



ST 6619 2005

**SAFETY FIRST.**  
TESTED EQUIPMENT FOR OPTIMAL PROTECTION.

**DETECTION**  
PERSONAL PROTECTION  
DIVING TECHNOLOGY  
SYSTEM TECHNOLOGY  
SERVICES

**Dräger**safety



## Safety first: testing before detecting.

GAS DETECTION AND WARNING INSTRUMENTS ARE DEVELOPED AND PRODUCED TO PROTECT YOU AND YOUR EMPLOYEES AGAINST INVISIBLE GAS HAZARDS IN THE AMBIENT AIR. IN CRITICAL SITUATIONS, YOU MUST BE ABLE TO COMPLETELY RELY ON YOUR EQUIPMENT. THEREFORE, REGULAR MAINTENANCE, CALIBRATION AND FUNCTION (BUMP) TESTING ARE INDISPENSABLE.

### Your safety

Gas detection instruments, which do not work properly, cannot give you the protection you need, and may result in accidents. If you are exposed over time to excessive concentrations of toxic gases or to a shortage of oxygen this may lead to illness or even death. Testing an instrument using a known gas concentration (also known as a function or bump test) is the only way to guarantee reliable and correct measurement of and warning against gas hazards. This test is important to verify whether the gas to be measured can flow through the dust and water filter to the sensor, to check that

the sensor is properly calibrated, and to test that alarms are working and are set correctly.

If the gas detector has been in contact with very high concentrations of toxic gases or vapours, it must immediately undergo a function (bump) test and the necessary adjustments, regardless of the required function test interval. National institutions require gas detection instruments to undergo regular function (bump) testing, and, in some cases, specify a bump test before each working day. European Standard EN 50073, "Guide for the selection, installation, use and

maintenance of apparatus for the detection and measurement of combustible gases or oxygen", which is applicable in the member states of the European Union, also requires gas detection equipment to undergo function (bump) testing prior to each use.

The Occupational Safety & Health Administration (OSHA), a division of the U.S. Department of Labor, issued in the "Safety and Health Information Bulletins" a statement regarding instrument calibration which states, "A bump test or full calibration of direct-reading portable gas monitors should be made before each day's use using an appropriate test gas".





## Our workshop solution.



### Dräger E-Cal:

Automatic function (bump) test with calibration.

The **Dräger E-Cal** automatic test and calibration station reliably tests and calibrates all of Dräger's portable gas detection instruments. The Dräger E-Cal features a modular design and uses a PC, a Master Station and up to 10 different modules in which gas detection instruments can be simultaneously tested and calibrated.

### Master Station

The Master Station allows you to use either two, six or twelve different gases, and supports up to ten instrument modules. Because the instruments are calibrated simultaneously, you can be sure that your equipment will be serviced quickly and, therefore cost effective.

### Instrument modules

When a Dräger portable gas detection instrument is inserted into its module, the sensors contained within are automatically detected. Once calibration has been successfully completed the results are shown on both the module and the PC. Additionally, you can use the instrument module, with the respective plug, to charge your equipment.

### Dräger CC-Vision software

The Dräger CC-Vision E-Cal software features intuitive operation and the configurable GO button makes the instrument even easier to use. Specific workshop processes i.e. function (bump) test, calibration, download of data logger or battery test are carried out automatically and simultaneously for up to 10 instruments. Combined with a search function, the software also offers equipment management. The Dräger CC-Vision E-Cal software provides a wide range of different analysis and tracking functions, e.g. who a particular instrument belongs to, which instruments require calibration and when, and what the calibration history is for individual instruments. The software additionally prints out a record to facilitate your data

documentation. The workshop solution also simplifies configuration of several Dräger portable gas detection instruments. The Dräger CC-Vision E-Cal software is compatible with any PC.

### Purge Module

An optional Purge Module is also available. When there is no ventilation system installed this special option ensures the active and defined suction of waste gases – some of which are toxic and explosive – out of the Dräger E-Cal Station.

