

BRONZE PRESSURE REDUCING VALVE 681

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CHARACTERISTICS

Bronze pressure reducing valves are dedicated to the pressure relief of fluids such as water, air, unloaded liquids and compatible gases.

They are WRAS approved products.

Entirely made of metal. Body and spring bonnet are made of red brass. The pressure can be adjusted via a non-rising valve stem.

The reduced pressure can be checked thanks to the pressure gauge (optional). These devices only work following the direction of the arrow on the body. With their built-in strainer, they are suitable for non-sticking, clean fluids with no particles.



AVAILABLE ITEMS

DN15 to DN50 BSP threaded connections male and male/female

Manometer ø50

LIMITS OF USE

Max. allowable pressure (PS)	25 bar
Allowable temperature (TS)	-10°C / +95 °C
Downstream pressure	1 – 8 bar

CONSTRUCTION

Item	Material
Body	Bronze CC499K
Cover	Bronze CC499K
Internal parts	Bronze CC499K Brass CW614N Stainless steel 1.4571
Pressure spring	Spring steel 1.1200
Strainer	Stainless steel 304
Diaphragm	EPDM



STANDARDS AND CERTIFICATIONS

	Standard	Notified body		Standard
97/23/EC Pressure Equipment Directive	DN15 to DN25: excluded		Drinkable water use	ACS DVGW WRAS
	DN32 to DN80: category II	TÜV 0036		
Pressure reducing valve	EN 1567			

COEFFICIENT AND FLOW RATE

DN	15	20	25	32	40	50
Kv (m ³ /h)	2.5 – 3.3	3.6 – 4.5	6.2 – 7.8	8.7 – 9.6	12 - 14	14.5 - 19
Maximum flow (m ³ /h)	7	9	16	18	30	35

Technical data given for information purpose only. May be subject to alteration without prior notice



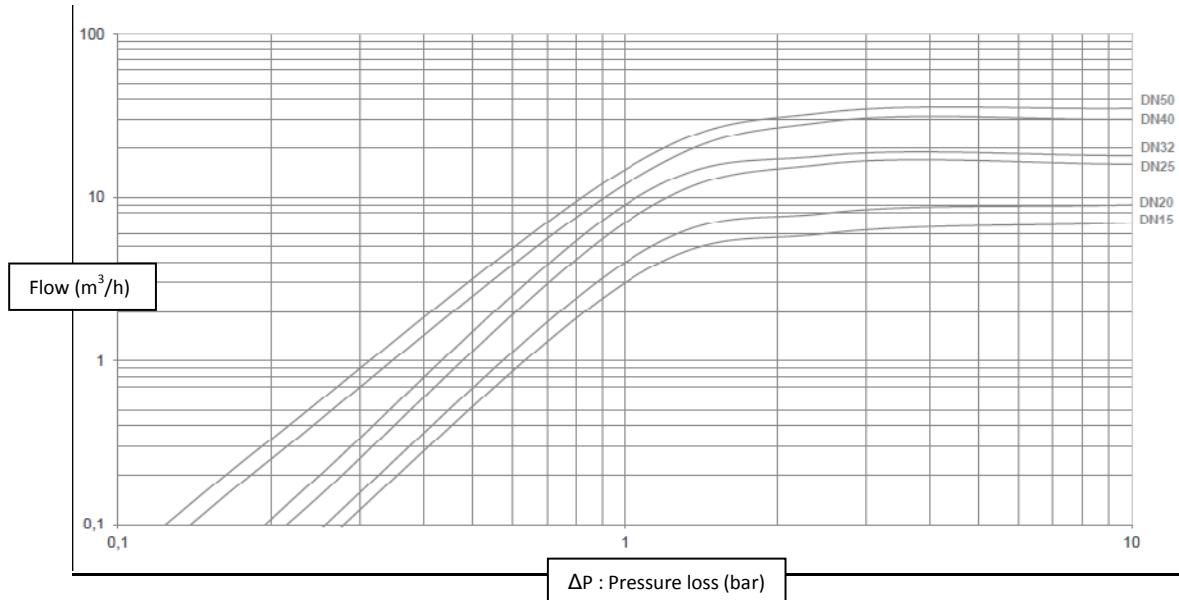
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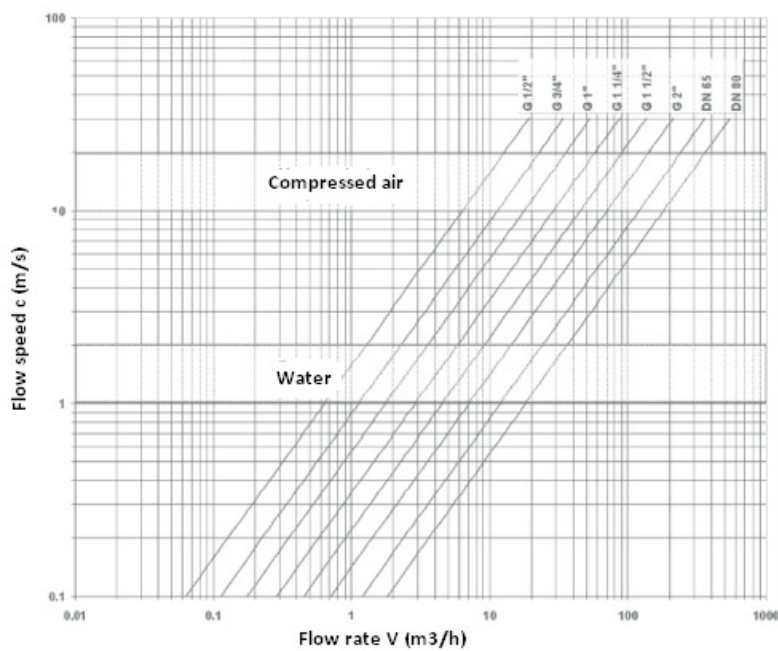
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FLOW AND PRESSURE LOSS CHART (FOR WATER)



DETERMINATION OF SIZE FOR AIR AND WATER



For water or similar liquids, do not exceed a 2 m/s flow speed.
For compressed air, choose a flow speed between 10 and 20 m/s.



