Dräger Chip-Measurement-System®
Chip Measurement System

The world's only Chip Measurement System® (CMS) makes spot measurements as easy as 1, 2, 3: insert chip—start measurement—read measurement result on the LCD display. The Dräger CMS combines the advantages of the Dräger-Tubes® with those of an optoelectronic analysis system. Two components define the system: the analyser and the substance-specific chip.

Dot matrix display:
For clear legible concentrations and menu navigation

Carrying strap:
Allowing the instrument to be carried safely, even when the user is wearing gloves

Main control element:
For easy and safe operation

ST-14162-2008

Dräger CMS Chip:
Suitable for 10 measurements of one gas. Automatically supplies the analyser with the calibration data and measurement range of the respective gas

ST-1347-2004

Dräger. Technology for Life®

Benefits

Simple to use

The Dräger CMS is ready for use after only a brief instruction. It makes no difference which gas or vapor you wish to measure – the instrument is used in the same way every time. The operation is guided by a menu on the display and a single button/switch. The display can be backlit and is available in German, English, French or Spanish. After an automatic system self-test, the analyser is powered up and the measurement system is immediately ready for operation. Simply insert the chip, perform the measurement and read the measurement result displayed as a concentration on the screen. At the end of the measurement, the chip is automatically ejected from the instrument, and the analyser shuts down. An audible signal sounds after each operating step. Power is supplied by four standard and easily replaceable batteries which are especially suited to the analyser's requirements (see technical data). The battery capacity allows for more than seven hours of measurement and is, of course, always displayed on the screen.

Accurate

The principle of mass current measurement ensures that the instrument remains unaffected by fluctuations in air pressure. Because the chips are calibrated before leaving the factory, there is no need for the user to calibrate the Dräger CMS. Any possible temperature and humidity effects are checked during factory calibration. The analyser is explosion protected and certified in accordance with Cenelec (Europe), UL (USA) and UL/CSA (Canada). In addition, the system is protected against dust and splash water in accordance with IP 54, and is resistant to electromagnetic waves.

Remote-System

To allow measurements at places which are difficult to access, a remote system is available. This comprises of an additional pump and extension hose, and is connected to the back of the analyser. Because the remote system is activated by its own switch, the system can remain attached to the analyser. A telescopic probe can also be attached to the Remote-System.

Accessories

D-10378-2009

CMS Remote System

Part Number 64 05 060

ST-14992-2008

Telescopic probe with viton sampling hose

Part Number 83 16 530

Related Products

ST-36-2001

Dräger-tubes® for short-term measurements

The Draeger short-term detector tubes have proven to be a very cost-effective and reliable way to measure toxic gases and vapors in the workplace.

Technical Data

Measurement range and resolution	Depends on chip type used - please see chip list	
Typical measurement time	30 s to 5 min in range of the limit values, depends on chip type and concentration of hazardous substance	
Ready for measurement	Immediately	
Poisoning effects	Not possible	
Calibration	Not necessary	
Temperature during operation	0 to 40°C/32 to 104°F	
Temperature during storage	-20 to +60°C/-4 to 140°F (analyzer)	
	< 25°C/< 77°F (chips)	
Air pressure	700 to 1100 hPa	
Humidity	0 to 95% relative humidity, non-condensing	
Recording of measured values	Six-fold optics and light conductor system, remission measurement	
System diagnosis	Automatic, with microcontroller for all system components	
Display	LCD, alphanumeric with backlighting	
Menu languages	English, German, French, Spanish	
Operating time	Approx. 450 minutes of measurement	
Power supply	Varta	LR 6 4006
4 × 1.5 V batteries	Energizer	LR 6 E 91
from the following types:	Panasonic	LR 6 AM 3 AA MN 1500
	Alkaline/foil	(PMBC)
Weight	730 g/26 oz (analyzer with batteries)	
Dimensions (L × W × H)	215 mm x 105 mm x 65 mm (8 1/2" x 4" x 2 1/2")	
Approvals	BVS Europe type examination certificate,	
	protection class EEx ib II CT4, test no.	
	BVS 95.D.2109	
	UL USA	Class 1, Div. 1, Groups A, B, C, D, Temp. Code T4, 2P91
	UL Canada	Class 1, Div. 1, Groups A, B, C, D, Temp. Code T4, 2P91
	CSA Canada	Class 1, Div. 1, Groups A, B, C, D, Exia, Temp. Code T4
Protection class	IP 54 dust and splash protection	

