

# FINE CONTROLS (UK) LTD



Fine Controls have been supplying process controls & instrumentation equipment since 1994, & now serves an ever expanding customer base, both in the UK & globally.

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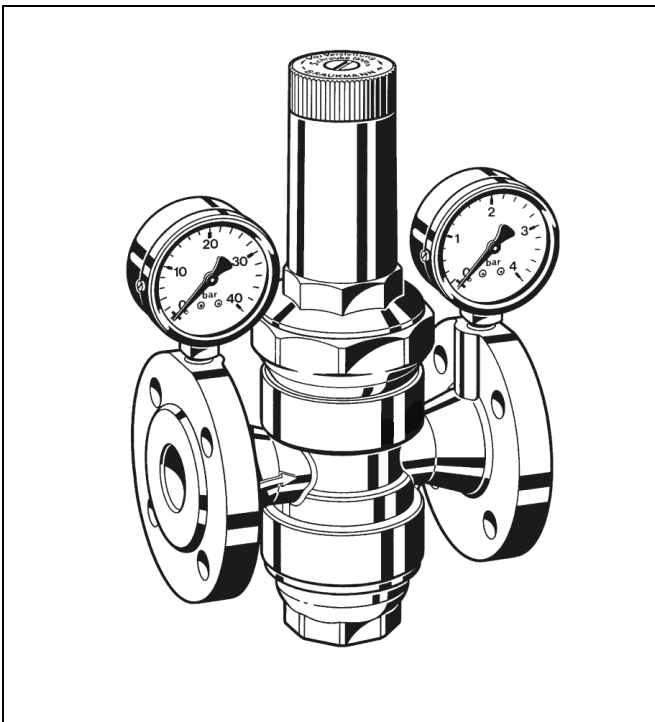


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## D16N

### Pressure reducing valve with flanged connection Low pressure pattern

#### Product specification sheet



#### Construction

The pressure reducing valve comprises:

- Housing with PN25 flanges to DIN 86021
- Valve insert complete with diaphragm and valve seat
- Spring bonnet with adjustment knob
- Filter with 0.5 mm mesh
- Filter bowl
- Adjustment spring
- Pressure gauge not included (see accessories)

#### Materials

- Red bronze housing
- High-quality synthetic material valve insert
- Brass spring bonnet
- Stainless steel filter mesh
- Brass filter bowl
- Spring steel adjustment spring
- Fibre-reinforced NBR diaphragm
- NBR seals

#### Application

Pressure reducing valves of this type protect installations against excessive pressure from the supply. They can be used for household, 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

- The outlet pressure is set by turning the adjustment knob
- G<sup>1</sup>/<sub>4</sub>" pressure gauge connections on inlet and outlet
- The adjustment spring is not in contact with the potable water
- The valve insert is of high quality synthetic material and can be fully exchanged
- Integral filter
- Easily retrofittable to convert valve to a reverse-rinsing filter combination
- Inlet pressure balancing - fluctuating inlet pressure does not influence outlet pressure

#### Range of Application

Medium Water, compressed air\* and nitrogen\* in consideration of valid standards (e.g. DIN EN 12502)