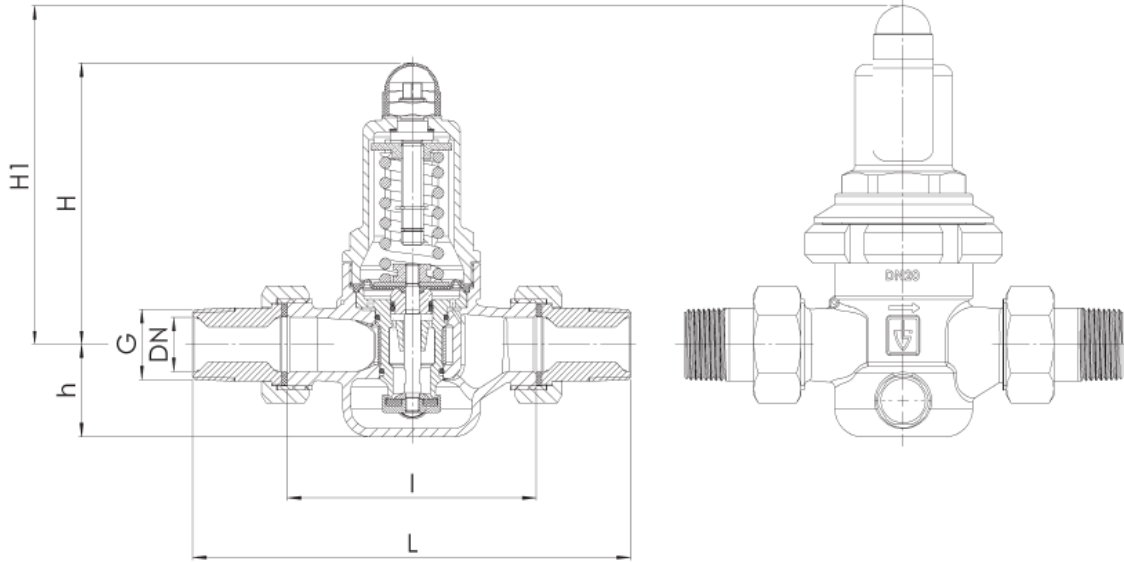
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DIMENSIONS (mm) AND WEIGHT (kg)



DN	L	I	H	H1*	h	Weight (kg)
15	142	80	102	128	33	1,2
20	158	90	102	128	33	1,3
25	180	100	130	150	45	2,4
32	193	105	130	150	45	2,6
40	226	130	165	185	70	5,5
50	252	140	165	185	70	6,0

*low pressure range

Pressure gauge connection

BSP 1/4"

Inner screen: filtration threshold

DN	Threshold (mm)
DN15 to DN32	0,6
DN40 and DN50	0,75

OPTIONS

FKM diaphragm

Upstream pressure up to 30 bar and downstream pressure 5-15 bar

Upstream pressure up to 25 bar and downstream pressure 0.5-2 bar

Mounting

Mounting position: the 681 pressure reducing valve can be mounted in all positions.

Flow direction: please follow the direction of the arrow marked on the body.

Reductions and divergent: if the 681 valve diameter is smaller than the piping one, please install a reduced connection upstream. For gas use, it is necessary to provide the valve downstream with a pipe one diameter bigger than the upstream one and to connect it with a reduced connection. The expanded gas needs a larger flow cross-section downstream than upstream.



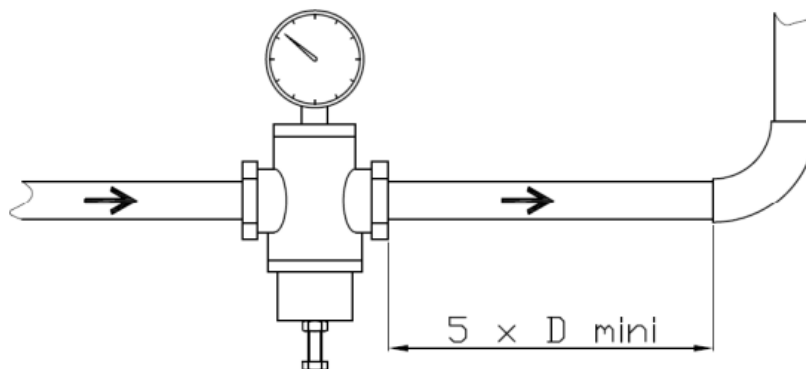
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Tranquillising length: To ensure good downstream pressure stability and reduce turbulences at the 682 valve outlet, please ensure a minimum distance before any other device or elbow of at least $5 \times DN$ length (even up to $10 \times DN$ if possible). In case of a double release, please anticipate the same spacing between both pressure reducing valves.



Upstream shut-off: Please provide for a isolating valve upstream the 681 valve, because it is not necessarily watertight at zero flow condition and do not constitute a shut-off device.

