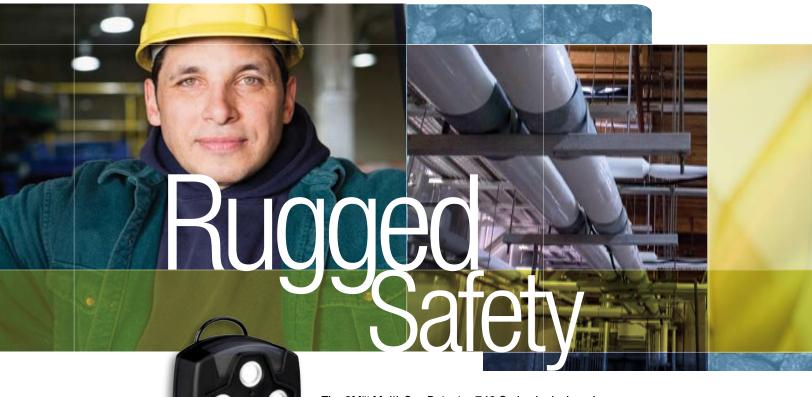# 3M Occupational Health and Environmental Safety Division
3M™ Multi-Gas Detector 740 Series

Rugged
Safety

The 3M™ Multi-Gas Detector 740 Series is designed for ease-of-use, durability, convenience and low operating cost.

3M

For the Safety of Your Team in Confined Spaces

3M™ Technology

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 work spaces – scenarios where potentially hazardous levels of CO, H_2S, O_2, or combustible gases may be found.

Apart from its power to detect up to four gases at a time, the 740 series detector features a bright, readable display, pre-calibrated sensor replacement packs, and heavy duty construction. Simply put: it's smart technology that you can count on to do its job, so you can focus on doing yours.

The 3M 740 detector offers a quality instrument with a low operating cost, which is good news for your employees and your business.

Unsurpassed Convenience

The 3M 740 detector makes it easy to replace sensors with a unique Pre-Calibrated 3M Smart Sensor Pack. Why bother with individual sensors when you can replace all the sensors with one convenient insert in minutes?

Built Tough

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.

Safety First

We've equipped the 3M 740 detector with a 95 dBA alarm, dual red LED warning lights and a vibrate mode to get immediate attention in a busy work environment.

Maximum Endurance

The 3M 740 detector features remarkable staying power with long-lasting lithium-ion batteries. Now, you can rely on your detector to provide over eighteen hours of run time. What's more, you can easily swap in three 3M recommended AAA alkaline batteries on the job if needed.

Great Features and Accessories

All 3M 740 detectors come with standard rechargeable Li-ion battery, charger adapter, visual, auditory, vibratory alarms, data logging, rugged alligator clip, infrared port, gas test hood, and instruction manual.

Easy Maintenance

Stay ready with simply the push of a button: over time or with heavy use, sensors in any gas detector need to be calibrated or replaced. The 3M 740 detector test mode helps ensure your unit is accurately measuring the target gas.

The 3M 740 detector sensors are stingy when it comes to using calibration gas for testing. With a recommended flow rate of 0.2 liters per minute, the 3M 740 detector can help reduce your overall operating costs.

3M recommends the 740 detector be bump tested or sensor tested every day before use to help ensure accurate operation.

Long Memory

The 3M 740 detector's long memory allows you to maintain more than 1000 hours (six months) of data on usage, exposure levels, and other important site conditions.

Designed for maximum durability

3M™ Multi-Gas Detector 740 Series

H_2S O_2 CO CH_4

(1) Power/Select Button
Used for turning the 3M 740 detector ON and OFF, accessing download menu, silencing alarms and warnings, and responding "YES" to questions.

(2) Test Button
Used for accessing the sensor test menu and "up" arrow when changing settings.

(3) Peaks/No Button
Used for accessing Peak menu and "down" arrow when changing settings and responding "NO" to questions.

(4) Power Jack
Uses universal 110-240 VAC power supply or 12 Volt Vehicle Wiring Kit.

(5) LCD Readout
Easy to read digital display.

(6) IR Window
Quickly transfers data logging information.

(7) 95 dBA Buzzer
Loud audible warning for noisy environments.

(8) Highly Visible Red LEDs
Brilliant red light for visual warnings.

(9) Sensor Opening Filters
Aids against moisture and dust intrusion.

(10) Belt Fastener and Loop
Holds secure to clothing when worn on job sites.
Loop can be used to lower unit into confined spaces.