Inlet pressure max. 25 bar

Outlet pressure 0.5-2 bar

Set during manufacture at 4.0 bar outlet pressure

#### Technical Data

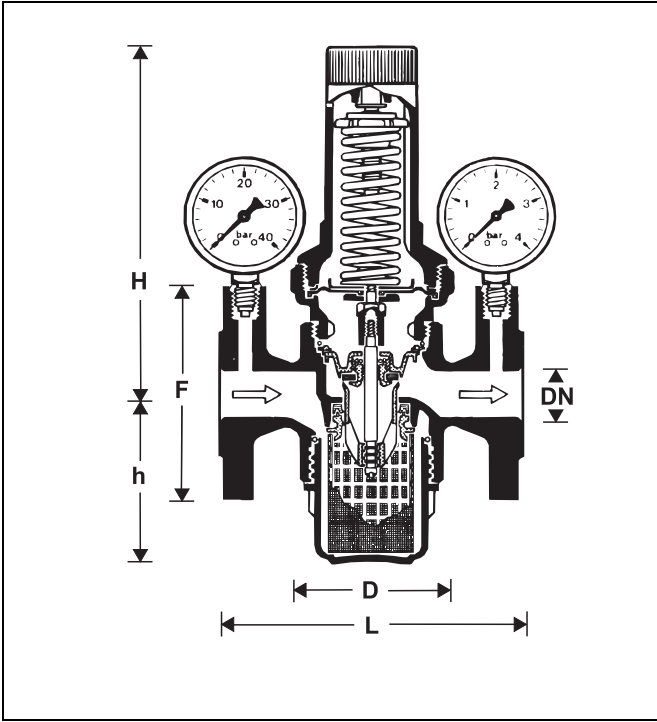
Operating temperature max. 70°C

Nominal pressure PN25

Minimum pressure drop 0,5 bar

Nominal size DN15 - DN40

\* As part of an installation being approved according to PED requirements, this product must also be certified.



**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.

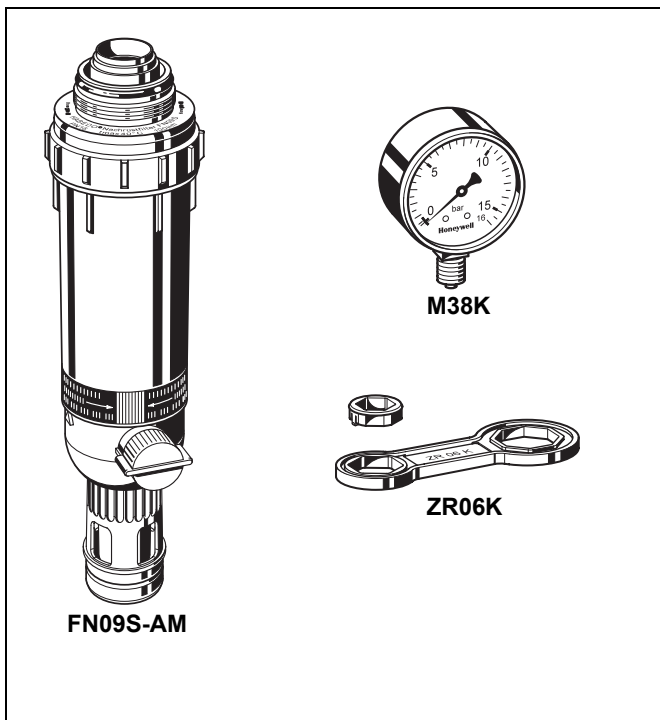
**Options**

D16N-... A = With PN 25 flanged connections to DIN 86021

Special Versions available on request



Connection size	DN	15	20	25	32	40
Weight	kg	3.7	4.4	6.1	7.9	10.3
Dimensions	mm					
	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
Kvs-value	m <sup>3</sup> /h	3.0	3.3	8.5	10.1	13.5



**Accessories**

**FN09S-AM HABEDO ® Retrofit filter**

Reverse-rinsing filter with red bronze filter cup for retro-conversion of a pressure reducing valves to a filter combination unit

