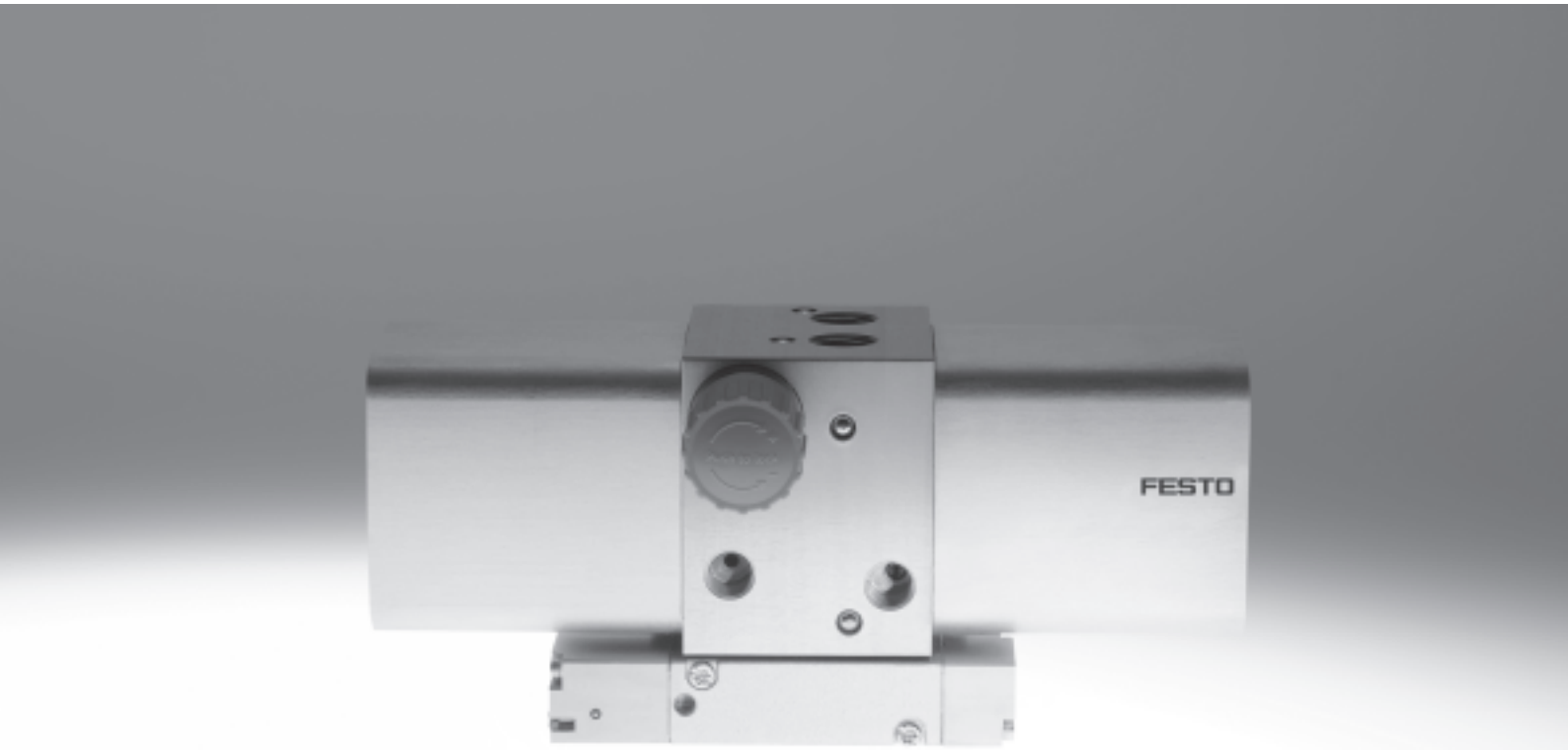
# Pressure boosters DPA

FESTO



# Pressure boosters DPA

Key features

## Function

The pressure booster is a twin-piston pressure intensifier intended solely for compressing air.
When the DPA is pressurised with compressed air, integrated non-return valves automatically facilitate pressure build-up on the secondary side.
The output pressure p2 can increase to up to twice the value of the supply pressure p1. The required output pressure is set using a manually operated pressure regulator. In the case of pressure boosters without a pressure regulator, the output pressure is always twice the supply pressure.
The air supply to both drive pistons is controlled by a pneumatic directional control valve that reverses automatically when the stroke end position is reached.
The pressure booster starts automatically when the supply pressure is applied and the desired output pressure has not yet been reached.
When the set output pressure is reached, the pressure booster switches to energy-saving mode but restarts automatically if the pressure drops during system operation.
With the DPA with sensing option, it is also possible to record individual strokes of the drive piston with the aid of an external sensor and adding counter.

**Note**

Pressure boosters are intended for the occasional relieving of compressed air. They are not suitable as a replacement for compressors, as wear on seals and drive pistons increases significantly during continuous operation without breaks.

**Note**

The pressure regulator is supplied with a non-tensioned regulator spring (DPA-...-10/16 only). After the supply pressure is applied, the regulator spring is pretensioned by turning the regulator knob until the desired output pressure p2 is achieved.

A pressure gauge is strongly recommended to monitor the output pressure p2. In the case of the DPA-63/100, the regulator setting can be secured against unauthorised adjustment by means of the regulator lock LRVS.

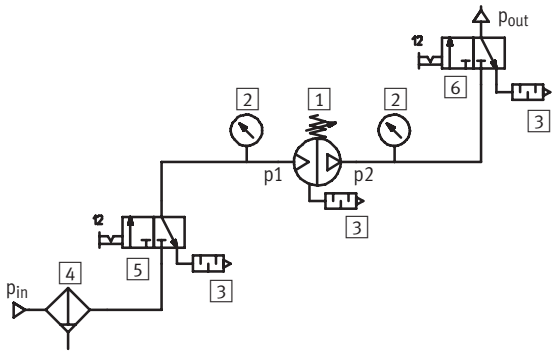
## Connection to the compressed air network

**Supply pressure side**

The use of a 3-way on-off valve (e.g. HE-...-D, HEE-...-D or a similar type) in the air supply line to the pressure booster is recommended.
The 3-way on-off valve must not be opened until the supply pressure $p_{in}$ has already built up.

**Output pressure side**

The connection of a 3-way on-off valve on the output pressure side of the pressure booster is recommended for safe venting of the output pressure $p_{out}$. If a 3-way valve is not used, the output pressure can only be vented by fully releasing the regulator spring (regulator knob turned all the way to the left).




1 Pressure booster
2 Pressure gauge
3 Silencer
4 Filter
5 3-way on-off valve on the supply pressure side
6 3-way on-off valve on the output pressure side

**Note**

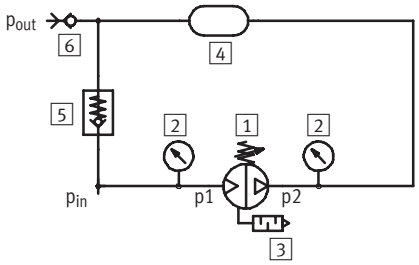
If there is a soft-start valve in the system, it is essential that a 3-way on-off valve is inserted between the soft-start valve and pressure booster.

**Note**

In the case of pressure boosters without pressure regulator, external venting must be ensured via a 3-way on-off valve.

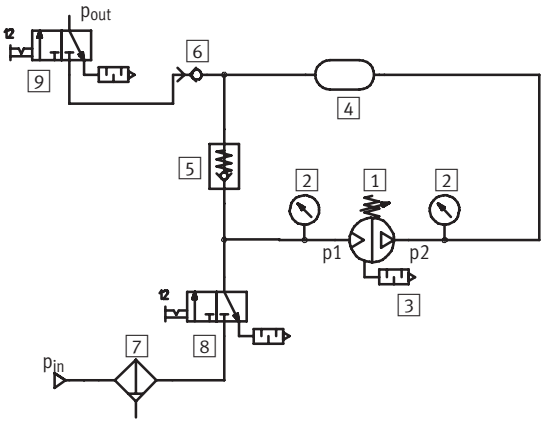
## Installation with air reservoir

An air reservoir (e.g. CRVZS) should always be used on the output pressure side to compensate for pressure fluctuations. The air reservoir evens out the pulsation of the pressure booster. An effective way of filling the air reservoir with the supply pressure p1 is via a connecting cable. The pressure booster only has to make up the difference between the supply and output pressures. The air reservoir is filled faster. A non-return valve prevents the air from flowing back out of the reservoir.
This configuration corresponds to the scope of delivery of the pressure booster/air reservoir combination that can be ordered (➔ 16).



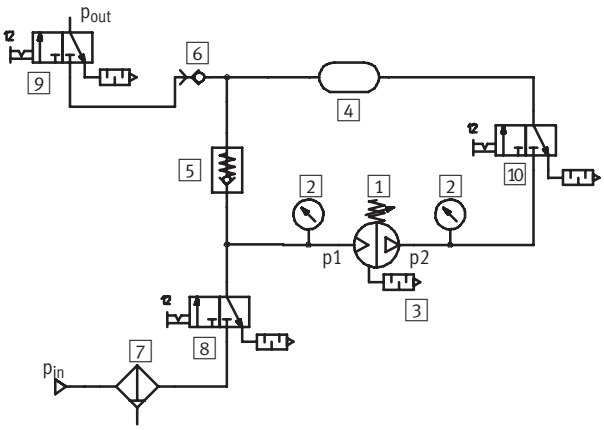

**Circuitry with 2 on-off valves**

The air reservoir is vented via the regulator knob of the pressure booster.




**Circuitry with 3 on-off valves**

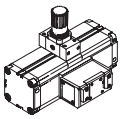
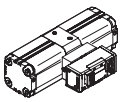
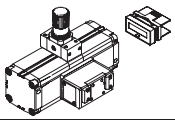
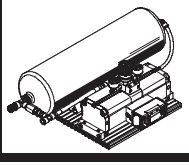
The air reservoir is vented via the additional on-off valve.