### Versatile Dräger E-Cal

Thanks to its flexibility, you can tailor the Dräger E-Cal Station to your individual needs. The modular design ensures easy expansion and quick conversion. For instance, using an optional adapter and your PC, you can manually operate any of the instrument modules independently of the Master Station, using them as a low-cost alternative for straightforward function (bump) testing.

The Dräger E-Cal can easily meet every conceivable requirement for professional simultaneous and fully automatic testing and calibration of up to ten instruments.

The Dräger Bump Test Station:  
Simple, self-reliant and flexible  
in the field.



ST-5888-2005

UPON ORDER, DRÄGER GAS DETECTION EQUIPMENT IS CALIBRATED TO A SPECIFIC GAS AND A SPECIFIC CONCENTRATION. A FUNCTION (BUMP) TEST SHOULD BE REGULARLY PERFORMED USING A TEST GAS. IF THE INSTRUMENT FAILS THIS TEST, YOU NEED TO CALIBRATE THE CONCENTRATION SHOWN ON THE INSTRUMENT'S DISPLAY TO MATCH THE ACTUAL CONCENTRATION OF THE TEST GAS.



ST-4700-2005

**Dräger Bump Test Station:**  
Automatic function (bump) test.

The **Dräger Bump Test Station** was designed to allow a function (bump) test to be performed with a test gas in order to check the warning functions of gas detection instruments. An integrated instrument-specific adapter is provided to test the Dräger Pac 1000 to 7000, and of Dräger X-am 1/2/5000, 3000 and 7000.

When the concentration shown on the instrument's display is within an acceptable tolerance to the concentration of the test gas and the alarms were triggered, the function (bump) test was successful and verifies the instrument calibration. If the function (bump) test was not successful, the instrument needs to be calibrated.

With the gas detection instruments Dräger X-am 2000 and Dräger Pac 7000, this calibration takes place automatically in the Dräger Bump Test Station. Instruments with an event or data logger will store the results (pass or fail) of the function (bump) test, as well as the subsequent automatic calibration when applicable. The Dräger Bump Test Station functions independently, without any external power supply, making it ideal for use anywhere in the field.

## Systematic function testing. The on-site bump test – data management included.

THE NEW DRÄGER MOBILE PRINTER USED IN CONJUNCTION WITH THE DRÄGER BUMP TEST STATION, ALLOWS THE RESULTS OF THE DAILY FUNCTION (BUMP) TEST TO BE DOCUMENTED QUICKLY AND EASILY AT THE SITE OF TESTING. THE FUNCTION (BUMP) TEST RESULTS ARE STORED IN THE PRINTER, READY FOR DOWNLOAD TO A PC AT ANY TIME. DATA MANAGEMENT COULD NOT BE EASIER.



**Dräger Mobile Printer:**  
Instant on-site documentation.

The results of the function (bump) test are transmitted wirelessly to the printer via an optical interface on the Dräger Bump Test Station, and are printed out automatically. The Dräger Mobile Printer stores the bump test results, which can then be downloaded using Dräger CC Vision software. The data can be downloaded either directly via the USB port or through a network adapter straightforward device management. So that information can be transmitted to a central location and subsequently evaluated. True instrument management.

When used in conjunction with the Dräger Mobile Printer, the Dräger Bump Test Station offers a whole host of applications:

- testing and printing of results
- testing, printing and on-site downloading of data to a PC using the CC Vision software
- linking the printer to your own network so that data can be sent directly to service engineers.

To suit your individual requirements, the Dräger Mobile Printer can be run on normal or rechargeable batteries, a car charging adapter or a standard 100-220 V plug. Being a thermal printer, it does not require any expensive ink cartridges or printer ribbons.

