

# Dräger X-act® 7000 Multi-Gas Detector

The innovative Dräger X-act® 7000 analysis system consists of Dräger MicroTubes and an opto-electronic analysis device that lets you precisely measure gases in the low ppb range. It gives you precise results right on site, replacing slow, expensive lab analyses. It's extremely easy to use: insert the Dräger MicroTubes, start measuring, then read out the test result.



## Dräger X-act® 7000



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## **Benefits**

### Measures the lowest-quantity concentrations with lab-quality analysis

Concentrations of hazardous substances in ambient workplace air must never exceed the defined limits. Monitoring these sometimes very low concentration levels is a responsible task. The Dräger X-act 7000 in combination with Dräger MicroTubes is focused on measuring carcinogenic and toxic substances in the low ppb range. This sensitive testing system is based on colorimetric chemical sensors capable of replacing conventional laboratory analysis and providing precise results right on site. This saves time and money.

## More safety thanks to high selectivity

The substance-specific reactive layers and multiple pre-layers in the Dräger MicroTubes allow for selective gas testing. The various layers serve as a filter. During testing, they filter out other substances that occur in the workplace so that only the target substance is reflected in the test result. This significantly reduces cross-sensitivities and the number of false-positive test results.

## Explosion-proof and ready to use

The RFID tags applied to the Dräger MicroTubes contain all the calibration data that apply throughout their normal lifespan of one year. This eliminates the need for lengthy function tests and manual calibration. Because it works on the basis of mass-flow measurement, air pressure fluctuations have no influence on the device. Any possible temperature or humidity influences are already accounted for during the factory calibration. The analyzer is explosion-proof and certified under ATEX and CSA. The system is also dust- and splash-resistant in accordance with IP54. It also meets the requirements for electromagnetic compatibility under EN 61326-1.

### Easy to use

After an automatic self-test, the X-act 7000 analysis system is immediately ready for use. It is suitable for testing with all available Dräger MicroTubes. Simply insert the right Dräger MicroTube for your testing needs. The automatic drive carefully draws the MicroTube in and positions it. Control your test using the 3-button control and 2.4 inch colour display. When the test is complete, the green LED will glow and a message is displayed on the screen. You can store the test result, location and time in the internal data logger and read it later using the Dräger CC Vision software. The device is powered by five easily replaceable AA alkaline batteries. The battery life lasts for more than ten hours of testing and can be read on the display.

### Also suitable for remote sampling

Using the coupler (connector piece), the Dräger X-am® Pump can be attached to the X-act 7000. This allows you to test for carcinogenic and toxic substances in the ppb range, even in hard-to-reach places like ducts, pipelines or tanks up to a distance of 45 meters (147 feet). Because the X-am Pump is also certified explosion-proof for Zone 0, it is perfectly suited for these tasks.

## **System Components**



## **Dräger MicroTubes**

With each set of MicroTubes, you can perform 10 tests. The concentrations of hazardous substances are shown on the X-act® 7000 display. Specific MicroTubes even allow you to perform tests in the ppb range. The RFID tag applied to the Dräger MicroTube set contains all the calibration data that apply throughout their normal lifespan of one year. This eliminates the need for lengthy function tests and manual calibration.

## **Accessories**



## Dräger X-am® Pump for Dräger X-act® 7000

The Dräger X-am® Pump is an external pump for portable gas detection devices. In combination with the X-act® 7000, it allows you to perform remote testing (for example, inside tanks or ducts). To use it, simply attach the pump to the Dräger X-act® 7000 using a coupler. Control the pump using the X-act® 7000 software.



## Coupler

The coupler is the connector between the Dräger X-act® 7000 analysis system and the Dräger X-am® Pump. It creates a secure, sealed connection between the two devices.

## **Accessories**



### **FKM** hose

Solvent-resistant

Available in four lengths: Inner diameter 3.2 mm, length 5 m (16.4 ft) Inner diameter 3.2 mm, length 10 m (32.8 ft) Inner diameter 3.2 mm, length 20 m (65.6 ft) Inner diameter 3.2 mm, length 45 m (147.6 ft)



## **PVC** hose

With PTFE inner-hose

Available in two lengths: 3 m (9.8 ft) 15 m (49.2 m)



## **Probes**

50 cm (20 in)– Rigid 70 cm (27 in)– Flexible, semi-rigid 90 cm (35 in)– Rigid 150 cm (59 in)– Telescopic



### Pre-tube holder

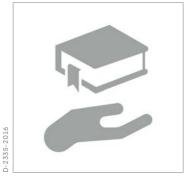
Pre-tube holders are needed to improve the sensitivity and selectivity of some Dräger MicroTubes even further. The pre-tube holder ensures a secure, sealed connection with the Dräger X-act® 7000.