1 Pressure booster
2 Pressure gauge
3 Silencer
4 Air reservoir
5 Non-return valve
6 Quick coupling socket
7 Filter
8 3-way on-off valve on the supply pressure side
9 3-way on-off valve on the output pressure side
10 3-way on-off valve for venting the air reservoir

# Pressure boosters DPA

Product range overview

| Function | Version | Type | Piston ∅ [mm] | ➔ Page/Internet |
|---|---|---|---|---|
| **Pressure booster** | Standard | | | |
| |  | DPA | 40, 63, 100 | 5 |
| | | | | |
| | Without pressure regulator, double supply pressure | | | |
| |  | DPA-...-D | 40, 63, 100 | 5 |
| | | | | |
| | With sensing option | | | |
| |  | DPA-...-A | 63, 100 | 5 |
| | | | | |
| **Pressure booster/ air reservoir combination** |  | DPA-...-CRVZS | 40, 63, 100 | 16 |

# Pressure boosters DPA

Peripherals overview

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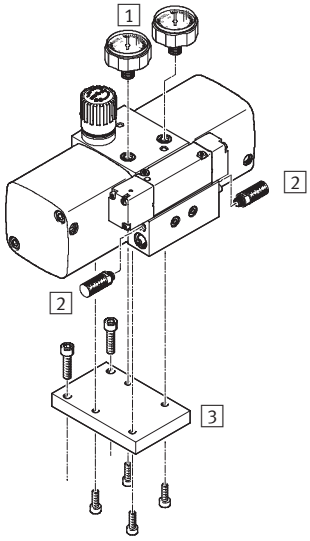
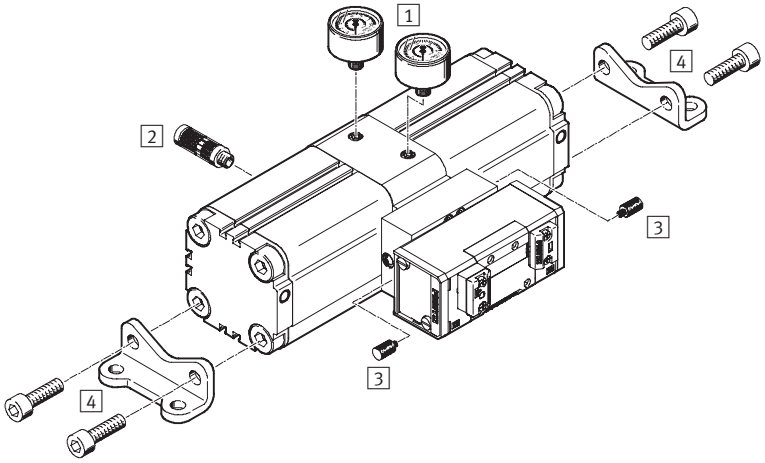
## DPA-40-10/16/D




| Mounting attachments and accessories | | |
|---|---|---|
| | Brief description | → Page/Internet |
| 1 Pressure gauge set<br>DPA-MA-SET | For monitoring the supply and output pressure | 22 |
| 2 Silencer<br>UC | For noise reduction at the exhaust port | 25 |
| 3 Flange mounting<br>FDPA | For mounting the pressure booster on other machine parts | 21 |

## DPA-63/100-D




| Mounting attachments and accessories | | |
|---|---|---|
| | Brief description | → Page/Internet |
| 1 Pressure gauge<br>MA | For monitoring the supply and output pressure | 23 |
| 2 Silencer<br>U-...-B | For noise reduction at the exhaust port | 25 |
| 3 Silencer<br>U-M3 | For noise reduction at the valve exhaust port | 25 |
| 4 Foot mounting<br>HUA | For mounting the pressure booster on other machine parts | 21 |

# Pressure boosters DPA

Peripherals overview

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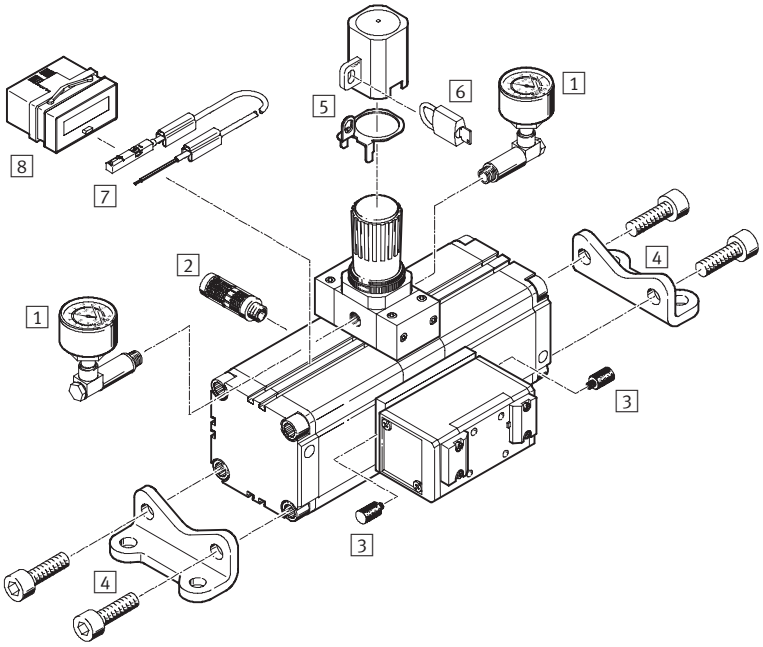
**DPA-63/100-10/16(-A)**




| Mounting attachments and accessories | | |
|---|---|---|
| | Brief description | ➔ Page/Internet |
| 1 Pressure gauge set<br>DPA-MA-SET | For monitoring the supply and output pressure | 22 |
| 2 Silencer<br>U-...-B | For noise reduction at the exhaust port | 25 |
| 3 Silencer<br>U-M3 | For noise reduction at the valve exhaust port | 25 |
| 4 Foot mounting<br>HUA | For mounting the pressure booster on other machine parts | 21 |
| 5 Regulator lock<br>LRVS-D with lock plate | Prevents unintentional, and in conjunction with an LRVS padlock, unauthorised adjustment of the rotary knob | 25 |
| 6 Padlock<br>LRVS-D | Accessory for regulator lock LRVS-D | 25 |
| 7 Proximity sensor<br>SME-8M/SMT-8M | For registering individual strokes of the drive piston (only DPA-...-A) | 24 |
| 8 Adding counter<br>CCES | For counting the switching cycles (only DPA-...-A) | 24 |

# Pressure boosters DPA

Type codes


| Basic function | |
|---|---|
| DPA | Pressure booster |

| Piston ∅ | |
|---|---|
| 40 | 40 mm |
| 63 | 63 mm |
| 100 | 100 mm |

| Output pressure [bar] | |
|---|---|
| DPA-40 | |
| 10 | 4,5 ... 10, adjustable with pressure regulator |
| 16 | 4,5 ... 16, adjustable with pressure regulator |
| D | Double supply pressure, without pressure regulator |
| | |
| DPA-63/100 | |
| 10 | 4 ... 10, adjustable with pressure regulator |
| 16 | 4 ... 16, adjustable with pressure regulator |
| D | Double supply pressure, without pressure regulator |

| Sensing (DPA-63/100-10/16 only) | |
|---|---|
| | No sensing possibility |
| A | With sensing possibility |

# Pressure boosters DPA

Technical data

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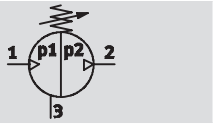
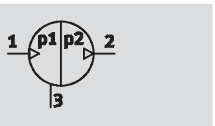
Function

with pressure regulator




without pressure regulator

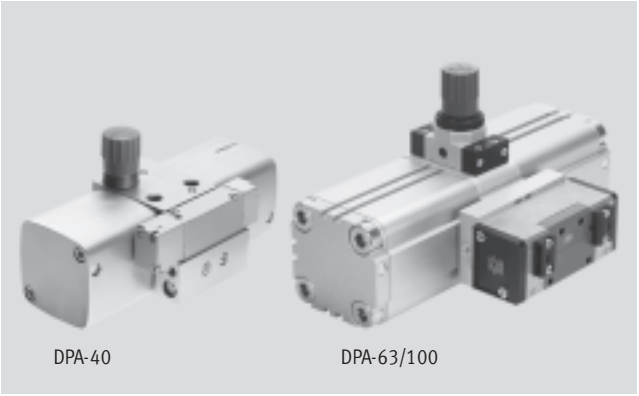



Temperature range
+5 ... +60 °C

Pressure ratio
1:2

www.festo.com

Wearing parts kits
➔ 15



DPA-40 DPA-63/100

- Any mounting position
- Long service life
- Compact construction and attractive design
- Minimal loss of volume due to valve actuation
- Short filling times

| General technical data – DPA with pressure regulator | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Type DPA- | No sensing option | | | | | | With sensing option | | | | |
| | 40-10 | 40-16 | 63-10 | 63-16 | 100-10 | 100-16 | 63-10-A | 63-16-A | 100-10-A | 100-16-A | |
| Piston ∅ [mm] | 40 | | 63 | | 100 | | 63 | | 100 | | |
| Pneumatic connection 1, 2 | G¼ | | G⅜ | | G½ | | G⅜ | | G½ | | |
| Pneumatic connection 3 | M7 | | G⅜ | | G½ | | G⅜ | | G½ | | |
| Constructional design | Twin-piston pressure booster | | | | | | Twin-piston pressure booster | | | | |
| | – | | | | | | With magnet on piston | | | | |
| Type of mounting | Via female thread | | | | | | | | | | |
| Mounting position | Any | | | | | | | | | | |
| Pressure indication | G⅛ prepared | | G⅛ prepared | | G¼ prepared | | G⅛ prepared | | G¼ prepared | | |

