



ST 5619 2005

SAFETY FIRST.
TESTED EQUIPMENT FOR OPTIMAL PROTECTION.

DETECTION
PERSONAL PROTECTION
DIVING TECHNOLOGY
SYSTEM TECHNOLOGY
SERVICES

Drägersafety

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-4808-2005

Trigger regulator.

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



ST-4700/2005

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 ₃	50 ppm	in N ₂	8AL	68 11 352
Ammonia	NH ₃	100 ppm	in N ₂	8AL	68 10 387
Ammonia	NH ₃	300 ppm	in N ₂	8AL	68 11 353
Butane	n-C ₄ H ₁₀	0.9 Vol.%	in air	6D	68 10 987
i-Butylene	i-C ₄ H ₈	100 ppm	in air	2AL	68 10 687
i-Butylene	i-C ₄ H ₈	100 ppm	in air	8AL	68 11 629
Carbon Dioxide	CO ₂	2.5 Vol.%	in air	8AL	68 10 391
Carbon Dioxide	CO ₂	20 Vol.-%	in air	6D	68 11 357
Carbon Monoxide	CO	50 ppm	in N ₂	6D	45 02 153
Carbon Monoxide	CO	50 ppm	in air	8AL	68 11 117
Carbon Monoxide	CO	100 ppm	in N ₂	6D	68 10 392
Carbon Monoxide	CO	250 ppm	in air	8AL	68 11 354
Chlorine	Cl ₂	5 ppm	in N ₂	8AL	36 02 322
Chlorine	Cl ₂	10 ppm	in N ₂	8AL	68 10 641
Hexane	C ₆ H ₁₄	0.48 Vol.%	in air	6D	68 10 988
Hydrogen	H ₂	2 Vol.%	in air	6D	68 10 388
Hydrogen Chloride	HCl	10 ppm	in N ₂	8AL	68 10 643
Hydrogen Chloride	HCl	25 ppm	in N ₂	8AL	45 94 626
Hydrogen Cyanide	HCN	10 ppm	in N ₂	8AL	68 10 642
Hydrogen Sulphide	H ₂ S	20 ppm	in N ₂	8AL	68 10 393
Hydrogen Sulphide	H ₂ S	25 ppm	in N ₂	8AL	45 02 155
Hydrogen Sulphide	H ₂ S	40 ppm	in N ₂	8AL	52 39 089
Hydrogen Sulphide	H ₂ S	100 ppm	in N ₂	8AL	36 02 359
Methane	CH ₄	2 Vol.%	in air	6D	68 10 389



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Test and calibration gases

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

ST-4810-2005

Accessories

Carry case	68 11 181
This hard shell transport case has room for two cylinders (8AL or 6D) and regulators.	
Recycle Tool	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.
Dräger Multiwarn II calibration adapter 1 (without int. pump) for calibration with test gas cylinder	83 13 644
Dräger Multiwarn II/Dräger MiniWarn calibration adapter 2 for calibration of vapours with calibration chamber	68 09 325
Dräger Multiwarn II calibration adapter 3 for calibration with calibration bottle/ampoules	83 14 041
Dräger MiniWarn calibration adapter 1 a) for calibration with test gas cylinder b), use with calibration gas bottle adapter	64 08 135
Dräger MiniWarn calibration adapter 2 for calibration of vapours with calibration chamber	68 04 620
Dräger MiniWarn calibration adapter 2	68 09 325
Dräger Pac II/Pac Ex/Pac III calibration adapter	68 06 291
Dräger Pac Ex 2 calibration adapter	83 16 300
Dräger Pac Ex 2 vapour calibration adapter	AG 02 547
Dräger X-am 3000 calibration adapter	83 17 336
Dräger X-am 7000 vapour calibration adapter	83 17 970
Dräger X-am 7000 calibration adapter	83 17 656
Dräger Pac 1000 – 7000 calibration adapter	83 18 588
Dräger X-am 1/2/5000 calibration cradle	83 18 752

Hoses

Hose, electrically conductive, not suitable for H ₂ S	11 80 681
Viton hose, solvent-resistant, also suitable for H ₂ 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 ₂ S	10 ppm	68 08 140
Ampoule H ₂ S	20 ppm	68 08 141
Ampoule H ₂ S	40 ppm	68 08 142
Ampoule H ₂ S	100 ppm	68 08 143
Ampoule NO ₂	10 ppm	68 07 765
Ampoule NO ₂	50 ppm	68 07 766
Ampoule NH ₃	50 ppm	68 07 924
Ampoule NH ₃	300 ppm	68 07 923
Ampoule SO ₂	10 ppm	68 07 763
Ampoule SO ₂	4 ppm	68 07 926
Ampoule SO ₂	1 ppm	68 07 925
Ampoule Cl ₂	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.

ST-5026-2005

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