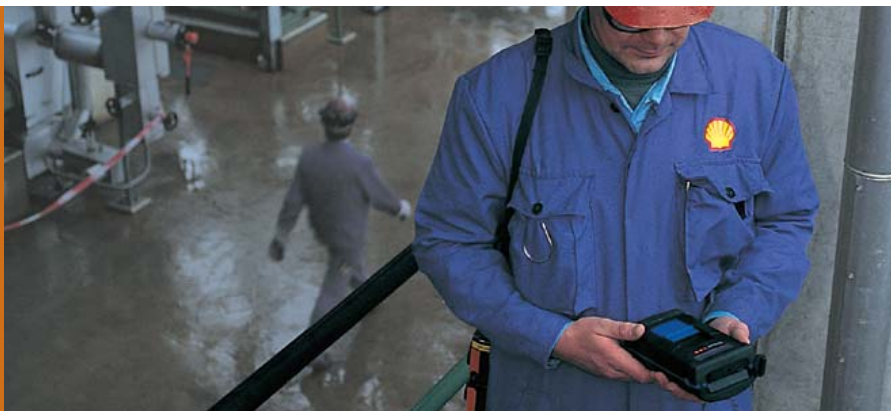


Draeger CMS



EVER SINCE 1937 WHEN WE INTRODUCED OUR FIRST DETECTOR TUBE, DRAEGER HAS BEEN THE WORLD'S LEADER IN THE ANALYSIS OF GASES AND VAPORS IN THE INDUSTRIAL WORKPLACE. OVER THE YEARS, WE HAVE DEVELOPED MORE DETECTION DEVICES FOR MORE APPLICATIONS THAN ANYONE ELSE. OUR LEADING-EDGE TECHNOLOGY HAS KEPT US ON THE FOREFRONT OF COLORIMETRIC DETECTOR TUBES AND PORTABLE GAS DETECTION INSTRUMENTATION. THE CMS FURTHER ADVANCES OUR CAPABILITIES IN INDUSTRIAL GAS MEASUREMENT FOR HEALTH AND SAFETY CONCERNS OR PROCESS CONTROL.



Chip Measurement System

The CMS combines substance specific measuring Chips with an electronic based Analyzer for an easy to use spot-measurement system. The 10 capillaries in each Chip are filled with a reagent system based on Draeger's 60+ years of colorimetric chemistry expertise. The analyzer combines a revolutionary optical system for analyzing the color reaction with a mass flow controller and pump system that provides unbeatable reproducibility.

Fast Response Times

The CMS Analyzer requires no warm-up time. After taking a test, the results can be reported as quickly as 20 seconds. Higher concentrations, which pose a greater hazard, are reported faster than trace background levels. This increases the safety of using the CMS system. TWA and action levels are typically analyzed within 1-2 minutes. After providing the measurement results, the CMS is immediately ready for another test or another Chip for further analysis of the environment.

Fast

One stroke tubes are not always faster! Though many Draeger-Tubes® require more than one stroke, they often provide measurement results in less time. Not only do you get the benefit of a quicker analysis; the larger sample volume provides better statistical accuracy.

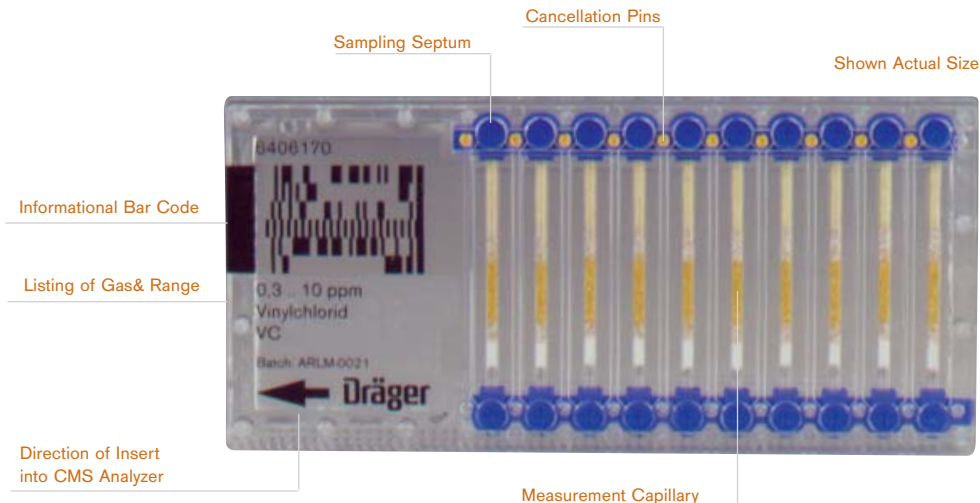
Unequaled Accuracy

The expertise of Draeger's worldwide experience in industrial gas measurement has come to focus in the CMS. This is combined with a photo-optical controller that measures the speed of the chemical reaction, thus eliminating the human objectivity. Unlike other systems that rely on the volume of air, the CMS pulls the same mass of air through the capillary every time. The mass flow controller automatically compensates for changes in atmospheric pressure.