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

| General technical data – DPA without pressure regulator | | | |
|---|---|---|---|
| Type DPA- | 40-D | 63-D | 100-D |
| Piston ∅ [mm] | 40 | 63 | 100 |
| Pneumatic connection 1, 2 | G¼ | G⅜ | G½ |
| Pneumatic connection 3 | M7 | G⅜ | G½ |
| Constructional design | Twin-piston pressure booster | | |
| Type of mounting | Via female thread | | |
| Mounting position | Any | | |
| Pressure indication | G⅛ prepared | | |

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

# Pressure boosters DPA

Technical data

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| Operating and environmental conditions | | | | | | | |
|---|---|---|---|---|---|---|---|
| Type DPA- | | DPA with pressure regulator | | | | DPA without pressure regulator | |
| | | 40-10 | 40-16 | 63/100-10(-A) | 63/100-16(-A) | 40-D | 63/100-D |
| Supply pressure p1 | [bar] | 2.5 ... 8 | 2.5 ... 10 | 2 ... 8 | 2 ... 10 | 2.5 ... 8 | 2 ... 8 |
| Output pressure p2 | [bar] | 4.5 ... 10[1)] | 4.5 ... 16[1)] | 4 ... 10[1)] | 4 ... 16[1)] | 5 ... 16 | 4 ... 16 |
| Operating medium | | Filtered compressed air, unlubricated, grade of filtration 40µm | | | | | |
| Ambient temperature | [°C] | +5 ... +60 | | | | | |
| Storage temperature | [°C] | +5 ... +60 | | | | | |
| Corrosion resistance class CRC[2)] | | 2 | | | | | |

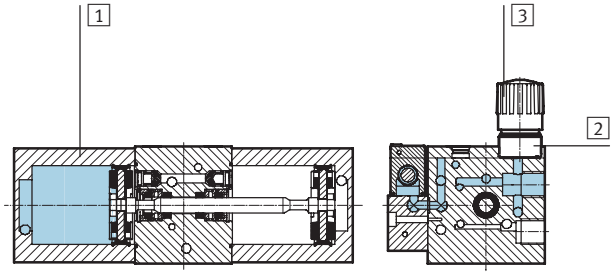
1) The differential pressure between the supply and output pressure must be at least 2 bar.
2) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

| Weight [g] | | | |
|---|---|---|---|
| Type DPA- | 40 | 63 | 100 |
| Pressure booster | 1,500 | 6,000 | 13,000 |

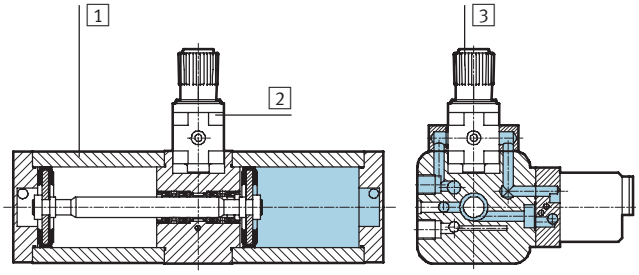
| Recommended tubing | | | |
|---|---|---|---|
| Type DPA- | 40 | 63 | 100 |
| For supply pressure | PAN-10x1,5 | PAN-16x2 | P-19-SW, PAN-16x2 |
| For output pressure | PAN-R-8x1,5 | PAN-R-16x3 | PAN-R-16x3 |

## Materials

Sectional view DPA-40




Sectional view DPA-63/100




| Pressure booster | | DPA-40 | DPA-63/100-10 | DPA-63/100-16 |
|---|---|---|---|---|
| 1 | Housing | Aluminium | | |
| 2 | Support | Aluminium | Polyester | Aluminium |
| 3 | Rotary knob | Polyacetate | | |
| – | Piston/piston rod seals | Hydrogenated nitrile rubber | Polyurethane | |
| – | Non-return valve seals | Nitrile rubber | Fluoro elastomer | |
| – | Regulator/valve seals | Nitrile rubber | | |

# Pressure boosters DPA

Technical data

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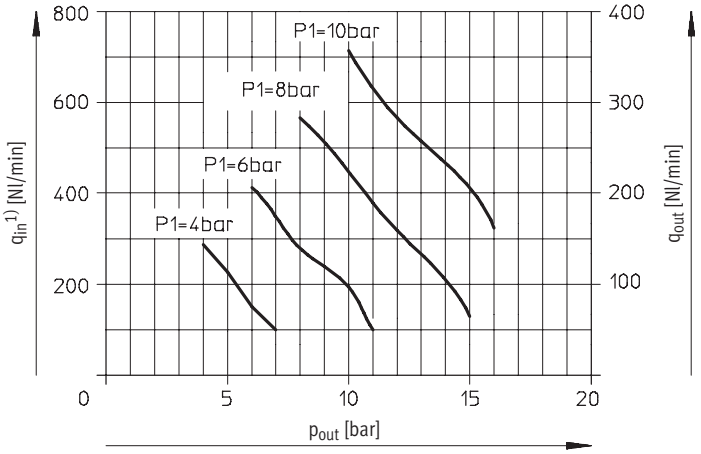
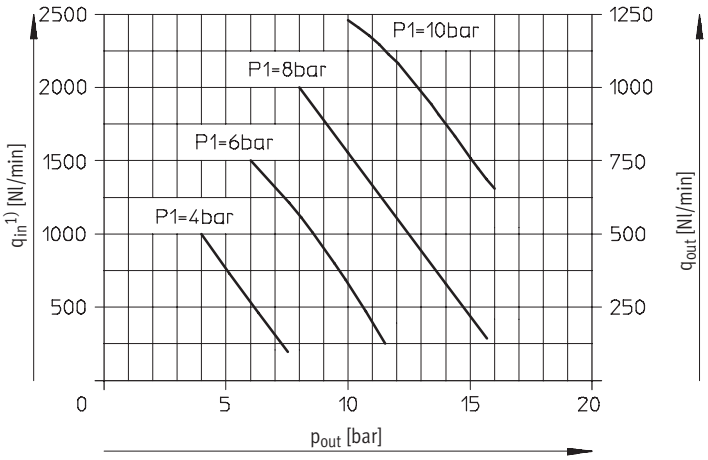
**Flow rate at input $q_{in}$ [1] and flow rate at output $q_{out}$ as a function of output pressure $p_{out}$**

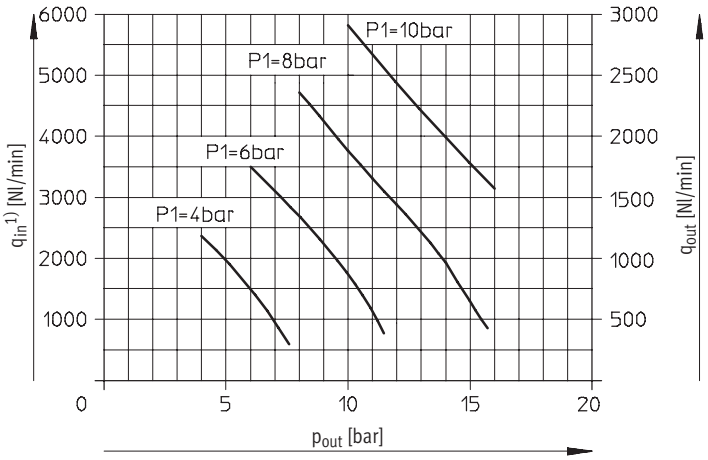
DPA-40




DPA-63




DPA-100




1) Theoretical values without switching losses and friction.

# Pressure boosters DPA

Technical data

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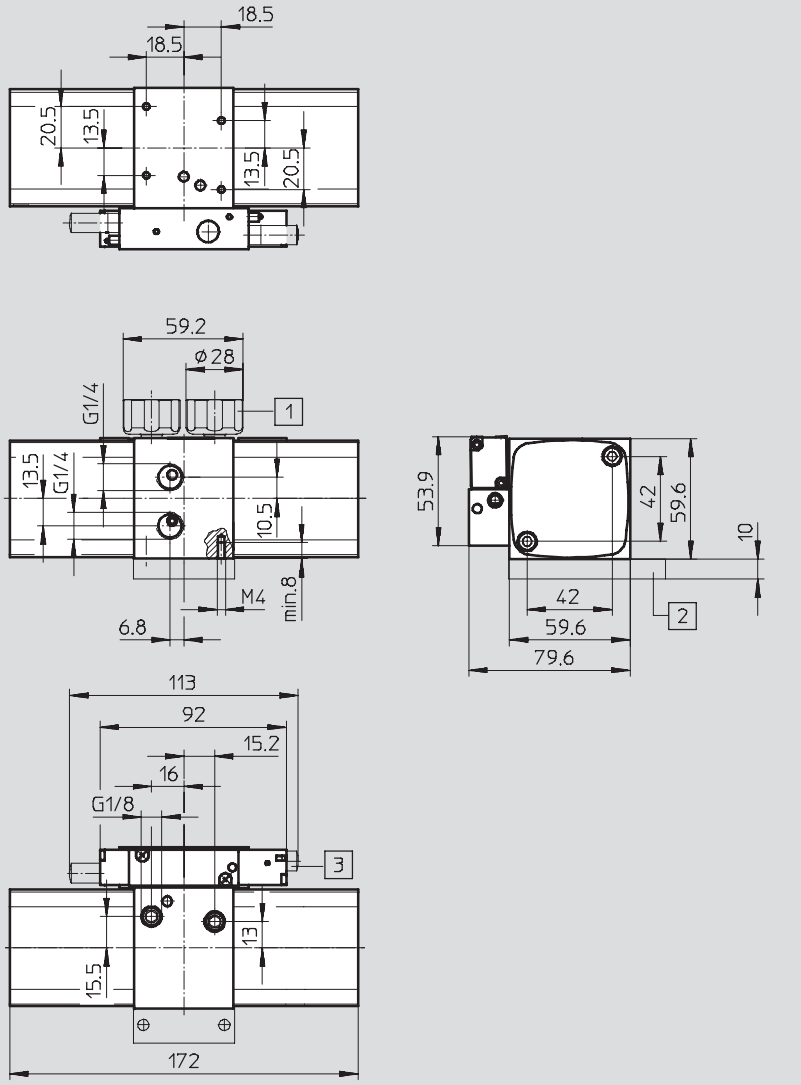
**Dimensions – DPA without pressure regulator** Download CAD data ➔ **www.festo.com**