## Vapour calibration and more.

WITH OUR EXTENSIVE RANGE OF ACCESSORIES YOU HAVE SEVERAL OPTIONS FOR CARRYING OUT FUNCTION (BUMP) TESTS AND/OR CALIBRATIONS. YOU CAN ASSEMBLE A FUNCTION (BUMP) TEST OR CALIBRATION SOLUTION TO SUIT YOUR REQUIREMENTS. EVERYTHING IS POSSIBLE, SUCH AS A NETWORK OPTION OR THE EASIEST SOLUTION FOR AN INDIVIDUAL GAS DETECTION INSTRUMENT. WHEN ORDERED, DRÄGER GAS DETECTORS ARE CALIBRATED TO THE SELECTED GAS AT A CERTAIN CONCENTRATION. AS THE USER, YOU SHOULD REGULARLY PERFORM A FUNCTION (BUMP) TEST WITH THIS GAS. IF THIS FUNCTION (BUMP) TEST FAILS, YOU SHOULD CALIBRATE THE CONCENTRATION ON THE INSTRUMENT'S DISPLAY TO THE ACTUAL CONCENTRATION OF THE TEST GAS.



2-210-95

**Calibration chamber:**  
Vapour calibration.



ST-5002-2005

**Basic test with gas.**



ST-5026-2005

**Dräger software.**

Dräger's **calibration chamber** allows you to calibrate your equipment using organic solvents that are in a liquid state at room temperature (e.g. hydrocarbons such as octane and nonane, and aromatic compounds such as benzene, toluene and xylene). A defined volume of the liquid is put onto a small dish inside the calibration chamber; a propeller is then used to evaporate the substance and distribute it evenly around the chamber. The measuring instrument requiring testing or calibration can be connected to the calibration chamber by means of an instrument-specific calibration adapter.

The easiest and least expensive way to test the function of your portable gas detection instrument is to conduct a **basic test with gas**. All you need is a test gas bottle containing the respective test gas, a trigger regulator and an instrument-specific calibration adapter. The instrument's alarm is triggered by briefly exposing the sensors to the test gas. To adjust the instrument via a PC, you need additionally the Dräger CC-Vision software, which allows individual configuration and calibration of your gas detection instruments.

Using the **Dräger CC-Vision**, **Dräger microPac Vision** or **Dräger Pac Vision** software, you can professionally configure and calibrate all portable Dräger gas detection instruments. The instrument functions are shown clearly on the screen in the form of a tree structure, allowing you to perform quick and individual settings of the instrument parameters and to adjust the sensors. Dräger CC-Vision and Dräger Pac Vision help you manage the data and give you quick and targeted access to the data records.

## Which accessories are used with which measuring instrument?

Devices	Dräger Bump Test Station with Mobile Printer	Dräger Bump Test Station	Dräger E-Cal	Basic Test with Gas	Calibration Chamber	Software
Dräger microPac Plus				•		Dräger microPac Vision
Dräger Pac 1000 – 5000	•	•	•	•		Dräger CC-Vision
Dräger Pac 7000	•	•	•	•		Dräger Pac Vision Dräger CC-Vision
Dräger Pac III S/E			•	•		Dräger CC-Vision
Dräger Pac Ex 2			•	•	•	Dräger CC-Vision
Dräger X-am 1/2/5000	•	•	•	•		Dräger CC-Vision
Dräger X-am 3000		•	•	•		Dräger CC-Vision
Dräger X-am 7000	•	•	•	•	•	Dräger CC-Vision
Dräger MiniWarn			•	•	•	Dräger CC-Vision
Dräger Multi PID 2				•		Dräger CC-Vision

## One-stop shopping – test gases and regulators.

TO FUNCTION (BUMP) TEST AND CALIBRATE YOUR GAS DETECTION INSTRUMENTS IN THE BEST POSSIBLE WAY, YOU MUST NOT FORGET THE TEST AND CALIBRATION GASES. OUR TEST AND CALIBRATION GASES ARE PRODUCED IN ACCORDANCE WITH ISO 9002 AND GUARANTEE THE SAME HIGH STANDARDS OF QUALITY WORLDWIDE FOR SAFE AND RELIABLE CALIBRATION AND/OR FUNCTION (BUMP) TESTING OF YOUR GAS DETECTORS.

### Cylinder size 2AL

Aluminium cylinder with a 34 liter gas volume and 34.5 bar

### Cylinder size 8AL

Aluminium cylinder with a 58 liter gas volume and 34.5 bar

### Cylinder size 6D

Steel cylinder with a 103 liter gas volume and 69 bar







### Disposable cylinders

You can take these conveniently small, disposable cylinders with you wherever you go, which makes function (bump) testing your portable detectors and gas detection systems even easier. Because these cylinders are only filled once, you always receive a new cylinder. Another advantage of the disposable cylinders is the fact that they do not need to be returned – once empty, you can simply dispose of them in an environmentally-friendly manner such as with metal waste. This means no rental or transport costs to return the cylinders.

