Pressure Reducing Valve DMV 755

set range: 1,0 - 9,0 bar




Advantage
- pressure setting possible at any time, also during operation
- high reproducibility of the set pressure
- high level of operating safety and long service life
- constant, low vibration control
- low-maintenance
- hermetically sealed by valve diaphragm with formed sealing rings
- considerably shortened face-to-face dimension with injection moulded threaded neck according to DIN 8063
- metal inserts in the valve housing allow the valves to be directly fitted to mounting sets, the movability of the union nuts on the valves made of PVC-U, PP and PVDF remains unaffected

Application
- chemical plants
- industrial plants
- water treatment

Utilisation
- The pressure reducing valve which is directly controlled by the medium, is used in technical processing plants for reducing primary pressures to system dependent working pressures and for controlled maintenance of working pressures.

Valve Function
- The opened valve is in equilibrium between the inlet pressure (primary side) and the lower working pressure (secondary side). If the working pressure goes above or below the desired value, the large area membrane is lifted against the spring force or pressed down by the spring force. The valve starts closing or opening until the equilibrium condition is reached again, i.e. the working pressure remains constant independent of an increasing or decreasing inlet pressure (as long as the inlet pressure › working pressure).

Valve Setting
- Set or adjust the working pressure to be kept constant at the adjustment screw with the aid of pressure gauges (ASV diaphragm pressure gauge guard with pressure gauge, type MDM 902) in the pipe system after removing the protection cap. The adjustment screw is secured by a counter nut and can be sealed against unauthorized adjustment, if necessary.
- There are two types of application:
  · secondary pressure - system closed or
  · secondary pressure - system dynamically flowing

Flow Media
- Technically pure, neutral and aggressive fluids, provided that the selected valve materials coming into contact with the media are resistant at the operating temperature according to the ASV resistance guide.
- For nitric acid or sulfuric acid please specify the precise operating conditions of the application.

Fluid Temperature
- see pressure/temperature diagram

Operating Pressure
- see pressure/temperature diagram

Set Range
- 1.0 - 9.0 bar

Nominal Pressure (H_2O, 20°C)
- PN 10

Working Pressure
- set pressure minus flow dependent pressure reduction:
- secondary pressure
- 1,0 - 9,0 bar

Constant Working Pressure
- Difference between the maximum and minimum secondary pressure, caused by primary pressure fluctuations:
- approx. ± 0.2 bar

Hysteresis
- Difference between opening and closing pressure
- approx. 0.1 - 0.4 bar

Valve Body
- PVC-U
- PP
- PVDF

Bonnet
- PP, glass fibre reinforced

Diaphragm
- PTFE (EPDM diaphragm with PTFE coating on the surfaces coming into contact with the medium)

Sealing
- FPM
- EPDM

Screws
- stainless steel (1.4301)

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Actuation
- medium controlled

Connection
- union DIN 8063
- union socket end for solvent welding DIN ISO (PVC-U)
- union socket end for fusion welding DIN ISO (PP)
- union socket end for fusion welding DIN ISO (PVDF)
- spigot end for solvent welding DIN ISO (PVC-U)
- fusion spigot end DIN ISO (PP)
- fusion spigot end DIN ISO (PVDF)
- backing flange DIN 2501, PN 10/16, on request

Flow Direction
- always in the direction of the arrow

Mounting
- as required

Colour
- bonnet: orange, RAL 2004
- bottom section: PVC-U, grey, RAL 7011
- bottom section: PP, grey, RAL 7032
- bottom section: PVDF, opaque, yellowish-white

Pressure Gauge Connection
- The pressure reducing valves can be factory fitted with a pressure gauge for neutral media. The resistance of the pressure gauge material has to be taken into consideration for other media.

