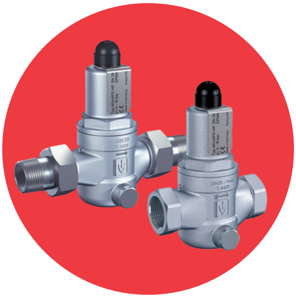
ART 481 M & F
Stainless Steel
Pressure Reducing Valve



Features

- Suitable for neutral and non-neutral liquids, air, gases, vapours and warm water
- EN 1567, ISO 3822, PED 2014/68/EU
- Marine approvals - GL, LR, EMEA, BV, ABS, RS
- ATEX approval available at extra cost
- 24 month warranty
- Test certificate to EN10204-3.1 available on request
- Available in PN25 and PN40

WRAS APPROVED PRODUCT

Technical data

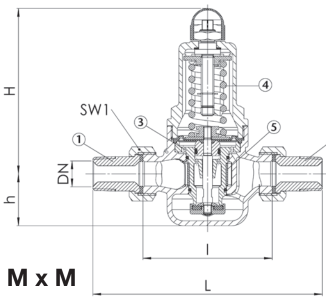
Working temp: EPDM or FKM Seal -10°C to +95°C

Standard Version
Max Inlet pressure: 40 Bar
Outlet pressure: 1 - 8 Bar

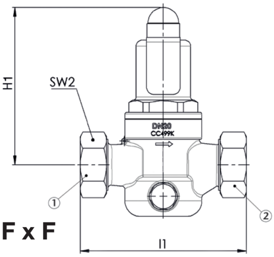
Low Pressure Version
Max Inlet pressure: 40 Bar
Outlet pressure: 0.5 - 2 Bar

High Pressure Version:
Max Inlet pressure: 40 Bar
Outlet pressure: 5 - 15 Bar

See overleaf for additional information.



M x M



F x F

N.	Part Name	Materials
1	Inlet body	Stainless Steel 1.4408
2	Outlet body	Stainless Steel 1.4408
3	Internal parts	Stainless Steel 1.4408, 1.4404
4	Spring	Spring steel with anti-rust protection 1.1200
5	Strainer	Stainless Steel 1.4404

	DN	15	20	25	32	40	50
Connection M x M		✔	✔	✔	✔	✔	✔
Connection F x F		✔	✔	✔	x	x	x
Inlet pressure LP up to	bar	25	25	25	25	25	25
Outlet pressure LP	bar	0.5-2	0.5-2	0.5-2	0.5-2	0.5-2	0.5-2
Inlet pressure SP up to	bar	40	40	40	40	40	40
Outlet pressure SP	bar	1-8	1-8	1-8	1-8	1-8	1-8
Inlet pressure HP up to	bar	40	40	40	40	40	40
Outlet pressure HP	bar	5-15	5-15	5-15	5-15	5-15	5-15
Installation dimensions	L	142	158	180	193	226	252
in mm	l	80	90	100	105	130	140
	l1	85	95	105			
	H (H1)	102 (128[1])	102 (128[1])	130 (150[1])	130 (150[1])	165 (185[1])	165 (185[1])
	h	33	33	45	45	70	70
	SW1	30	37	46	52	65	75
	SW2	28	35	43	48	57	68
Weight	kg	1.2 (1.5[1])	1.3 (1.6[1])	2.3 (2.8[1])	2.5 (3.0[1])	5.2 (5.9[1])	5.7 (6.4[1])
Coefficient of flow kvs	m^3/h	3	3.5	6.7	7.6	12.5	15

[1] for type 481mGFO-LP

V3. Dimensions in mm

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Typical Applications

- Potable water supply
- Process water supply in industrial and building technology
- Fire-fighting equipment & sprinkler systems
- Shipbuilding industry and offshore plants
- Secondary areas in the food, pharmaceutical and cosmetics industries

Valve version

m	with diaphragm	High-quality, heat-resistant moulded elastomere, fabric-reinforced diaphragm. Pressure adjustment by means of non-rising spindle. Valve insert with balanced single seat valve completely made of stainless steel.

Complete valve insert SP/HP (order code: 481 Insert-DN..-seal) available as replacement part can be exchanged without removing the valve.

Complete valve insert LP (order code: 481 LP Insert-DN..-seal) available as replacement part can be exchanged without removing the valve.

Built-in dirt trap made of stainless steel.

Mesh size:	DN 15 to DN 32	0,60 mm
	DN 40 and DN 50	0,75 mm

Medium

GF	gaseous and liquid	for water and distilled water, neutral and non-sticking liquids, compressed air and neutral gases; optionally with FPM elastomere seals for non-neutral media i.e. oils, fuels, oil-laden compressed air etc.

Type of lifting mechanism

O	without lifting device

Outlet pressure ranges

SP	Standard version	Inlet pressure: up to 40 bar	Outlet pressure: from 1 to 8 bar
HP	High-pressure version	Inlet pressure: up to 40 bar	Outlet pressure: from 5 to 15 bar
LP	Low-pressure version	Inlet pressure: up to 25 bar	Outlet pressure: from 0,5 to 2 bar

Fixed setting at a required outlet pressure against surcharge.

