



HVAC

CO2 Humidity and Temperature



Sensors for building automation, Agriculture and Industry





CO2, temperature and humidity sensors have been developed and manufactured to the highest standards of quality and in compliance with the regulations and community directives that require CE certification.

Our main specialty is the development of CO2 sensors for automation. Years ago we started developing this type of sensor for wireless communication technologies, with the particularity that they were accurate and could work in any type of building 24 hours a day - 7 days a week. Unlike our competitors, our CO2 sensors do not need calibration, are more stable over time and do not use the ABClogic® algorithm to self-calibrate, so they do not need the building to be unoccupied for proper operation.

Application -Markets:

- Agriculture, greenhouses
- Industrial, warehouses
- Swimming pools
- Hotels, Restaurants, Offices, Commercial Retail
- DCV Demand control ventilation in dwellings and Offices
- Weather Stations
- Museum, libraries

Information on the most detailed technical features, functionalities and applications can consult the manufacturer and specifically on the website:

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Document Revisions.

Document Version	Description	Date
v01_2017	Reference products enumeration with pricelist without VAT	02/01/2017
v02_2017	New reference products –Triple Sensors	20/02/2017
v03/v04_2017	Reference product modification –Availability dates	24/02/2017

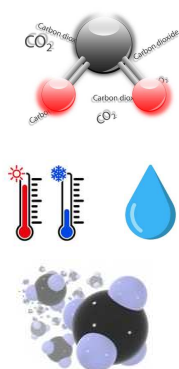


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1. Wall Mounted Sensors. Transmitters



EN023551
EN021501
EN026751
EN023861
EN232533



EN121502
EN121503
EN220212
EN233102
EN231530



EN221311

Model	Reference	Denomination	Power	Range	Outputs	IP Housing	Price (PL)
NBB-CO2-1	EN121502	CO2 Analog 0-10v Sensor	9-24Vdc	0...1100ppm	1x 0-10v 1x Digital	IP20	
NBB-CO2-2	EN121503	CO2 Analog 0-10v Sensor	9-24Vdc	0...2000ppm	1x 0-10v 1x Digital	IP20	
NBB-CO2-SCF	EN021501	CO2 Analog Sensor with Scaling Fucntion Configurable	9-24Vdc	0...4000ppm	1x 0-10v/4-20mA 1x Digital	IP20	
NBB-CO2PID82	EN026751	CO2 sensor with embedded PID controller	9-24Vdc	0...4000ppm	1x 0-10v/4-20mA 1x Digital	IP20	

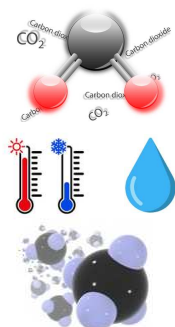
Model	Reference	Denomination	Power	Range	Outputs	IP Housing	Price (PL)
NBB-AN2TH	EN221311	Analog temperature and humidity sensor <i>(available 3Q/2017)</i>	110-230Vac	0°C...+50°C 0...100%	2 x 0-10v 1x Relay 6A	IP20	



Model	Reference	Denomination	Power	Range	Outputs	IP Housing	Price (PL)
NBB-MICO2	EN023551	MODBUS/Analog NDIR dualbeam CO2 sensor	9-24Vdc	0...4000ppm	MODBUS 485 1x 0-10v/4-20mA 1x Digital	IP20	
NBB-MIPID83	EN023861	MODBUS/Analog CO2 sensor with embedded PID controller	9-24Vdc	0...4000ppm	MODBUS 485 1x 0-10v/4-20mA 1x Digital	IP20	
NBB-MITH	EN220212	MODBUS temperature and humidity sensor	9-24Vdc	0°C...+70°C 0...100%	MODBUS 485	IP20	
NBB-VOCTH33	EN233102	Triple MODBUS VOC humidity and temperature sensor	9-24Vdc	0°C...+50°C 0...100% 0...1000ppb	MODBUS 485	IP20	
NBB-MICO2TH30	EN231530	Triple MODBUS CO2 temperature and humidity sensor	9-24Vdc	0°C...+50°C 0...100% 0...4000ppm	MODBUS 485	IP20	
NBB-MICO2TH32	EN232533	Triple MODBUS CO2 temperature and humidity sensor with signalling traffic LEDs	9-24Vdc	0°C...+50°C 0...100% 0...4000ppm	MODBUS 485	IP20	
NBB-CO2VOC31	EN232100	CO2 + VOC MODBUS sensor	9-24Vdc	0...4000ppm 0...1000ppb	MODBUS 485	IP20	



2. Outdoor Sensors



EN025105 EN025637
 EN025303 EN025738
 EN025613 EN025606
 EN025202

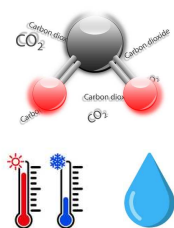
Model	Reference	Denomination	Power	Range	Outputs	IP Housing	Price (PL)
NBB-AOCO2	EN025105	Outdoor Analog CO2 sensor	9-24Vdc	400...4000ppm	1x 0-10v/4-20mA 1x Digital	IP67+filter IP55	
NBB-AOCO2TH	EN025303	Outdoor Analog Triple CO2 temperature and humidity sensor <i>(available 3Q/2017)</i>	110-230Vac	400...4000ppm -20°C...+50°C (±0.5°C) 0...100% (±3%)	3 x 0-10v 1x Digital	IP67+filter IP55	
NBB:AOVOCTH	EN025613	Outdoor Analog Triple VOC temperature and humidity sensor <i>(available 3Q/2017)</i>	9-24Vdc	0...1000ppb -20°C...+50°C (±0.5°C) 0...100% (±3%)	3 x 0-10v/4-20mA 1x Digital	IP67+filter IP55	
NBB:AOTH	EN025202	Outdoor Analog temperature and humidity sensor <i>(available 3Q/2017)</i>	110-230Vac	-40°C...+80° C 0...100%	2 x 0-10v 1x Digital	IP67+filter IP55	