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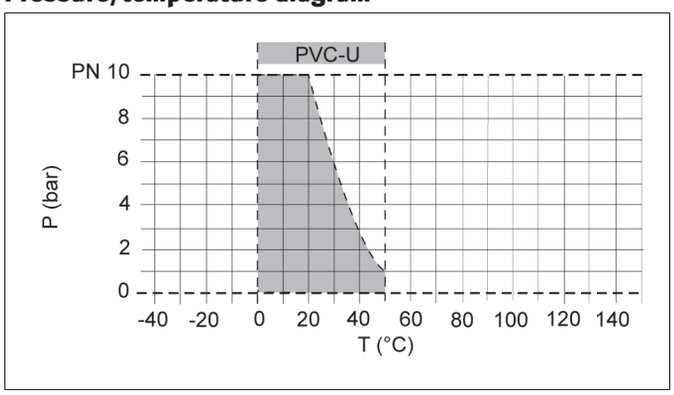
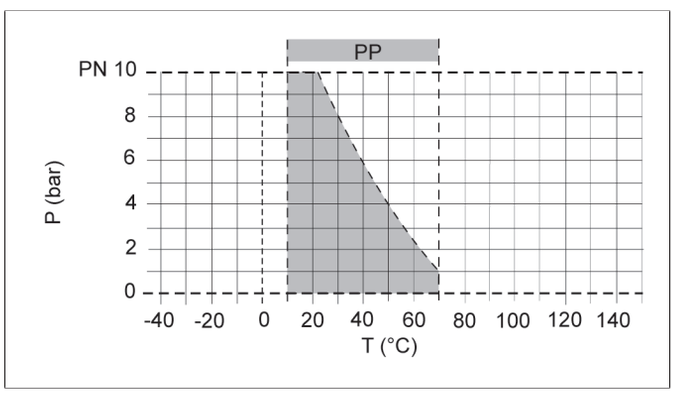
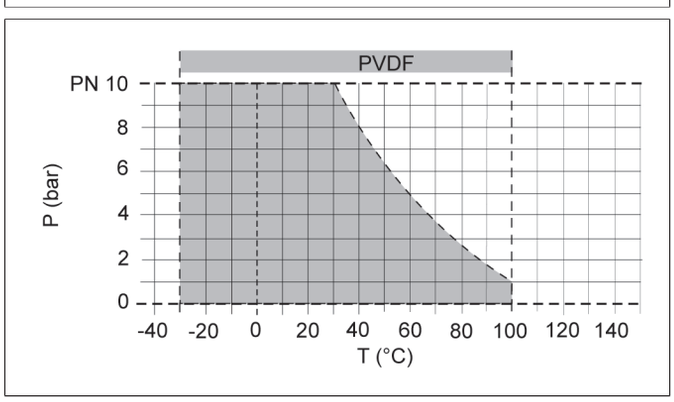
Pressure reducing valves, Pressure Reducing Valve DMV 755

Pressure/temperature diagram



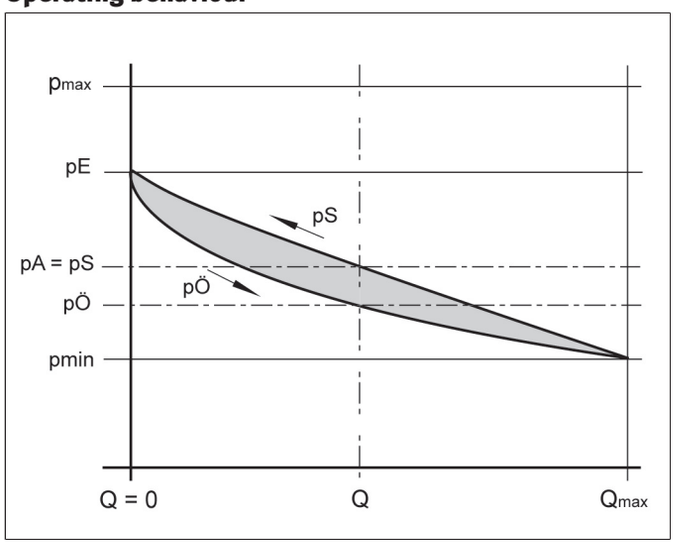




P = operating pressure
T = temperature

The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years. These are standard values for harmless media (DIN 2403), to which the valve material is resistant.
For other media please refer to the ASV resistance guide.
The durability of wear parts depends on the operating conditions of the application.
For temperatures below 0°C (PP < +10°C) please specify the precise operating conditions of the application.
The rated pressure depends on the valve size and material. For the corresponding rated pressure value of the valve, please refer to the »Order table«.

Operating behaviour



pE = set pressure
pA = working pressure
pÖ = opening pressure
pS = closing pressure
pÖ - pS = hysteresis
pA - pE = flow dependent pressure reduction
Q = flow

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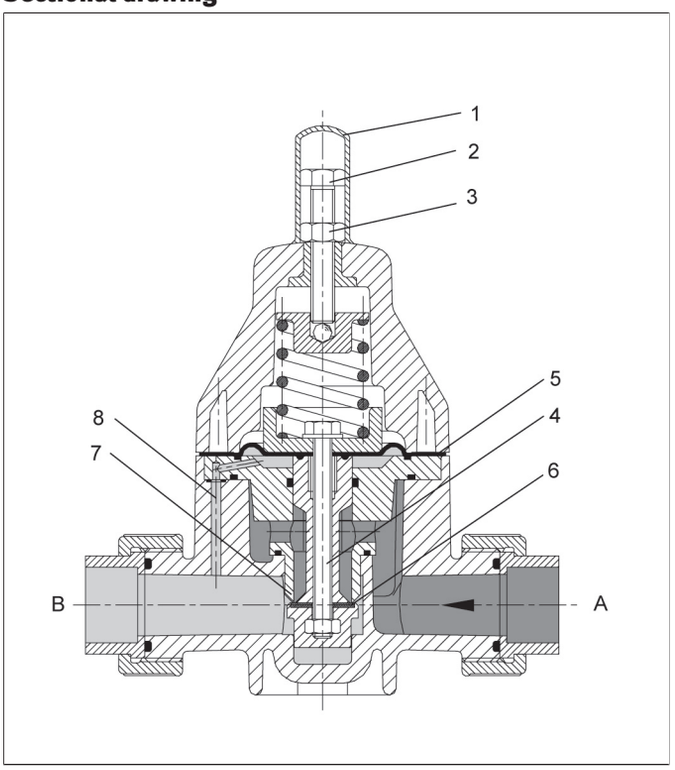
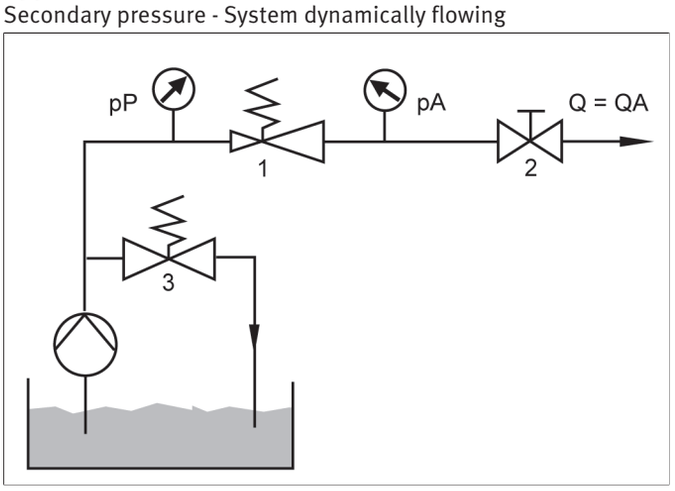
Sectional drawing