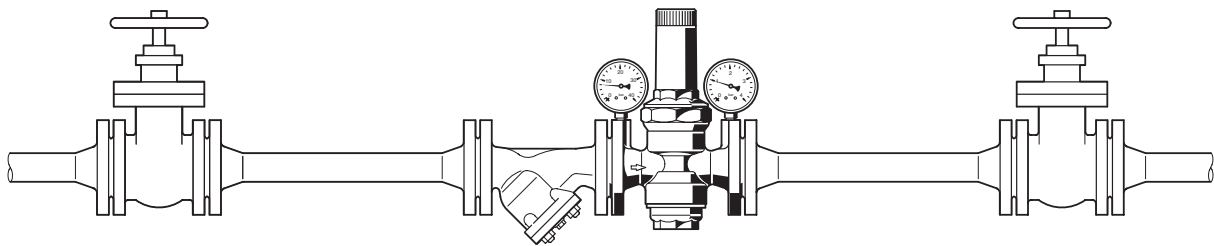
**M38K Pressure gauge**

Housing diameter 50 mm, below connection thread G<sup>1</sup>/<sub>4</sub>". Ranges: 0 - 4, 0 - 10, 0 - 16 or 0 - 25 bar. Please indicate upper value of pressure range when ordering

**ZR06K Double ring wrench**

For removal of spring bonnet and filter bowl

**Installation Example**



Connection size	DN	15	20	25	32	40
W*	mm	55	60	65	80	90

\* Minimum distance from wall to centre line of pipework

**Installation Guidelines**

- Install in horizontal pipework with filter bowl downwards.
- Install shutoff valves
- The installation location should be protected against frost and be easily accessible
  - o Pressure gauge can be read off easily
  - o Simplified maintenance and cleaning
- Install downstream of the filter or strainer
  - o 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 DIN 1988, Part 5)

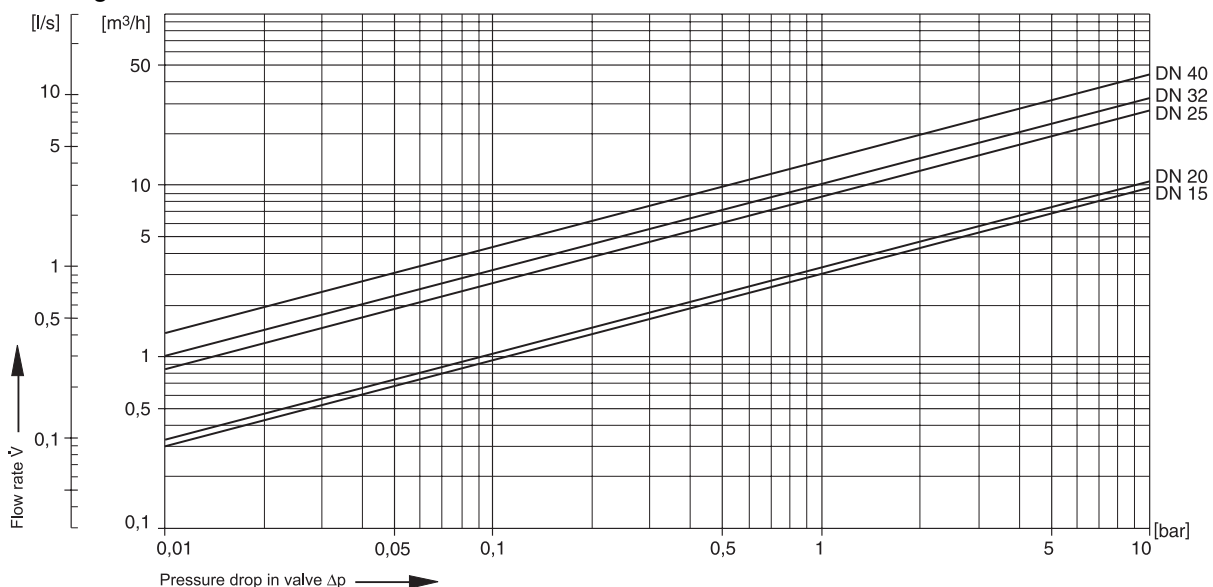
**Typical Applications**

Pressure reducing valves of this type are suitable for household, industrial and commercial applications within the range of their specifications.

