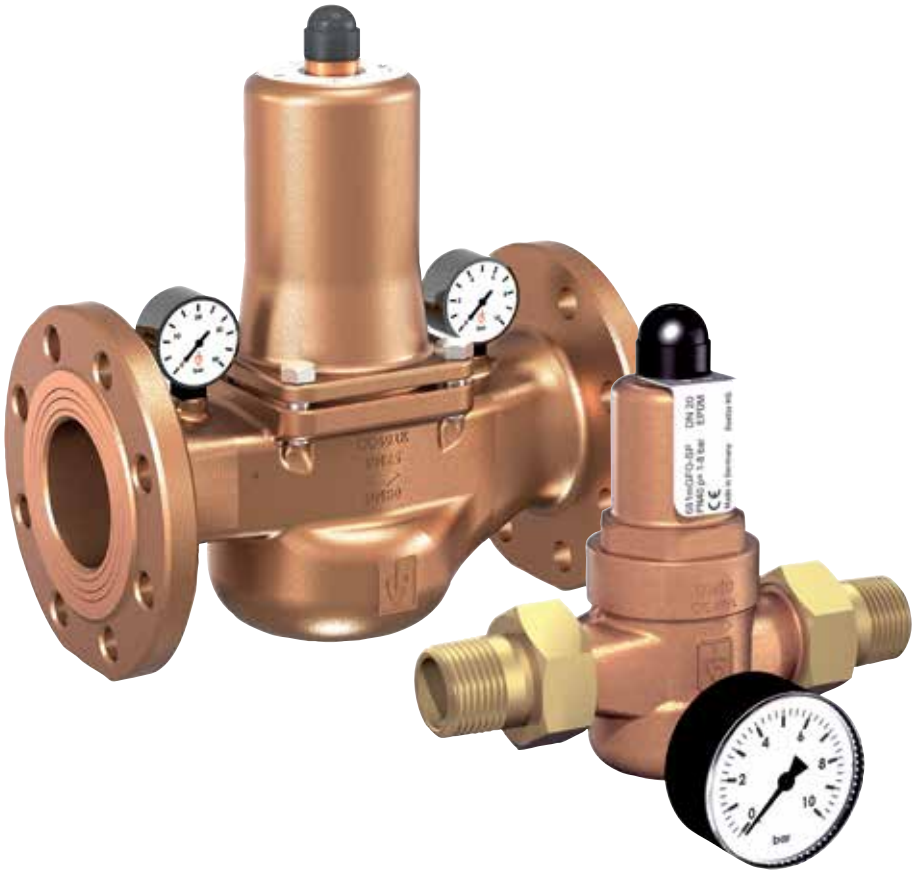
IMI PNEUMATEX

Pressoreduct HP



Pressure reducer valves

Pressure protection on the supply side in domestic, commercial and industrial systems DN15 – DN100

IMI Hydronic Engineering

Breakthrough Engineering

Pressoreduct HP

Pressure reducers are used in piping systems where, despite varying pressures on the inlet side, a certain pressure must not be exceeded on the outlet side. One manometer is included with the threaded version.

Technical description

Application:
Potable water supply according to DIN 1988
Process water supply in industrial and building technology
Snow-making equipment
Fire-fighting equipment and sprinkler systems
Shipbuilding industry and offshore plants

Functions:
Protection against extreme supply pressures.

Dimensions:
DN 15 - DN 100

Pressure:
SP Standard version
Inlet pressure:
DN 15 - 50 (PN40) up to 40 bar,
DN 65 - 100 (PN16) up to 16 bar.
Outlet pressure:
1 to 8 bar
High and low-pressure (HP and LP) versions available on request.

Temperature:
Max. admissible temperature, TS: 120 °C
Min. admissible temperature, TSmin: -20 °C

Media:
For 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.
Not suitable with steam.

Material:
Body: Gunmetal CC499K. Stainless steel version available on request.
Internal parts: Gunmetal CC499K, Stainless Steel 1.4404
Spring: Spring steel with anti-rust protection 1.1200
Seals: EPDM
Strainer: Stainless Steel 1.4404.
Mesh size DN 15 to DN 32 0,6 mm
DN 40 and up 0,75 mm

Approvals:
Constructed according to DIN EN 1567, DIN 1988, DIN EN ISO 3822 and PED 2014/68/EU.
DIN-DVGW type examination (up to 80°C)
Type approval ACS
Type approval WRAS (up to 85°C)
TR ZU 032/2013 - TR ZU 010/2011

Marking:
DN, material, and flow direction arrow. Label with technical specification, place of origin and CE.

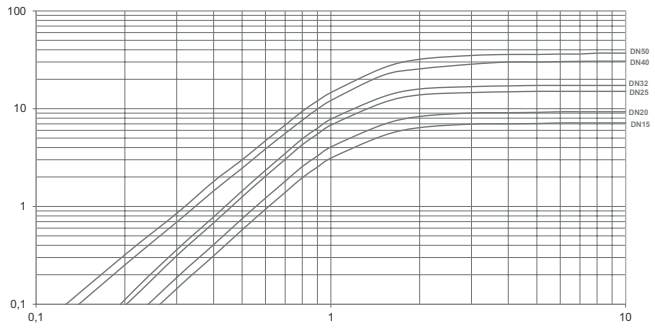
Warranty:
2-year warranty

Dimensioning

Dimensioning by pressure loss on the outlet pressure side

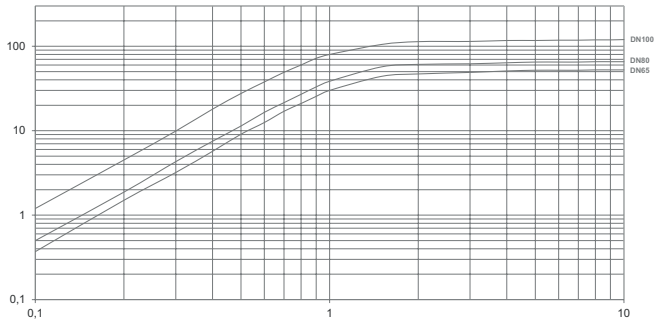
Flow chart water

DN 15 - 50 Flow rate V in [m³/h]