### Regulators

You can choose between different types of regulators for different applications. All regulators fit the shown cylinder types and have a preset flow rate of 0.5 liter/minute.

If you want to calibrate or function (bump) test an instrument without an internal pump, you will find that the **Model 715** is the regulator best-suited for the job. The regulator has a knob to manually open and close the gas outlet.

Or do you have a gas detection instrument with an internal pump, and want to calibrate or function (bump) test it?

The **on-demand regulator** allows you to manually calibrate or function (bump) test instruments with an internal pump. The valve is opened automatically by the suction of the pump. This regulator can also be used for automatic calibration or automatic function (bump) testing when using the Dräger E-Cal Station.

Or do you simply want to check that your gas detection instrument is functioning properly before you use it?

The **trigger regulator** enables you to manually expose the sensors of your gas detector to a calibration gas for a brief period, simply by pulling the trigger. By pulling the trigger upwards, you can also keep the regulator open for a continuous flow of gas.

### Using rental cylinders

When you use large, refillable cylinders with DIN 14 connectors, our product range includes a combination of the on-demand regulator and a DIN 14 adapter.



ST-4806-2005

Model 715.



ST-4804-2005

On-demand regulator.



ST-4809-2005

Trigger regulator.



## Dräger Service – your professional partner.

FROM STRAIGHTFORWARD MAINTENANCE TO SOLUTIONS TAILORED TO YOUR REQUIREMENTS, DRÄGER SERVICE IS YOUR PROFESSIONAL PARTNER.

All over the world, Dräger Safety is synonymous with safety and reliability. Wherever people or measuring equipment are exposed to danger, managers and safety personnel rely on the support of Dräger Safety.

The three basic pillars of Dräger Service are its field staff, workshop and spare parts procurement service. High quality products such as the portable gas measurement instruments made by Dräger Safety need to be serviced by highly qualified experts. Dräger Service makes sure that your measurement equipment is always ready for use and that its quality is maintained. Dräger Service is ready to serve you as your professional partner, either in our local branch offices worldwide or in one of our service center. From straightforward maintenance to complete customized service programs, we can offer you a solution tailored to your specific requirements.

The Dräger Safety Academy offers training seminars and equipment instruction sessions for users and personnel responsible for the inspection and servicing of Dräger Safety products. Our range of training courses is rounded off by special seminars which teach users how to work safely with hazardous substances and recognize dangers at the workplace. The Dräger Safety Academy prepares you for every eventuality during your work and shows you what is necessary to ensure you are ready at all times.

# Order information

## Dräger E-Cal

Description	Order no.
<b>Master Stations</b> (incl. Dräger CC Vision E-Cal, mains adapter & accessories for connection of up to 10 modules)	
Master Station 2 USB (for up to 2 gases)	83 19 452
Master Station 6 USB (for up to 6 gases)	83 16 456
Master Station 12 USB (for up to 12 gases)	83 16 412
<b>Modules</b> (incl. accessories)	
Dräger MiniWarn Module	83 16 552
Dräger Multiwarn II Module	83 16 553
Dräger Pac III Module	83 16 554
Dräger Pac 1000 bis 7000	83 18 589
Dräger Pac Ex 2 Module	83 16 539
Dräger X-am 1/2/5000 Module	83 18 754
Dräger X-am 3000 Module	83 17 719
Dräger X-am 7000 Module	83 17 705
<b>Accessories</b>	
CC Vision E-Cal	83 16 557
Module adapter USB (incl. Dräger CC Vision E-Cal)	83 16 409
Purge Module	83 16 560
On demand regulator	83 16 556
<b>Instrument single charger</b> (to charge the portable instrument in an Dräger E-Cal module)	
Dräger MiniWarn single charger	83 16 990
Dräger Multiwarn II single charger	83 16 991
Dräger Pac III single charger	83 15 635
Dräger Pac Ex 2 single charger	83 16 990
Dräger X-am 1/2/5000 single charger	83 15 635
Dräger X-am 3000 single charger	83 16 990
Dräger X-am 7000 single charger	83 16 635



Dräger E-Cal

# Dräger Bump Test Station

Description

Order no.