Model	Reference	Denomination	Power	Range	Outputs	IP Housing	Price (PL)
NBB-MOCO2	EN025606	Outdoor MODBUS CO2 sensor	9-24Vdc	400...4000ppm	MODBUS RTU 485	IP67+filter IP55	
NBB-MOTH2	EN273501	Outdoor MODBUS temperature and humidity sensor	9-24Vdc	-40°C...+80° C 0...100%	MODBUS RTU 485	IP67+filter IP55	
NBB-MOCO2TH	EN025637	Outdoor MODBUS Triple CO2 temperature and humidity sensor	9-24Vdc	400...4000ppm -20°C...+50° C (±0.5°C) 0...100% (±3%)	MODBUS RTU 485	IP67+filter IP55	
NBB-MOVOCTH	EN025738	Outdoor MODBUS Triple VOC temperature and humidity sensor	9-24Vdc	0...1000ppb -20°C...+50° C 0...100%	MODBUS RTU 485	IP67+filter IP55	



3. DUCT mounting sensors



EN271101 EN273201
 EN270131 EN273501
 EN271203 EN273103
 EN272105

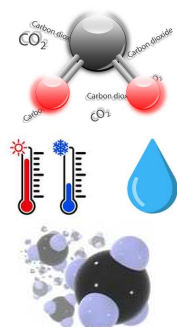
Model	Reference	Denomination	Power	Range	Outputs	IP Housing	Price (PL)
NBB-DAOCO2	EN271101	DUCT Analog CO2 sensor	9-24Vdc	400...4000ppm	1x 0-10v/4-20mA 1x Digital	IP67+filter IP55	
NBB-DAOH	EN270131	DUCT Analog Humidity sensor	9-24Vdc	0...100%	1x 0-10v/4-20mA 1x Digital	IP67+filter IP55	
NBB-DAOCO2TH	EN271203	DUCT Analog Triple CO2 temperature and humidity sensor <i>(available 3Q/2017)</i>	9-24Vdc	400...4000ppm 0°C...+50° C 0...100%	3 x 0-10v/4-20mA 1x Digital	IP67+filter IP55	
NBB-DAOTH	EN272105	DUCT Analog Temperature and Humidity sensor <i>(available 3Q/2017)</i>	110-230Vac	-40°C...+80° C 0...100%	2 x 0-10v 1x Digital	IP67+filter IP55	



Model	Reference	Denomination	Power	Range	Outputs	IP Housing	Price (PL)
NBB-DMCO2	EN273201	Duct MODBUS CO2 sensor	9-24Vdc	400 - 4000ppm	MODBUS RTU-485	IP67+filter IP55	
NBB-DMTH	EN273501	Duct MODBUS temperature and humidity sensor	9-24Vdc	-20°C...+80° C (±0.5°C) 0...100% (±3%)	MODBUS RTU-485	IP67+filter IP55	
NBB-DMCO2TH	EN273103	Duct MODBUS Triple CO2 temperature and humidity sensor	9-24Vdc	400...4000ppm 0°C...+50° C 0...100%	MODBUS RTU-485	IP67+filter IP55	



4. Wireless Sensors . Radio 868MHz



EN020562
EN022563



EN251103
EN251002
EN275203



EN271105



EN020561



Model	Reference	Denomination	Power	Range	Outputs	IP Housing	Price (PL)
NBB-WICO2-1	EN020561	EnOcean CO2 sensor 24Vdc	9-24Vdc	400...2500ppm	Wireless 1byte	IP67+filter IP55	
NBB-WICO2-2	EN022562	EnOcean CO2 sensor 230Vac	110-230Vac	400...2500ppm	Wireless 1byte	IP67+filter IP55	
NBB-WIVOC-3	EN022563	EnOcean VOC sensor 230Vac	110-230Vac	400...2500ppm	Wireless 1byte	IP67+filter IP55	
NBB-WOCO2-2	EN251103	Outdoor EnOcean CO2 sensor	110-230Vac	400...2500ppm	Wireless 1byte	IP67+filter IP55	
NBB-WOCO2-1	EN251002	Outdoor EnOcean CO2 sensor	9-24Vdc	400...2500ppm	Wireless 1byte	IP67+filter IP55	
NBB-WOTH2	EN271105	Outdoor EnOcean temperature and humidity sensor	110-230Vac	-20°C...+60° C 0...100%	Wireless 2byte	IP67+filter IP55	
NBB-WOCO2TH	EN275203	Outdoor EnOcean CO2 temperature and humidity sensor	110-230Vac	400...4000ppm -20°C...+60° C 0...100%	Wireless 3byte	IP67+filter IP55	