DPA-40-D




1 Pressure gauge set DPA-MA-SET 2 Flange mounting FDPA 3 Silencer UC

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

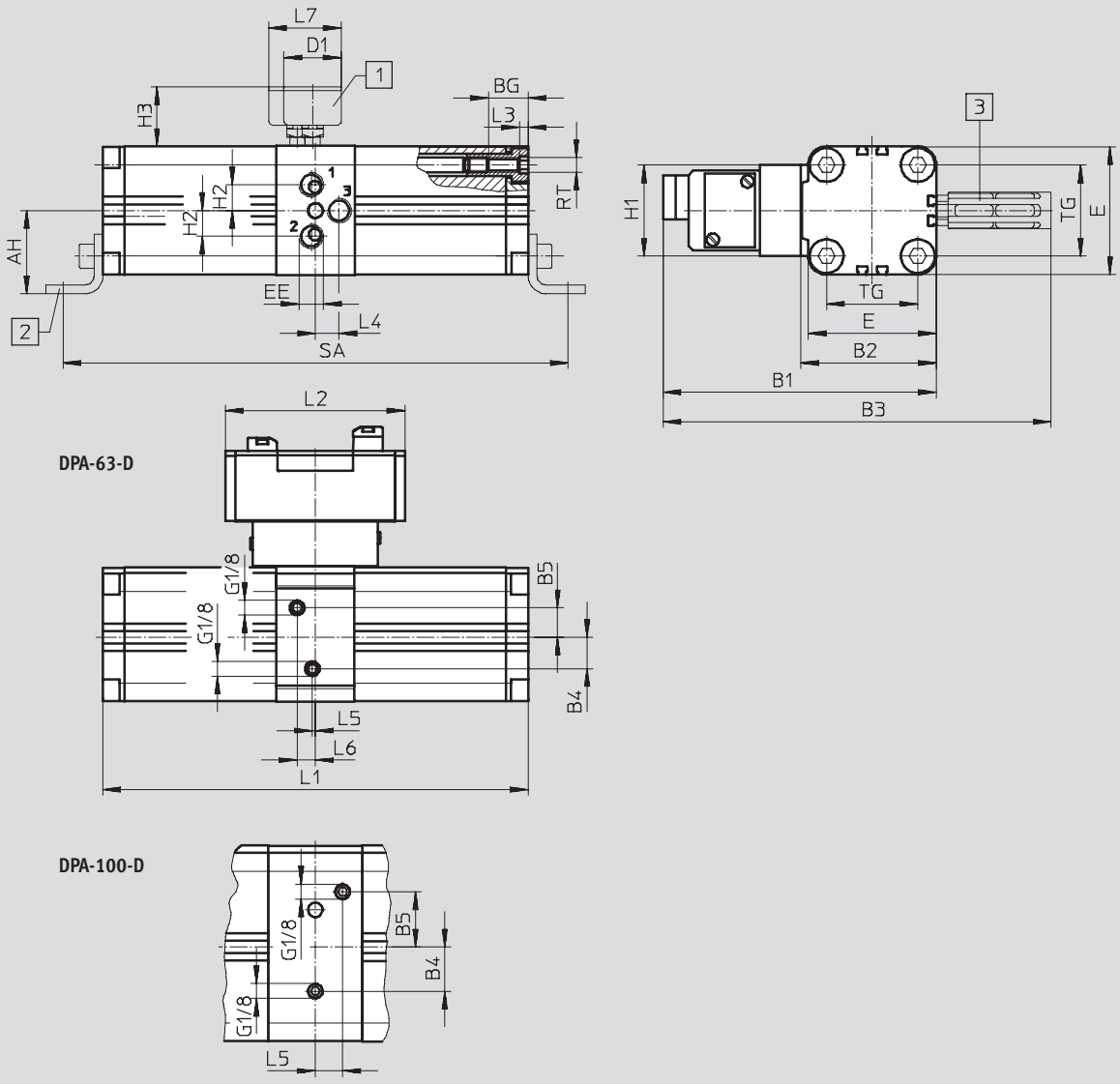
# Pressure boosters DPA

Technical data

FESTO

**Dimensions – DPA without pressure regulator** Download CAD data ➔ **www.festo.com**

DPA-63/100-D




1 Pressure gauge MA 2 Foot mounting HUA 3 Silencer U

| Type | AH | B1 | B2 | B3 | B4 | B5 | BG | D1 ∅ | E | EE | H1 | H2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DPA-63 | 56.5 | 187 | 92.5 | 266 | 21.4 | 19.9 | 25 | 39 | 88 | G3/8 | 62 | 17.5 |
| DPA-100 | 81 | 244 | 133 | 352 | 30 | 37.5 | 30 | | 128 | G1/2 | 71 | 27 |

| Type | H3 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | RT | TG | SA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DPA-63 | 40.5 | 289 | 122 | 6 | 19 | 2 | 12.4 | 49.4 | M10 | 62 | 343 |
| DPA-100 | 40 | 367 | 145.5 | | 11 | 18.5 | – | 57.5 | | 103 | 433 |

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

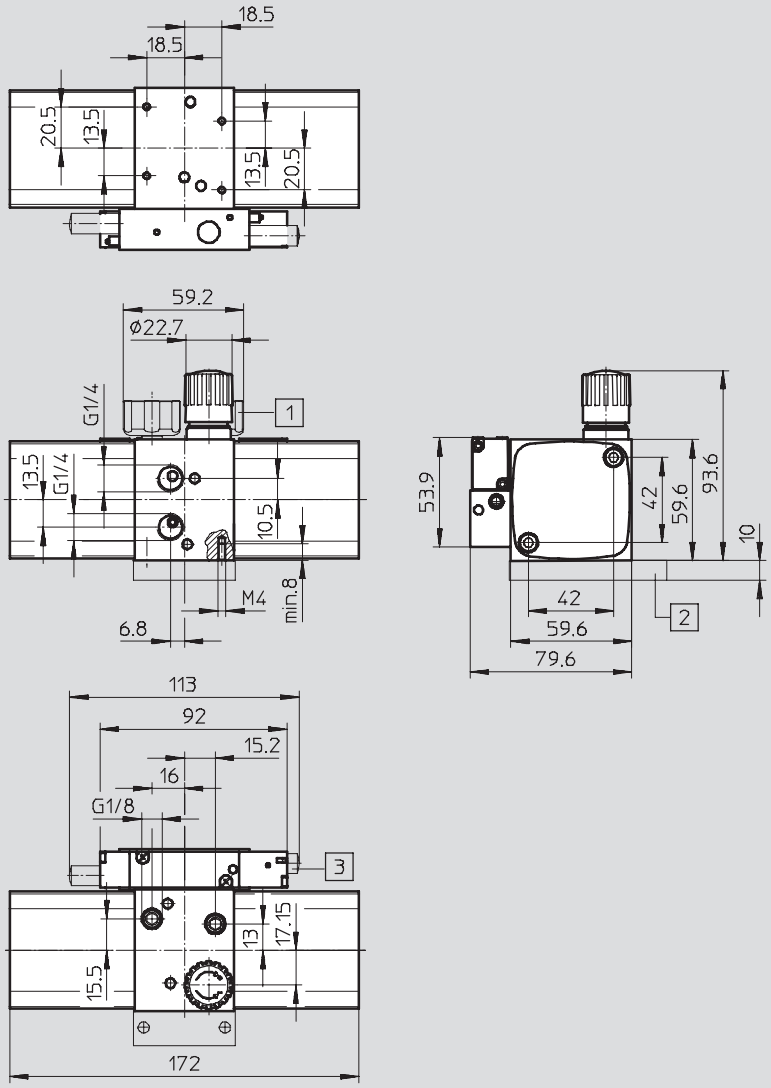
# Pressure boosters DPA

Technical data

FESTO

**Dimensions – DPA with pressure regulator** Download CAD data ➔ **www.festo.com**

DPA-40-10/16




1 Pressure gauge set DPA-MA-SET 2 Flange mounting FDPA 3 Silencer UC

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

# Pressure boosters DPA

Technical data

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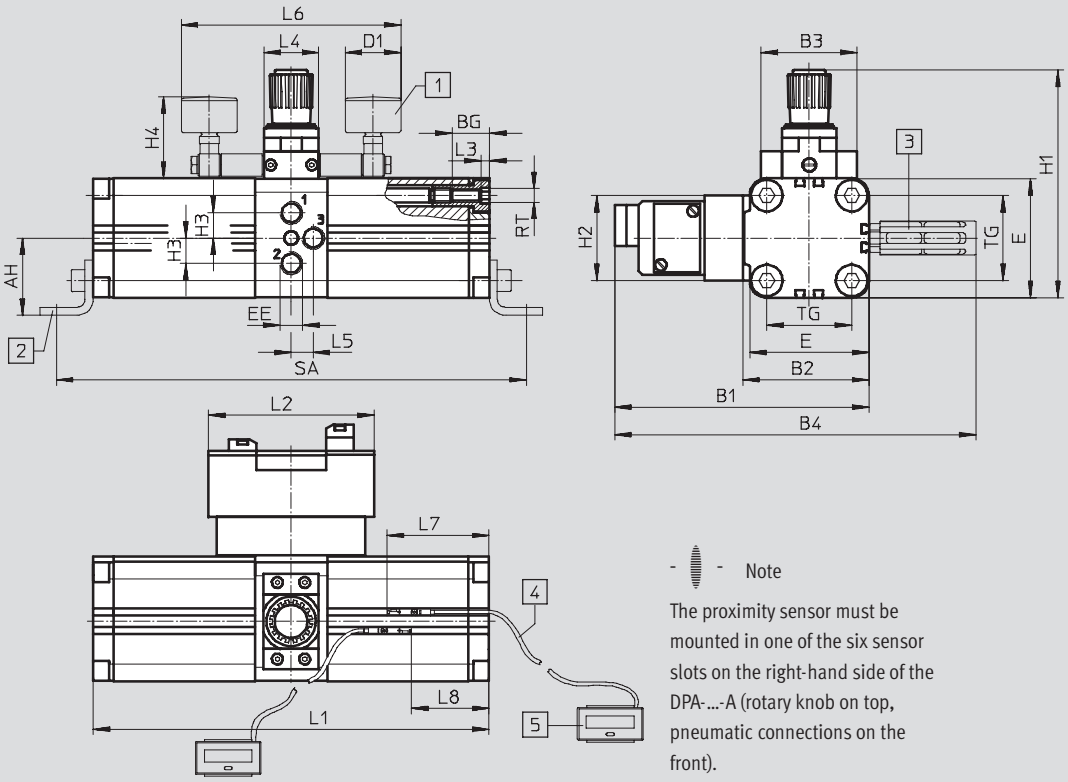
**Dimensions – DPA with pressure regulator** Download CAD data ➔ **www.festo.com**