A = primary side
B = secondary side
1 = protection cap
2 = adjustment screw
3 = counter nut
4 = piston
5= diaphragm
6 = flat sealing ring
7 = valve seat
8 = control bore hole

Applications

Secondary pressure - System dynamically flowing

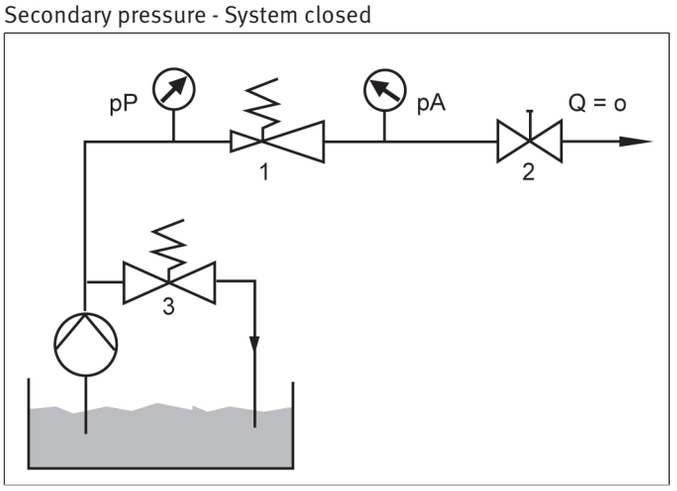


pP = pump pressure
pA = working pressure
1 = Pressure Reducing Valve
2 = stop valve
3 = Pressure Relief Valve

If the stop valve is closed, the working pressure pA rises by the amount of the closing pressure pS.

Applications

Secondary pressure - System closed



pP = pump pressure
pA = working pressure
1 = Pressure Reducing Valve
2 = stop valve
3 = Pressure Relief Valve

If the stop valve is opened, the working pressure pA drops by the amount of the opening pressure pÖ.

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Malfunctions, possible causes, rectification

Malfunction:	Cause:	Rectification:
Valve leaking at the diaphragm.	Insufficient contact pressure (membrane fastening). O-ring defective (13).	Tighten the connecting screws. Renew O-ring (13).
Pressure exceeds the set value.	Valve seat/seat seal defective. Diaphragm defective. Control bore hole soiled or blocked. Valve piston jammed.	Check piston and/or seat seal, replace, if necessary. Replace diaphragm. Dismantle piston and clean bore hole. Clean valve.
Valve closed (does not open).	Valve fitted the wrong way round.	Turn the valve around, observe the arrow for the direction of flow.
Medium leakage at the adjustment screw.	Diaphragm defective.	Replace diaphragm.

Maintenance note

Screw tightening torque (Nm)

d (mm)	16	20	25	32	40	50	63
Md (Nm)	4,5	4,5	6	6	8	8	8

The specified values apply to lubricated screws.

Check the tightening torque of the body screws at certain intervals in case of setting of the diaphragms and/or temperature fluctuations.

Operating note

Safe operation of the valve can only be ensured if it is properly installed, operated, serviced or repaired by qualified personnel according to its intended use while observing the accident prevention regulations, safety regulations, relevant standards, directives/technical regulations or codes of practice such as e.g. DIN, DIN EN, DIN ISO and DVS*. *DVS = German Welding Society
The intended use includes adhering to specified limit values for pressure and temperature, as well as checking the resistance. This requires all components coming into contact with the medium to be "resistant" in accordance with the ASV resistance guide.
Pressure gauge version
If the valve body is equipped with a pressure gauge, do not tighten the pressure gauge with more than max. 3 Nm.
Please take into account that the material PTFE is classified as resistant against many media, however, PTFE is not diffusion tight when used as a film, e.g. for the ASV membranes. Please contact us for limit cases (nitric acid or sulfuric acid).
If the secondary pressure is additionally increased by the counterpressure, the pressure reducing valve DMV acts as a non-return valve. This force can lead to destruction of the valve piston.

