

→ Series 682



Pressure gauges not included

■ SUITABLE FOR

Liquids	neutral	
Air, gases and vapours	neutral	
Warm water		

■ EXAMPLES OF USE

For the protection of:
 - domestic water supply systems
 - commercial and industrial plants
 against an excess supply pressure.
 Pressure reducers are used, if within a piping system despite of varying pressures on the inlet side a certain pressure must not be exceeded on the outlet side.

- potable water supply according to DIN 1988
- process water supply in industrial- and building technology applications
- fire-fighting equipment and sprinkler systems
- shipbuilding industry and offshore plants

■ APPROVALS

DIN-DVGW type examination	
Type approval ACS	
Type approval WRAS	
GOST-R	
Requirements	
DIN DVGW guidelines	
DIN EN 1567	
DIN 1988	
DIN EN ISO 3822	
PED 97/23/EC	
Classification society	
Germanischer Lloyd	GL
Lloyd's Register EMEA	LR EMEA
American Bureau of Shipping	ABS
Bureau Veritas	BV
Russian Maritime Register of Shipping	RS



■ MATERIAL



■ SPECIFICATION



DN 20 to DN 100 - 10°C to + 95°C

Inlet pressure:
up to 30 bar
Outlet pressure:
0,5 to 15 bar
depending on version

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Gunmetal	CC499K	CC499K
Outlet body	Gunmetal	CC499K	CC499K
Internal parts	Gunmetal	CC499K	CC499K
	Brass	CW614N	CW614N
	Stainless Steel	1.4404	316 L
Spring	Spring steel with anti-rust protection	1.1200	ASTM A228
Strainer	Stainless Steel	1.4404	316 L

■ 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 fully balanced valve for DN 20 to DN 50 made of gunmetal / brass and for DN 65 and DN 80 made completely of stainless steel.
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Complete valve insert SP/HP (order code: 682 Insert-DN..-seal) available as replacement part can be exchanged without removing the valve.

Complete valve insert LP (order code: 682 LP Insert-DN..-seal) available as replacement part can be exchanged without removing the valve.

Built-in dirt trap made of stainless steel.

Mesh size:	DN 20 to DN 32	0,60 mm
	DN 40 to DN 100	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.
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■ TYPE OF LIFTING MECHANISM

0	without lifting device
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■ OUTLET PRESSURE RANGES

SP	Standard version	Inlet pressure: up to 16 bar (PN 16) or 25 bar (PN 40)	Outlet pressure: from 1 to 8 bar (DVGW 6 bar)
HP	High-pressure version (not for DN 65, DN 80 and DN 100)	Inlet pressure: up to 16 bar (PN 16) or 30 bar (PN 40)	Outlet pressure: from 5 to 15 bar
LP	Low-pressure version (not for DN 65, DN 80 and DN 100)	Inlet pressure: up to 16 bar (PN 16) or 25 bar (PN 40)	Outlet pressure: from 0,5 to 2 bar

Fixed setting at a required outlet pressure against surcharge.

■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN	20	25	32	40	50	65	80	100
Inlet / Outlet	20/20	25/25	32/32	40/40	50/50	65/65	80/80	100/100
	■	■	■	■	■	■	■	■

■ TYPE OF CONNECTION INLET / OUTLET FLANGE CONNECTIONS

FL / FL	Standard	Flange connection / flange connection	DIN EN 1092 / DIN EN 1092
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■ SEALS

EPDM	Ethylene propylene diene	Elastomere moulded diaphragm and seals approvals according to drinking water directive	-10°C to +95°C
Against surcharge			
FKM	Fluorocarbon	Elastomere moulded diaphragm and seals	-10°C to +95°C

■ OPTIONS

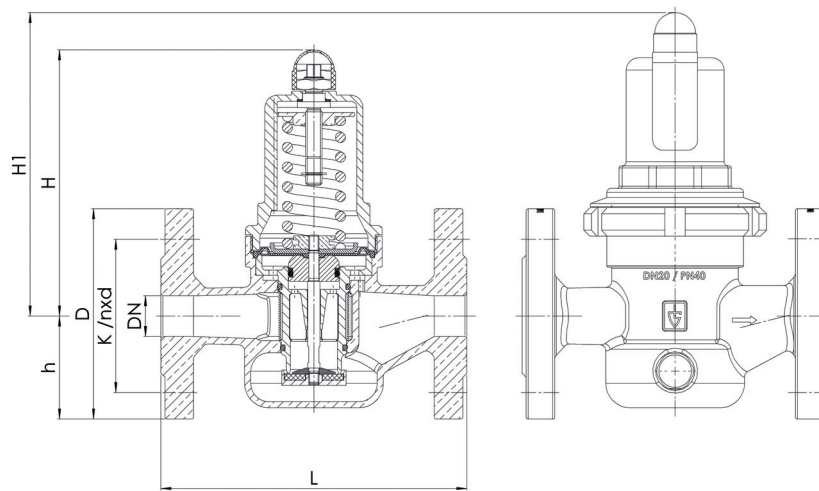
PN 16	nominal pressure rating
PN 40	nominal pressure rating
Against surcharge	
Pressure gauges 33, 34, 35, 36, 39 and 40	Chapter Accessories
Valve insert SP/HP completely made of stainless steel	Order code: 482 Insert-DN..seal
Valve insert LP completely made of stainless steel	Order code: 482 LP Insert-DN..seal
Servicepack: (seal/ diaphragm) DN65- DN100	Order code: 682 Servicepack-DN...seal

NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 682: Connection, installation dimensions, ranges of adjustment										
Connection		DN20 PN16 / PN40	DN25 PN16 / PN40	DN32 PN16 / PN40	DN40 PN16 / PN40	DN50 PN16 / PN40	DN65 PN16	DN65 PN40	DN80 PN16 / PN40	DN100 PN16
Inlet pressure SP, LP to	bar	16 / 25	16 / 25	16 / 25	16 / 25	16 / 25	16	25	16 / 25	16
Inlet pressure HP to	bar	30	30	30	30	30				
Outlet pressure	bar	0,5 – 2	0,5 – 2	0,5 – 2	0,5 – 2	0,5 – 2	1 – 8	1 – 8	1 – 8	1 – 8
		1 – 8	1 – 8	1 – 8	1 – 8	1 – 8				
		5 – 15	5 – 15	5 – 15	5 – 15	5 – 15				
Installation dimensions in mm	D	105	115	140	150	165	185	185	200	220
	L	150	160	180	200	230	290	290	310	350
	H (H1)	130 (150 ¹)	130 (150 ¹)	130 (150 ¹)	165 (185 ¹)	165 (185 ¹)	235	235	235	320
	h	50	55	68	73	80	89	89	96	112
	K / nxd	75 / 4xM12	85 / 4xM12	100 / 4xM16	110 / 4xM16	125 / 4xM16	145 / 4xM16	145 / 8xM16	160 / 8xM16	180 / 8xM16
Weight	kg	4,2	4,7	5,9	8,6	10,5	20	20	22	40
Kv value	m ³ /h	4,5 – 5,0	6,2 – 7,8	8,7 – 9,6	12,0 – 14,0	14,5 – 19,0	30,0 – 47,0	30,0 – 47,0	44,0 – 60,0	75,0 – 85,0
Max. capacity (water)	m ³ /h	10	16	18	30	35	60	60	68	120

¹for type 682mGFO-LP

MAIN DIMENSIONS, INSTALLATION DIMENSIONS



INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Lifting device	Outlet pressure	Nominal diameter DN	Connection type		Connection size		Seal	Options	Optional: fixed setting	Quantity
						Inlet	Outlet	Inlet	Outlet				
682	m	GF	0	SP	80	FL	FL	80	80	EPDM	PN40	3,0	1
682	m	GF	0										
682	m	GF	0										
682	m	GF	0										

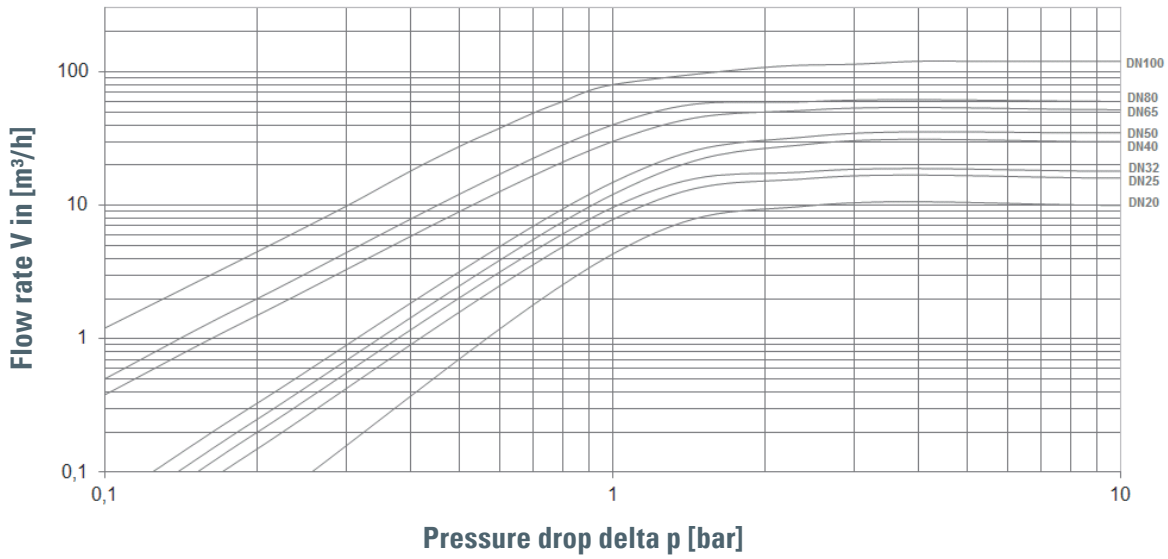
In this table you can configure a valve according to your individual requirements (similar to the *example* shown, which should be deleted before you enter your own data). Please complete the table by hand using the abbreviations in this datasheet and then fax it to: +49(0)7141.4889488
Please do not forget to add your personal data so that our sales team can contact you.

Name _____
 First Name _____
 Company _____
 Telephone _____
 E-Mail _____

Series 682:

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.

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

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