## **Services**



#### **Product Service**

Our product service provides support with different service packages—in our workshops or directly on your premises. Care, maintenance and servicing are crucial for safety and reliability—but careful maintenance and care are a must, even when it comes to commercial considerations. Preventive checks, ongoing care and use of original replacement parts improve the longevity of your investment.



## **Training**

The Dräger Academy has imparted well-founded and practical knowledge for over 40 years. With over 110 authorized trainers and more than 600 available topics, we conduct more than 2,400 training sessions per year. We equip your people with the knowledge they need for real-life situations and make sure they will be able to recall and readily apply that knowledge in their everyday work—especially in stressful situations. If you have specific needs, we can develop a customized training program to meet your individual requirements.



#### **Rental Service**

From bridging a temporary shortage of equipment to procuring special equipment for applications involving specific requirements: If you only need to cover a temporary higher demand, then Dräger Rental Service with over 65,000 pieces of rental equipment is a economical alternative to purchasing. Fast, straightforward and with a wide range of additional services available upon request.



## **Shutdown Safety Service**

You need a comprehensive safety technology solution which equips you optimally for your project. You have to comply with many different legal requirements— even under intense time pressure. A potential conflict could arise between maximum efficiency and the highest possible degree of safety. We help you to establish a balance: Our Shutdown Safety Service is a solution which takes into account all of the requirements for a shutdown, and your individual needs in particular.

## **Technical Data**

Measuring range and resolution	Varies, depending on the Dräger MicroTubes in use
Typical testing time	From 5 seconds to 1,200 seconds, depending on the Dräger MicroTubes in use and the concentration of the test substance.
Ready to use	Immediately
Calibration	Recommended annually
Operating temperature	0 to +50 °C (+32 to +122 °F)
Storage temperature	-20 to +55 °C (-4 to +131 °F) (Analyzer)
Air pressure	+4 to +25 °C (+39 to +77 °F) (Dräger MicroTubes)
	700 to 1,300 hPa
Humidity	0 to 95 % relative humidity, non-condensing
Recording of measured data	CMOS sensor optics and LED light
System diagnostics	Automatic, using micro-controllers for all system components
Display	2.4 inch high contrast, color display with a resolution of 240 x 320, viewing angle of 160°

Menu languages	30	
Operating time	Approx. 600 minutes of testing time	
Power supply	5 x 1.5 v AA alkaline batteries	
Dimensions (L x W x H)	195 mm x 85 mm x 70 mm (7.7 in x 3.3 in x 2.8 in)	
Approvals	ATEX/IECEx	II 1G Ex IIC T4 Ga
	cCSAus	Class I, Zone 0, AEx ia IIC T4 Ga
Protection class	IP54, dust- and splash-resist	ant

## Dräger MicroTubes

Description	Test range	Test time (min-max)	Part number
Acetic Acid	2 - 50 ppm	20 - 170	8610330
Acetone	25- 5,000 ppm	20- 500 seconds	8610470
Alcohol(Methanol)	10- 5,000 ppm	20- 450 seconds	8610380
Alcohol (Ethanol)	5- 2,500 ppm	20- 450 seconds	8610380
Alcohol (i-Propanol)	10- 5,000 ppm	20- 450 seconds	8610380
Alcohol (n-Butanol)	7- 3,330 ppm	20- 450 seconds	8610380
Ammonia	1- 100 ppm	10-75 seconds	8610130
Ammonia	100- 2,500 ppm	3- 45 seconds	8610020
Benzene**	1- 150 ppb	100- 900 seconds	8610600
Benzene	0.15- 10 ppm	25- 150 seconds	8610030
Benzene	10 - 100 ppm	10 - 75 seconds	8610280
1,3-Butadiene**	25- 500 ppb	200- 600 seconds	8610460