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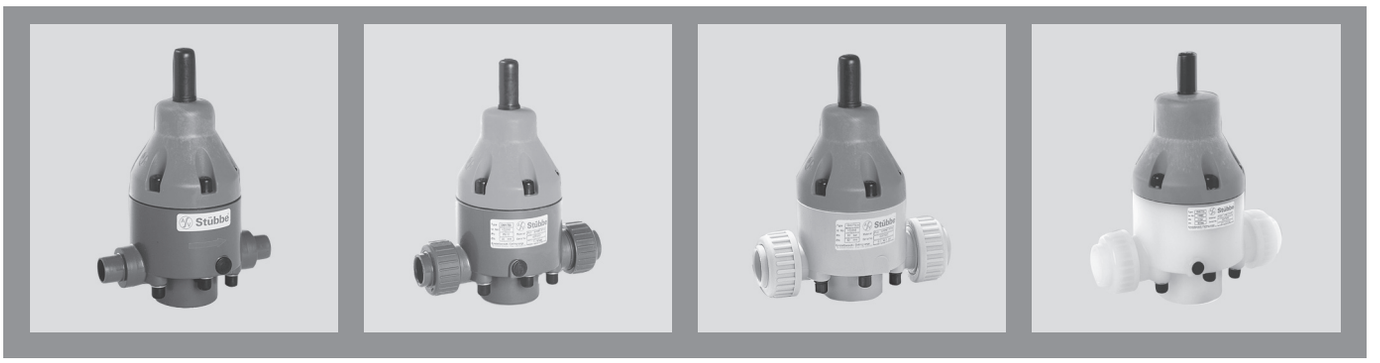
Pressure reducing valves, Pressure Reducing Valve DMV 755



body PVC-U

size	d(mm)	16	20	25	32	40	50	63
pressure range	DN(mm)	10	15	20	25	32	40	50
	DN(inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)	10	10	10	10	10	10	10
	setting range (bar)	1-9	1-9	1-9	1-9	1-9	1-9	1-9
Connection	*sealing*	*ident No.*						
PVC-U	EPDM	119300	119301	119302	119303	119304	119305	119306
socket end DIN ISO	FPM	119307	119308	119309	119310	119311	119312	119313
	weight	*0.80 kg*	*0.90 kg*	*1.90 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U	EPDM	122048	122049	122050	122051	122052	122053	122054
spigot end DIN ISO	FPM	122055	122056	122057	122058	122059	122060	122061
	weight	*0.80 kg*	*0.90 kg*	*1.90 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*

body PP

size	d(mm)	16	20	25	32	40	50	63
pressure range	DN(mm)	10	15	20	25	32	40	50
	DN(inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)	10	10	10	10	10	10	10
	setting range (bar)	1-9	1-9	1-9	1-9	1-9	1-9	1-9
Connection	*sealing*	*ident No.*						
PP	EPDM	119314	119315	119316	119317	119318	119319	119320
socket end DIN ISO	FPM	119321	119322	119323	119324	119325	119326	119327
	weight	*0.70 kg*	*0.70 kg*	*1.60 kg*	*1.60 kg*	*4.10 kg*	*4.20 kg*	*4.30 kg*
PP	EPDM	122062	122063	122064	122065	122066	122067	122068
spigot end DIN ISO	FPM	122069	122070	122071	122072	122073	122074	122075
	weight	*0.70 kg*	*0.70 kg*	*1.60 kg*	*1.60 kg*	*4.10 kg*	*4.20 kg*	*4.30 kg*

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Pressure reducing valves, Pressure Reducing Valve DMV 755




body PVDF

size	d(mm)	16	20	25	32	40	50	63
pressure range	DN(mm)	10	15	20	25	32	40	50
	DN(inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)	10	10	10	10	10	10	10
	setting range (bar)	1-9	1-9	1-9	1-9	1-9	1-9	1-9
Connection	*sealing*	*ident No.*						
PVDF socket end DIN ISO	FPM	119335	119336	119337	119338	119339	119340	119341
	weight	*1.00 kg*	*1.10 kg*	*2.10 kg*	*2.20 kg*	*5.50 kg*	*5.60 kg*	*5.70 kg*
PVDF spigot end DIN ISO	FPM	122083	122084	122085	122086	122087	122088	122089
	weight	*1.00 kg*	*1.10 kg*	*2.10 kg*	*2.20 kg*	*5.50 kg*	*5.60 kg*	*5.70 kg*

