3M Occupational Health and Environmental Safety Division
Environmental Safety Products

Environmental Safety

3M

3M™ Multi-Gas Detectors

YOUR NUMBER ONE PRIORITY ON THE JOB IS THE SAFETY OF YOUR TEAM,

AND THAT MEANS YOU NEED SAFETY EQUIPMENT THAT IS RELIABLE AND ACCURATE.

We build our detection and monitoring products to be among the best in the industry. Combined with our dedication to technical support, 3M works every day to be the most innovative health and safety products and service provider in the world.

Trusted
Safety Products

CO H_2S O_2 NO NO_2 SO_2 Cl_2 NH_3 H_2

3M™ Multi-Gas Detector 950 Series

THE 3M MULTI-GAS DETECTOR 950 SERIES TAKES THE WORRY OUT OF WORKPLACE MONITORING BY PROVIDING FAST, RELIABLE INFORMATION ON SELECTED TARGET GASES.

It can detect up to five gases simultaneously, and can be used with the powerful 3M Know Your Air software – the software can be used to customize the detector setting to your specific application, download, analysis, and generate reports for up to 5 months of stored data.

The 3M 950 detector is designed for convenience. Instantly install any five of the 18 3M smart sensors and reduce the need for purchasing and maintaining more gas detectors. With the ability to accept any of 18 sensors in just seconds, it can help save time and money, and increases your ability to adapt to changing conditions fast.

Portable and tough, the 3M 950 Series detector is ideal for industrial work sites or confined spaces where monitoring air quality is the first priority.

Gases Detected
• Ammonia • Carbon Monoxide • Chlorine •Chlorine Dioxide • Explosive (LEL) • Hydrogen • Hydrogen Cyanide • Hydrogen Sulfide • Mercaptan • Nitric Oxide • Nitrogen Dioxide • Oxygen • Phosphine • Sulfur Dioxide • Blank Sensor

Specialty Sensor Options
• Metal Oxide Semiconductor • PID (photo-ionization)

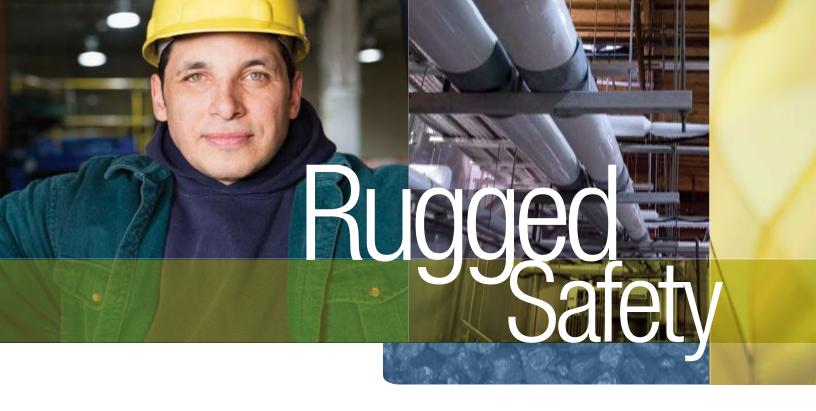| 950 Series |
| --- |
| Detect up to 5 gases simultaneously |
| Eighteen sensors including a PID sensor which can be selected to detect over 90 gases |
| Massive data-logging capacity |
| Easy-to-use 3M Know Your Air software with intuitive interface |
| Also available with a Metal Oxide broadband sensor |

HCN ClO_2 CH_3SH PH_3 C_5H_{12} CH_4 MOS PID

Versatile
Safety

3M™ Multi-Gas Detector 740 Series

THE 3M MULTI-GAS DETECTOR 740 SERIES IS DESIGNED
FOR EASE-OF-USE, DURABILITY, CONVENIENCE AND LOW
OPERATING COST.

It's the ideal companion for workers on industrial sites or in confined spaces—scenarios where potentially hazardous levels of CO, H_2S, O_2, or combustible gases may be found.

