Dräger SAFETY

Dräger CMS

Accurate Measurements Made Easy

- Simple
- Accurate
- Fast
- Specific
- Spot-Check
- Data Recorder
- Analyzer

Dräger CMS

Draeger: Leading Detection

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.

CMS: 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.

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

Measurement Made Accurate

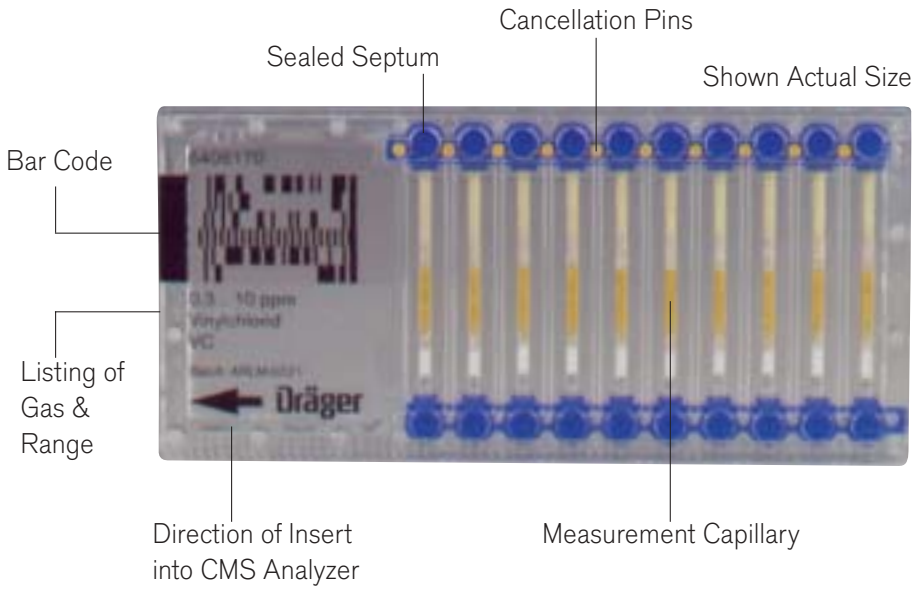
Fast Response Times

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.

Unequalled 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.



Chemical Specific Chips

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 levels (Yes, even in something that small!) to help eliminate cross sensitivity or derive a specific measurement of the targeted chemical.

The CMS Chip

The 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.

Dräger CMS

Chemical	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	0.40 - 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.com** for NEW chips.

Measurement Made Easy

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

Trusted Technology that's
ahead of its time

CMS with Remote System

CMS Kits:

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

Represented By:

Specifications

Size	8.0 x 3.6 x 1.7 in. (205 x 92 x 45 mm)
Weight	25.6 oz. (730 gr.)
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 CENELEC: EEx ib IIC T4 MSHA (Permissible Gas Analyzer)
Operational Temp.	32-104 °F (0-40 °C)

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

Draeger Safety, Inc.

101 Technology Drive
Pittsburgh, PA 15275-1057
1-412-787-8383
Fax: 1-412-787-2207
Customer Service: 1-800-858-1737
Fax: 1-800-922-5519
Technical Support: 1-888-794-3806
Fax: 1-888-794-3807
www.draeger.com

Draeger Canada Ltd.

7555 Danbro Crescent
Mississauga, ON L5N 6P9
1-905-821-8988
Fax: 1-905-821-2565
Customer Service: 1-877-372-4371
Fax: 1-800-Fax-Tube