

Ventilation on Demand



Gas Monitoring Devices



Discover the advantages
www.belimo.com

BELIMO
®

Innovation for peace of mind



HVAC system operation is critical for maintaining adequate safe indoor air quality (IAQ). Belimo gas monitoring systems provide accurate measurement, superior reliability, and easy installation. They can work as a standalone system or seamlessly integrate into major Building Management Systems (BMS). An intelligent peer-to-peer communication protocol allows users to configure and install a complete ventilation control system with only one monitor, or dozens, operating in multiple ventilation zones. The result is the assurance of occupant safety and comfort in buildings.



Superior performance

Belimo's gas monitors provide ventilation on demand, versus constant ventilation, for commercial, residential, and light industrial applications. Closely monitoring airborne pollutants to control fresh air ventilation improves the health and wellbeing of occupants, while minimizing excess ventilation, resulting in reduced energy and maintenance costs. Belimo gas monitors are factory calibrated and can monitor up to two gases simultaneously. All monitors feature audible and visual alarms and CAN bus communication, allowing for standalone operation and networking of up to 32 devices. Select models feature relays and analog outputs to control ventilation directly, as well as BACnet MS/TP, allowing for integration into a BMS. The monitors can be easily assigned to groups on site for ventilation zoning on the same network, significantly reducing control wiring and installation time. Gas monitors are wired via a daisy chain and are required to be calibrated annually. All gas monitoring products are backed by a five-year warranty, with the exception of sensor modules, which are backed by a one-year warranty.

"Belimo's gas monitors with dual sensors are great for enclosed parking garage applications requiring both CO and NO₂ gas monitoring and alarm. The ability to control the ventilation system from any one monitor makes installation easier and lowers total installed cost."

**Robert Eddy, President
EP Sales, Inc., Bloomington, MN**



Seamless Integration

Enhanced communication and integration with major building management systems via BACnet MS/TP on select models.



Modular Design

The compact modular design allows for easy installation and commissioning to ensure optimal system performance.



Reliable and Dependable

Factory calibrated and designed from the highest quality materials delivering accurate and dependable readings of CO, NO₂, CO₂, NH₃, CH₄, C₃H₈, H₂, H₂S, CL₂, O₂, and Refrigerant gases.

Intuitive design



Sensor Modules

Factory calibrated, calibratable, and hot swappable.

1

Audible and Visual Alarms

Three alarm levels including an internal horn and strobe alarm.

2

Programmable Interface

Four button keypad and backlit display.

3

CAN bus

Allows for standalone operation.

4

All CO, NO₂, CO + NO₂ gas monitors are assembly listed to UL 2075 and ULC-S588, the UL gas and vapor detectors and sensors standards. Available gases include: CO, NO₂, CO₂, NH₃, CH₄, C₃H₈, H₂, H₂S, CL₂, O₂, and Refrigerant gases.

