

RAM 4021 AutoCal[®]

Respiratory air monitors

OX



Meets OSHA requirements for 'grade D' breathing air
Continuous monitoring of supplied breathing air
CO, CO + O₂, CO + dew point monitoring
AutoCal[®] automatic calibration
Three-stage filtering option for up to 8 users
User adjustable alarm points
Dry contacts for remote horn and lights
Internal horn

LCD display
NEMA 4X casing

Worldwide manufacturer of gas detection solutions

 **GfG Instrumentation**

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 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 O₂), 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 air line filter systems.

RAM 4021 series

Cases

Carbon monoxide
Oxygen
Dew point

Detection ranges

CO 0 to 100 ppm
O₂ 0 to 25% volume
DPH +10 °F to +70 °F
DPL -40 °F to +15 °F
DPX -112 °F to +68 °F

Air temperature

+32 °F to +149 °F (0 °C to 65 °C)

Detection principles (sensor)

Electrochemical cell – CO specific
Solid state hydro sensor – DPL/DPH
Thin film technology – DPX

Display

Digital LCD

Expected sensor life

O₂, CO >2 years
Dew point >2 years

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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, or 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 air line hose quick connections. The model 8025 panel includes two user female quick connect outlets, the 8050 four, and the 8100 eight. A 1/2" FPT connection is standard on all 50 and 100 CFM panels, a 3/8" FPT on all 25 CFM panels.

Technical Data

Adjustable alarm points

CO 5 ppm CO and 10 ppm
O₂ 19.5% volume and 23.5% volume
Dew point 39 °F (4 °C)

Alarms

Visual – LEDs
Audible – case mounted horn
Relays – two dry contacts

Air line 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 V AC or 12 V DC

Temperature range

32 °F to 105 °F (0 to 40 °C)

Dimensions (monitor only)

7.3 x 5.9 x 4 inches (L x W x D)
(185 x 150 x 101 mm)

Available models

4021 Carbon monoxide
4021-1 Carbon monoxide and oxygen
4021-DPL, -DPH, -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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