# Dräger

# Dräger PSS<sup>®</sup> BG 4 plus Closed Circuit Breathing Apparatus

Specially designed for demanding tasks, The Dräger PSS<sup>®</sup> BG4 plus closedcircuit breathing apparatus combines uncompromising safety with outstanding respiratory protection and wearer comfort. Innovative in design, it provides the wearer with up to four hours of breathing air in toxic environments.



### Dräger PSS® BG 4 plus

exits the circuit



Oxygen Cylinder 2 L, 200 bar

### **Benefits**

### Dräger PSS BG 4 plus

Whenever emergency teams are saving lives or extinguishing fires, above or below the ground, the Dräger PSS BG 4 plus comes into its own. Whether used during rescue or fire fighting missions in mines, tunnels or underground train ducts, or in assignments with long access routes, the closed-circuit breathing apparatus is the first choice. More than 25,000 professional users rely on the Dräger PSS BG 4 worldwide.

#### Optimized in conjunction with our customers

Our products must meet the precise needs of the user and, for this reason, we involve our customers in the development process. Modifications to the proven Dräger PSS BG 4 are the result of practical experience and constant monitoring to ensure the highest quality standards. We listened to our customers and implemented their requirements in the new Dräger PSS BG 4 plus. Numerous improvements and new accessories have increased safety and durability and further improved the ease of servicing. The modifications are available individually or a as a practical retrofit set upon request.

### Excellent suitability for extended use

The slight positive pressure breathing circuit protects the wearer by preventing hazardous substances from entering the sealed breathing system. Depending on the application, the duration of use is up to four hours. A CO<sub>2</sub> absorber removes carbon dioxide from the exhaled air. At the same time the breathing air is enriched with oxygen from the oxygen cylinder. Before the regenerated breathing air is inhaled again it flows through the breathing air cooler.

### **Product enhancements**

Both the minimum valve, which enriches the breathing air with additional oxygen upon demand, and its attachment clip have been treated with a special coating to protect against corrosion. A redesigned clip simplifies the fitting of the valve. The area around the pressure reducer has been reinforced and additional reinforcement protects the carrying plate, providing greater stability when handling the unit complete with oxygen cylinder. To reduce the temperature of the inhaled air and minimise physical stress to the wearer, the breathing air cooler can be filled with ice.

#### **Practice-oriented innovations**

Newly developed heat protection for the breathing hose and housing are also optionally available to further reduce the temperature of the inhaled air. A T-piece with water trap can be retrofitted to the facemask to prevent water from collecting in the flow area of the device. Any liquid discharged into the breathing circuit from the drain valve is optionally collected in a super absorbent fleece. The fleece is designed for single use and is easily disposed.

### **Benefits**

### Cooler breathing air without ice

An alternative cooler which requires no ice and makes separate cooling logistics obsolete is also available. Reactivated after only 5 hours, the cooler offers unlimited use and is easily retrofitted. An improved spring clip ensures its safe attachment.

### Simple CO<sub>2</sub> disposal

Complete with integral dust filter, the flow-sensitive  $CO_2$  absorber is available as either a single-use absorber or refillable cartridge. Fitted with a newly designed spring clip, the  $CO_2$  absorber offers increased spring durability. The position and size of the breathing hose connectors have also been optimized for easier handling during assembly. For hygienic storage the single-use absorbers are available in a sealed bag.

#### Proven wearer comfort

The ergonomically shaped carrying plate, the low weight and the proven harness with adjustable shoulder straps and easy to use "pull-forward" design provide more freedom of movement with less effort. The practical breathing hose routing across the shoulders ensures optimum balance on the wearer's back.

### Perfect respiratory protection monitoring

The data captured by the Dräger Sentinel II electronic monitoring unit can be transmitted to Dräger PSS Merlin telemetry boards. This electronic monitoring and communications system displays Sentinel data for each of the wearers who are logged on. As a result, entry control personnel are able to view the current status of each of the device wearers and can respond immediately to an emergency.

#### All functions upon a glance

The Dräger PSS BG 4 plus is equipped with the Dräger Sentinel II fully electronic signal and warning unit. Controlled via large pushbuttons, it combines a multitude of functions. During use it quickly provides the wearer with important information, thereby reducing the risk potential. Using battery warning thresholds the Dräger Sentinal II reliably indicates current operational status.

#### Monitoring functions:

- Cylinder pressure (analog and digital)
- Remaining duration of use (time remaining until residual pressure warning)
- Temperature indication upon the press of a button
- Automatic recording of all mission data Optical and acoustic warning signals:
- Residual pressure warning
- Two additional selectable electronic alarm thresholds
- Automatic alarm for lack of movement
- Manual emergency call alarm

### **Benefits**

Optical and acoustic warning signals:

- Residual pressure warning
- Two additional selectable electronic alarm thresholds
- Automatic alarm for lack of movement
- Manual emergency call alarm

#### High performance soda lime

Drägersorb 400 has been specially designed for the absorption of CO<sub>2</sub> in closed-circuit breathing apparatus which significantly contributes to long-term performance capabilities, especially under the likely conditions of use for the Dräger PSS BG 4 plus. Drägersorb 400 is characterized by a very high abrasion resistance and can, therefore, be used in the apparatus for 6 months, or up to 500 km when stored in the vehicle.