**Complete** (incl. 8AL calibration gas bottle)

Dräger Bump Test Station Dräger Pac 1000 – 7000	83 18 586
Dräger Bump Test Station Dräger Pac 1000 – 7000 Printer	83 19 559
Dräger Bump Test Station Dräger X-am 1/2/5000	83 19 130
Dräger Bump Test Station Dräger X-am 3000	83 19 071
Dräger Bump Test Station Dräger X-am 7000	83 19 072



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Dräger Bump Test Station

# Dräger Mobile Printer

Dräger Mobile Printer for Dräger Bump Test Station	83 19 310
Single charger	83 16 991
Alkaline battery for Dräger Mobile Printer	13 35 804
Rechargeable NiMH battery for Dräger Mobile Printer	18 90 092
Network adapter for printer / network	83 19 348
PC connection cable with mini USB	83 18 657
Paper (5 roles)	83 19 002

# Test and calibration gases

Description		Concentration	Remaining	Type	Order no.
Ammonia	NH <sub>3</sub>	50 ppm	in N <sub>2</sub>	8AL	68 11 352
Ammonia	NH <sub>3</sub>	100 ppm	in N <sub>2</sub>	8AL	68 10 387
Ammonia	NH <sub>3</sub>	300 ppm	in N <sub>2</sub>	8AL	68 11 353
Butane	n-C <sub>4</sub> H <sub>10</sub>	0.9 Vol.%	in air	6D	68 10 987
i-Butylene	i-C <sub>4</sub> H <sub>8</sub>	100 ppm	in air	2AL	68 10 687
i-Butylene	i-C <sub>4</sub> H <sub>8</sub>	100 ppm	in air	8AL	68 11 629
Carbon Dioxide	CO <sub>2</sub>	2.5 Vol.%	in air	8AL	68 10 391
Carbon Dioxide	CO <sub>2</sub>	20 Vol.-%	in air	6D	68 11 357
Carbon Monoxide	CO	50 ppm	in N <sub>2</sub>	6D	45 02 153
Carbon Monoxide	CO	50 ppm	in air	8AL	68 11 117
Carbon Monoxide	CO	100 ppm	in N <sub>2</sub>	6D	68 10 392
Carbon Monoxide	CO	250 ppm	in air	8AL	68 11 354
Chlorine	Cl <sub>2</sub>	5 ppm	in N <sub>2</sub>	8AL	36 02 322
Chlorine	Cl <sub>2</sub>	10 ppm	in N <sub>2</sub>	8AL	68 10 641
Hexane	C <sub>6</sub> H <sub>14</sub>	0.48 Vol.%	in air	6D	68 10 988
Hydrogen	H <sub>2</sub>	2 Vol.%	in air	6D	68 10 388
Hydrogen Chloride	HCl	10 ppm	in N <sub>2</sub>	8AL	68 10 643
Hydrogen Chloride	HCl	25 ppm	in N <sub>2</sub>	8AL	45 94 626
Hydrogen Cyanide	HCN	10 ppm	in N <sub>2</sub>	8AL	68 10 642
Hydrogen Sulphide	H <sub>2</sub> S	20 ppm	in N <sub>2</sub>	8AL	68 10 393
Hydrogen Sulphide	H <sub>2</sub> S	25 ppm	in N <sub>2</sub>	8AL	45 02 155
Hydrogen Sulphide	H <sub>2</sub> S	40 ppm	in N <sub>2</sub>	8AL	52 39 089
Hydrogen Sulphide	H <sub>2</sub> S	100 ppm	in N <sub>2</sub>	8AL	36 02 359
Methane	CH <sub>4</sub>	2 Vol.%	in air	6D	68 10 389



