

# RAM 4021 AutoCal<sup>®</sup>

## Continuous Respirable Air Monitor



- Continuous compressed air CO monitor
- Integrated dew point measurement
- Robust easy-to-operate design

 **GfG Instrumentation**



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# The Best Safeguard for Quality Breathing Air

The RAM 4021 AutoCal® series is the unit of choice where specific and accurate measurement of carbon monoxide, oxygen or dew-point levels are required. Designed to meet OSHA requirements for monitoring of Grade D respirable air, this unit is equipped with a reliable electrochemical sensor that accurately indicates the level of carbon monoxide on an illuminated liquid crystal display. Adding versatility, this unit offers optional oxygen or dew point sensors for applications where detection or measurement is needed.

Calibration and maintenance are simple with our innovative AutoCal® system. Additional features including alarm relay contacts, user adjustable alarm point, low flow alarm indicator and many more make this unit an intelligent choice. The RAM 4021 is available in four models, the 4021 (CO), 4021-1 (CO and O<sub>2</sub>), 4021-DPX (CO and dew point levels) and 4021-PR (CO and additional relay to signal power loss to monitor, complies with newest NFPA regulation). All models may

be purchased with or without airline filter systems.

## Respiratory air specifications

All GfG Instrumentation RAM Instruments satisfy the requirements of OSHA rule 29 CFR 1910.134 (d) (2) (ii) for carbon monoxide monitoring. They will also monitor Grade E air, generally specified for breathing air in cylinders (SCBA).

### OSHA Regulations (Standard - 29 CFR) Respiratory Protection - 1910.134

(i) (6)

For compressors that are not oil-lubricated, the employer shall ensure that carbon monoxide levels in the breathing air do not exceed 10 ppm.

(i) (7)

For oil-lubricated compressors, the employer shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm.



## Wall mounted filter panel option

**8025 (25 CFM), 8050 (50 CFM), and 8100 (100 CFM)**

The 25, 50 and 100 CFM panels filter out dangerous toxins from supplied air sources and ensure clean, breathable air. The three-stage filter system efficiently removes particulates, oil vapors and hydrocarbons from an air supply. After filtration, the regulator sets the pressure for the respiratory equipment and the manifold assembly provides multiple outlets for airline hose quick connections. The model 8025 panel includes two user female quick connect outlets; the 8050 includes four, and the 8100 includes eight. A 1/2" FPT connection is standard on all 50 and 100 CFM panels, and a 3/8" FPT connection is standard on all 25 CFM panels.

## RAM 4021 series

### Cases

Carbon monoxide (CO)  
Oxygen (O<sub>2</sub>)  
Dew point

### Detection ranges

CO	0-100 ppm
O <sub>2</sub>	0-25% volume
4021-DPH	10 to 70°F / -12 to 21°C
4021-DPL	-40 to 15°F / -40 to -9°C
4021-DPX	-112 to 68°F / -80 to 20°C

### Detection principles (sensor)

CO specific	Electrochemical cell
4021-DPL / 4021-DPH	Solid state hydro
4021-DPX	Thin film technology

### Air temperature

+32 to +122°F / 0 to 50°C

### Display

Digital LCD

### Expected sensor life

O <sub>2</sub> , CO	Greater than 2 years
Dew point	Greater than 2 years

### Adjustable alarm points

CO	5 ppm CO and 10 ppm CO
O <sub>2</sub>	19.5% and 23.5% volume
Dew point	39°F / 4°C (L) 10°F / -12°C

### Alarms

Visual	LEDs
Audible	Case mounted horn
Relays	Two dry contacts

### Airline input

1/8" feed	Standard pressure 70 to 150 psi
1/2" FPT	50 to 100 CFM panels (wall mount)
3/8"	25 CFM panels (wall mount)

### Available relay contacts and ratings

1 alarm (red) NO/NC  
1 warning (yellow) NO/NC  
1 power loss NO/NC (4021-PR only)

### Sample flow rate

0.5 cubic feet of air per hour (scfh)

### Power source

110 VAC or 12 VDC

### Temperature range

32 to 105°F / 0 to 40°C

### Dimensions (monitor only)

7.3x5.9x4 inches (185x150x101 mm) (HxWxD)

### Weight (monitor only)

5 pounds (226 kg)

### Available models

4021	Carbon monoxide
4021-1	Carbon monoxide and oxygen
4021-DPL, 4021-DPH and 4021-DPX	Carbon monoxide and dew point
4021-PR	Carbon monoxide (complies with NFPA '99 C-*26 (5.1.3.5-15))

### Available filter panel options

8025	wall mounted 25 CFM panel (2 ports)
8050	wall mounted 50 CFM panel (4 ports)
8100	wall mounted 100 CFM panel (8 ports)

*Specifications subject to change without notification*



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