Closed-circuit breathing apparatus Dräger PSS® BG 4 plus

Specially designed for demanding tasks: The Dräger PSS BG4 plus closed-circuit 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.

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 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 CO₂ 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.

SIMPLE CO₂ DISPOSAL
Complete with integral dust filter, the flow-sensitive CO₂ absorber is available as either a single-use absorber or refillable cartridge. Fitted with a newly designed spring clip, the CO₂ 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 II 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.
Dräger PSS® BG 4 plus – Thought through to the minutest detail

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Dräger PSS® BG 4 plus</th>
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<tr>
<td><strong>Duration of use</strong></td>
<td>4 h according to EN 145 and NIOSH</td>
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<td><strong>Weight, ready for use (kg/pound)</strong></td>
<td>15.5 kg / 34.17 pound (incl. mask, full oxygen cylinder (aluminum), CO₂ absorber and approx. 1.2 kg / 2.65 pound cooling ice)</td>
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<td><strong>Dimensions (H x W x D) (mm/inch)</strong></td>
<td>595 x 450 x 185 mm / 23.43 x 17.72 x 7.28 inches</td>
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<td><strong>Constant oxygen metering (l/min O₂)</strong></td>
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<td><strong>Minimum valve (l/min O₂)</strong></td>
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<tr>
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<td>-40°C / -40°F to +90°C / +194°F (if stored at room temperature)</td>
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- **EXHALATION HOSE**
- **SENTINEL II**
  - Fully electronic signal and warning unit for monitoring a multitude of vital breathing apparatus functions
- **SPRING CLIP CO₂ ABSORBER**
  - Improved spring clip for better durability
- **CO₂ ABSORBER**
  - Absorbs carbon dioxide in the exhaled air
- **BREATHING BAG**
- **BREATHING BAG SPRINGS**
  - Make for the high pressure in the unit
- **PRESSURE RELIEF VALVE**
  - Opens automatically if the breathing bag is full, non-regenerated breathing air escapes the circuit
- **DRAIN VALVE**
  - Optional super-absorbent fleece. A practical single-use component for collecting liquid
- **FULL FACE MASK DRÄGER FPS 7000 RP**
- **BREATHING CONNECTOR**
- **INHALATION HOSE**
- **CONSTANT METERING**
  - Enriches the breathing air with at least 1.7 l/min oxygen
- **BREATHING AIR COOLER**
  - Can be filled with ice. New locking technology
- **CLIP FOR MINIMUM VALVE**
  - Improved resistance against corrosion due to new plating and rounded contours
- **MINIMUM VALVE**
- **PRESSURE REDUCER**
- **OXYGEN CYLINDER**
  - 2 L, 3000 psi

**DRAEGER PSS® BG 4 PLUS**

- **D-23550-2009**

**DRÄGER PSS® BG 4 PLUS – THOUGHT THROUGH TO THE MINUTEST DETAIL**

**REFERENCES**

**DRAEGER PSS® BG 4 PLUS**

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**DRAEGER PSS® BG 4 PLUS**

- **D-23550-2009**

**TECHNICAL DATA**
ACCESSORIES

FULL-FACE MASKS | ABSORBERS | OXYGEN CYLINDERS

Required for operation

- Dräger FPS 7000 RP
  Excellent fit, extremely large field of view, optional drinking connection
  R 56 326

- Dräger Panorama Nova EPDM PC RP
  Safe, comfortable full-face mask in various designs, mask body from EPDM
  R 53 306

- Dräger CO₂ absorber single-use cartridge, grey
  R 34 360

- Dräger CO₂ absorber refillable cartridge, transparent
  R 34 367

- Dräger CO₂ absorber refillable cartridge, grey
  R 34 277

Accessories for optimized protection

- T-piece with water trap
  Prevents the collection of water in the flow area of the device connection
  R 34 725

- Heat protection
  For breathing hoses and housing, reduces the temperature of the inhaled air when fire fighting
  R 34 644

- Ice cooler
  To the insertion of an ice plug
  R 34 710

- Drägersorb® 400
  Absorption Agent, in pellet form, for the refillable cartridge
  18 kg/39 lb canister
  67 37 985

- Dust sieve
  Sieving the soda lime before pouring into the refillable cartridge
  R 32 618

- Filling station
  R 33 752

- Heat protection
  for breathing hoses and housing, reduces the temperature of the inhaled air when fire fighting
  R 34 644

- T-piece with water trap
  Prevents the collection of water in the flow area of the device connection
  R 34 725

EXPANSION SETS

Easy retrofit for increased safety and comfort

- Freezer canister cooler Dräger PSS® BG 4
  To produce ice plugs
  R 33 999

- Test instrument Dräger Test-It 6100
  For Dräger PSS BG 4 & BG 174
  AG 02 690

- Test kit
  With all adapters required for testing
  R 33 777

- Dräger PSS® BG 4 Harness
  Optimized, highly flexible strap routing for a comfortable fit

- Dräger PSS® BG 4 Vibration protection
  Ensures safe transportation
  R 34 238

- Mount
  For the hinge of the cover plate
  R 34 642

- Improved Hose Routing
  R 34 630

- Dräger Panorama Nova EPDM PC RP
  Safe, comfortable full-face mask in various designs, mask body from EPDM
  R 53 306

- Antifog Spray
  Prevent fogging of visor
  R 21120

- Single Use Absorber
  To catch fluid out of drain valve
  R 34 633

- Expansion set Dräger Bodyguard II
  high pressure
  R 34 259
ALL FUNCTIONS UPON A GLANCE
The Dräger PSS BG 4 plus is equipped with the Dräger Bodygard 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 Bodygard 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

HIGH PERFORMANCE SODA LIME
Drägersorb 400 has been specially designed for the absorption of CO₂ 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.

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-to-operate wiper, guarantees 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.
### ORDER INFORMATION

**Dräger PSS® BG 4 plus**
- Dräger PSS® BG plus CP  
  High pressure, Canada  4057243
- Dräger PSS® BG plus AP  
  High pressure, NIOSH  4057227
  Further variants can be found in the price list or are available on request.

**Required for operation**
- Dräger FPS 7000  
  Full face mask with central connecting for closed circuit breathing apparatus Dräger PSS BG 4 plus.  R 56 326
- Dräger Panorama Nova EPDM RP PC  
  Full face mask with plug-in connection, polycarbonate visor and wiper  for closed circuit breathing apparatus. Approved for mining and fire departments, tested for EN 136 with CE mark.  R 53 306

**Accessories for communication**
- Receiver with ear cup and microphone  
  Optionally, the Dräger FPS 7000 RP can be equipped with a telephone device or a Dräger MS-COM. Both telephone device and Dräger FPS 7000 MS-COM are approved in accordance to 94/9/EG for operations in explosive areas.  R 28 495

**Expansion sets**
- Dräger PSS® 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 PSS BG 4 high pressure devices on new control wire  R 34 630

**Radio Kit for Dräger PSS® BG 4 plus**
- Dräger Bodyguard IR-Link software  33 51 342
- Dräger Merlin/Bodyguard datalog cable  33 54 304