TI8200en

Product Information

GUW9- Series (CO2)

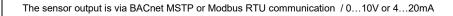
Universal Room Air Quality (CO2) Sensor with BACnet MSTP / Modbus RTU communication and analog output



The GUW9- Series (CO2) is designed to measure air quality in rooms or spaces

The air quality is measured based on CO2 levels (CO2 = Carbon dioxide).

The sensor operates with low power supply





Compatible with all common HVAC DDC and Analog Controls systems, with/without Building Automation System

Air quality (CO2) and temperature measurement in air ducts

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Used in all common HVAC applications

Used in Commercial and Industrial Buildings

Professional and practical product design, withstands rough environmental conditions

Sensor with BACnet MSTP or Modbus RTU communication

Sensor output 0...10V or 4...20mA, field selectable

Features

Dual channel system with automatic calibration

Can be used 24h / 365d applications such as call center, hospital, etc. $\,$

Professional and practical product design, withstands rough environmental conditions

Easy to use, install and maintain

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Order Codes	Power Supply	Measured	Accuracy	BUS- system	Analog Output	Measuring Range	Protection
GUW9.AF	AC/DC 24V (±10%)	Air Quality (PPM)	±30ppm + 3% (of reading) at 21°C	BACnet MSTP or Modbus RTU	010V or 420mA	02000PPM	IP54 according to EN 60529, IP65 with bolted cover

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	Sensor Specification	Measured		CO2	
		Sensor Characteristics		Active	
ns		Sensor Output		BACnet MSTP or Modbus RTU communication, RS485	
Sensor Specifications		Sensor Output		010V or 420mA	
		Accuracy		Max. ±30ppm +3%	
		Air Velocity	minimum	0.3m/sec	
r S		Pressure Dependency		1% of reading / kPa	
uso		Warm up time		<6 min. (Operational); ~15 min. (max. accuracy)	
Sei		Calibration		Self calibration dual channel	
		Sensor Element		NDIR (Non Dispersive InfraRed)	
		Measuring Interval		2 sec.	
		Measuring Range (Full Scale)		02000ppm	
	Electrical Information	•••		AC/DC 24V (±10%)	
		Frequency		50 / 60 Hz @ AC 24V	
		Output Load		Min. load 10kΩ @ AC/DC 24V	
		Measuring Current		<1mA	
		Power Consumption		Max. 3.0W	
	Mechanical Information	Air Inlet		M19	
		Sensing Element Position		Inside the housing	
	User Interface			None	
	Color and Material	Housing Cover		PA6, pure white	
		Housing Bottom		PA6, pure white	
		Cable Gland		ABS, Red 2002 (Vermilion)	
		Gland Rubber Seal		ENSOFT50, RAL9016 (Traffic White)	
		Sensor Pipe		PA6, RAL 9017 (Traffic Black)	
_	Environmental Condition	Operation Temperature		0°C+50°C	
atio		Operation Humidity		<85% r.h., no condensation	
rm.		Transport Temperature		-35°C+70°C	
nfo		Transport Humidity		< 90% r.h.	
Technical Information		Storage Temperature		-20°C+70°C	
nic		Storage Humidity		< 85% r.h., no condensation	
ecr	Norms and Directives	Sensor Outputs		IP54 according to EN 60529, IP65 with bolted cover	
-		Safety Class		III to EN 60 730	
		Product Standard 1		Automatic Electric. Controls for household and similar use	
		Product Standard 2		2009/EN 60 730-1	
		CE Conformities		2004/108/EG Electromagnetic Compatibility EMV	
		Emitted Interference		2000/EN60730-1 Emitted Interference	
		CE Conformities		2004/108/EG Electromagnetic Compatibility EMV	
		Emitted Interference		2000/EN60730-1 Emitted Interference	
		Interference Resistance		2000/EN60730-1 Interference Resistance	
		RoHS Compatibility		RoHS 3 EU 2015/863	
		Operation Climatic Condition		IEC 60721-3-3	
		Operation Mechanical Condition		IEC 60721-3-2 to class 2M2	
		Transport to Climatic Condition		IEC 60721-3-2	
		Transport Mechanical Condition		IEC 60721-3-2 to class 2M2	
		Storage Climatic Condition		IEC 60721-3-1	
44		Storage Mechanical Condition		IEC 60721-3-1 to class 2M2	
Miscellaneous	Accessories	Mounting Kit, Included in delivery		Duct Mounting Kit (UDA0.A)	
ane	Shipping & Handling	Minimum Order		1 box with 2 pieces	
Sells	-				
Misa		Packaging Material		Rigits Cardboard	
	Order Notes	Order Code		GUW9.AF	
All Information and technical data are subject to alteration Thermokon Asia Pacific GUW9- Series (CO2) V20.1 Page 2/3					

	Address Number	Register Description					
		03	Serial Number	actual version			
	4		Software Version	actual version			
neters	6		Modbus Address	Default 254, selectable 1254			
Modbus Parameters	8		Hardware Version	actual version			
Modbu		10	Protocol	0= MODBUS RTU; 1= BACnet MSTP			
	11		Baud Rate autodetection	0= OFF; 1= On			
		15	Baud Rate, (if autodetection is OFF)	0= 9600 ; 1= 19.200 ; 2= 38.400 ; 3= 57.600 ; 4= 115.200			
		34	Air Quality, CO2	actual value (02000PPM)			
	Supported BACnet Obje	ects Types					
	analog-value						
		device					
	Supported BACnet Services						
		who-is					
		i-am					
	object-identifier, object-name, object-type, present-value, units, object-list, vendor-id, vendor-name, system-status, confirmed-service, unconfirmed-services						
eters	MSTP Objects						
BACnet Parameters		analog-value					
BACne			BACnet Address	Default 127, selectable 0127			
		AV0	Baud rate autodetection	default 0, 0= OFF; 1= ON			
	AV1		Baud Rate, (if autodetection is OFF)	0= 9600 ; 1= 19.200 ; 2= 38.400 ; 3= 57.600 ; 4= 115.200			
		AV2	Humidity Mode	0= Dew Point ; 1= Enthalpy ; 2= Absolute Humidity ; 3= relative humidity			
		AV3	Protocol	0= Modbus ; 1= BACnet			
		AV4	Air Quality, CO2	actual value (02000PPM)			
		Device					
			device-identifier				
			device-name				

The function "Baud Rate autodetection" can only be used during the product is been setup. When the product is working with the BAS, the "Baud Rate autodetection" has to be set to 0= OFF and the actual Baud Rate has to be set.

