



# Braukmann D16N

## Pressure reducing valve with flanged connection

Low pressure pattern

### APPLICATION

According EN 806-2 pressure reducing valves of this type protect household water installations against excessive pressure from the supply. They can also be used for industrial or commercial applications within the range of their specification.

By installing a pressure reducing valve, pressurisation damage is avoided and water consumption is reduced.

The set pressure is also maintained constant, even when there is wide inlet pressure fluctuation.

Reduction of the operating pressure and maintaining it at a constant level minimizes flow noise in the installation.

### SPECIAL FEATURES

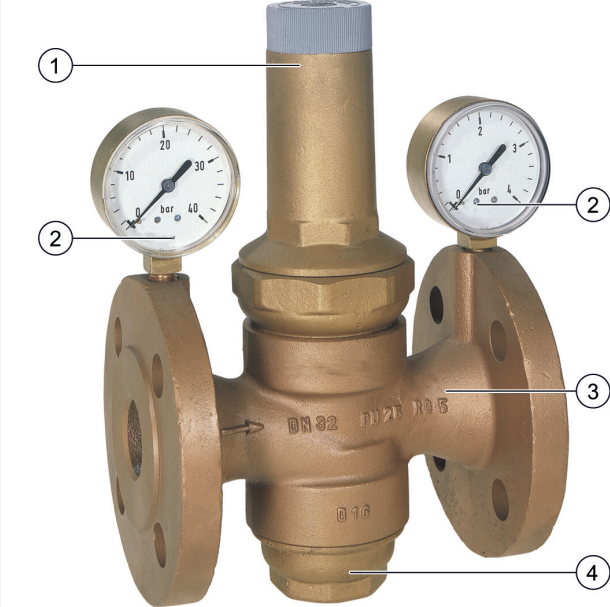
- Inlet pressure balancing – no influence on outlet pressure by fluctuating inlet pressure
- The valve insert is of high-quality synthetic material and can be fully exchanged
- The adjustment spring is not in contact with the drinking water
- Easily retrofittable to convert valve to a reverse-rinsing filter combination
- The outlet pressure is set by turning the adjustment knob
- G 1/4" pressure gauge connections on inlet and outlet
- All materials are UBA conform



### TECHNICAL DATA

| Media                              |                |
|------------------------------------|----------------|
| Medium:                            | Drinking water |
| Connections/Sizes                  |                |
| Connection sizes:                  | 1/2" - 1 1/2"  |
| Nominal sizes:                     | DN15 - DN40    |
| Pressure values                    |                |
| Max. inlet pressure:               | 25 bar         |
| Outlet pressure:                   | 1.5 - 2 bar    |
| Preset outlet pressure:            | 4 bar          |
| Nominal pressure:                  | PN 25          |
| Min. pressure drop:                | 0.5 bar        |
| Operating temperatures             |                |
| Max. operating temperature medium: | 65 °C          |

CONSTRUCTION

| Overview   | Components  | Materials                                       |
|--|---|---|
|  | 1 Spring bonnet with adjustment knob                | Brass   |
|  | 2 Pressure gauge not included (see accessories)     | Brass   |
|  | 3 Housing with PN25 flanges to DIN 86021            | Red bronze                                      |
|  | 4 Filter bowl                                       | Brass   |
|  | <b>Not depicted components:</b>                     |   |
|  | Adjustment spring                                   | Spring steel                                    |
|  | Valve insert complete with diaphragm and valve seat | High-quality synthetic material, EPDM diaphragm |
|  | Filter with 0.5 mm mesh                             | Stainless steel                                 |
|  | Seals   | EPDM  |

METHOD OF OPERATION

Spring loaded pressure reducing valves operate by means of a force equalising system. The force of a diaphragm operates against the force of an adjustment spring. If the outlet pressure and therefore diaphragm force fall because water is drawn, the then greater force of the spring causes the valve to open. The outlet pressure then increases until the forces between the diaphragm and the spring are equal again.