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Test and calibration gases

Description		Concentration	Remaining	Type	Order no.
Methane	CH <sub>4</sub>	2 Vol.%	in air	8AL	68 11 116
Methane	CH <sub>4</sub>	2.5 Vol.%	in air	6D	36 03 006
Methane	CH <sub>4</sub>	50 Vol.%	in N <sub>2</sub>	2AL	68 11 022
Nitrogen (UHP)	N <sub>2</sub>	99.999 Vol.%	in air	6D	68 10 394
Nitrogen Dioxide	NO <sub>2</sub>	10 ppm	in N <sub>2</sub>	8AL	68 10 646
Nitrogen Monoxide	NO	10 ppm	in N <sub>2</sub>	8AL	68 10 986
Nitrogen Monoxide	NO	25 ppm	in N <sub>2</sub>	2AL	68 10 644
Oxygen	O <sub>2</sub>	18 Vol.%	in N <sub>2</sub>	8AL	68 11 250
Pentane	C <sub>5</sub> H <sub>12</sub>	0.75 Vol.%	in air	6D	68 10 761
Phosphine	PH <sub>3</sub>	0.5 ppm	in N <sub>2</sub>	8AL	68 10 647
Propane	C <sub>3</sub> H <sub>8</sub>	0.9 Vol.%	in air	6D	68 10 390
Propane	C <sub>3</sub> H <sub>8</sub>	0.9 Vol.%	in air	8AL	68 11 118
Sulphur Dioxide	SO <sub>2</sub>	10 ppm	in N <sub>2</sub>	8AL	68 10 645
60 Vol.% CH <sub>4</sub> /40 Vol.% CO <sub>2</sub>				2AL	68 10 935
8 Vol.% C <sub>4</sub> H <sub>10</sub> /13.8 Vol.% CO <sub>2</sub>			in N <sub>2</sub>	2AL	68 11 004
25 ppm H <sub>2</sub> S/100 ppm CO/0.45 Vol.% C <sub>5</sub> H <sub>12</sub>			in air	8AL	45 94 944
50 ppm CO/15 ppm H <sub>2</sub> S/2,5 Vol.-% CH <sub>4</sub> /18 Vol.-% O <sub>2</sub>			in N <sub>2</sub>	8AL	68 11 130
2 Vol.-% CO <sub>2</sub> /15 ppm H <sub>2</sub> S/2,5 Vol.-% CH <sub>4</sub> /18 Vol.-% O <sub>2</sub>			in N <sub>2</sub>	8AL	68 11 131
15 ppm H <sub>2</sub> S/50 ppm CO/2 Vol.-% CO <sub>2</sub> /2.5 Vol.-% CH <sub>4</sub> /18 Vol.-% O <sub>2</sub>			in N <sub>2</sub>	8AL	68 11 132
15 ppm H <sub>2</sub> S/2,2 Vol.-% CH <sub>4</sub> /18 Vol.-% O <sub>2</sub>			in N <sub>2</sub>	8AL	68 11 647
2,2 Vol.-% CH <sub>4</sub> /18 Vol.-% O <sub>2</sub>			in N <sub>2</sub>	6D	68 11 646
15 ppm H <sub>2</sub> S/50 ppm CO/0,45 Vol.-% C <sub>5</sub> H <sub>12</sub> 18 Vol.-% O <sub>2</sub>			in N <sub>2</sub>	8AL	68 11 835

## Regulators for disposable cylinders

Description	Order no.
Standard regulator (0.5 litre/minute)	68 10 397
Trigger regulator (0.5 litre/minute)	68 10 649
On demand regulator, model 2001 (0.5 litre/minute)	83 16 556
Dräger E-Cal regulator with DIN14 adapter	68 10 692
Dräger Multi-PID 2 regulator	68 10 688



Regulators

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## Accessories

<b>Carry case</b>	68 11 181
This hard shell transport case has room for two cylinders (8AL or 6D) and regulators.	
<b>Recycle Tool</b>	68 11 182
This Recycle Tool is used to prevent the cylinder valve from being used to refill the cylinder. The cylinder is then aluminium or steel waste and can be disposed of as waste metal.	
If you need an additional gas not listed here, we can easily provide what you are looking for.	
Other gases on request (given sufficient demand)	19 63 384
The concentrations of all test and calibration gases are ideal for calibration and function testing of DrägerSensors.	