#### Easy maintenance

Both the retrofittable vibration protection and the robustly designed locking hinge increase the safety of the Dräger PSS BG 4 plus during transportation. For maximum operational readiness, the Dräger PSS BG 4 plus has been designed to allow the fast assembly and/or removal of device components without special tools.

#### New in the team: the full-face mask Dräger FPS 7000 RP

The full-face mask Dräger FPS 7000 ideally complements the Dräger Panorama Nova product family. With an improved head harness and available in various sizes, it adjusts perfectly to every face shape. With its dual sealing line, the almost natural field of view and easy-tooperate wiper, ensures a safe tight fit and good all-round visibility. An optional adapter enables the connection of the comfortable CamelBak\* drinking system. Liquid only flows through the straw when the integrated biting valve is pressed together by the teeth.

\*CamelBak® is a trademark of Camelbak Products, LLC.

### System Components



### Dräger FPS 7000 RP

With plug-in connector for closed-circuit breathing apparatus PSS<sup>®</sup> BG 4 plus, with polycarbonate anti-scratch coated visor and wiper.

Also available with drinking device. Approval for mining and fire fighting.

Dräger oxygen cylinder



### **Drägersorb**<sup>®</sup>

Drägersorb<sup>®</sup> 400 is a soda lime product used to absorb acid gases, such as carbon dioxide (CO<sub>2</sub>), in closed or semi-closed circuit breathing apparatus, such as the Draeger PSS BG 4 plus, for mining or fire rescue operations. High-tech devices and state of the art absorbents are perfectly matched with the Drägersorb<sup>®</sup> 400.



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### Dräger CO<sub>2</sub> absorber

Refillable cartridge, translucent

R 34 367

### System Components

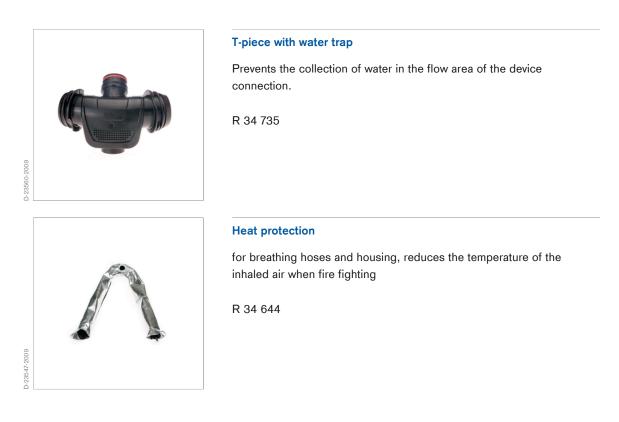


### Dräger CO<sub>2</sub> absorber

Single-use cartridge, translucent

R 34 360

### Accessories



### Accessories



### Freezer Canister

Cooler for ice cooling or Cooling cartridge (empty) for PSS<sup>®</sup> BG 4 positive pressure.

R 34 710



### **Regeneration cooler**

No ice required, unlimited use, reactivation after 5 hours

R 34 720



### **Dust sieve**

Sieving the soda lime before pouring into the refillable cartridge

R 32 618

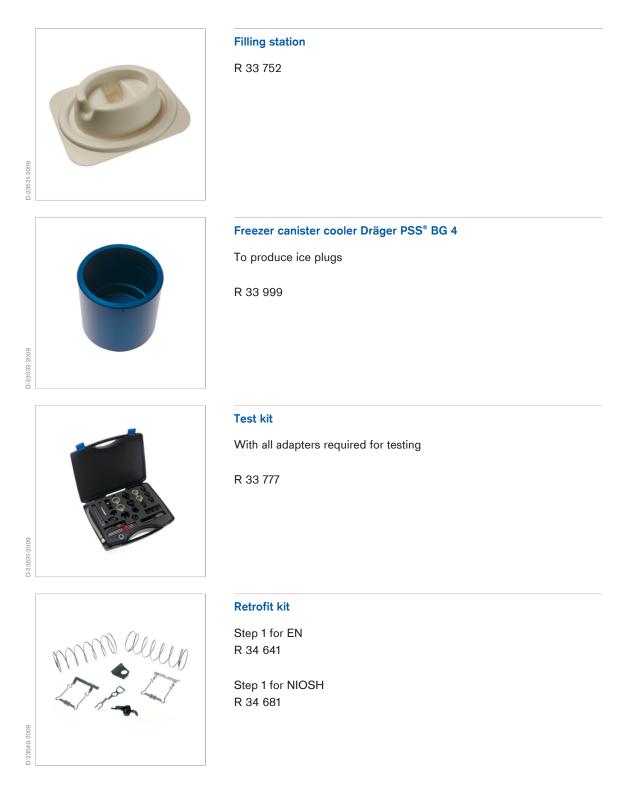
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### Dust-filter (200 each)