Tough jobs demand tough equipment. The 3M 740 detector is built with a rugged circuit board design and a heavy rubberized casing that helps deliver superior durability and protection against dropping, dust and liquids. Simply put: It's smart technology that you can count on to do its job, so you can focus on doing yours.

• Carbon Monoxide • Hydrogen Sulfide • Oxygen • Explosive (10% LEL, Methane)

H_2S O_2 CO CH_4

740 Series
Detect up to 4 gases simultaneously
Massive data-logging capacity
Easy replaceable sensor pack reduces maintenance costs
Runs on rechargeable lithium ion batteries or alkaline batteries

CO H_2S O_2 NO NO_2

3M™ Single Gas Detector 450 Series

THE 3M SINGLE GAS DETECTOR 450 SERIES IS A
LOW-MAINTENANCE, PORTABLE SINGLE GAS POCKET
DETECTOR THAT DELIVERS TIME AND TIME AGAIN.

Its compact size, reliability, and flexibility with ten detector
options make the 450 single gas detector a smart choice.

The 3M 450 Series detector carries a standard two-year
warranty on electronics and sensors CO, H_2S, O_2; one-year
on toxic sensors.

The unit's high contrast numerical level display, high intensity
LED alarm warning indication, and 85 dBA audible alarm indicate
when the target gas reaches alarm set points.

• Carbon Monoxide • Hydrogen Sulfide • Oxygen • Nitric Oxide • Nitrogen Dioxide • Sulfur Dioxide
• Chlorine • Ammonia • Hydrogen • Hydrogen Cyanide

450 Series
Ten gas sensor options
Easy operation with the push of a button
Simple, informative display
Easy to calibrate

SO_2 Cl_2 NH_3 H_2 HCN

Compact
Safety

3M™ Single Detector 110 Series

SIMPLIFY GAS DETECTION AND REDUCE MAINTENANCE COSTS WITH THE 3M 110 SERIES, AN INNOVATIVE FAMILY OF PORTABLE, SINGLE-GAS DETECTORS THAT ARE USER-FRIENDLY AND AFFORDABLE. IT CAN BE EASILY CLIPPED TO YOUR POCKET, BELT OR HARDHAT TO GO WHERE YOU GO.

110 Series
Lightweight and compact
Easy one-button operation
85 decibel alarm
Long-lasting lithium battery
Three alarm indicators: vibrating, audible, visual

110

With low maintenance and compact size, the 3M 110 detector helps you detect potentially hazardous levels of H_2S, CO or O_2 gas. It provides you with reliable, continuous 2-year performance at an affordable price.

O_2 CO H_2S

110XL

The 3M 110XL detector offers all the simplicity, reliability and ease-of-use of our standard portable gas monitor with lower resolution and more flexibility and lifespan features. This model can be calibrated, offers TWA and STEL alarm set points, and has a factory replaceable sensor and battery. It is available with either CO or HS sensors.

CO H_2S

110XLS

The 3M 110XLS detector takes all the advances packed into the 3M 110XL detector and adds another: four different user selectable alarm settings. The 3M 110XLS detector gives you the flexibility to adjust the alarm set points (25, 35, 50, or 100 ppm for CO), to suit your specific needs in a variety of work environments. It's combination of the STEL alarm, TWA alarm and adjustable alarm settings that can be changed in the field, allows you to focus on the job at hand.

CO

Safety
Made Simple

SAFETY PRODUCTS AND SERVICES DESIGNED TO HELP MAKE WORKPLACES SAFER, MORE EFFICIENT AND WORKERS MORE COMFORTABLE.

3M™ Personal Air Monitors

3M™ Personal Air Monitors ("Gas Badges") are simple and effective devices that collect certain airborne contaminants using the scientific principle of diffusion. They meet or exceed OSHA's accuracy requirements for many workplace contaminants.

Personal Air Monitoring Systems
Ethylene Oxide Monitors
Formaldehyde Monitors
Organic Vapor Monitors

3M™ Sorbents

3M Sorbent Products are designed to absorb a variety of maintenance fluids and lubricants, oil and petroleum-based liquids, a wide range of acids, bases, coolants and other hazardous fluids. They are lightweight and versatile, and take just minutes to put in place. Sorbents are available in a wide variety of configurations so you can get at the source of the leak or spill quickly.