The inlet pressure has no influence in either opening or closing of the valve. Because of this, inlet pressure fluctuation does not influence the outlet pressure, thus providing inlet pressure balancing.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

| Parameter                       | Value                    |
|---------------------------------|--------------------------|
| Environment:                    | clean, dry and dust free |
| Min. ambient temperature:       | 5 °C                     |
| Max. ambient temperature:       | 55 °C                    |
| Min. ambient relative humidity: | 25 % *                   |
| Max. ambient relative humidity: | 85 % *                   |

\*non condensing

INSTALLATION GUIDELINES

Setup requirements

- Install in horizontal pipework with filter bowl downwards
- Install shut-off valves
- The installation location should be protected against frost and be easily accessible
  - Pressure gauge can be read off easily
  - Simplified maintenance and cleaning
- Install downstream of the filter or strainer
  - This position ensures optimum protection for the pressure reducing valve against dirt
- Provide a straight section of pipework of at least five times the nominal valve size after the pressure reducing valve (in accordance with EN 806-2)
- Requires regular maintenance in accordance with EN 806-5

## Installation Example

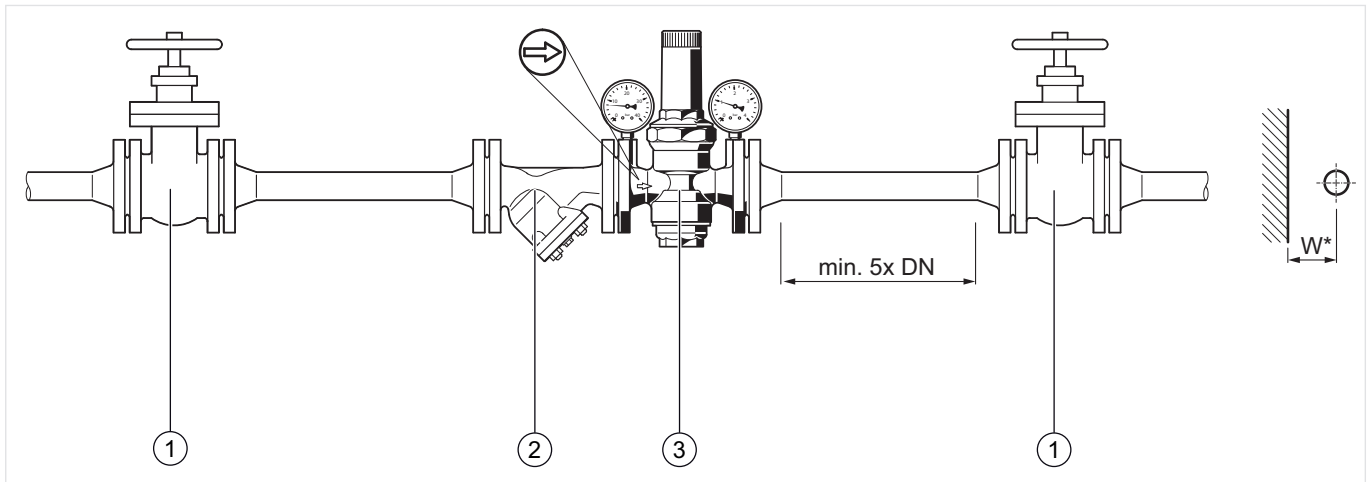


Fig. 1 Standard installation example for the pressure reducing valve

- 1 Shut-off valve
- 2 Strainer
- 3 Pressure reducing valve

| Connection sizes:    | 15 | 20 | 25 | 32 | 40 |
|----------------------|----|----|----|----|----|
| Distance in mm (W*): | 55 | 60 | 65 | 80 | 90 |

\* Required installation distances between the centerline of the pipework and the surrounding in dependency of the connection size.