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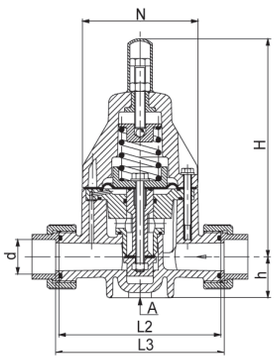
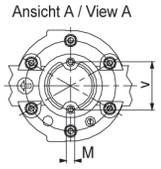
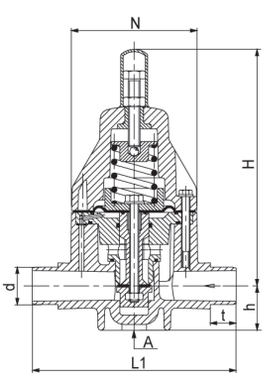
Pressure reducing valves, Pressure Reducing Valve DMV 755

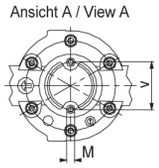


Ansicht A / View A





Ansicht A / View A



dimensions

d(mm)		16	20	25	32	40	50	63
DN(mm)		10	15	20	25	32	40	50
DN(inch)		3/8	1/2	3/4	1	1 1/4	1 1/2	2
dimensions(mm)								
	d	16	20	25	32	40	50	63
PP/PVC-U	h	25	25	37	37	57	57	57
PVDF	h	24	24	36	36	54	54	54
	L1	144	144	174	174	224	224	244
PP/PVC-U	L2	120	120	150	150	205	205	205
PVDF	L2	118	120	147	147	200	200	200
PP/PVC-U	L3	126	126	156	156	211	211	211
PVDF	L3	124	124	153	153	207	207	207
	t	14	16	19	22	26	31	38
	H	174	174	202	202	262	262	262
	N	81	81	107	107	147	147	147
	V	40	40	46	46	65	65	65

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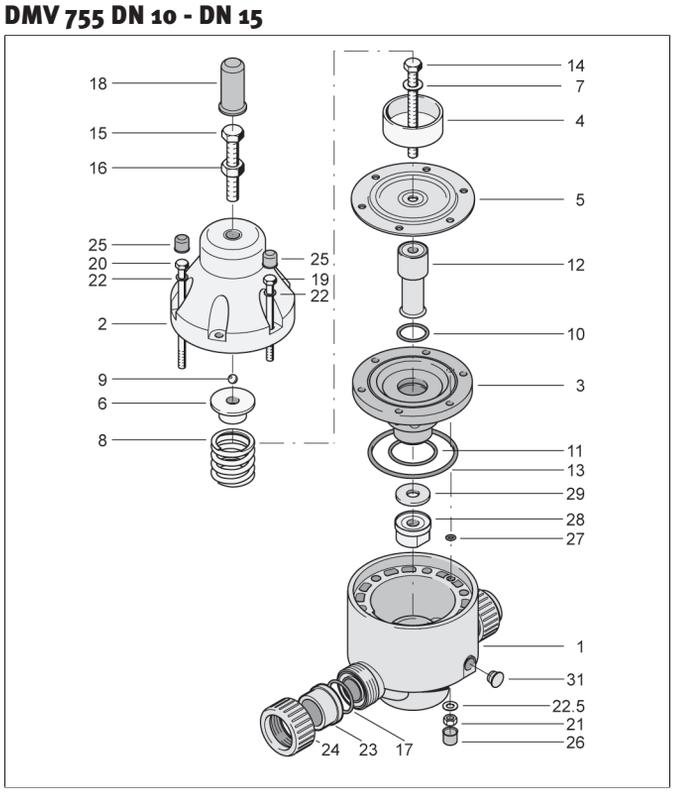
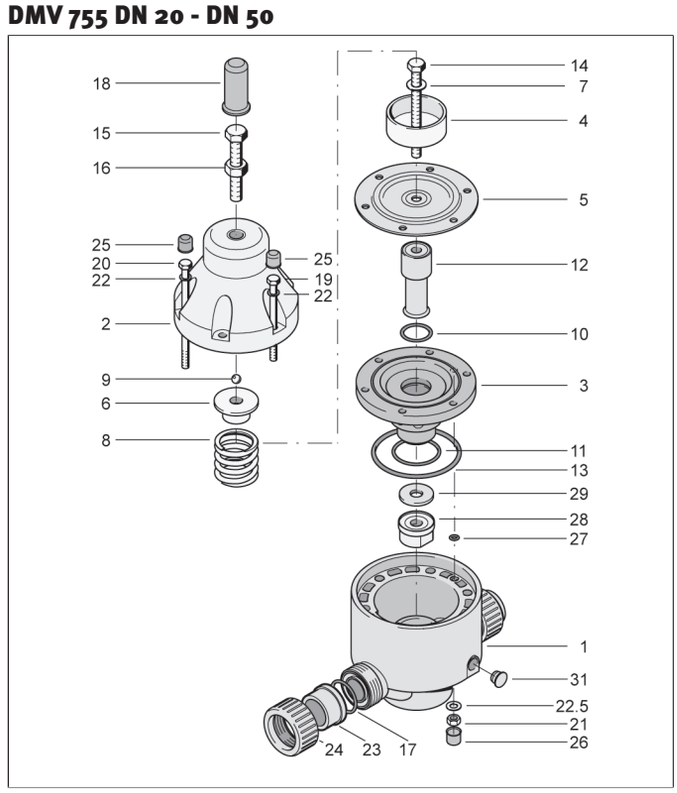
Exploded view