Sorbents
Chemical Sorbents
Maintenance Sorbents
Petroleum Sorbents

⚠ WARNING

This instrument helps monitor for the presence and concentration level of certain specified airborne gases. Misuse may produce an inaccurate reading which means that higher levels of the gas being monitored may be present and could result in overexposure and cause sickness or death. For instruments with an oxygen sensor installed, misuse may produce an inaccurate reading where lower or higher levels of oxygen may be present and cause sickness or death.

Each person using this equipment must read and understand the information in the *User Instructions* before use. Use of this equipment by untrained or unqualified persons, or use that is not in accordance with the *User Instructions,* may adversely affect product performance and result in sickness or death. For proper use, see supervisor or *User Instructions,* or call 3M OH&ESD Technical Service in the U.S.A. at 1-800-243-4630. In Canada, call at 1-800-267-4414.

3M™ Portable Gas Detection Equipment Summary

3M Model	110	110XL. 110XLS
Type of Detector	Single Gas	Single Gas
Available Sensors	3	2 (110XL), 1 (110XLS)
Compatible Sensors	CO, HS, OX	CO, HS (110XL) CO (110XLS)
Sensors Replaceable	No	Yes (factory replaceable only)
Alarms	Vibrating, Audible & Visual Alarm	Vibrating, Audible & Visual Alarm
Audio Alarm Level	85 dBA @ 1 foot (30.5 cm)	85 dBA @ 1 foot (30.5 cm)
Battery	Lithium	Lithium
Replaceable Battery	No	Factory Replaceable Only
Rechargeable	No	No
Operate on Charger	NA	NA
Approximate Battery Life	24 Months	24 Months
Readings	Real Time, [5 ppm increments, readings start at 20ppm (CO) and 10 ppm (H_2S)] [0.5% increments from 21% (O_2)] Peaks	Real Time, (1 ppm increments, readings start at 5 ppm) Peaks, STEL, TWA
Calibration	No (CO & H_2S), Yes (O_2)	Yes
Pump	No	No
Data Logging	No	No
Intrinsic Safety	CSA(US) - Class 1, Groups A, B, C, D; T4A	CSA(US) - Class 1, Groups A, B, C, D; T4A
RF/EMF Shielded [4]	RF/EMF	RF/EMF
Ingress Protection	IP54	IP54
Operating Temperature	-4 °F–122 °F (-20 °C–50 °C)	-4 °F–122 °F (-20 °C–50 °C)
Operating Humidity	15–90% (non-condensing)	15–90% (non-condensing)
Weight	4.1 oz (115 g)	4.1 oz (115 g)
Dimensions	3.2 x 2.0 x 1.2 in (8.1 x 5.1 x 3.1 cm)	3.2 x 2.0 x 1.2 in (8.1 x 5.1 x 3.1 cm)
Warranty	2 yr–Sensor/Hardware	2 yr–Sensor/Hardware

• Ammonia • Carbon Monoxide • Chlorine • Chlorine Dioxide • Explosive (LEL) • Hydrogen • Hydrogen Cyanide • Hydrogen Sulfide
• Mercaptan • Metal Oxide • Nitric Oxide • Nitrogen Dioxide • Oxygen • Phosphine • PID (photo-ionization) • Sulfur Dioxide • Blank Sensor

PID–10.6eV, Cal. 100 ppm Iso-butylene, 0–1999 ppm, 92 correction factors available for selection in the instrument, 1 yr warranty.
950 Series is currently not CSA approved with PID sensor.