Carry case

ST-4965-2005



## Calibration accessories

Description	Order no.
<b>Dräger Multiwarn II</b> calibration adapter 1 (without int. pump) for calibration with test gas cylinder	83 13 644
<b>Dräger Multiwarn II/Dräger MiniWarn</b> calibration adapter 2 for calibration of vapours with calibration chamber	68 09 325
<b>Dräger Multiwarn II</b> calibration adapter 3 for calibration with calibration bottle/ampoules	83 14 041
<b>Dräger MiniWarn</b> calibration adapter 1 a) for calibration with test gas cylinder b), use with calibration gas bottle adapter	64 08 135
b), use with calibration bottle adapter	68 04 620
<b>Dräger MiniWarn</b> calibration adapter 2 for calibration of vapours with calibration chamber	68 09 325
<b>Dräger Pac II/Pac Ex/Pac III</b> calibration adapter	68 06 291
<b>Dräger Pac Ex 2</b> calibration adapter	83 16 300
<b>Dräger Pac Ex 2</b> vapour calibration adapter	AG 02 547
<b>Dräger X-am 3000</b> calibration adapter	83 17 336
<b>Dräger X-am 7000</b> vapour calibration adapter	83 17 970
<b>Dräger X-am 7000</b> calibration adapter	83 17 656
<b>Dräger Pac 1000 – 7000</b> calibration adapter	83 18 588
<b>Dräger X-am 1/2/5000</b> calibration cradle	83 18 752

## Hoses

Hose, electrically conductive, not suitable for H <sub>2</sub> S	11 80 681
Viton hose, solvent-resistant, also suitable for H <sub>2</sub> S	12 03 150

## Calibration chamber and accessories

Calibration chamber for solvents	68 02 206
Calibration bottle for ampoules	68 03 407



Calibration chamber

## Calibration ampoules\*

Description		Order no.
Ampoule CO	100 ppm	68 07 920
Ampoule CO	300 ppm	68 07 921
Ampoule H <sub>2</sub> S	10 ppm	68 08 140
Ampoule H <sub>2</sub> S	20 ppm	68 08 141
Ampoule H <sub>2</sub> S	40 ppm	68 08 142
Ampoule H <sub>2</sub> S	100 ppm	68 08 143
Ampoule NO <sub>2</sub>	10 ppm	68 07 765
Ampoule NO <sub>2</sub>	50 ppm	68 07 766
Ampoule NH <sub>3</sub>	50 ppm	68 07 924
Ampoule NH <sub>3</sub>	300 ppm	68 07 923
Ampoule SO <sub>2</sub>	10 ppm	68 07 763
Ampoule SO <sub>2</sub>	4 ppm	68 07 926
Ampoule SO <sub>2</sub>	1 ppm	68 07 925
Ampoule Cl <sub>2</sub>	8 ppm	68 07 928
Ampoule HCN	10 ppm	68 07 929

\* Set of five ampoules

## Configuration accessories

### Software

Dräger CC-Vision	64 08 515
Dräger microPac software set incl. Dräger microPac Vision PC software, calibration adapter, compl.	64 08 505
Dräger microPac complete set incl. Dräger microPac Vision software, IR interface with cable and IR interface positioning aid	64 08 500
Dräger Pac Vision software, complete with USB cable	83 18 587

### Interfaces

RS 232 cable 9-25 for Dräger PAC III/Dräger Pac Ex 2/Dräger X-am 3000, incl. adapter from 25- to 9-pole	64 08 257
RS 232 cable, incl. Dräger Multiwarn II interface, incl. adapter from 9- to 25-pole	83 14 000
RS 232 cable, incl. Dräger MiniWarn/Dräger microPac/Dräger X-am 7000 interface, incl. adapter from 9- to 25-pole	64 08 140
USB Dira + USB cable for Dräger MiniWarn and Dräger X-am 7000	83 17 409



Dräger CC-Vision.

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## SUBSIDIARIES

### AUSTRALIA

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