BAPI®
SINCE 1993

AIR QUALITY

Volatile Organic Compound (VOC)
Carbon Dioxide (CO_2)
Carbon Monoxide (CO)
Nitrogen Dioxide (NO_2)
Particulate Matter (PM)
Refrigerant Leak

SENSORS FOR HVAC/R

TEST INSTRUMENTS | TEMPERATURE | HUMIDITY | PRESSURE | AIR QUALITY | ACCESSORIES

VOC - Volatile Organic Compounds

Quantum Quantum Prime

VOC measurement with CO_2 equivalent or total VOC output. The CO_2 equivalent output correlates to a CO_2 level of 0 to 2,000 ppm, letting you use ASHRAE's CO_2-based ventilation schedule. The total VOC units provide the total concentration of all VOCs present in the space within a range of 0 to 2,500 ppb.

BAPI-Stat "Quantum Prime"

Modern enclosure with large display and status LEDs. VOC alone or with temperature, humidity, temperature setpoint and occupancy override.

BAPI-Box Duct (top) and Harsh Environment

BAPI-Stat "Quantum"

VOC measurement in a modern enclosure with status LEDs.

BAPI-Box Duct & Harsh Environment

VOC measurement with status LEDs on the cover. IP66, NEMA 4X enclosure with aspiration tube for ductwork or ventilation slots for harsh environment areas.

Table 1 – Typical Indoor Contaminants (VOCs) and Their Source		
Contamination Source	**Emission Source**	**VOC**
Human Being	Breath	Acetone, Ethanol, Isoprene, CO_2
	Skin Respiration & Perspiration	Nonanal, Decanal, alpha-Pinene
	Flatulence	Methane, Hydrogen,
	Cosmetics	Limonene, Eucalyptol
Consumer Products	Household Supplies	Alcohols, Esters, Limonene
Office Equipment	Printers, Copiers, Computers	Benzene, Styrene, Phonole
Combustion	Engines, Appliances, Smoke	Unburnt Hydrocarbons, CO, CO_2
Building Materials	Paints, Adhesives, Carpets	Formaldehyde, Alkanes, Alcohols
Furniture	**P**oly **V**inyl **C**hloride (PVC)	Toluene, Xylene, Decane

VOCs are chemicals that are emitted as gases at room temperature. Table 1 shows some typical indoor contaminants and their sources. See the back page for more info on VOCs.

CO_2 - Carbon Dioxide

BAPI's CO_2 sensors feature automatic continuous barometric pressure compensation for accurate readings despite the weather or altitude. The units are optimized for continuously or periodically occupied areas and meet ASHRAE's requirements for range, accuracy and stability.

Quantum Quantum Prime BAPI-Box Harsh Environment

BAPI-Stat "Quantum Prime"

Modern enclosure with large display and status LEDs. CO_2 alone or with temperature, humidity, temperature setpoint and occupancy override.

BAPI-Stat "Quantum"

CO_2 measurement in a modern enclosure style with status LEDs on the front.

BAPI-Box Duct and Harsh Environment

CO_2 measurement with status LEDs on the front. IP66, NEMA 4X enclosure with aspiration tube for ductwork or ventilation slots for harsh environment areas.

BAPI-Box Duct

Altitude and barometric pressure changes from weather can affect the output of CO_2 sensors, even putting them outside of their specified accuracy. The BAPI units have a built-in barometric pressure sensor that continuously compensates the output for accurate readings despite the weather or altitude.

CO - Carbon Monoxide & NO_2 - Nitrogen Dioxide

CO - Programmable Duct & Harsh Environment
Versatile display and interface with field selectable CO ranges and outputs. Two independent SPDT alarm contacts that trip at field-selectable CO concentrations of 25, 35, 50, 100 & 200 ppm.

NO_2 - Programmable Duct & Harsh Environment
Versatile display and interface with field selectable NO_2 ranges and outputs. Two independent SPDT alarm contacts that trip at 5 field-selectable NO_2 concentrations from 1 to 10 ppm.

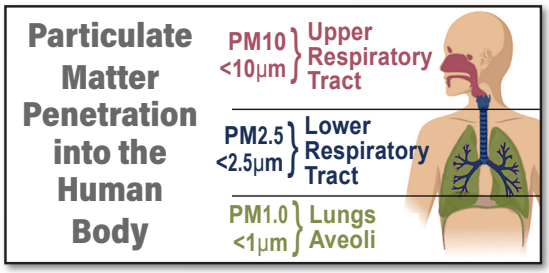
CO and NO_2 - Digital Duct & Harsh Environment
Field configurable BACnet MS/TP or MODBUS RTU output. Optional temperature and %RH measurement. CO measurement range of 0 to 500 ppm and NO_2 range of 0 to 20 ppm.

CO - BAPI-Box Harsh Environment
CO range of 0 to 500 ppm with field selectable outputs of 0 to 5 or 0 to 10VDC and optional %RH measurement.

CO - BAPI-Stat "Quantum"
Modern room enclosure with status LED. It has a 0 to 40 ppm CO range with a 30 ppm relay/audible alarm trip level.

PM - Particulate Matter

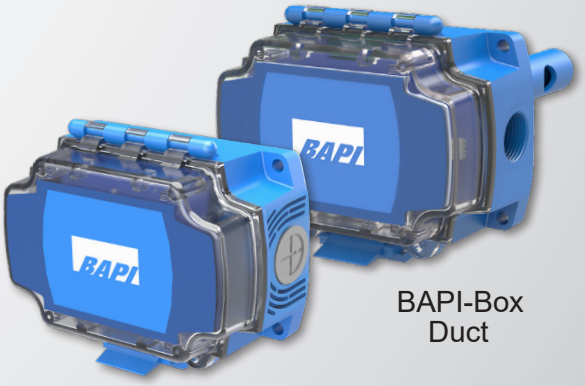
BAPI-Stat "Quantum"
Modern enclosure with field selectable particulate size of PM1.0, PM2.5 and PM10 (see diagram below). Measures particle concentrations from 0 to 1,000 µg/m³ with field selectable outputs of 0 to 5V, 0 to 10V and 4 to 20mA.



BAPI-Box Duct
Rugged IP66, NEMA 4X enclosure with field selectable particulate size of PM1.0, PM2.5 and PM10. Measures particle concentrations from 0 to 1,000 µg/m³ with field selectable outputs of 0 to 5V, 0 to 10V and 4 to 20mA.

Refrigerant Leak Detector

BAPI-Box Duct and Harsh Environment
Detection of most modern refrigerants with temperature compensation for improved accuracy. IP66, NEMA 4X enclosure with aspiration tube for ductwork or ventilation slots for harsh environment areas.



Raise your hand if you think AIR QUALITY matters.

True air quality is achieved in a variety of different ways, and that's why BAPI makes a full line of air quality sensors for nearly every area of a facility including, Volatile Organic Compound (VOC), Carbon Dioxide (CO_2), Particulate Matter, Carbon Monoxide (CO), Nitrogen Dioxide (NO2) and Refrigerant Leak Detection.

About BAPI

Building Automation Products, Inc. (BAPI) is a leading manufacturer of temperature, humidity, pressure, air quality and wireless sensors as well as test instruments for HVAC/R systems.

BAPI is based in Gays Mills, Wisconsin, and also has a European Distribution Center in the Netherlands, and regional sales offices in Canada, United Kingdom, Germany, Australia and the United Arab Emirates.

Visit our Website

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