	450	740	950
	Single Gas	Multi-gas, up to 4	Multi-gas, up to 5
	10	4	18
	OX, CO, HS, CL, AM, SO, CN, NO, ND, HY[5]	OX, CO, HS, EX[1]	CO[2], HS, EX[3], OX, NO, ND, SO, CL, AM[2], HY, CN, CD, MM, PH, MO, PD
	Yes	Yes (Sensor pack only)	Yes
	Audible & Visual Alarm, Vibrating Alarm (optional)	Vibrating, Audible & Visual Alarm	Audible & Visual Alarm
	85 dBA @ 1 foot (30.5 cm)	95 dBA @ 1 foot (30.5 cm)	103 dBA @ 1 foot (30.5 cm)
	Lithium	Lithium-Ion or Alkaline (AAA)	Nickel Metal Hydride (NiMH) or Alkaline (AA)
	Yes	Yes	Yes
	No	Yes (Li-Ion), 3hr recharge time	Yes (NiMH), 90 min recharge time (90% capacity)
	NA	No	Yes
	18 Months	18 Hours	NiMH–16 Hours, AA–24 Hours (Diffusion) NiMH–12 Hours, AA–16 Hours (Pump)
	Real Time	Real Time, Peaks, STEL, TWA	Real Time, Peaks, STEL, TWA
	Yes	Yes	Yes
	No	Yes (compatible with optional external pump)	Yes (optional internal pump)
	No	Yes (6 months of data)	Yes–Optional (5 months of data)
	CSA(US) - Class 1, Groups A, B, C, D; T4	CSA - Class 1, Div. 1, Groups, A, B, C, D; T3	CSA - Class 1, Div. 1, Groups, A, B, C, D; T3
	None	RF/EMF	RF/EMF
	Not Rated	IP 65	Not Rated
	-4 °F–122 °F (-20 °C–50 °C)	-4 °F–122 °F (-20 °C–50 °C)	-4 °F–122 °F (-20 °C–50 °C)
	15–90% (non-condensing)	15–90% (non-condensing)	15–90% (non-condensing)
	5.5 oz (154 g)	10.4 oz (292 g)	24.3 oz (690 g)
	3.65 x 1.7 x1.1 in (9.3 x 4.3 x 2.8 cm)	4.8 x 2.7 x 1.4 in. (12.2 x 6.9 x 3.6 cm)	5.94 x 5.2 x 2.8 in. (15 x 13.2 x 7.1 cm)
	2 yr–Hardware, CO, HS, OX Sensors; 1 yr–All other Sensors	2 yr – Sensors/Hardware	2 yr–Hardware, CO, HS, OX, EX Sensors; 1 yr–All other Sensors

[1] For 740 combustible sensor (EX) can select: methane (%LEL), pentane (%LEL), hexane (%LEL), or methane (% VOL)

[2] This sensor has high and low ranges

[3] For 950 combustible sensor (EX) can select methane (%LEL), pentane (%LEL), or Hydrogen (%LEL)

[4] All devices tested with 450 MHz, 5 Watt Radio at 2 feet. All devices had negligible effect (<10% of alarm level) with the exception of the 450 which is not shielded against the effects of RF/EMF.

[5] Hydrogen Cyanide detector will be available in early 2008

Additional Products from 3M

| Heat Stress | Thermal Imaging | Fixed Gas Detection | Respiratory Protection | High Visibility |

3M Worldwide, World Class

3M develops, manufactures and markets over 50,000 different consumer, commercial, industrial and health care products. We have manufacturing operations in 60 countries and do business in more than 200 countries. 3M can help you achieve your workplace goals, meet and exceed government standards, simplify and improve the lives of your workers, and contribute to a safe, healthy and sustainable work environment.

For More Information

Sales Assistance
1-800-328-1667

Technical Assistance
1-800-243-4630

Fax On Demand
1-800-646-1655

Internet
www.3M.com/OccSafety

Find your Safety Sales Rep at
www.3M.com/repfinder

For other 3M products
1-800-328-1667

3M Health and Safety Services

also offers e-Tools for your company's health service needs. Please visit www.respexam.com for an overview of the program.

Customer Service and Support

To obtain customer service and support please contact 3M Service at 1-800-243-4630.

3M Canada

3M Occupational Health and Environmental Safety Division
PO Box 5757
London, ON Canada N6A 4T1

Contact Information:

Customer Care Centre 1-800-364-3577

Technical Assistance 1-800-267-4414

Internet www.3M.com/ca/occsafety

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