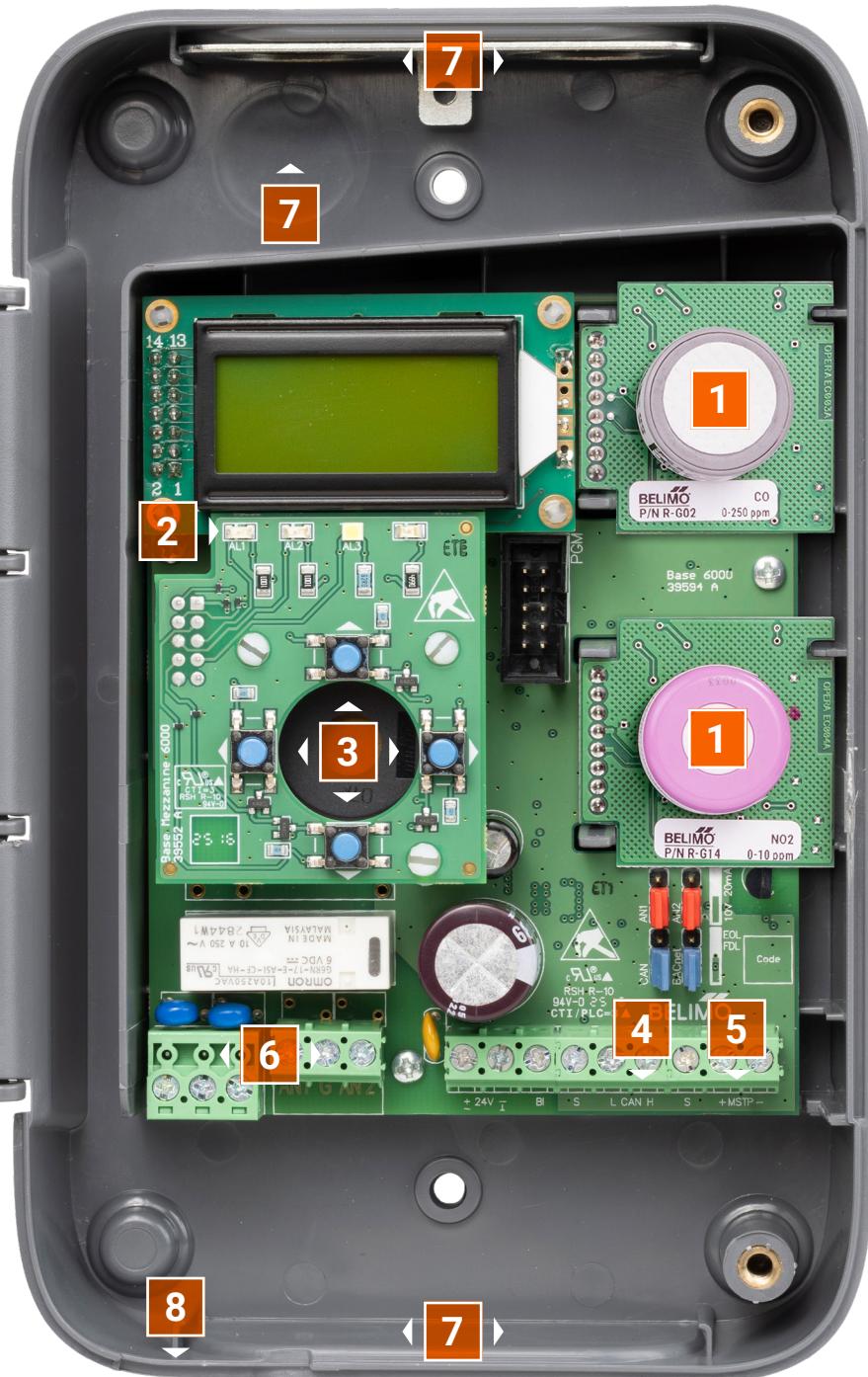


5-year warranty



Gas Monitor





→ Peer to peer communication allows daisy-chain installation of up to 32 devices, reducing cabling.

5 BACnet MS/TP

Allows for integration into a BMS

6 Relays and Analog Outputs

SPDT relays and 2...10 V / 4...20 mA scalable analog outputs allow for direct control of ventilation, dampers, and alarms.

7 5 Conduit Knockouts

Two on top, two on bottom, and one on back.

8 Water and Condensation Protection

Inner seal and water outlet to protect electronics from condensation buildup.