## TECHNICAL CHARACTERISTICS

### kvs-Values

| Connection sizes:                    | 15  | 20  | 25  | 32   | 40   |
|--------------------------------------|-----|-----|-----|------|------|
| $k_{VS}$ -value (m <sup>3</sup> /h): | 3.0 | 3.3 | 8.5 | 10.1 | 13.5 |

### Pressure drop characteristics

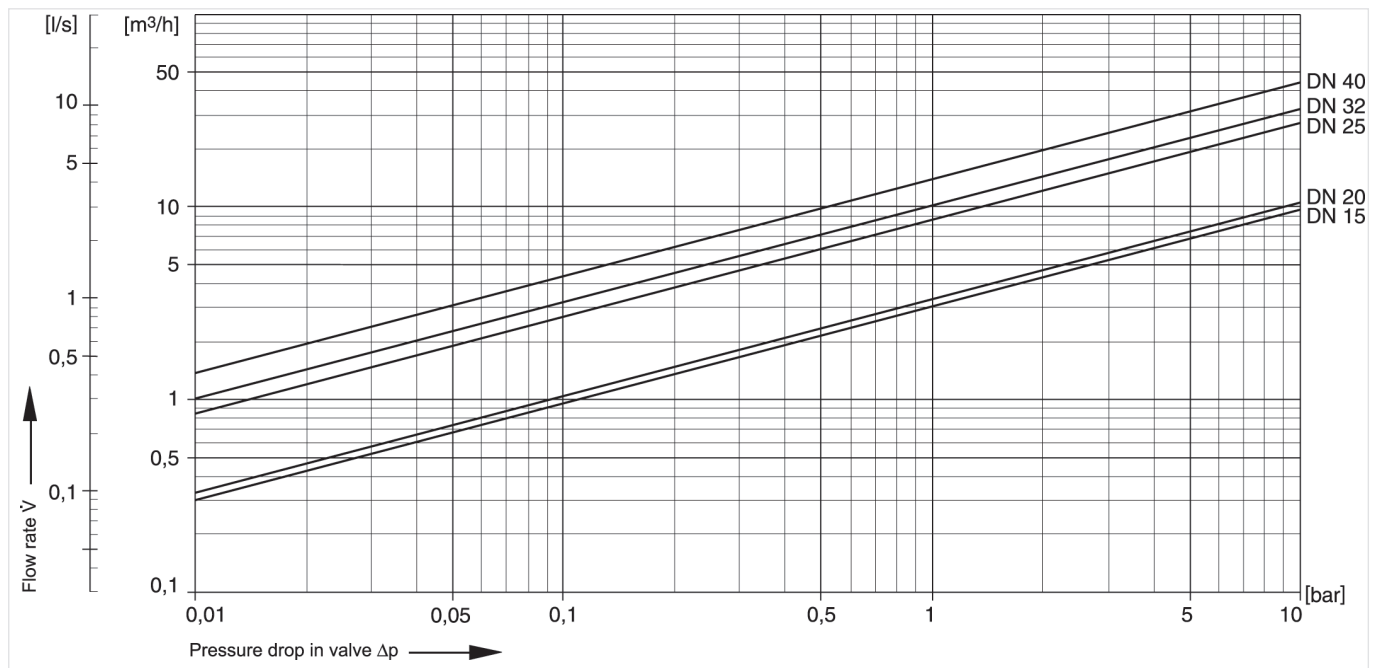
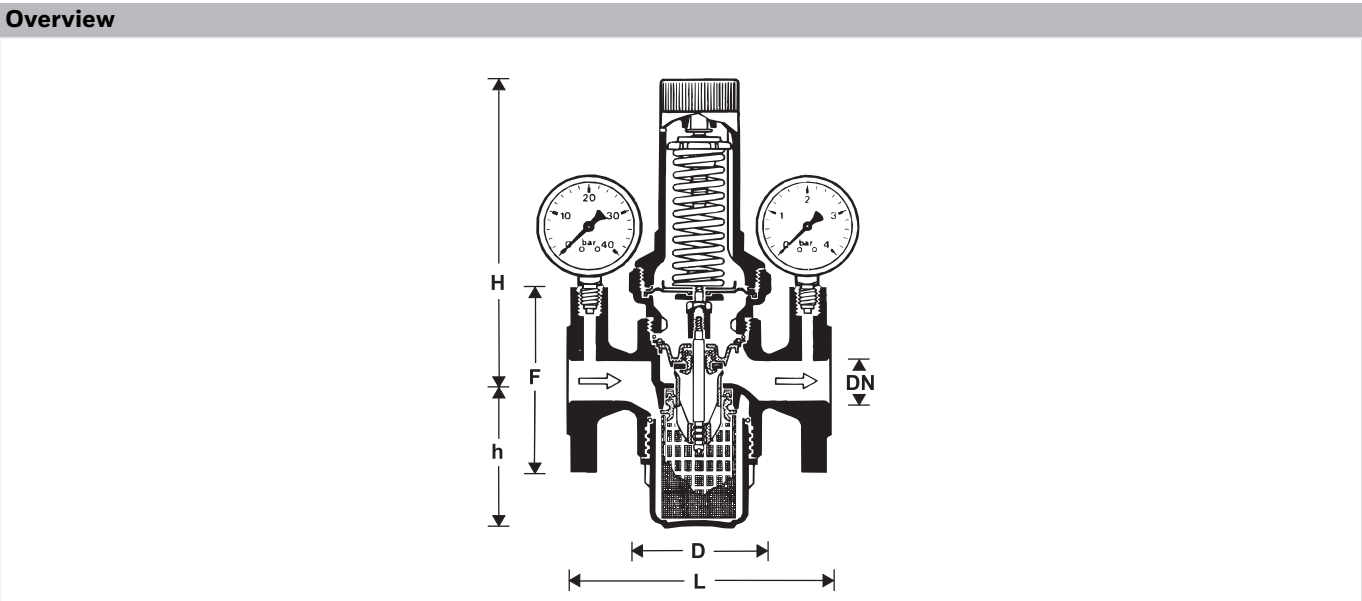


