

ART 682

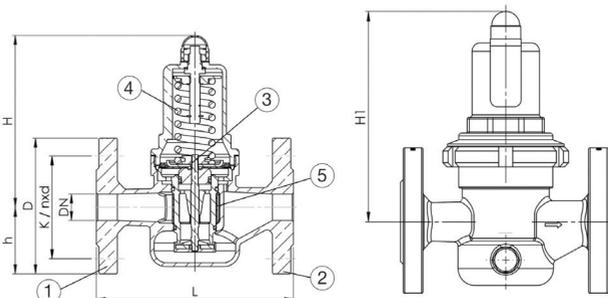
Bronze / Gunmetal

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
- Available in PN16 and PN40



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	65	80	100
Inlet pressure LP up to	bar	16/25	16/25	16/25	16/25	16/25	16/25	-	-	-	-
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	16/40	16/40	16/40	16/40	16/40	16/40	16	40	16/40	16
Outlet pressure SP	bar	1 - 8	1 - 8	1 - 8	1 - 8	1 - 8	1 - 8	1-8	1-8	1-8	1-8
Inlet pressure HP up to	bar	16/40	16/40	16/40	16/40	16/40	16/40	-	-	-	-
Outlet pressure HP	bar	5 - 15	5 - 15	5 - 15	5 - 15	5 - 15	5 - 15	-	-	-	-
Installation dimensions	D	95	105	115	140	150	165	185	185	200	220
in mm	L	130	150	160	180	200	230	290	290	310	350
	H	102	130	130	130	165	165	235	235	235	320
	(H1)	(128 ¹)	(150 ¹)	(150 ¹)	(150 ¹)	(185 ¹)	(185 ¹)	235	235	235	(340 ³)
	h	46	50	55	68	73	80	89		96	112
	K/	65 /	75 /	85 /	100 /	110 /	125 /	145 /	145 /	160 /	180 /
	nxd	4xM12	4xM12	4xM12	4xM16	4xM16	4xM16	4xM16	8xM16	8xM16	8xM16
Weight	kg	2.8	4.2	4.7	5.9	8.6	10.5	20	20	22	40
		(3.1 ¹)	(4.6 ¹)	(5.1 ¹)	(6.3 ¹)	(9.3 ¹)	(11.2 ¹)	20	20	22	(43 ³)
Coefficient of flow kvs	m ³ /h	3	5.8	6.7	7.6	12.5	15	25	25	26	80

¹ for type 682mGFO-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. ³ Piston Version.

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 and liquid 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.

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 (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

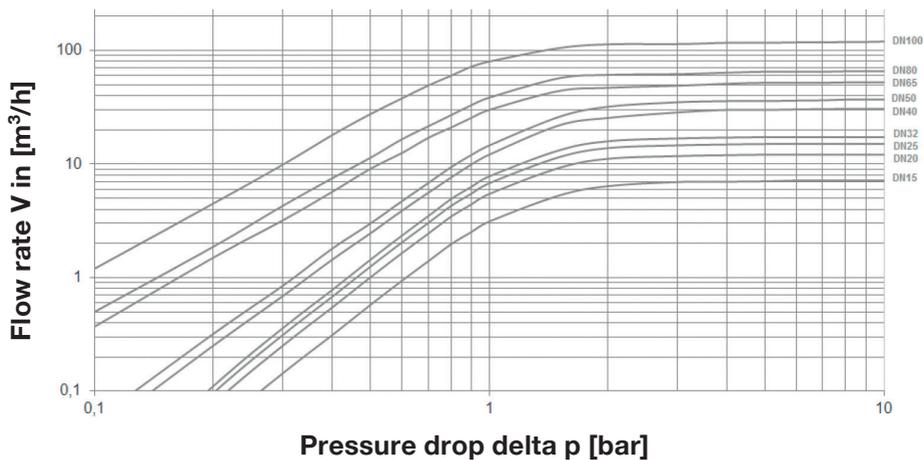
Seal Options

	Option	Materials	Type	Working Temp.
EPDM	Ethylene propylene diene	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.

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

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