DMV 755 DN 10 - DN 15



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	separating disc
4	1	spring plate
5	1	diaphragm
6	1	pressure plate
7	1	disc
8	1	pressure spring
9	1	steel ball
10	1	O-ring
11	1	O-ring
12	1	piston
13	1	O-ring
14	1	hexagon bolt
15	1	hexagon bolt
16	1	hexagon nut
17	2	O-ring
18	1	protection cap
19	4	hexagon bolt
21	4	hexagon nut
22	4	disc
22.5	4	disc
23	2	union end
24	2	union nut
25	4	protection cap
26	4	protection cap
27	1	O-ring
28	1	piston guidance
29	1	flat sealing ring
31	2	Plug

DMV 755 DN 20 - DN 50



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	separating disc
4	1	spring plate
5	1	diaphragm
6	1	pressure plate
7	1	disc
8	1	pressure spring
9	1	steel ball
10	1	O-ring
11	1	O-ring
12	1	piston
13	1	O-ring
14	1	hexagon bolt
15	1	hexagon bolt
16	1	hexagon nut
17	2	O-ring
18	1	protection cap
19	2	hexagon bolt
20	4	hexagon bolt
21	6	hexagon nut
22	6	disc
22.5	6	disc
23	2	union end
24	2	union nut
25	6	protection cap
26	6	protection cap
27	1	O-ring
28	1	piston guidance
29	1	flat sealing ring
31	2	Plug

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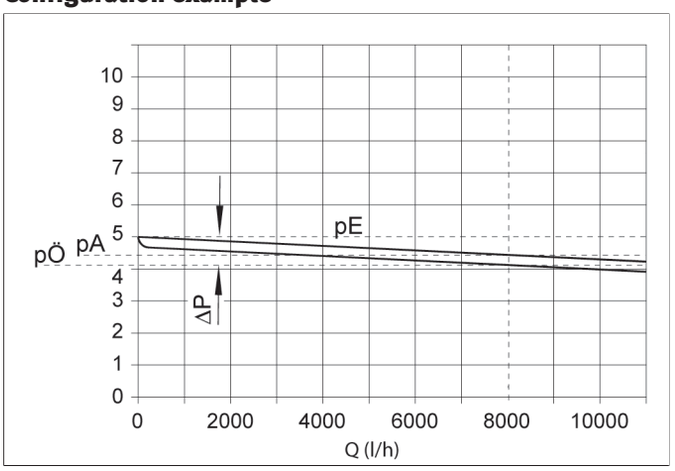
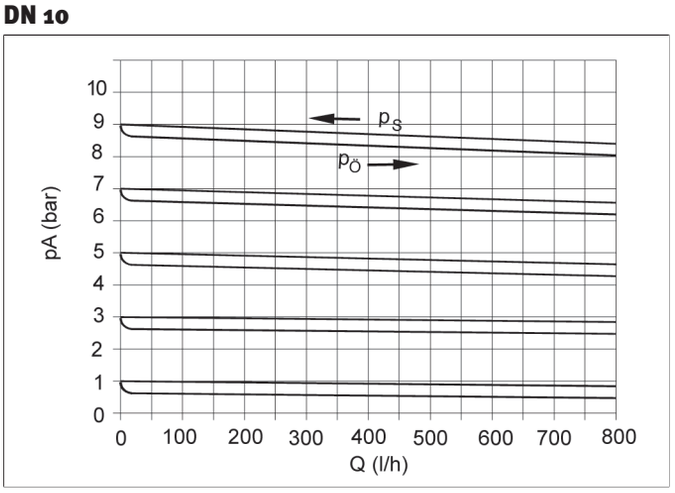
Characteristic curves

Configuration example



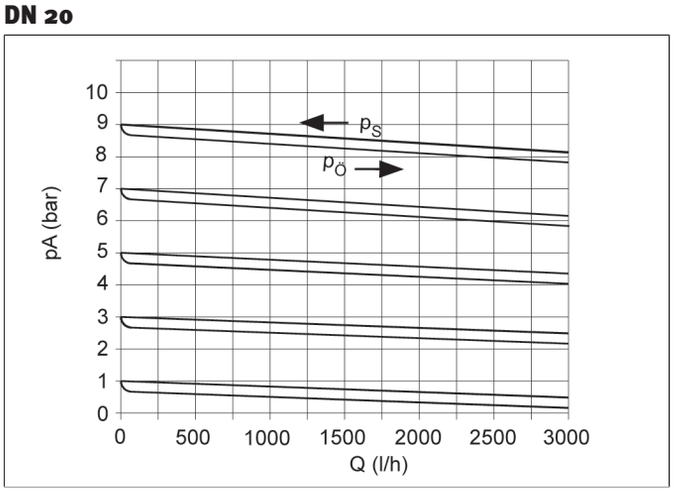
The valve is set tight at 5 bar.
Desired flow rate 8000 l/h, Medium H^2O
According to the curve, this results in the following values:
set pressure pE: 5 bar; Pressure reduction: p = 0,8 bar; Working pressure pA = 4,4 bar