DPA-63/100-10/16(-A)




Note

The proximity sensor must be mounted in one of the six sensor slots on the right-hand side of the DPA-...-A (rotary knob on top, pneumatic connections on the front).

1 Pressure gauge set DPA-MA-SET
2 Foot mounting HUA
3 Silencer U
4 Proximity sensor SMT/SME
5 Adding counter CCES-P-C8-E

| Type | AH | B1 | B2 | B3 | B4 | BG | D1 ∅ | E | EE | H1 | H2 | H3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DPA-63 | 56.5 | 187 | 92.5 | 70 | 266 | 25 | 39 | 88 | G3/8 | 169 | 62 | 17.5 |
| DPA-100 | 81 | 244 | 133 | 102 | 352 | 30 | | 128 | G1/2 | 244 | 71 | 27 |

| Type | H4 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | RT | TG | SA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DPA-63 | 65 | 289 | 122 | 6 | 40 | 19 | 159 | 74.5 | 56.5 | M10 | 62 | 343 |
| DPA-100 | 75 | 367 | 145.5 | | 55 | 11 | 173 | 93 | 75 | | 103 | 433 |

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

# Pressure boosters DPA

Technical data

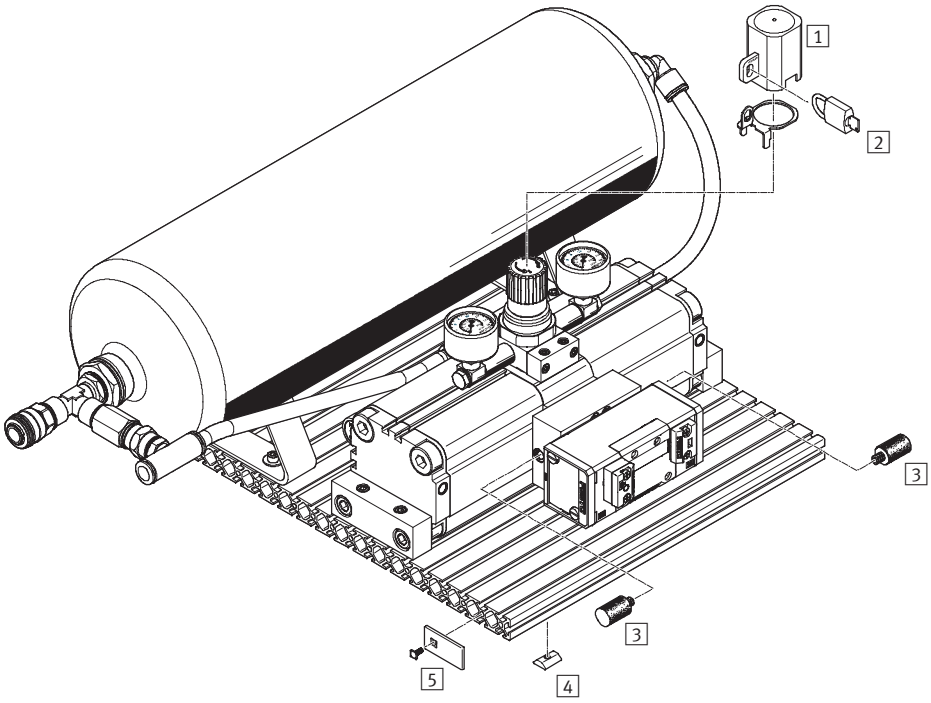
| Ordering data | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Piston ∅ | Output pressure 4[1] ... 10 bar | | | Output pressure 4[1] ... 16 bar | | | Double supply pressure | |
| [mm] | Part No. | Type | | Part No. | Type | | Part No. | Type |
| No sensing option | | | | | | | | |
| 40 | **537273** | **DPA-40-10** | | **537274** | **DPA-40-16** | | **549396** | **DPA-40-D** |
| 63 | **184518** | **DPA-63-10** | | **193392** | **DPA-63-16** | | **549397** | **DPA-63-D** |
| 100 | **184519** | **DPA-100-10** | | **188399** | **DPA-100-16** | | **549398** | **DPA-100-D** |
| With sensing option | | | | | | | | |
| 63 | **549399** | **DPA-63-10-A** | | **549400** | **DPA-63-16-A** | | – | |
| 100 | **549401** | **DPA-100-10-A** | | **549402** | **DPA-100-16-A** | | – | |

1) For DPA-40: 4.5 bar

| Ordering data – Wearing parts kits | | | |
|---|---|---|---|
| Type | Product series | Part No. | Type |
| DPA-40-10/16 | | **707308** | **DPA-40-10/16** |
| DPA-63-10/16 | From SN to VN | **397400** | **DPA-63-10/16** |
| | From VD | **738338** | **DPA-63-10/16** |
| DPA-100-10/16 | From SN to VN | **397401** | **DPA-100-10/16** |
| | From VD | **738339** | **DPA-100-10/16** |

# Pressure boosters DPA, with air reservoir

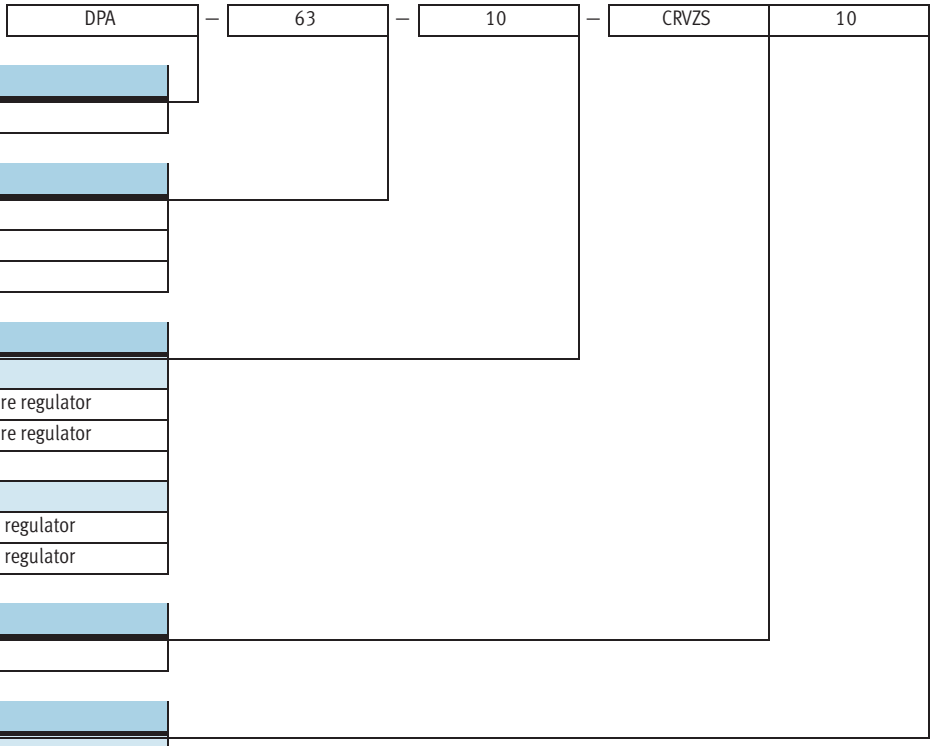
Peripherals overview




| Accessories | | | |
|---|---|---|---|
| | | Brief description | ➔ Page/Internet |
| 1 | Regulator lock (DPA-63/100 only)<br>LRVS-D with lock plate | Prevents unintentional, and in conjunction with a padlock LRVS-D, unauthorised adjustment of the rotary knob | 25 |
| 2 | Padlock (DPA-63/100 only)<br>LRVS-D | Accessory for regulator lock LRVS-D | 25 |
| 3 | Silencer (DPA-63/100 only)<br>U-M3 | For noise reduction at the valve exhaust port | 25 |
| 4 | Slot nut<br>IPM-VN-05-15/M5-ST | For attaching the slotted profile plate<br>DPA-40: 4 pieces, DPA-63/100: 6 pieces | On request |
| 5 | Cover<br>IPM-AN-05-20X40-PA | For covering the cut edge of the slotted profile plate<br>DPA-40: 5 pieces per cut edge, DPA-63/100: 10 pieces per cut edge | On request |

# Pressure boosters DPA, with air reservoir

Type codes




| Basic function | |
|---|---|
| DPA | Pressure booster |

| Piston ∅ | |
|---|---|
| 40 | 40 mm |
| 63 | 63 mm |
| 100 | 100 mm |

| Output pressure [bar] | |
|---|---|
| DPA-40 | |
| 10 | 4.5 ... 10, adjustable with pressure regulator |
| 16 | 4.5 ... 16, adjustable with pressure regulator |
| | |
| DPA-63/100 | |
| 10 | 4 ... 10, adjustable with pressure regulator |
| 16 | 4 ... 16, adjustable with pressure regulator |

| Air reservoir | |
|---|---|
| CRVZS | Stainless steel |

| Air reservoir volume [l] | |
|---|---|
| DPA-40 | |
| 2 | 2 |
| 5 | 5 |
| | |
| DPA-63/100 | |
| 10 | 10 (DPA-63 only) |
| 20 | 20 |

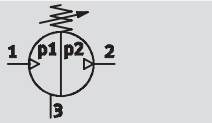
New

# Pressure boosters DPA, with air reservoir

Technical data

FESTO

Function
Pressure booster
with pressure regulator




Temperature range
+5 … +60 °C

Pressure ratio
1:2

www.festo.com

Wearing parts kits
➔ 20

Combination of pressure booster, air reservoir in stainless steel design, bypass with non-return valve for constant filling of the air reservoir with the system pressure, pressure gauge set, silencer, fitting and quick coupling.