Ordering Information

Description	**Order no.**
Analyzer set, comprising of: Analyzer with integrated DataRecorder, batteries	64 05 300
Remote-System for measurement in hard to reach places, incl. 3 m/10ft hose	64 05 060
Telescopic probe (1 m/3ft)	83 16 530
Extension set (3 m/10ft)	83 17 614
Extension set (10 m/33ft)	83 17 613
Analyser Remote (Analyser with integrated Remote-System)	83 17 700
Odorant test set	83 18 030

DRÄGER CMS CHIPS

Description	Measurement range	Order no.
Acetic Acid	2 - 50 ppm	64 06 330
Acetone	40 - 600 ppm	64 06 470
Ammonia	0.2 - 5 ppm	64 06 550

Ordering Information

Ammonia	2 - 50 ppm	64 06 130
Ammonia	10 - 150 ppm	64 06 020
Ammonia	100 - 2000 ppm	64 06 570
Benzene	50 - 2500 ppb	64 06 600
Benzene	0.2 - 10 ppm	64 06 030
Benzene	0.5 - 10 ppm	64 06 160
Benzene	10 - 250 ppm	64 06 280
Butadiene	1 - 25 ppm	64 06 460
Carbon Dioxide	200 - 3000 ppm	64 06 190
Carbon Dioxide	1000 - 25000 ppm	64 06 070
Carbon Dioxide	1 - 20 Vol.-%	64 06 210
Carbon Monoxide	5 - 150 ppm	64 06 080
Chlorine	0.2 - 10 ppm	64 06 010
Ethanol	100 - 2500 ppm	64 06 370
Ethylene Oxide	0.4 - 5 ppm	64 06 580
Formaldehyde	0.2 - 5 ppm	64 06 540
Gasodor™-Free™	5 - 30 mg/m³	64 06 590
Hydrocyanic Acid	2 - 50 ppm	64 06 100
Hydrochloric Acid	1 - 25 ppm	64 06 090
Hydrochloric Acid	20 - 500 ppm	64 06 140
Hydrogen Peroxide	0.2 - 2 ppm	64 06 440
Hydrogen Sulfide	0.2 - 5 ppm	64 06 520
Hydrogen Sulfide	2 - 50 ppm	64 06 050
Hydrogen Sulfide	20 - 500 ppm	64 06 150
Hydrogen Sulfide	100 - 2500 ppm	64 06 220
Mercaptan	0.25 - 6 ppm	64 06 360
Methanol	20 - 500 ppm	64 06 380
Methylene Chloride	20 - 200 ppm	64 06 510
MTBE	10 - 200 ppm	64 06 530
Nirogen Dioxide	0.5 - 25 ppm	64 06 120
Nitrous Fumes	0.5 - 15 ppm	64 06 060
Nitrous Fume	10 - 200 ppm	64 06 240
Ozone	25 - 1000 ppb	64 06 430
Oxygen	1 - 30 Vol.-%	64 06 490
o-Xylene	10 - 300 ppm	64 06 260
Petroleum Hydrocarbons	20 - 500 ppm	64 06 200
Petroleum Hydrocarbons	100 - 3000 ppm	64 06 270
Perchloroethylene	5 - 150 ppm	64 06 040
Phosgene	0.05 - 2 ppm	64 06 340
Phosphine	0.1 - 2.5 ppm	64 06 400
Phosphine	1 - 25 ppm	64 06 410
Phosphine	20 - 500 ppm	64 06 420
Phosphine	200 - 5000 ppm	64 06 500
Propane	100 - 2000 ppm	64 06 310
i-Propanol	40 - 1000 ppm	64 06 390
Sulfur Dioxide	0.4 - 10 ppm	64 06 110
Sulfur Dioxide	5 - 150 ppm	64 06 180
Styrene	2 - 40 ppm	64 06 560
Toluene	10 - 300 ppm	64 06 250
Trichlorethylene	5 - 100 ppm	64 06 320
Vinyl Chloride	0.3 - 10 ppm	64 06 170

Ordering Information

Vinyl Chloride	10 - 250 ppm	64 06 230
Water Vapor	0.4 - 10 mg/L	64 06 450
Training Chip	Simulation	64 06 290

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