

# Datasheet Positive pressure demand valve 4500 PL/BN

**Designation:** Basic device Compressed air hose device 4500 PL/BN overpressure ESA plug-in connection

The basic unit consists of a positive pressure regulator with integrated warning device (function only in conjunction with pressure reducer DM 1900), standard plug-in connection ESA to DIN 58600, regulator hose with strain relief and plug nipple for breathing air coupling AK2 as well as body belt made of black PP webbing with heavy-duty buckle.



**Description:** The demand valve provides the person wearing the breathing apparatus with the required amount of breathing air. The regulator is attached to the breathing connection (e.g. BRK 820 full face mask). The air is supplied via the DZS 9 compressed air supply hose and a suitable compressed air source with breathing air in accordance with DIN EN 12021.

**Article-Number:** 935163

**Standard:** DIN EN 14593-1 Respiratory protective devices - Compressed airline breathing apparatus with demand valve  
DIN 58600 Respiratory protective devices - Plug-in connection between regulator for positive pressure breathing apparatus and breathing connection for German fire departments

**Approval:** EU type-examination certificate in accordance with module B section 6.1 of the PPE Regulation (EU) 2016/425  
EU type-examination certificate: 10723 A/23/4 PPE  
valid until 19/04/2028

**Connection:** Standard plug connection according to DIN 58600

**Weight:** Basic device approx. 900 grams

**Dimensions:** largest diameter: approx. 85 mm, stem depth: approx. 85 mm

**Materials:**

Regulator:	Plastic, black
LA membrane:	silicone, transparent
LA hose with plug nipple:	Ethylene-propylene-diene black / brass, nickel-plated
Strain relief coupling:	Brass, nickel-plated
Strain relief plug nipple:	Stainless steel
Strain relief connection strap loop:	Polyoxymethylene black
Body strap:	Polypropylene

**Working pressure:** 5,5 +/- 1 bar

**Static overpressure:** 2.2 mbar - 3.9 mbar

Revision 08.2024 – Errors and omissions excepted. All data are non-binding guide values.

**BartelsRieger Atemschutztechnik GmbH**

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**Marking:**

BartelsRieger  
YYMM A 001  
Breathing apparatus

YY = year of manufacture, MM = month of manufacture  
A = Pressure relief version ESA plug-in connection  
001 = consecutive number

The body harness strain relief is labelled with the series designation 4500 PL, the individual part designation 'Strain relief ZE 2/2' and 'MDW' if applicable, the month and year of manufacture, the CE marking, the European standard with year, the note to observe the instructions for use and the full Bartels-Rieger company address.

**Directions for use instructions:**

The use of compressed air hose devices requires a basic knowledge of the function and handling of breathing apparatus. Information on this can be found in the trade association regulations and rules, in particular in DGUV Rule 112-190.

The use of respiratory protective devices generally means additional strain for the person wearing the respiratory protective device.

Most respiratory protective devices require occupational medical precautions in accordance with the 'Ordinance on Occupational Medical Precautions' (ArbMedVV).

The devices serve as self-contained breathing apparatus (insulating devices) and are mainly used when normal filter respiratory protection is no longer sufficient in contaminated or low-oxygen ambient atmospheres or when exhausted filters have to be replaced too frequently during long-term use (cost-effectiveness!).

It should be noted that these are generally location-dependent breathing apparatus, i.e. the person wearing the breathing apparatus is bound to a certain radius of action due to a hose connection to the breathing air source

**Limits of use:**

in accordance with DGUV Rule 112-190: compressed air hose device with full face mask and demand valve in positive pressure version

Protection level (up to which multiple of the limit value the respiratory protective device offers sufficient protection against the pollutants in the ambient atmosphere): > 1,000 (A limitation of the area of use due to high concentrations of pollutants cannot be derived from the known use of these types of devices)

The possible operating time generally depends on the type of air supply. If breathing air is supplied by a compressor with downstream breathing air treatment / filtration or from a breathing air ring line in accordance with EN12021, a practically unlimited supply of air is available.

If the supply is provided by compressed air cylinders and cylinder pressure reducers, the stored volume must be taken into account.

Service life limits are intended to avoid overstressing the person wearing the respirator. They apply to work assignments in accordance with the operating instructions and are specified in DGUV Rule 112-190.

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Rules / regulations: Regulation (EU) 2016/425 on personal protective equipment  
 PPE Utilisation Ordinance (PSA-BV)  
 Ordinance on Occupational Health Care (ArbMedVV)  
 BGV A1 Employer's Liability Insurance Association Regulation for Safety and Health at Work - Accident Prevention Regulation - Principles of Prevention  
 DGUV Rule 112-190 Employer's liability insurance association rules for safety and health at work - 'Use of respiratory protective equipment'  
 Hazardous Substances Ordinance (GefStoffV) with associated Technical Rules for Hazardous Substances (TRGS), and other Technical Rules for Hazardous Substances.

## Order details

Designation	Description	Order no.
<b>Basic unit 4500 PL/BN</b>	<b>Overpressure LA with strain relief and waist belt</b>	<b>935163</b>
Full face mask BRK 820 BN	according to EN 136 class 3 with ESA connection	111205
Strain relief ZE 2/2 MDW	with medium pressure warning whistle MDW without waist belt	201839
Replacement warning whistle	MDW for Airvalve ZE 2/2 MDW < 3.5 to > 7.0 bar	201846
Body belt	made of PP webbing with heavy-duty buckle	840609
Protective cap AK2	Protective cap plug nipple for LA hose AK2	202374
DZS9	Compressed air supply hose 5m	941114
DZS9	Compressed air supply hose 10m	941115
DZS9	Compressed air supply hose 15m	941116
DZS9	Compressed air supply hose 20m	941117
DZS9	Compressed air supply hose 25m	941141
DZS9	Compressed air supply hose 50m	941100
Pressure regulator DM1900-MDW with 2x breathing air coupling AK2		200693
Pressure reducer DM1900-MDW with 4x breathing air coupling AK2		200696
Pressure regulator DM1900-iMDW with 2x breathing air coupling AK2		200697
Pressure reducer DM1900-iMDW with 4x breathing air coupling AK2		200698

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