Accuracies of +/- 4 to 7% of measured value is achieved for most gases.

CMS has been validated by a nationally accredited third party laboratory.





Easy as 1-2-3
Simple operation, simplified training



Accurate
Measure quantities as low as
0.20 ppm Benzene



Data Recorder
Stores up to 50 measurements in the
analyzer

THE CMS CHIP CONSISTS OF 10 MEASUREMENT CAPILLARIES FILLED WITH SUBSTANCE-SPECIFIC REAGENT SYSTEMS. THE GAS TYPE, PART NUMBER AND BATCH NUMBER ARE PRINTED ON THE CHIP. A PRINTED BARCODE ON THE CHIP, READ BY THE ANALYZER OPTICS, CONTAINS INFORMATION ABOUT GAS TYPE, MEASURING RANGE AND MEASURING TIME REQUIRED FOR COMPLETING THE MEASUREMENT. EACH CHIP IS CALIBRATED DURING MANUFACTURING AND IS VALID FOR TWO YEARS.

Chemical Specific Measurements

When you need to know exactly what is there, CMS is the tool to provide those answers. The chemistry is chosen to provide the best results possible. The capillaries of several chips have multiple layers (Yes, even in something that small!) to help reduce cross sensitivity to derive a specific measurement of the targeted chemical.

Simplified Operation

The CMS is literally as easy to operate as 1-2-3. Making an analysis is as simple as turning the unit "on" (moving the slide to position 1), then following the plain language instructions on the display to load the Chip and move the slide selector to positions 2 and 3. Operating the CMS couldn't be easier because this is the exact same procedure for every Chip! Upon completion of the analysis, the CMS Analyzer shows the concentration in the display. Any misinterpretation of the results is eliminated by the unambiguous digital display of the concentration.

Simplified Maintenance

The CMS Analyzer does not require gas calibration! All calibration information is stored on the bar code of the CMS Chip and automatically downloaded to the analyzer when inserted. An electronic system self test is performed every time the Analyzer is switched ON, and a sampling system test is performed before each test. You are always assured that the CMS system is operating properly. Operating on alkaline batteries means that there are no worries about charging or battery memory. CMS is gas detection made simple.

DataRecorder

The internal datarecorder stores up to fifty measurements with the time/date, contaminant/concentration and the sequential number of the measurement in a series. Measurement location information (in alphabetical code) may be entered manually. The stored data can be recalled and displayed on demand.

DRÄGER-CMS® CHIPS



Chemical	Measuring Range	Part No.
Acetic Acid	2.0 - 50.0 ppm	6406330
Acetone	40.0 - 600 ppm	6406470
Ammonia	0.20- 5.0 ppm	6406550
Ammonia	2.0 - 50.0 ppm	6406130
Ammonia	10.0 - 150 ppm	6406020
Ammonia	100 - 2000 ppm	6406570
Benzene	0.20 - 10.0 ppm	6406030
Benzene	0.50 - 10.0 ppm	6406160
Benzene	10.0 - 250 ppm	6406280
Butadiene	1.0 - 25.0 ppm	6406460
Carbon Dioxide	200 - 3,000 ppm	6406190
Carbon Dioxide	1,000 - 25,000 ppm	6406070
Carbon Dioxide	1.0 - 20.0 Vol%	6406210
Carbon Monoxide	5.0 - 150 ppm	6406080
Chlorine	0.20 - 10.0 ppm	6406010
Ethanol	100 - 2,500 ppm	6406370
Ethylene Oxide	0.4 - 5.0 ppm	6406580
Formaldehyde	0.20 - 5.0 ppm	6406540
Hydrochloric Acid	1.0 - 25.0 ppm	6406090
Hydrochloric Acid	20.0 - 500 ppm	6406140
Hydrocyanic Acid	2.0 - 50.0 ppm	6406100
Hydrogen Peroxide	0.20 - 2.0 ppm	6406440
Hydrogen Sulfide	0.20 - 5.0 ppm	6406520
Hydrogen Sulfide	2.0 - 50.0 ppm	6406050
Hydrogen Sulfide	20.0 - 500 ppm	6406150
Hydrogen Sulfide	100 - 2,500 ppm	6406220
Iso-Propanol	40.0 - 1,000 ppm	6406390
Mercaptan	0.25 - 6.0 ppm	6406360
Methanol	20.0 - 500 ppm	6406380
Methylene Chloride	10.0 - 200 ppm	6406510
MTBE	10.0 - 200 ppm	6406530
Nitrogen Dioxide	0.50 - 25.0 ppm	6406120
Nitrous Gases	0.50 - 15.0 ppm	6406060
Nitrous Gases	10.0 - 200 ppm	6406240
Oxygen	1.0 - 25.0 Vol%	6406490
Ozone	25.0 - 1,000 ppb	6406430
Perchloroethylene	5.0 - 150 ppm	6406040
Petroleum Hydrocarbons	20.0 - 500 ppm	6406200
Petroleum Hydrocarbons	100 - 3,000 ppm	6406270
Phosgene	0.05 - 2.0 ppm	6406340
Phosphine	0.10 - 2.50 ppm	6406400
Phosphine	1.0 - 25.0 ppm	6406410
Phosphine	20.0 - 500 ppm	6406420
Phosphine	200 - 5,000 ppm	6406500
Propane	100 - 2,000 ppm	6406310
Styrene	2.0 - 40.0 ppm	6406560
Sulfur Dioxide	0.40 - 10.0 ppm	6406110
Sulfur Dioxide	5.0 - 150 ppm	6406180
Toluene	10.0 - 300 ppm	6406250
Training Chip	Simulation	6406290
Trichloroethylene	5.0 - 100 ppm	6406320
Vinyl Chloride	0.30 - 10.0 ppm	6406170
Vinyl Chloride	10.0 - 250 ppm	6406230
Water Vapor	0.40 - 10.0 mg/L	6406450
Xylene	10.0 - 300 ppm	6406260