Fig. 2 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS



| Parameter         |    | Values |       |     |     |       |
|-------------------|----|--------|-------|-----|-----|-------|
| Connection sizes: | DN | 15     | 20    | 25  | 32  | 40    |
| Weight:           | kg | 3.7    | 4.4   | 6.1 | 7.9 | 10.3  |
| Dimensions:       | L  | 130    | 150   | 160 | 180 | 200   |
|                   | H  | 147.5  | 147.5 | 186 | 186 | 210.5 |
|                   | h  | 51.5   | 51.5  | 77  | 77  | 114.5 |
|                   | D  | 73     | 73    | 83  | 83  | 102   |
|                   | F  | 95     | 105   | 115 | 140 | 150   |

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options



The valve is available in the following sizes: DN15, DN20, DN25, DN32 and DN40.

- standard
- not available

|                  |   | D16N...A |
|------------------|---|----------|
| Connection type: | With PN 25 flanged connections to DIN 86021 | •        |

Note: ... = space holder for connection size  
Note: Ordering number example for 1/2" and type A valve: D16N-15A

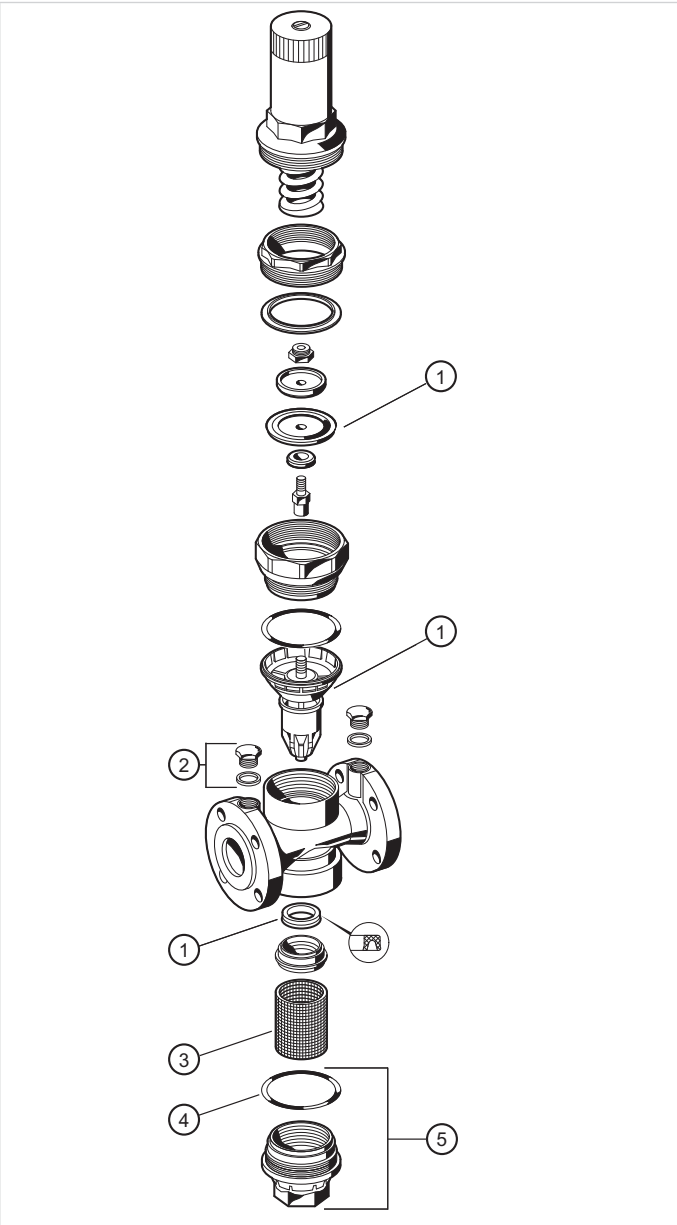
Accessories

|   | Description  | Dimension | Part No. |
|---|--|-----------|----------|
|  | <b>M38K</b> <b>Pressure gauge</b>                                  |           |          |
|   | Housing diameter 50 mm, below connection thread G 1/4"             |           |          |
|   | Note: Please indicate upper value of pressure range when ordering. |           |          |
|   | Range: 0 - 4 bar   |           | M38K-A4  |
|   | Range: 0 - 10 bar  |           | M38K-A10 |
|  |  |           |          |
|   | Range: 0 - 16 bar  |           | M38K-A16 |
|   | Range: 0 - 25 bar  |           | M38K-A25 |
|   | <b>ZR06K</b> <b>Double ring wrench</b>                             |           |          |
|   | For removal of spring bonnet and filter bowl                       |           |          |
|   |  |           | ZR06K    |

Spare Parts

Pressure Reducing Valve D16N, from 1983 onwards

Overview



| Description  | Dimension   | Part No.   |
|--|-------------|------------|
| 1 Valve insert complete  |             |            |
|  | DN15 + DN20 | D16NA-15   |
|  | DN25 + DN32 | D16NA-25   |
|  | DN40        | D16NA-40   |
| 2 Hexagon-plug with copper sealing-ring R <sup>1</sup> / <sub>4</sub> " (5 pcs.) |             |            |
|  | DN15 - DN40 | S06M-1/4   |
| 3 Replacement filter insert  |             |            |
|  | DN15, DN20  | ES16-15    |
|  | DN25 + DN32 | ES16-25    |
|  | DN40        | ES16-40    |
| 4 O-ring set (10 pcs.)   |             |            |
|  | DN15 + DN20 | 0901246    |
|  | DN25 + DN32 | 0901247    |
|  | DN40        | 0901248    |
| 5 Brass filter bowl with O-ring  |             |            |
|  | DN15 + DN20 | SM06T-1/2  |
|  | DN25 + DN32 | SM06T-1A   |
|  | DN40        | SM06T-11/2 |



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