Gas Sensor Specifications

Sensor	Factory Default Alarm Level	Display Range	Reading Resolution	Factory Default STEL Alarm Level	Factory Default TWA Alarm Level	Operating Temperature Range
Carbon Monoxide	35 ppm	0 – 1500 ppm	1 ppm	200 ppm	35 ppm	-4 to 122 ºF (-20 to 50 ºC)
Hydrogen Sulfide	10 ppm	0 – 200 ppm	1 ppm	15 ppm	10 ppm	-4 to 122 ºF (-20 to 50 ºC)
Combustible Gases*	10% LEL	0 – 100% LEL 0-5% v/v methane	1% LEL	Not Applicable	Not Applicable	-4 to 122 ºF (-20 to 50 ºC)
Oxygen	19.5% (Low) 23.0% (High)	0 – 25%	0.1%	Not Applicable	Not Applicable	-4 to 122 ºF (-20 to 50 ºC)

* Factory calibrated to methane.

Standard Features and Accessories

SPECIFICATIONS	
Display	LCD with designated line for each sensor reading
Battery	3M Standard – rechargeable Li-ion; Optional – 3M recommended Alkaline (AAA batteries)
Operating Time	Up to 18 hours
Readings	Peaks, STEL, TWA, Instantaneous Gas Levels
Dimensions	4.8" x 2.7" x 1.4" (122 mm x 69 mm x 36 mm)
Sensors	Combustible % LEL (catalytic bead); O_2, CO, and H_2S (electrochemical)
Weight	10.4 ounces (292 g)
Alarms/Indicators	Dual red LED, audible 95 dBA @ 1 ft., tactile vibrator

SPECIFICATIONS	
Operating Temperature	-4 ºF to 122 ºF (-20 ºC to 50 ºC)
Operating Humidity	15-90% non-condensing
Hazardous Area Rating	Intrinsically safe – Class 1, Division 1, Groups A, B, C, and D; T3 C22.2; CSA approval
Data Logging Memory	1.2 MB (6 months of data at 1 minute intervals per 40 hours/week)
Ingress Protection	IP65
Radio Frequency Protection	<10% deviation of alarm level when subjected to 450 mHz, 5 watt radio at 2 feet
Warranty	2 years on sensors and hardware

3M™ Multi-Gas Detector 740 Series (1-4 gases)

MODEL NUMBER	
740-100-400	740 4-gas detector with H_2S, OX, CO, EX (calibrated to Methane); alligator clip, rechargeable Li-ion battery, universal power supply (100-240 VAC), cal gas hood and tubing, comprehensive manual, data manager software CD.
740-100-300	740 3-gas detector with OX, CO, EX (calibrated to Methane); alligator clip, rechargeable Li-ion battery, universal power supply (100-240 VAC), cal gas hood and tubing, comprehensive manual, data manager software CD.
740-100-350	740 3-gas detector with OX, H_2S, EX (calibrated to Methane); alligator clip, rechargeable Li-ion battery, universal power supply (100-240 VAC), cal gas hood and tubing, comprehensive manual, data manager software CD.
740-100-200	740 2-gas detector with OX, EX (calibrated to Methane); alligator clip, rechargeable Li-ion battery, universal power supply (100-240 VAC), cal gas hood and tubing, comprehensive manual, data manager software CD.
740-100-100	740 1-gas detector with EX (calibrated to Methane); alligator clip, rechargeable Li-ion battery, universal power supply (100-240 VAC), cal gas hood and tubing, comprehensive manual, data manager software CD.
740-100-001	740 Gas Detector with alligator clip, rechargeable Li-Ion battery, universal power supply (100-240 VAC), cal gas hood and tubing, comprehensive manual, data manager software CD. (sensor pack purchased separately)
931-100-400	740 4-gas sensor pack with H_2S, OX, CO, EX (calibrated to Methane)
931-100-300	740 3-gas sensor pack CO, OX, EX (calibrated to Methane)
931-100-350	740 3-gas sensor pack with H_2S, OX, EX (calibrated to Methane)
931-100-200	740 2-gas sensor pack with OX, EX (calibrated to Methane)
931-100-100	740 1-gas sensor pack with EX (calibrated to Methane)
457-594-000	Cigarette adapter charger
930-030-001	Hand aspirator assembly
671-034-002	Infrared PC Adapter (USB)
671-034-000	Infrared PC Adapter (Serial)

⚠ 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

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