DN 10



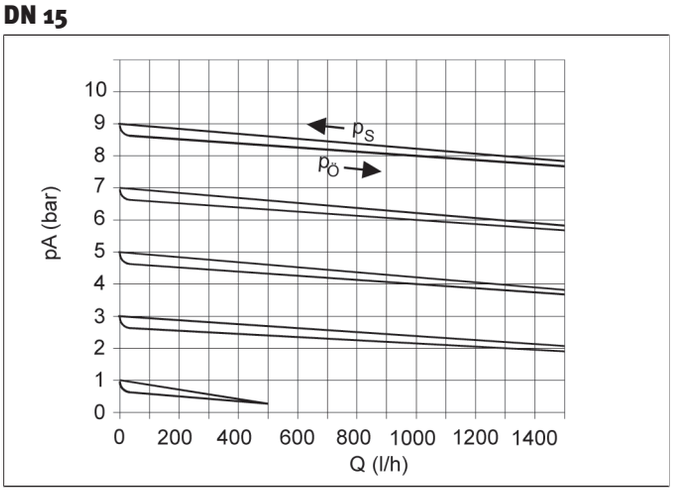
pA = working pressure (secondary pressure)
Q = flow

DN 20



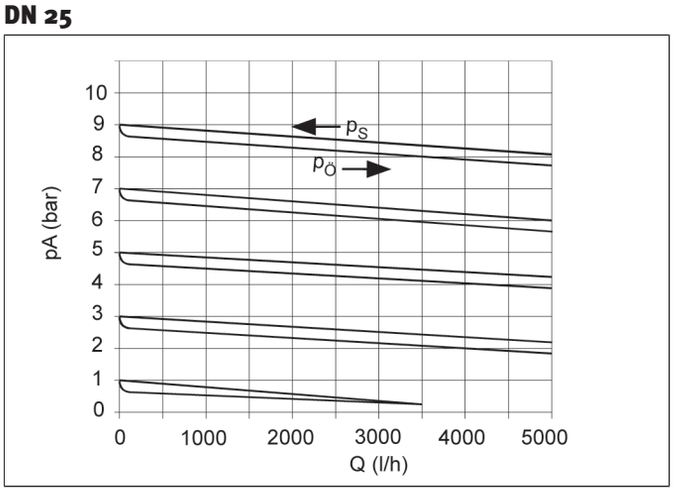
pA = working pressure (secondary pressure)
Q = flow

DN 15



pA = working pressure (secondary pressure)
Q = flow

DN 25



pA = working pressure (secondary pressure)
Q = flow

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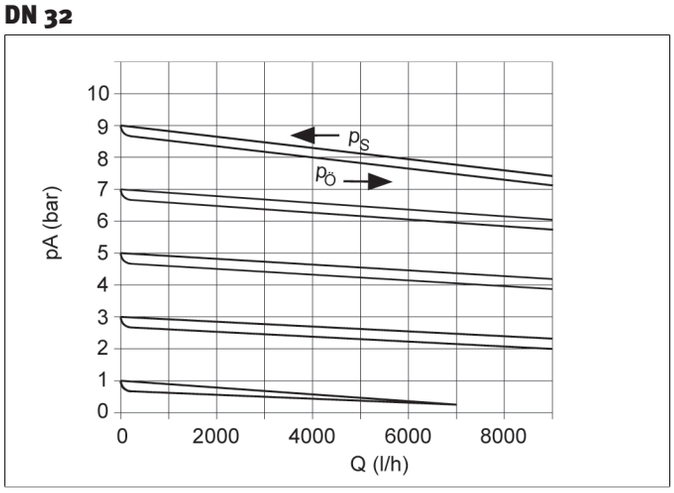
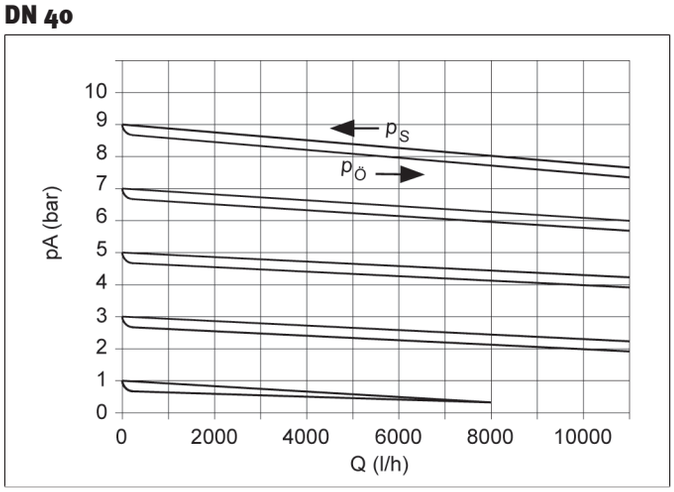
DN 32