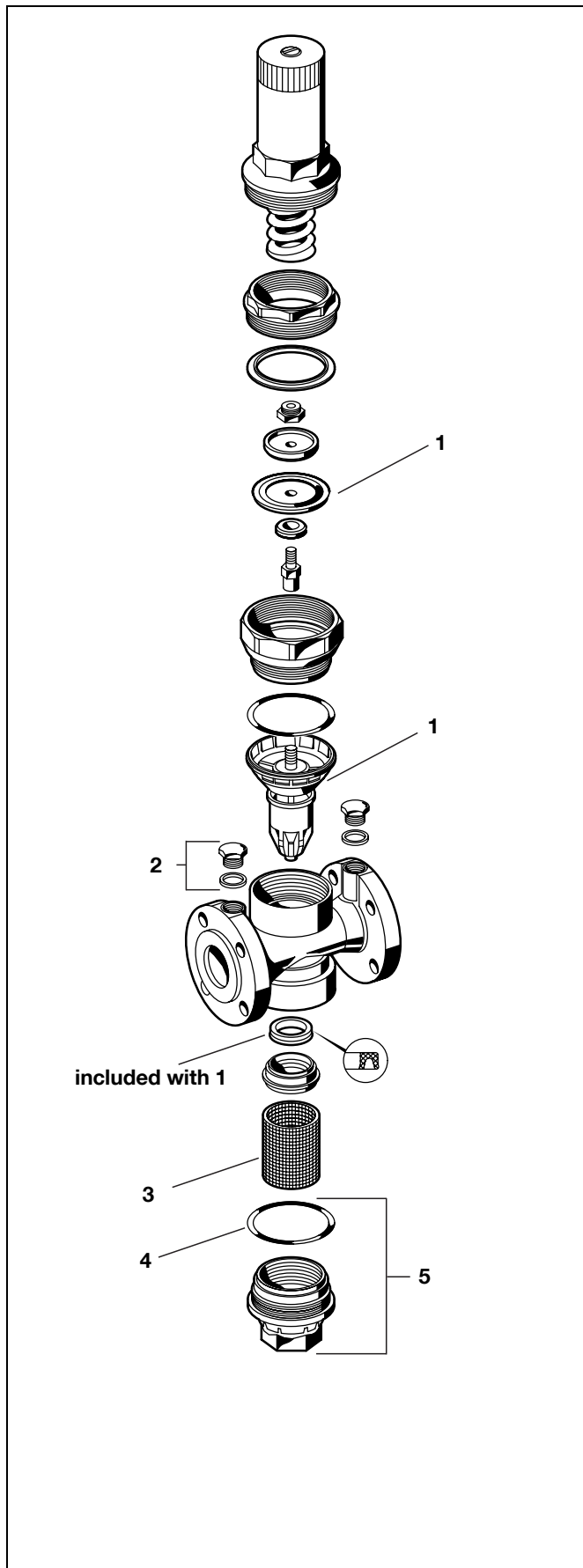
Pressure reducing valves should be installed:

- If the static pressure exceeds the maximum permissible value for the system
- If several pressure zones are required when a pressurisation system is used (pressure reducers on each storey of a building)
- If pressure fluctuations in the downstream system must be avoided
- To achieve constant inlet and outlet pressures on pumped pressure boosting systems

**Flow Diagram**



EN0H-1006GE23 R0610 • Subject to change



**Spare Parts**

**Pressure Reducing Valve D16N, from 1983 onwards**

<b>1</b>	Valve insert complete	DN 15 + 20	D16NA-15
	for D16N	DN 25 + 32	D16NA-25
		DN 40	D16NA-40
<b>2</b>	Hexagon-plug with copper sealing-ring	all	S06M-1/4
<b>3</b>	Replacement filter insert	DN 15 + 20	ES16-15
		DN 25 + 32	ES16-25
		DN 40	ES16-40
<b>4</b>	O-ring (10 pcs)	DN15 + DN20	0901246
		DN25 + DN32	0901247
		DN40	0901248
<b>5</b>	Brass filter bowl with o-ring	DN15 + DN20	SM06T-1/2
		DN25 + DN32	SM06T-1A
		DN40	SM06T-11/2

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