- Convenient all-in-one solution
- Ideally matched components
- Combination fully mounted on a slotted profile plate

| General technical data | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pressure booster DPA<br>Air reservoir | | 40-10<br>CRVZS2 | 40-16<br>CRVZS2 | 40-10<br>CRVZS5 | 40-16<br>CRVZS5 | 63-10<br>CRVZS10 | 63-16<br>CRVZS10 | 63-10<br>CRVZS20 | 63-16<br>CRVZS20 | 100-10<br>CRVZS20 | 100-16<br>CRVZS20 |
| Piston ∅ | [mm] | 40 | | | | 63 | | | | 100 | |
| Pneumatic connection 1 | | QS-10 | | | | QS-12 | | | | QS-16 | |
| Pneumatic connection 2 | | KD4 | | | | | | | | | |
| Pneumatic connection 3 | | Silencer | | | | | | | | | |
| Constructional design | | Twin-piston pressure booster | | | | | | | | | |
| | | With air reservoir | | | | | | | | | |
| | | With pressure gauge | | | | | | | | | |
| | | With non-return valve | | | | | | | | | |
| Type of mounting | | Via slot nuts | | | | | | | | | |
| Mounting position | | Any | | Condensate drain underneath | | | | | | | |
| Air reservoir volume | [l] | 2 | | 5 | | 10 | | 20 | | | |
| Product weight | [g] | 4,400 | | 7,300 | | 16,000 | | 21,500 | | 30,000 | |

| Operating and environmental conditions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pressure booster DPA<br>Air reservoir | | 40-10<br>CRVZS2 | 40-16<br>CRVZS2 | 40-10<br>CRVZS5 | 40-16<br>CRVZS5 | 63-10<br>CRVZS10 | 63-16<br>CRVZS10 | 63-10<br>CRVZS20 | 63-16<br>CRVZS20 | 100-10<br>CRVZS20 | 100-16<br>CRVZS20 |
| Supply pressure p1 | [bar] | 2.5 … 8 | | | | 2 … 8 | | | | | |
| Output pressure p2 | [bar] | 4.5 … 10 | 4.5 … 16 | 4.5 … 10 | 4.5 … 16 | 4 … 10 | 4 … 16 | 4 … 10 | 4 … 16 | 4 … 10 | 4 … 16 |
| Operating medium | | Filtered compressed air, unlubricated, grade of filtration 40 µm | | | | | | | | | |
| Ambient temperature | [°C] | +5 … +60 | | | | | | | | | |
| Storage temperature | [°C] | +5 … +60 | | | | | | | | | |
| Corrosion resistance class CRC[1)] | | 2 | | | | | | | | | |
| CE mark (see declaration of conformity) | | – | | In accordance with EU Pressure Equipment Directive | | | | | | | |

1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

| Materials | |
|---|---|
| Pressure booster | ➔ 9 |
| Air reservoir | High-alloy stainless steel |
| Slotted profile plate | Aluminium |

# Pressure boosters DPA, with air reservoir

Technical data

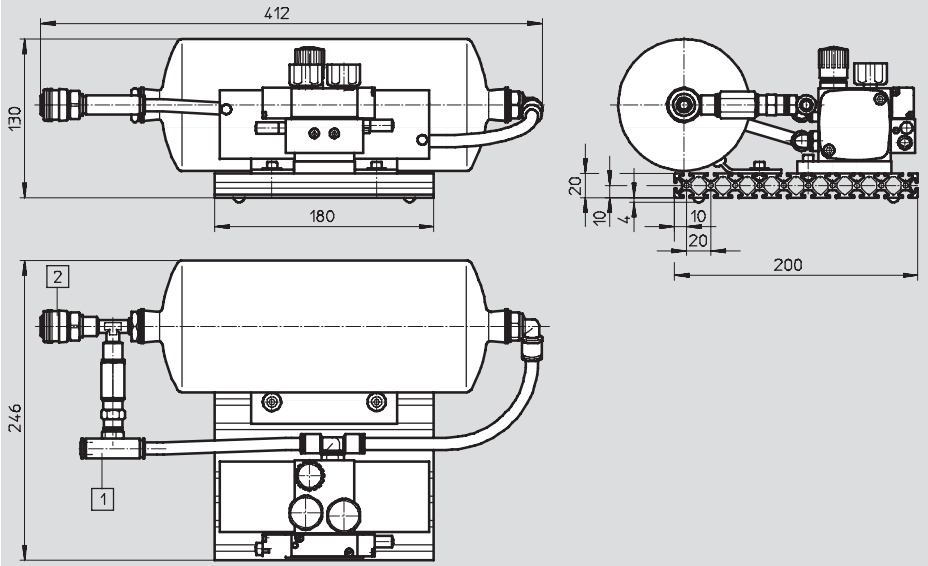
| Recommended tubing | | | |
|---|---|---|---|
| Type DPA- | 40 | 63 | 100 |
| For supply pressure | PAN-10x1,5 | PAN-12x1,75 | PAN-16x2 |
| For output pressure | PAN-R-8x1,5, PAN-R-10x1,9, PAN-R-12x2,2 | PAN-R-16x3 | PAN-R-16x3 |

