

682
Bronze
Pressure Reducing Valve
For Water, Air & Neutral Gases
Direct Acting
Flanged PN16 or PN40



The 682 is an extremely sturdy pressure reducing valve which is suitable for water up to 95°C, compressed air, neutral gas, neutral and non-sticking liquids. Used in domestic water supply systems as well as commercial and industrial plants, this is a versatile valve suitable for many duties.

The 682 has an integral filter which prevents debris from entering the valve which may affect its performance.

The valve has 1/4" BSP pressure gauge ports on both sides so that the pressure can be accurately monitored and adjusted.

Approvals, Features & Benefits

- WRAS (EPDM up to 85°C only)
- ACS & DVGW (EPDM up to 80°C only)
- Direct acting
- Quiet operation
- Economical & efficient
- Pressure gauge port
- Can be installed in any position

Pressure & Temperature

Max upstream pressure:-
682-SP : 16 or 40 bar
682-HP : 16 or 40 bar (DN15-DN50 only)
682-LP : 16 or 25 bar (DN15-DN50 only)

Downstream pressure range:-
682-SP : 1 to 8 bar
682-HP : 5 to 15 bar (DN15-DN50 only)
682-LP : 0.5 to 2 bar (DN15-DN50 only)

Temperature range:-
EPDM (Standard) : -10°C to 120°C*
FKM : -10°C to 120°C*
* 95°C for outlet pressures over 8 bar

DN	15	20	25	32	40	50	65	80	100
Flange	PN40	PN40	PN40	PN40	PN40	PN40	PN40	PN40	PN16
L	130	150	160	180	200	230	290	310	350
h	46	50	55	68	73	80	89	96	112
H	102	130	130	130	165	165	235	235	320 (340)
H1 (LP Version)**	128	150	150	150	185	185	-	-	-
H2	124	161	161	161	198	198	-	-	-
H3 (LP Version)	150	181	181	181	218	218	-	-	-
D	95	105	115	140	150	165	185	200	220
K (PCD)	65	75	85	100	110	125	145	160	180
nxd (Flange Bolts)	4 x M12	4 x M12	4 x M12	4 x M16	4 x M16	4 x M16	8 x M16	8 x M16	8 x M16
G1 (Inlet Gauge Port BSP)	1/4	1/4	1/4	1/4	1/4	1/4	1/4***	1/4***	1/4***
Strainer Mesh (mm)	0.60	0.60	0.60	0.60	0.75	0.75	0.75	0.75	0.75
Flow K_{vs} (m³/h)¹	3	5.8	6.7	7.6	12.5	15	40	50	90
Weight Kg**	3	4.5	5	6	9	11	20	22	40 (43)

** Figures in brackets for HP version *** Supplied with inlet & outlet port

¹ The K_{vs} value was determined according to DIN EN 60534-2-3. Instructions on how to determine size and capacity are to be found on following page.

MATERIALS	
Inlet Body	Bronze (CC499K)
Outlet Body	Bronze (CC499K)
Internal Parts	Bronze (CC499K) & Stainless Steel (316L)
Spring	Steel (Anti-rust protection)
Strainer	Stainless Steel (316L)
Seals	EPDM (Standard) • FKM

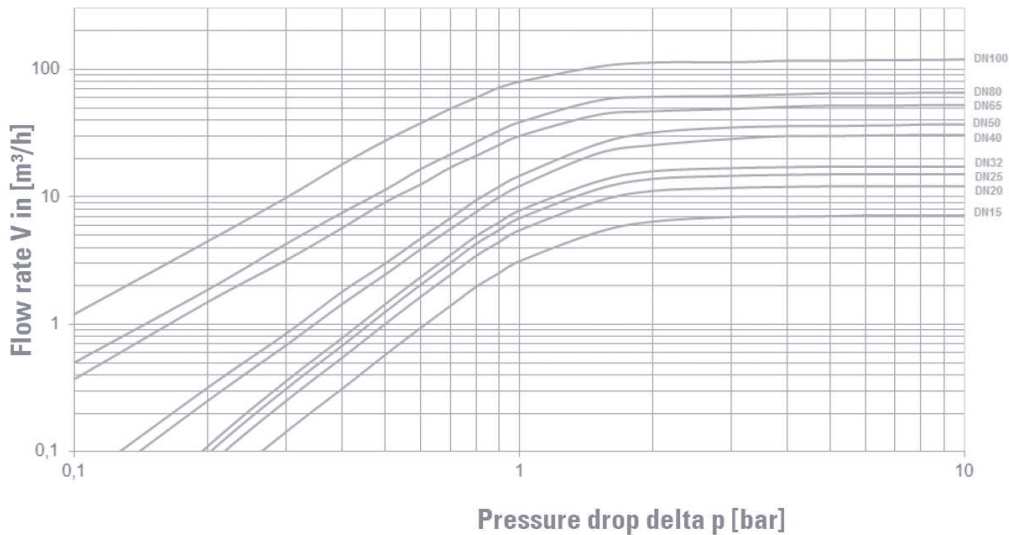
OPTIONS	
Hand Wheel	For tool free adjustment
Type Approval	DNV-GL • Lloyds • ABS • BV • RMRS • RINA
FKM Seals	-10°C to 120°C (not WRAS approved)
Complete Valve Insert Replacement	Can be exchanged without removing the valve
Pressure Gauges	63mm dial 1/4" BSP connection - various pressure ranges

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Capacity Charts/Sizing

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 (m³/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.

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

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