for BG 4-Refill-Cartridge

R 35 754

### Accessories



### Accessories



### Isolation for Dräger PSS<sup>®</sup> BG 4

For operations with temperatures under -15°C

R 34 498



### Antifog Spray

Prevent fogging of visor

R 56 542



### Single Use Absorber

To catch fluid out of drain valve

R 34 633

### Services



### **Dräger Service**

With Dräger's service solutions, you get complete peace of mind and budget security knowing that your safety equipment is supported by the same team of experts that engineered it and is backed by over 125 years of experience. You can rely on Dräger to keep the devices you depend on operating at peak performance and to always put the safety of your team first. That's the Dräger Service Advantage.

### **Related Products**



#### Dräger Quaestor 5000

Empower your service technicians with the Dräger Quaestor 5000, a dynamic test instrument that allows for semi-automatic testing of respiratory protection products. Designed to meet maximum quality standards, the modular Dräger Quaestor 5000 provides reliable and effective test processes—while reducing time and effort.



#### Dräger RZ 7000

The Dräger RZ 7000 is the direct successor to the Test-it 6100 and is therefore the new test device for the Dräger PSS<sup>®</sup> BG 4 plus. The newly developed RZ 7000 combines all benefits of the legendary test-device RZ 25 and Test-it 6100 into one device and as a result the testing of the BG4 is easier and faster than ever before.

### **Technical Data**

Dräger PSS <sup>®</sup> BG 4 plus		
Duration of use	4 h according to EN 145 and NIOSH	
Weight, ready for use (kg/pound)	15,5 kg / 34.17 pound (incl. mask, full oxygen cylinder	
	(aluminum), CO <sub>2</sub> absorber and approx. 1,2 kg / 2.65 pound	
	cooling ice)	
Dimensions (H × W × D) (mm/inch)	595 x 450 x 185 mm	
	23.43 x 17.72 x 7.28 inches	
Constant oxygen metering (I/min O <sub>2</sub> )	1.5 to 1.9	
Minimum valve (I/min O <sub>2</sub> )	> 80	
Breathing bag volume (I)	5.5	
Bypass valve (I/min O <sub>2</sub> )	> 50	
Operating temperatures	-40°C / -40°F to +90°C / +194°F	
	(if stored at room temperature)	
Approvals	EN 145, Ex protection according to EN 50020, Eex IIC T4,	
	Eex ial and NIOSH	

# Ordering Information

Drager PSS <sup>®</sup> BG 4 plus		
Dräger PSS <sup>®</sup> BG 4, 4-hour Positive	High pressure, NIOSH	40 57 380
Pressure Closed Circuit Breathing		
Apparatus with Sentinel II, USA		
Dräger PSS <sup>®</sup> BG 4, 4-hour Positive	High pressure, NIOSH	40 57 227
Pressure Closed Circuit Breathing		
Apparatus with Sentinel II, USA, Complete		
with Mask, L.W. Carbon Cylinder and		
Valve and Black Pelican Case		
Dräger PSS <sup>®</sup> BG 4, 4-hour Positive	High pressure, NIOSH (	40 58 823
Pressure Closed Circuit Breathing		
Apparatus with Sentinel II, USA, Complete		
with FPS 7000 Hydration Mask, L.W.		
Carbon Cylinder and Valve and Black		
Pelican Case		
Required for operation		
Dräger FPS 7000	Full face mask with central connecting for	R 56 326
RP-EPDM-M2-PCas-CR	closed circuit breathing apparatus	
	Dräger PSS <sup>®</sup> BG 4 plus.	
	Mask body, inner mask and head harness made of EPDM.	
	With anti-scratch coated polycarbonate	
	visor and wiper.	
	Available as an option is the CamelBak	
	drinking system	
Further variants and sizes on request		
Accessories for communication		
Receiver with ear cup and microphone	Optionally, the Dräger FPS 7000 RP can	R 28 495
	be equipped with a telephone device or a	
	Dräger MS-COM.	

## Ordering Information

	Both telephone device and Dräger FPS 7000 MS-COM are appoved in accordance to 94/9/EG for operations in explosive areas	
Expansion sets		
Dräger PSS <sup>®</sup> BG 4 sticker for cover	Large, front left	R 34 682
	Large, front right	R 34 683
	Small, front left	R 34 684
	Small, front right	R 34 685
Upgrade Kit low warning	To convert Dräger BG 4 and Dräger	R 34 630
	PSS <sup>®</sup> BG 4 high pressure devices on new control wire	
Upgrade kit	Mod. 1 (EN)	R 34 641
Radio Kit for Dräger PSS <sup>®</sup> BG 4 plus		
Dräger Interface Software Bg Ir-Link II		33 51 342
Dräger PC Data Link Cable		33 54 304

Notes

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