% r.h.	5...95% r.h.
<b>Supply</b>	AC 24 V / DC 13.5...35 V		–	AC / DC 24 V
<b>Output</b>	DC 0...10 V	DC 0...10 V / 4...200 mA	Relay	
<b>Protection</b>	IP30	IP65	IP20	IP40




- Energy efficiency with long life cycle – thanks to outstanding long-term stability with a high level of accuracy, freedom from maintenance, and precision
- Reliable operation even in critical applications
- High degree of reliability – thanks to innovative, FDA- and GMP-certified precision measuring sensors

			
Outside	Duct		
High quality	Standard	High quality	Hygostat
QFA31.. + AQF31..	QFM21..	QFM31../31..D	QFM81..
r.h.; r.h./T	r.h.; r.h./T		r.h.
0...100% r.h. / -40...70 °C	0...95% r.h. / -40...70 °C	0...100% r.h. / -40...70 °C	15...95% r.h.
AC 24 V / DC 13.5...35 V			-
DC 0...10 V / 4...20 mA			Relay
IP65	IP54	IP65	IP30/55

- Best quality, accuracy, and reproducibility thanks to high-precision calibration laboratory



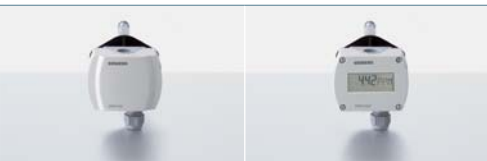
## Symaro air quality – less energy, more comfort thanks to long-term stable sensors

			
<b>Model</b>	<b>Room</b>		
<b>Type</b>	<b>QPA2000/20..</b>	<b>QPA20..D</b>	<b>QPA84</b>
<b>Version</b>	CO <sub>2</sub> ; CO <sub>2</sub> /VOC; CO <sub>2</sub> /T; CO <sub>2</sub> /T/r.h.		VOC
<b>Range</b>	0...2000 ppm / -35...50 °C / 0...95 r.h.		–
<b>Supply</b>	AC 24 V / DC 15...35 V		AC 230 V
<b>Output</b>	DC 0...10 V		Relay
<b>Protection</b>	IP30		

VOC: Volatile Organic Compound (mixed gas)

- Wide selection of multisensors for room and duct applications
- Cost efficiency with guaranteed measurement accuracy and long-term stability – through precise infrared measurement and self calibration
- High application and installation comfort – through patented technology
- Energy savings and maximum room comfort – thanks to demand-controlled ventilation





**Duct**

**QPM2100/21..**

**QPM21..D**

CO<sub>2</sub>; CO<sub>2</sub>/VOC; CO<sub>2</sub>/T; CO<sub>2</sub>/T/r.h.

0...2000 ppm / -35...50 °C / 0...95 r.h.


AC 24 V / DC 15...35 V

DC 0...10 V


IP54



## Symaro pressure – precise measurement of differential and relative pressure



			
<b>Medium</b>	<b>Air</b>		
<b>Model</b>	<b>Differential pressure</b>		
<b>Type</b>	<b>QBM81..</b>	<b>QBM65../65.1..</b>	<b>QBM66.20..</b>
<b>Range</b>	20...1000 Pa	-50...2500 Pa	0...1500 / 3000 Pa
<b>Supply</b>	-	AC 24 V / DC 13.5...33 V	
<b>Output</b>	Relay	DC 0...10 V	
<b>Temperature</b>	0...70 °C		
<b>Protection</b>	IP54		IP42

- Optimum pressure sensor for every measuring and application area
- High measurement accuracy and best quality – thanks to optimized measuring cells over the entire measurement range
- Great, long-term stability – thanks to innovative and patented measuring elements

				
<b>Liquids &amp; gases</b>			<b>Refrigerants</b>	
<b>Relative pressure</b>	<b>Differential pressure</b>		<b>Relative pressure</b>	
<b>QBE2002..</b>	<b>QBE61.3./64-DP4</b>	<b>QBE63-DP..</b>	<b>QBE2001..</b>	<b>QBE2101..</b>
0...40 bar	0...10 bar	0...1 bar	-1...29 bar	
AC 24 V / DC 18...33 V			AC 24 V / DC 16...33 V	DC 8...33 V
DC 0...10 V			DC 0...10 V	DC 4...20 mA
-40...80 °C	-15...80 °C	-10...80 °C	-40...150 °C	
IP65	IP54/65	IP65	IP67	



## Symaro Xtra – best quality even for special applications

		
<b>Model</b>	<b>Flow switch</b>	
<b>Type</b>	<b>QVE1900</b>	<b>QVE1901</b>
<b>Range</b>	–	
<b>Pipes</b>	1 ¼ ...8"	¾ ...8"
<b>Supply</b>	–	
<b>Output</b>	Relay	
<b>Contact rating</b>	15 A / AC 24...250 V	1 A / AC 230 V / 26 VA 1 A / DC 48 V / 20 W
<b>Protection</b>	IP65	

- Supports energy-efficient control – by measuring solar irradiation
- Point measurement of air velocity or the volumetric flow in air ducts
- Increased security – thanks to flow monitoring in HVAC plants and hydraulic systems



Solar

QLS60 / QLS2200

0...1000 W/m<sup>2</sup>

–

AC 24 V / DC 18...30 V

DC 0...10 V / 4...20 mA

–

IP65



Air velocity

QVM62.1

0...15 m/s

–

AC 24 V


DC 0...10 V

–

IP42



# Symaro – certified sensors for the pharmaceutical industry

		
<b>Model</b>	<b>Humidity room</b>	<b>Humidity duct</b>
<b>Type</b>	<b>QFA41../41..D</b>	<b>QFM41..</b>
<b>Version</b>	r.h.; r.h./T	
<b>Range</b>	0...100% r.h. / -40...70 °C	
<b>Supply</b>	AC 24 V / DC 13.5...35 V	
<b>Output</b>	DC 0...10 V / 4...20 mA	
<b>Protection</b>	IP65	

- Meet the stringent requirements of the FDA
- Bear product-specific serial number and are supplied with calibration certificate
- Straightforward replacement of the measuring tip
- No costly use of replacement sensors
- Any small changes of the sensor's electronics can be straightforwardly detected with the loop test
- Proven and reliable performance of Symaro sensors



## Pressure

QBM65../C / QBM75../C

Differential pressure – Air

-50...2500 Pa

AC 24 V / DC 13.5...33 V

DC 0...10 V / 4...20 mA

IP54

- Extensive calibration services ensured by Siemens



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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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