Note

Flow rates ➔ 10

**Dimensions – DPA-40** Download CAD data ➔ **www.festo.com**

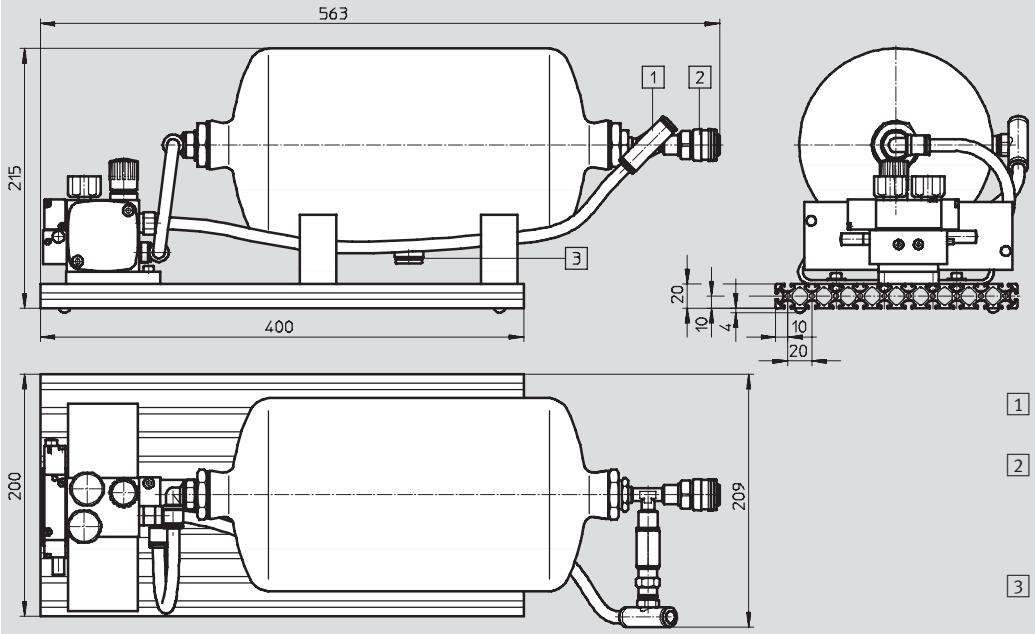
With 2 l air reservoir




1 Supply pressure p1, connection QS-10

2 Output pressure p2, connection to quick coupling socket KD4-¼ with quick coupling plug KS4 ➔ 25

With 5 l air reservoir




1 Supply pressure p1, connection QS-10

2 Output pressure p2, connection to quick coupling socket KD4-¼ with quick coupling plug KS4 ➔ 25

3 Condensate drain, max. tightening torque: 27 Nm

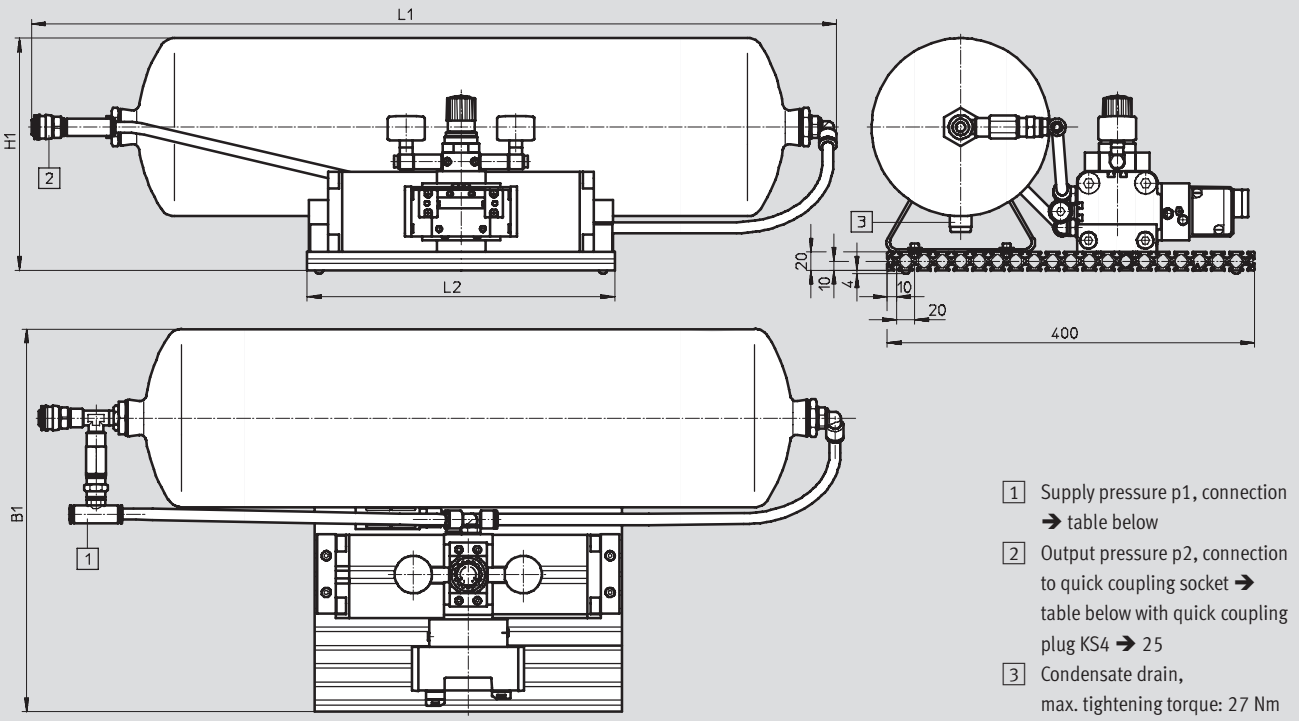
# Pressure boosters DPA, with air reservoir

Technical data

FESTO

**Dimensions – DPA-63/100** Download CAD data ➔ **www.festo.com**

With 10 l or 20 l air reservoir




1 Supply pressure p1, connection ➔ table below

2 Output pressure p2, connection to quick coupling socket ➔ table below with quick coupling plug KS4 ➔ 25

3 Condensate drain, max. tightening torque: 27 Nm

| Type | B1 | H1 | L1 | L2 | 1 | 2 Quick coupling socket |
|---|---|---|---|---|---|---|
| DPA-63-10-CRVZS10 | 400 | 215 | 695 | 335 | QS-12 | KD4-3⁄8 |
| DPA-63-16-CRVZS10 | | | | | | |
| DPA-63-10-CRVZS20 | 417 | 253 | 877 | 335 | QS-12 | KD4-3⁄8 |
| DPA-63-16-CRVZS20 | | | | | | |
| DPA-100-10-CRVZS20 | 487 | 253 | 880 | 410 | QS-16 | KD4-1⁄2 |
| DPA-100-16-CRVZS20 | | | | | | |

**Ordering data**

| Piston ∅ [mm] | Volume [l] | Output pressure 4[1] ... 10 bar Part No. | Type | Output pressure 4[1] ... 16 bar Part No. | Type |
|---|---|---|---|---|---|
| 40 | 2 | **552928** | **DPA-40-10-CRVZS2** | **552929** | **DPA-40-16-CRVZS2** |
| | 5 | **552930** | **DPA-40-10-CRVZS5** | **552931** | **DPA-40-16-CRVZS5** |
| 63 | 10 | **552932** | **DPA-63-10-CRVZS10** | **552933** | **DPA-63-16-CRVZS10** |
| | 20 | **552934** | **DPA-63-10-CRVZS20** | **552935** | **DPA-63-16-CRVZS20** |
| 100 | 20 | **552936** | **DPA-100-10-CRVZS20** | **552937** | **DPA-100-16-CRVZS20** |

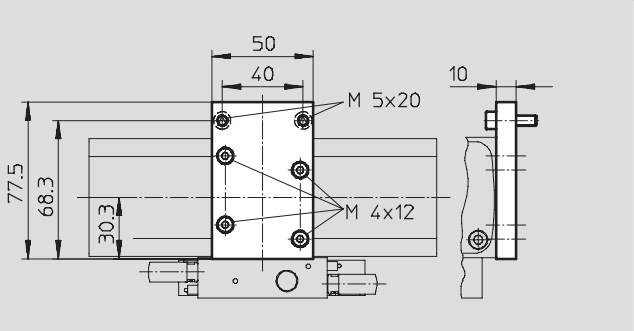
1) For DPA-40: 4.5 bar

**Ordering data – Wearing parts kits**

| Type | Product series | Part No. | Type |
|---|---|---|---|
| DPA-40-10/16 | | **707308** | **DPA-40-10/16** |
| DPA-63-10/16 | From SN to VN | **397400** | **DPA-63-10/16** |
| | From VD | **738338** | **DPA-63-10/16** |
| DPA-100-10/16 | From SN to VN | **397401** | **DPA-100-10/16** |
| | From VD | **738339** | **DPA-100-10/16** |

**Flange mounting FDPA**
**for DPA-40**

Material:
Mounting: anodised aluminium
Screws: galvanised steel
Free of copper and PTFE

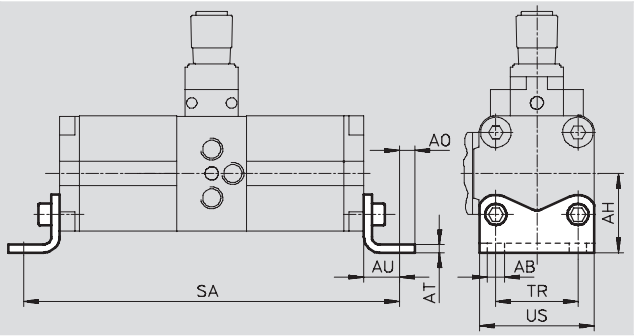



| Ordering data | | | | |
|---|---|---|---|---|
| For type | CRC[1] | Weight [g] | Part No. | Type |
| DPA-40 | 2 | 120 | **540783** | **FDPA-40** |

1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

**Foot mounting HUA**
**for DPA-63/100**

Material:
Mounting, screws: galvanised steel
Free of copper and PTFE




| Ordering data | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| For type | AB ∅ | AH | AO | AT | AU | SA | TR | US | CRC[1] | Weight [g] | Part No. | Type |
| DPA-63 | 11 | 56.5 | 11.75 | 6 | 27 | 343 | 62 | 85.5 | 2 | 550 | **157315** | **HUA-63** |
| DPA-100 | 13.5 | 81 | 11.75 | 8 | 33 | 433 | 103 | 126.5 | 2 | 1,050 | **157317** | **HUA-100** |

1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

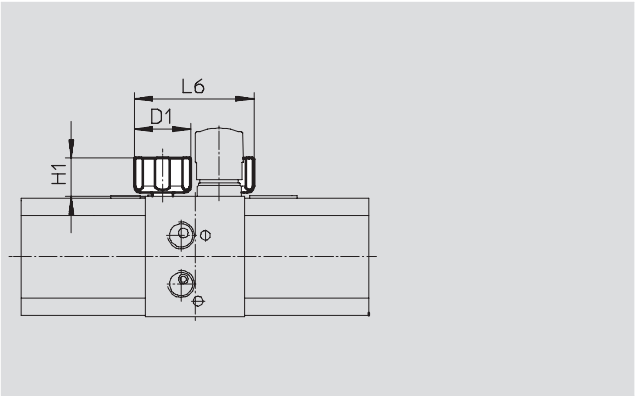
# Pressure boosters DPA

Accessories

**Pressure gauge set DPA-MA-SET**
**for DPA-40-10/16/D**

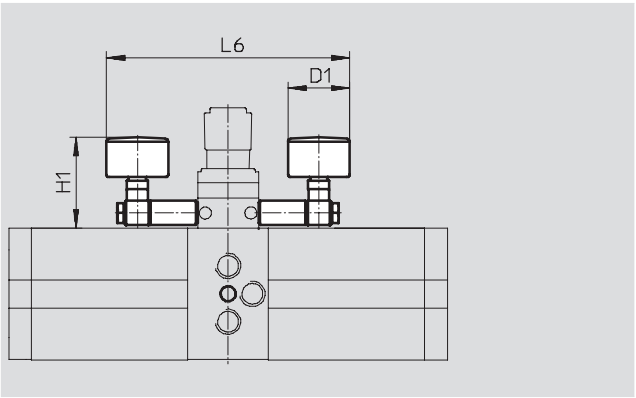
Material:
Housing: polyamide
Dial cover: polystyrene
Connection piece: polyamide

The pressure gauges generally have to be sealed with PTFE sealing tape.
Single pressure gauge MA-27-...-R⅛:
Technical data ➔ Internet: ma-27




**for DPA-63/100-10/16**

Material:
Housing: acrylic butadiene styrene
Dial cover: polystyrene
Connection piece: brass