Please check our website
www.draeger-safety.com
 for NEW chips.



Emergency Response Kit



Remote Sampling with Probe

SPECIFICATIONS

Size	4.1 x 8.5 x 2.5 inch (105 x 215 x 65 mm)
Weight	25.6 oz. (730 g)
Operational Temp.	32-104°F (0-40°C)
Ingress Protection	IP-54, protected against dust and water
Data Capacity	Stores up to 50 measurements
Power Supply	4 x 1.5 Volt (AA) alkaline batteries
Battery Duration	450 minutes of analysis time (typically greater than 100 measurements)
Approvals	UL: Class I, Division 1, Groups A-D, T4 CSA: Class I, Division 1, Groups A-D, T4 MSHA: Permissible Gas Detector ATEX: EEx ib IIC T4

ORDER INFORMATION

CMS Analyzer with Data Recorder	6405300
Remote System	6405060
Telescopic Probe (requires remote system)	8313025
Nylon Transport Case	4594631
Molded Plastic Transport Case	4056442
Leather Carrying Case with Shoulder Strap for Analyzer	6405080
Leather Carrying Case for Chips	6405090

CMS Kits	
CMS Emergency Response Kit	4055711
CMS Emergency Response Kit without chips	4055976
CMS Emergency Response Case with custom foam	4055979
CMS Indoor Air Quality Kit	4056455

SUBSIDIARIES

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Fax 1-800-922-5519

TECHNICAL SERVICES
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Fax 1-888) 794-3807

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Fax (52) 442-246-1114

CMS Emergency Response Kit



The Dräger CMS Emergency Response Kit is designed to have all the equipment on-hand that is necessary to assess various hazardous gases and vapors in ambient air. The test results are evaluated on-site providing response personnel a clear course of action.

The CMS System is a unique combination of reagent chemistry and electronics providing a gas spot check system of unequalled accuracy. The LCD display prompts the user through the simple sampling procedure that is identical for any test.

The CMS Analyzer features an integrated data-recorder that stores measurement values with the time/date. The results of 50 measurements can be stored for recall and evaluation.

The kit includes remote sampling capability for inaccessible areas and ten pre-selected CMS chips that allow ten tests per chip. The kit is also available without chips, allowing the user to customize to their specific needs.

Technical Data

The Complete CMS Emergency Response Kit Includes:

- * The CMS Analyzer with data recorder
- * 3 meter extension hose with adapter
- * Telescopic probe with Viton sampling hose
- * Screwdriver and Allen wrench
- * Remote sample pump
- * Float probe
- * Four spare AA batteries
- * Operating instructions

A rugged Pelican carrying case protects the Kit contents.

CMS Chips included:	Measuring Range:	Part No.
Ammonia	10.0 - 150 ppm	6406020
Carbon Dioxide	1000 - 25,000 ppm	6406070
Carbon Monoxide	5.0 - 150 ppm	6506080
Chlorine	0.20 - 10.0 ppm	6406010
Hydrochloric Acid	1.0 - 25.0 ppm	6406090
Hydrogen Sulfide	2.0 - 50.0 ppm	6406050
Nitrous Fumes	0.50 - 15.0 ppm	6406060
Perchloroethylene	5.0 - 150 ppm	6406040
Petroleum Hydrocarbon	20.0 - 500 ppm	6406200
Sulfur Dioxide	0.40 - 10.0 ppm	6406110

There are over 50 chemical specific CMS Measurement Chips that can be used in conjunction with the CMS Emergency Response Kit. Space is provided in the kit for 6 additional chips.

Order Information

Complete CMS Emergency Response Kit	4055711
CMS Emergency Response Kit without Chips	4055976
CMS Emergency Response Case with foam inserts only	4055979