Pressure drop delta p [bar]

DN 65 - 100 Flow rate V in [m³/h]



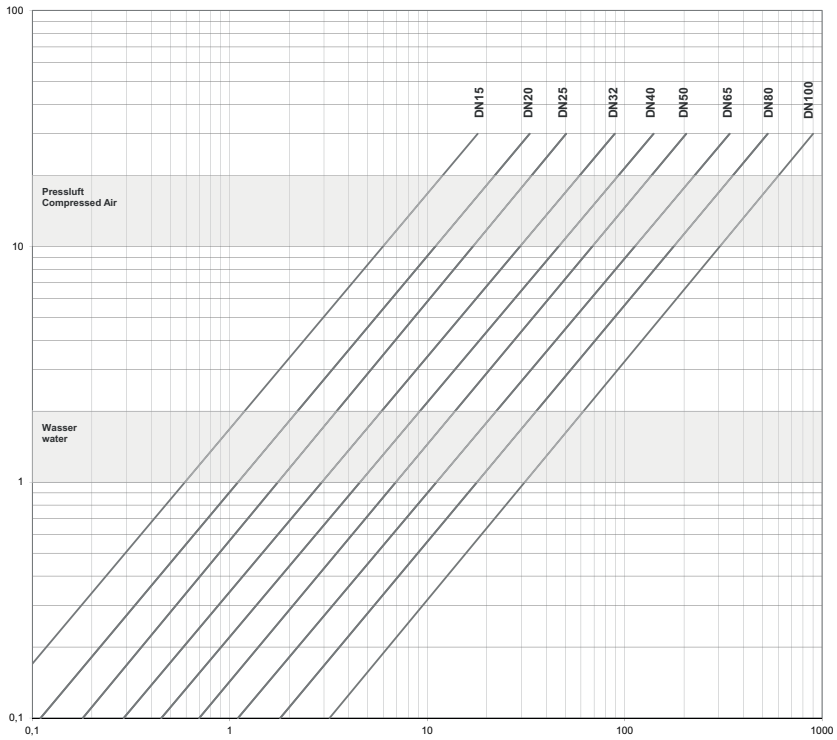
Pressure drop delta p [bar]

Dimensioning by flow velocity
For liquids:
Using this chart you can determine the nominal diameter (DN) for a given flow volume V (m³/h).
According to DVGW-guidelines (DIN 1988) a flow velocity of 2 m/s in domestic water supply systems should not be exceeded.

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

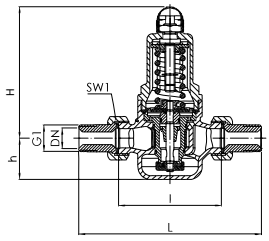
Actual cubic meter values are based on the prevailing pressure of the medium on the outlet side of the pressure reducer

Flow velocity c [m/s]



Flow volume V [m3/h]

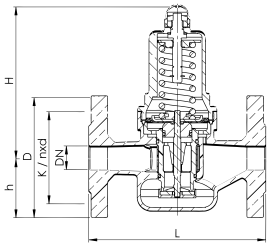
Articles



Male threads

Inlet pressure 40 bar
Outlet pressure 1-8 bar

DN	G1	L	l	h	H	m [kg]	SW1	Coefficient of flow K_{vs}** m^3/h	EAN	Article No
15	1/2	142	80	33	102	1,2	30	3		301052-00400
20	3/4	158	90	33	102	1,3	37	3,5		301052-00500
25	1	180	100	45	130	2,4	46	6,7		301052-00600
32	1 1/4	193	105	45	130	2,6	52	7,6		301052-00700
40	1 1/2	226	130	70	165	5,5	65	12,5		301052-00800
50	2	252	140	70	165	6,0	75	15		301052-00900



Flanged

Inlet pressure SP, HP up to 16 bar
Outlet pressure 1-8 bar

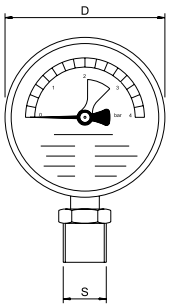
DN	D	L	m [kg]	h	H	K/nxd	Coefficient of flow K_{vs}** m3/h	EAN	Article No
65	185	290	20	89	235	145 / 4xM16	25		301052-01000
80	200	310	22	96	235	145 / 8xM16	26		301052-01100
100	200	350	40	102	320	160 / 8xM16	80		301052-01200

*) Inlet DIN EN 10226
**) The K_{vs} value was determined according to DIN EN 60534-2-3. Instructions on how to determine size and capcity are to be found in the graphs.

Accessories

Valve insert

DN	Article No.
65	301052-01010
80	301052-01110
100	301052-01210



Manometer

Display range 0-10 (0-25) bar, with green marking indicating working pressure range.

DN	Pressure Range	Article No.
15-50	0-10 bar	301052-00420
65/80	0-25 bar	301052-01020
100	0-25 bar	301052-01220