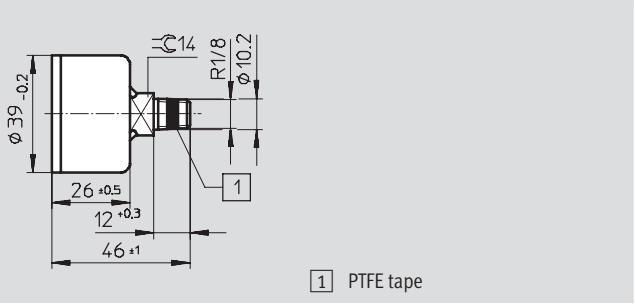



| Dimensions | | | | |
|---|---|---|---|---|
| For type | Pneumatic connection | D1<br>∅ | H1 | L6 |
| DPA-40 | R⅛ | 28 | 19 | 59.2 |
| DPA-63 | G⅛ | 39 | 65 | 159 |
| DPA-100 | G¼ | 39 | 75 | 173 |

| Ordering data | | | | | | | |
|---|---|---|---|---|---|---|---|
| For type | Nominal tubing size, pressure gauge | Measurement accuracy class | Weight<br>[g] | Operating pressure 10 bar<br>Part No. | Type | Operating pressure 16 bar<br>Part No. | Type |
| DPA-40 | 27 | 4 | 16 | **540781** | **DPA-40-10-MA-SET** | **540782** | **DPA-40-16-MA-SET** |
| DPA-63 | 40 | 2.5 | 250 | **526096** | **DPA-63-10-MA-SET** | **526097** | **DPA-63-16-MA-SET** |
| DPA-100 | 40 | 2.5 | 305 | **526098** | **DPA-100-10-MA-SET** | **526099** | **DPA-100-16-MA-SET** |

**Pressure gauge MA, to DIN EN 837-1 for DPA-63/100-D**

Material:
Housing: acrylic butadiene styrene
Dial cover: polystyrene
Connection piece: brass




| General technical data | | |
|---|---|---|
| Nominal tubing size | | 40 |
| Pneumatic connection | | R⅛ |
| Operating medium | | Liquid media |
| | | Gaseous media |
| | | Not permitted: Oxygen |
| | | Not permitted: Acetylene |
| Type of mounting | | With male thread |
| Connection position | | Centre, rear side |
| Measurement accuracy class | | 2.5 |
| Protection class | | IP43 |
| Weight | [g] | 60 |

| Operating and environmental conditions | | |
|---|---|---|
| Ambient temperature | [°C] | –20 ... +60 |
| Temperature of medium | [°C] | –20 ... +60 |
| Storage temperature | [°C] | –40 ... +70 |
| Based on standard | | DIN EN 837-1 |

**Ordering data**

| For type | Pressure control | Indicating range | | Part No. | Type |
|---|---|---|---|---|---|
| | | [bar] | [psi] | | |
| DPA-63/100-D | For supply pressure | 0 ... 16 | 0 ... 232 | **529046** | **MA-40-16-⅛-EN-DPA** |
| | For output pressure | 0 ... 25 | 0 ... 360 | **526167** | **MA-40-25-⅛-EN** |

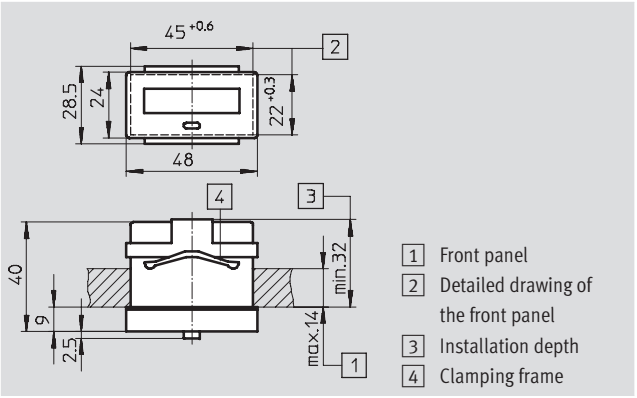
# Pressure boosters DPA

Accessories

FESTO

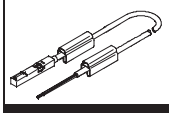
**Adding counter CCES**
**for DPA-63/100-...-A**

Material:
Housing: Polycarbonate
Conforms to RoHS




1 Front panel
2 Detailed drawing of the front panel
3 Installation depth
4 Clamping frame

| Ordering data | | | | | Technical data ➔ Internet: cces |
|---|---|---|---|---|---|
| For type | Display | Power supply | Weight [g] | Part No. | Type |
| DPA-63/100-...-A | 8-digit | Lithium battery (nominal value retention 7 years) | 30 | **549403** | **CCES-P-C8-E** |

| Ordering data – Proximity sensor SME/SMT for adding counter CCES | | | | | Technical data ➔ Internet: sme-8m, smt-8m | |
|---|---|---|---|---|---|---|
| | Switching element function | Switch output | Electrical connection | Cable length [m] | Part No. | Type |
|  | N/O contact | Contacting, bipolar | Cable, 3-wire | 2.5 | **543862** | **SME-8M-DS-24V-K-2,5-OE** |
| | | PNP | Cable, 3-wire | 2.5 | **543867** | **SMT-8M-PS-24V-K-2,5-OE** |

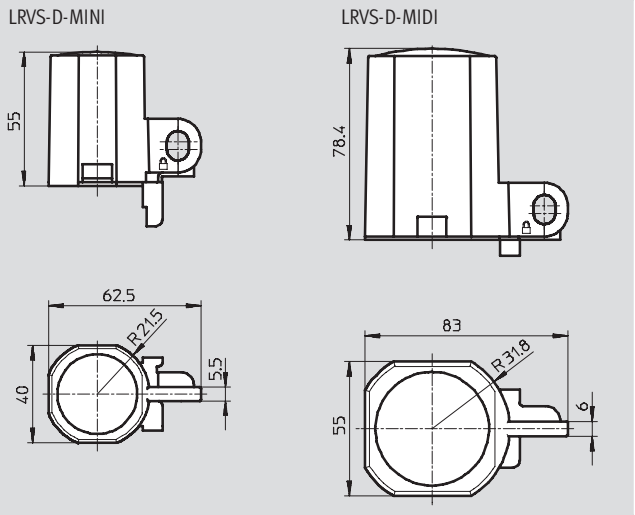
Note

Please note the following points:

- The abovementioned proximity sensor SME can be connected to the adding counter as a 2-wire switch without additional power supply.
- If using other proximity sensors, an additional power supply is needed and the clock pulse input of the adding counter must be reprogrammed from NPN to PNP.
- Screened cables must be used for cables longer than 3 m.
- The maximum permissible cable length is 30 m.

**Regulator lock LRVS**
**for DPA-63/100**

Material:
Cap: polyacetal
Lock plate: steel
Knurled nut: aluminium
Free of copper and PTFE

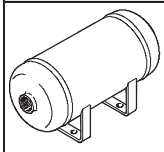



**Ordering data**

| For type | Weight [g] | Part No. | Type |
|---|---|---|---|
| DPA-63 | 40 | **193781** | **LRVS-D-MINI** |
| DPA-100 | 60 | **193782** | **LRVS-D-MIDI** |

**Ordering data**

| | Pneumatic connection | Part No. | Type |
|---|---|---|---|
| Silencer UC | | | Technical data ➔ Internet: u |
|  | M7 | **161418** | **UC-M7** |
| Silencer U-...-B | | | Technical data ➔ Internet: u |
|  | G3/8 | **6843** | **U-3/8-B** |
| | G1/2 | **6844** | **U-1/2-B** |
| Silencer U-M3 | | | Technical data ➔ Internet: u |
|  | M3 | **163978** | **U-M3** |
| Quick coupling plug KS4 | | | Technical data ➔ Internet: ks4 |
|  | Male thread | | |
| | G1/4 | **2154** | **KS4-1/4-A** |
| | G3/8 | **2155** | **KS4-3/8-A** |
| | G1/2 | **531676** | **KS4-1/2-A** |
| | Female thread | | |
| | G1/4 | **531678** | **KS4-1/4-I** |
| | G3/8 | **531679** | **KS4-3/8-I** |
| | G1/2 | **531680** | **KS4-1/2-I** |
| Padlock LRVS-D | | | |
|  | – | **193786** | **LRVS-D** |

| | Volume [l] | Part No. | Type | PU[1) ] [m] |
|---|---|---|---|---|
| Compressed air reservoir | | | Technical data ➔ Internet: vzs | |
|  | Stainless steel | | | |
| | 0.1 | **160233** | **CRVZS-0.1** | |
| | 0.4 | **160234** | **CRVZS-0.4** | |
| | 0.75 | **160235** | **CRVZS-0.75** | |
| | 2 | **160236** | **CRVZS-2** | |
| | 5 | **192159** | **CRVZS-5** | |
| | 10 | **160237** | **CRVZS-10** | |
| | 20 | **534845** | **CRVZS-20** | |
| | Standard | | | |
| | 5 | **192160** | **VZS-5-B** | |
| | 10 | **151923** | **VZS-10-B** | |
| | 20 | **192161** | **VZS-20-B** | |
| Plastic tubing P/PAN for supply pressure | | | Technical data ➔ Internet: pan | |
|  | – | **553909** | **PAN-10x1,5-BL** | **50** |
| | | **553910** | **PAN-12x1,75-BL** | **50** |
| | | **553911** | **PAN-16x2-BL** | **50** |
| | | **2235** | **P-19-SW** | **40** |
| Plastic tubing PAN-R for output pressure | | | Technical data ➔ Internet: pan-r | |
|  | – | **541676** | **PAN-R-8x1,5-SI** | **50** |
| | | **541677** | **PAN-R-10x1,9-SI** | **50** |
| | | **541678** | **PAN-R-12x2,2-SI** | **50** |
| | | **541679** | **PAN-R-16x3-SI** | **50** |

1) Packaging unit

# What must be observed when using Festo components?

Specified limit values for technical data and any specific instructions must be adhered to by the user in order to ensure recommended operating conditions.
When pneumatic components are used, the user shall ensure that they are operated using correctly prepared compressed air without aggressive media.
When Festo components are used in safety-oriented applications, the user shall ensure that all applicable national and local safety laws and regulations, for example the machine directive, together with the relevant references to standards are observed.
Unauthorised conversions or modifications to products and systems from Festo involve a safety risk and are thus not permissible.
Festo does not accept any liability for resulting damages.
You should contact Festo's advisors if one of the following apply to your application:

- The ambient conditions and conditions of use or the operating medium differ from the specified technical data.
- The product is to perform a safety function.
- A risk or safety analysis is required.
- You are unsure about the product's suitability for use in the planned application.
- You are unsure about the product's suitability for use in safety-oriented applications.