Seat-Seal/Diaphragm Options

Option	Materials	Type	Working Temp.
EPDM	Ethylene propylene diene	Elastomere moulded diaphragm and seals approvals according to drinking water directive	–10°C to +95°C
Against surcharge			
FKM	Fluorocarbon	Elastomere moulded diaphragm and seals	–10°C to +95°C

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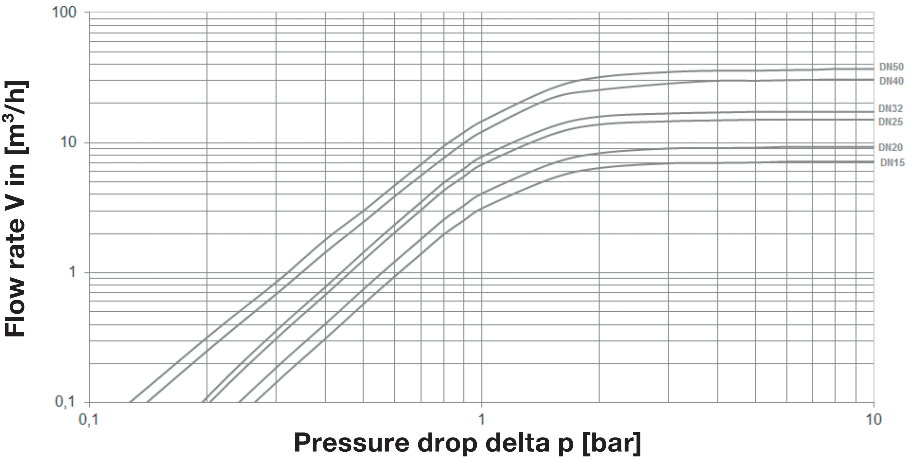
Capacity Charts

Dimensioning by pressure loss on the outlet pressure side

Flow chart water



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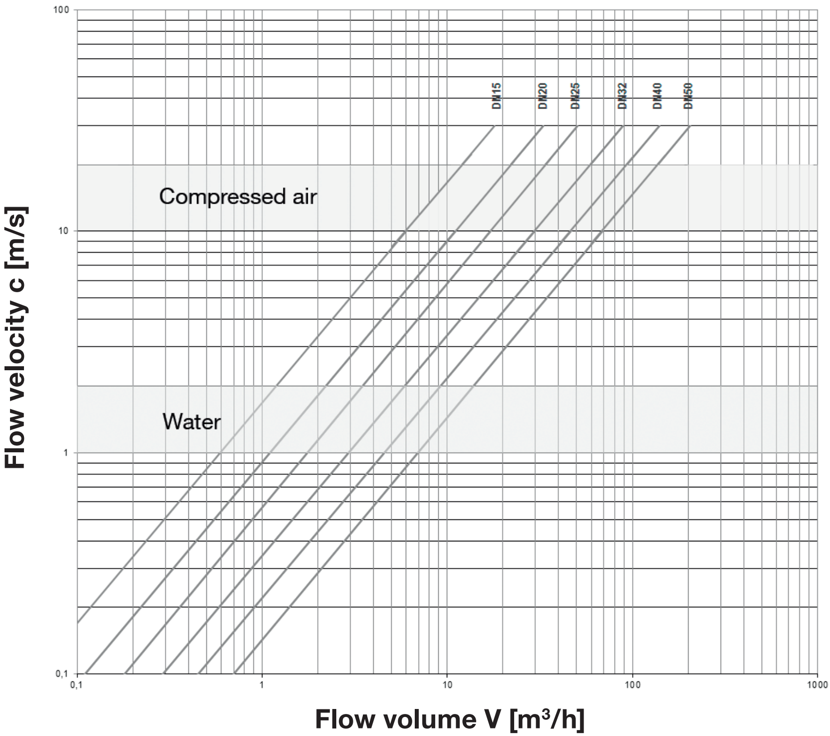
Dimensioning by flow velocity

For Liquids:
With help of the chart you can determine the nominal diameter (DN) for a given flow volume V (m^3/h). The ideal flow velocity is between 1m/s – 2m/s.

For compressed air and other gaseous media:
The usual flow velocity for compressed air is 10 - 20 m/s. For gaseous media the flow volume V should always be shown in actual cubic meters/hour.
If the flow volume is given in standard cubic meters, these should be converted into actual cubic meters before using the diagram.

$$V\,(m^3/h) = \frac{V_{Norm}\ (Nm^3/h)}{p_{absolut}\ (bar)} = \frac{V_{Norm}}{p_{\ddot{U}}+1}$$

Actual cubic meters are based on the prevailing pressure of the medium on the outlet side of the pressure reducer.



V3. Dimensions in mm