Belimo gas monitors at a glance

Vehicle Emissions (Carbon Monoxide, Nitrogen Dioxide)

Application	Model #	Output signal				Measured Values		Replacement Sensor Module	
Vehicle Emissions	22G02-5..	Active	Relays (SPDT)	Analog Outputs (2...10 V / 4...20 mA, scalable)	CAN bus	BACnet MS/TP	Carbon Monoxide (CO)	Nitrogen Dioxide (NO ₂)	Measurement Range
	22G14-5..	■	■	■	■	■	■	■	0...250 ppm
	22G0214-5..	■	■	■	■	■	■	■	0...10 ppm



Indoor Air Quality (Carbon Dioxide)

Application	Model #	Output signal				Measured Values		Replacement Sensor Module	
Indoor Air Quality	22G15-5..3	Active	Relays (SPDT)	Analog Outputs (2...10 V / 4...20 mA, scalable)	CAN bus	BACnet MS/TP	Carbon Dioxide (CO ₂)	Measurement Range	Sensor Module
	22G15-5..5	■	■	■	■	■	■	0...2000 ppm	R-G15-003
	22G15-5..6	■	■	■	■	■	■	0...5000 ppm	R-G15-005



Refrigerant Gases (R32, R134a, R454B, and more)

Application	Model #	Output signal				Measured Values		Measurement Range	
Refrigerant Gas Leak Detection	22G21-5..	Active	Relays (SPDT)	Analog Outputs (2...10 V / 4...20 mA, scalable)	CAN bus	BACnet MS/TP	R11, R22, R23, R32, R125, *R134a, R404A, R407A, R407C, R407F, R410A, R448A, R449A, R452A, R454B, R455A, R507, R513A, R1233zd, R1234yf, R1234ze	■	0...2000 ppm



Combustible and Toxic Gases (Methane, Propane, Hydrogen, and more)

Application	Model #	Output signal		Measured Values								Replacement Sensor Module			
 Combustible and Toxic Gases	22G04-5..	Active	Relays (SPDT)	Analog Outputs (2...10 V / 4...20 mA, scalable)	CAN bus	BACnet MS/TP	Ammonia (NH ₃)	Methane (CH ₄)	Propane (C ₃ H ₈)	Hydrogen (H ₂)	Hydrogen Sulfide (H ₂ S)	Oxygen Leak (O ₂)	0...250 ppm	R-G04	Electro-chemical
	22G05-5..	■	■	■	■	■	■	■	■	■	■	■	0...50% LEL	R-G05	Catalytic
	22G06-5..	■	■	■	■	■	■	■	■	■	■	■	■	R-G06	Catalytic
	22G08-5..	■	■	■	■	■	■	■	■	■	■	■	■	R-G08	Catalytic
	22G16-5..	■	■	■	■	■	■	■	■	■	■	■	0...50 ppm	R-G16	Electro-chemical
	22G17-5..	■	■	■	■	■	■	■	■	■	■	■	0...10 ppm	R-G17	Electro-chemical
	22G22-5..	■	■	■	■	■	■	■	■	■	■	■	0...50% O ₂	R-G22	Electro-chemical
	22G23-5..	■	■	■	■	■	■	■	■	■	■	■	■	R-G23	Electro-chemical

Accessories

Application	Model #	Output signal				
		Active	Relays (SPDT)	(2...10 V / 4...20 mA, scalable)	CAN bus	BACnet MS/TP
Communication Modules	C-22G-5..	■	■	■	■	■
Relay Unit	C-22G-50	■	■	■	■	■
High-Low Kit	A-22G-A14	■	■	■	■	■

For all gas monitors and their accessories, please see the Product Guide and Price List on the Belimo website.

All inclusive

At Belimo, we continually invest in new technologies that increase customer value by improving occupant comfort, energy efficiency, simplified installation, and maintenance-free operation. Our sales team is available to consult and provide insight and advice on how to achieve the best solution to help increase your system performance.

Belimo will continue to focus on providing you with exceptional product availability, fast delivery times, and world-class customer service and technical support. We remain dedicated to continuously improve our standards and are committed to providing you with the highest value possible.

Whatever your HVAC application, our global network of support experts are on hand and ready to assist.



Belimo Americas

USA, Canada, Brazil, Latin America, and the Caribbean
www.belimo.com



5-year warranty



On site around the globe



Complete product range



Tested quality



Short delivery times



Comprehensive support