## **Technical Data**

1,3-Butadiene	0.5- 25 ppm	10- 280 seconds	8610300
Carbon Dioxide	200- 50,000 ppm	2- 120 seconds	8610190
Carbon Monoxide	2- 1,000 ppm	5- 300 seconds	8610080
Chlorine	50- 5,000 ppb	10- 400 seconds	8610010
Demo	NA	approx. 30 seconds	8610290
Ethylene Oxide	25- 250 ppb	150- 600 seconds	8610200
Ethylene Oxide	0.25- 10 ppm	100- 500 seconds	8610580
Formaldehyde	5- 150 ppb	360- 960 seconds	8610540
Formaldehyde	0.15- 3 ppm	300- 600 seconds	8610100
Hydrochloric Acid	0.5- 25 ppm	10- 100 seconds	8610090
Hydrocyanic Acid	0.5- 50 ppm	20- 180 seconds	8610520
Hydrogen Sulfide	0.1- 50 ppm	5- 960 seconds	8610050
Hydrogen Sulfide	100 - 2,000 ppm	15 - 180 seconds	8610220
Mercaptan	50- 6,000 ppb	15- 360 seconds	8610360
Mercury	0.005- 0.25 mg/m <sup>3</sup>	240- 1,200 seconds	8610350
Methylene Chloride**	10 - 500 ppm	180 - 720 seconds	8610510
MTBE	2 - 200 ppm	60 - 450 seconds	8610530
Nitrogen Dioxide	0.25- 50 ppm	10- 210 seconds	8610120
Nitrous Fumes	0.25- 50 ppm	5- 120 seconds	8610060
Ozone	10 - 1,000 ppb	50 - 840 seconds	8610430
Perchloroethylene	1- 500 ppm	25- 240 seconds	8610040
Petroleum Hydrocarbons	10- 3,000 ppm	10- 360 seconds	8610270
Phosgene	10- 1,000 ppb	10- 300 seconds	8610340
Phosphine	50 - 5,000 ppb	20 - 95 seconds	8610400
Sulfur Dioxide	0.05- 5 ppm	20- 480 seconds	8610110
Toluene	10- 1,000 ppm	6- 360 seconds	8610250
Trichloroethylene	0.25 - 50 ppm	20 - 270 seconds	8610320
Vinyl Chloride	0.1 - 10 ppm	15 - 660 seconds	8610230
Xylene	10- 1,000 ppm	10- 240 seconds	8610260

#### MicroTube Alcohol (8610380)

Methanol is the calibration substance. Other alcohols are displayed with the following sensitivity:

<sup>\*</sup>Ethanol with twice the sensitivity: Indication in the display ÷ 2 = ppm ethanol (applies to the measuring range 5 – 2,500 ppm ethanol)

<sup>\*</sup>i-Propanol with the same sensitivity: Display = ppm i-propanol (applies to the measuring range 10-5,000 ppm i-propanol) \*n-Butanol with one and a half times sensitivity: Indication in display  $\div 1.5$  = ppm n-butanol (applies to the measuring range approx.

<sup>7- 3,300</sup> ppm n-Butanol)

<sup>\*\*</sup>Requires ppb booster basic tube and the pre-tube holder

## **Ordering Information**

Dräger	X-act®	7000
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Dräger X-act® 7000	86 10 800
consisting of: Basic device X-act® 7000 incl. batteries, shoulder strap complete, MicroTube Demo, Torx T10 screwdrawer, USB cable 2 m with Mini-connection	

## **Pump accessories**

Dräger X-act® 7000 Coupler	86 10 810
X-am® Pump, USB charger, wall plug & shoulder strap	83 27 115

## Other accessories

5 m.c. 2555555155	
Dräger X-act® 7000 Pre-tube holder	37 01 985
Dräger Tubes®, ppb-Booster Basic	37 02 013
Tube opener, TO 7000	64 01 200
Shoulder strap, compl.	83 26 823
Label holder for shoulder strap	83 26 824
"Silver" Sticker Set, 5 pieces	83 27 645
"Blue" Sticker Set, 5 pieces	83 27 646
"Red" Sticker Set, 5 pieces	83 27 647
"Green" Sticker Set, 5 pieces	83 27 648
"Yellow" Sticker Set, 5 pieces	83 27 649
Carry case, 470 x 365 x 190 mm, black	37 03 690
Display protector film (3 pcs.)	83 26 828
Dust and water filter for pump inlet	83 19 364

## **Probes**

Rigid probe set, GP 600, (50 cm / 30 in) with 1 m / 39 in FKM hose	83 28 667
Flexible, semi-rigid probe (70 cm / 27 in) with 1 m / 39 in FKM hose	83 16 531
Rigid fiberglass probe (90 cm $/$ 35 in) with 1 m $/$ 39 in FKM hose	83 16 532
ES150 Telescopic probe (max. length: 150 cm / 59 in)	83 16 533

### Hoses

PTFE-lined PVC hose, 3 m (9.8 ft)	83 26 980
PTFE-lined PVC hose, 15 m (49.2 ft)	45 94 679
Replacement hose for probes, 2 m (6.6 ft)	83 18 205

## **Ordering Information**

FKM hose, inner diameter: 3.2 mm, length: 5 m (16.4 ft)	83 25 705
FKM hose, inner diameter: 3.2 mm, length: 10 m (32.8 ft)	83 25 706
FKM hose, inner diameter: 3.2 mm, length: 20 m (65.6 ft)	83 25 707
FKM hose, inner diameter: 3.2 mm, length: 45 m (147.6 ft)	83 28 212
Hose connector, outer diameter: 5 mm (10 pcs.)	83 20 087

## Adapters

Luer Adapter Set 3 + 5 mm	83 28 213

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