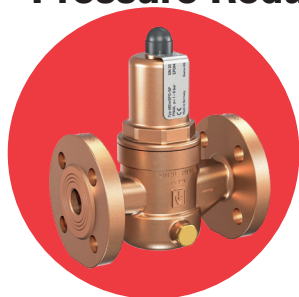


ART 682

Bronze / Gunmetal

Pressure Reducing Valve



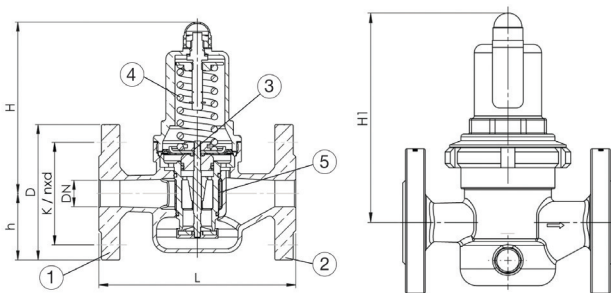
Features

- Flange connection (DIN EN 1092)
- Suitable for neutral and non-neutral liquids, air, gases, vapours and warm water
- DIN DVGW guidelines, PED 2014/68/EU
- 24 month warranty
- Gauges available on request

Technical data

Inlet pressure: Up to 40 Bar
 Outlet pressure: 0.5 to 15 Bar
 Working temp: -20°C to +120°C*

*See overleaf for additional information.



Connection	DN	15	20	25	32	40	50	65	80	100
Inlet pressure SP, HP up to	bar	40	40	40	40	40	40	40	40	16
Inlet pressure LP to	bar	25	25	25	25	25	25			
Outlet pressure	bar	0.5 - 2 1 - 8 5 - 15	0.5 - 2 1 - 8 5 - 15	0.5 - 2 1 - 8 5 - 15	0.5 - 2 1 - 8 5 - 15	0.5 - 2 1 - 8 5 - 15	0.5 - 2 1 - 8 5 - 15	1-8	1-8	1-8 5-13
Installation dimensions	D	95	105	115	140	150	165	185	200	220
in mm	L	130	150	160	180	200	230	290	310	350
	H	102	130	130	130	165	165	235	235	320
	(H1)	(128')	(150')	(150')	(150')	(185')	(185')			
	h	46	50	55	68	73	80	89	96	112
	K /	65 /	75 /	85 /	100 /	110 /	125 /	145 /	160 /	180 /
	nxd	4xM12	4xM12	4xM12	4xM16	4xM16	4xM16	8xM16	8xM16	8xM16
Weight	kg	2.8 (3.1')	4.2 (4.6')	4.7 (5.1')	5.9 (6.3')	8.6 (9.3')	10.5 (11.2')	20	22	40
Coefficient of flow kvs	m³/h	3	5.8	6.7	7.6	12.5	15	40	50	80

* for type 481mGFO-LP ²The kvs value was determined according to DIN EN 60534-2-3. Instructions on how to determine size and capacity are to be found overleaf.

N. Part Name Materials

1	Inlet body	Bronze / Gunmetal CC499K
2	Outlet body	Bronze / Gunmetal CC499K
3	Internal parts	Bronze / Gunmetal CC499K Stainless Steel 1.4404
4	Spring	Spring steel with anti-rust protection 1.1200
5	Strainer	Stainless Steel 1.4404

Typical Applications

- Protection of domestic water supply systems
- Protection of commercial and industrial plants against an excess supply pressure
- Potable water supply according to DIN 1988
- Process water supply in industrial and building technology
- Fire-fighting equipment and sprinkler systems
- Shipbuilding industry and offshore plants

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 cartridge SP/HP (order code: 482 Insert-DN...-seal) available as replacement part can be exchanged without removing the valve.

Complete valve cartridge LP (order code: 482 LP Insert-DN...-seal) available as replacement part can be exchanged without removing the valve.

Built-in dirt trap made of stainless steel.

Mesh DN 15 to DN 32 0,60 mm
size: DN 40 and DN 80 0,75 mm

Medium

GF	gaseous	for water, neutral and non-sticking liquids, compressed air and neutral gases;
	and liquid	optionally with FPM elastomere seals for non-neutral media i.e. oils, fuels, oil-laden compressed air etc. Not suitable with steam.

Type of lifting mechanism

O	without lifting device
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Outlet pressure ranges

SP	Standard version	Inlet pressure: up to 40 bar	Outlet pressure: from 1 to 8 bar
HP	High-pressure version (not for DN65 and DN80)	Inlet pressure: up to 40 bar	Outlet pressure: from 5 to 15 bar
LP	Low-pressure version (not for DN65, DN80 and DN100)	Inlet pressure: up to 25 bar	Outlet pressure: from 0,5 to 2 bar

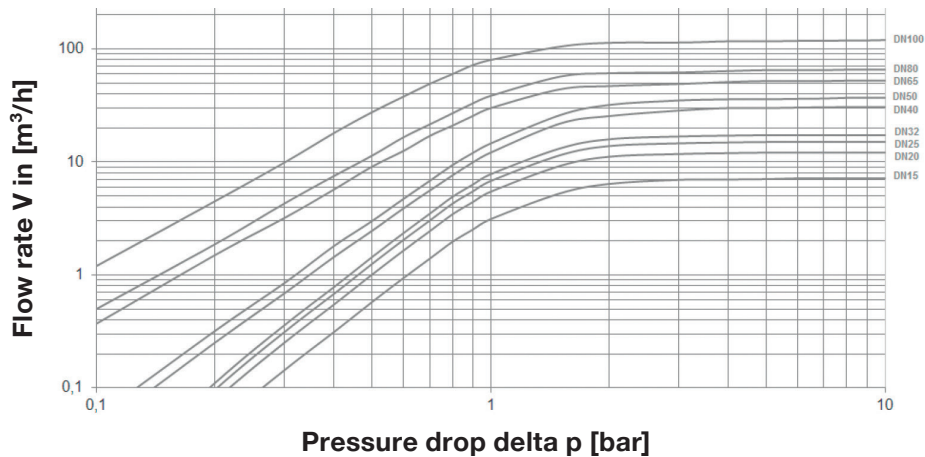
Seal Options

Option		Materials	Type	Working Temp.
EPDM	Ethylenepropylenediene	Elastomere moulded diaphragm and seals approvals according to drinking water directive		-20°C to +120°C (up to 8 bar outlet pressure)
				-20°C to +95°C (from 8 bar outlet pressure)
FKM	Fluorocarbon	Elastomere moulded diaphragm and seals		-10°C to +120°C (up to 8 bar outlet pressure)
				-10°C to +95°C (from 8 bar outlet pressure)

Capacity Charts

Dimensioning by pressure loss on the outlet pressure side

Flow chart water



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). According to DVGW-guidelines (DIN 1988) a flow velocity of 2 m/s in domestic water supply systems should not be exceeded.

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.

$$V (\text{m}^3/\text{h}) = \frac{V_{\text{Norm}} (\text{Nm}^3/\text{h})}{p_{\text{absolut}} (\text{bar})} = \frac{V_{\text{Norm}}}{p_0 + 1}$$

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