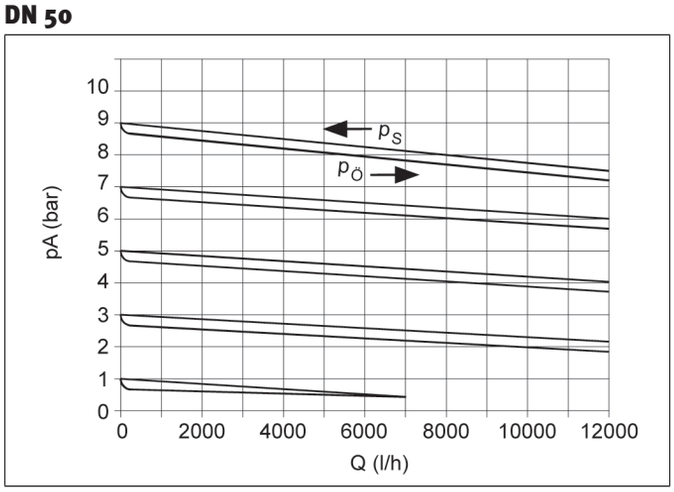
pA = working pressure (secondary pressure)
Q = flow

DN 40



pA = working pressure (secondary pressure)
Q = flow

DN 50



pA = working pressure (secondary pressure)
Q = flow

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Pressure reducing valves, Pressure Reducing Valve DMV 755

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Pressure Reducing Valve DMV 765

set range: 0,5 - 9,0 bar




Advantage
- pressure setting possible at any time, also during operation
- high reproducibility of the set pressure
- high level of operating safety and long service life
- constant, low vibration control
- low-maintenance
- hermetically sealed by valve diaphragm with formed sealing rings
- considerably shortened face-to-face dimension with injection moulded threaded neck according to DIN 8063
- metal inserts in the valve housing allow the valves to be directly fitted to mounting sets, the movability of the union nuts on the valves made of PVC-U, PP and PVDF remains unaffected

Application
- chemical plants
- industrial plants
- water treatment

Utilisation
- The pressure reducing valve which is directly controlled by the medium, is used in technical processing plants for reducing primary pressures to system dependent working pressures and for controlled maintenance of working pressures.

Valve Function
- The opened valve is in equilibrium between the inlet pressure (primary side) and the lower working pressure (secondary side). If the working pressure goes above or below the desired value, the large area membrane is lifted against the spring force or pressed down by the spring force. The valve starts closing or opening until the equilibrium condition is reached again, i.e. the working pressure remains constant independent of an increasing or decreasing inlet pressure (as long as the inlet pressure › working pressure).

Valve Setting
- Set or adjust the working pressure to be kept constant at the adjustment screw with the aid of pressure gauges (ASV diaphragm pressure gauge guard with pressure gauge, type MDM 902) in the pipe system after removing the protection cap. The adjustment screw is secured by a counter nut and can be sealed against unauthorized adjustment, if necessary.
- There are two types of application:
  · secondary pressure - system closed or
  · secondary pressure - system dynamically flowing

Flow Media
- Technically pure, neutral and aggressive fluids, provided that the selected valve materials coming into contact with the media are resistant at the operating temperature according to the ASV resistance guide.
- For nitric acid or sulfuric acid please specify the precise operating conditions of the application.

Fluid Temperature
- see pressure/temperature diagram

Operating Pressure
- see pressure/temperature diagram

Set Range
- 0.5 - 9.0 bar

Nominal Pressure (H_2O, 20°C)
- PN 10

Working Pressure
- set pressure minus flow dependent pressure reduction:
- secondary pressure
- 0,5 - 9,0 bar

Constant Working Pressure
- Difference between the maximum and minimum secondary pressure, caused by primary pressure fluctuations:
- approx. ± 0.2 bar

Hysteresis
- Difference between opening and closing pressure
- approx. 0.1 - 0.4 bar

Valve Body
- PVC-U
- PP
- PVDF

Bonnet
- PP, glass fibre reinforced

Diaphragm
- PTFE (EPDM diaphragm with PTFE coating on the surfaces coming into contact with the medium)

Sealing
- FPM
- EPDM

Screws
- stainless steel (1.4301)

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Actuation
- medium controlled

Connection
- union DIN 8063
- union socket end for solvent welding DIN ISO (PVC-U)
- union socket end for fusion welding DIN ISO (PP)
- union socket end for fusion welding DIN ISO (PVDF)
- spigot end for solvent welding DIN ISO (PVC-U)
- fusion spigot end DIN ISO (PP)
- fusion spigot end DIN ISO (PVDF)
- backing flange DIN 2501, PN 10/16, on request

Flow Direction
- always in the direction of the arrow

Mounting
- as required

Colour
- bonnet: orange, RAL 2004
- bottom section: PVC-U, grey, RAL 7011
- bottom section: PP, grey, RAL 7032
- bottom section: PVDF, opaque, yellowish-white

Pressure Gauge Connection
- The pressure reducing valves can be factory fitted with a pressure gauge for neutral media. The resistance of the pressure gauge material has to be taken into consideration for other media.

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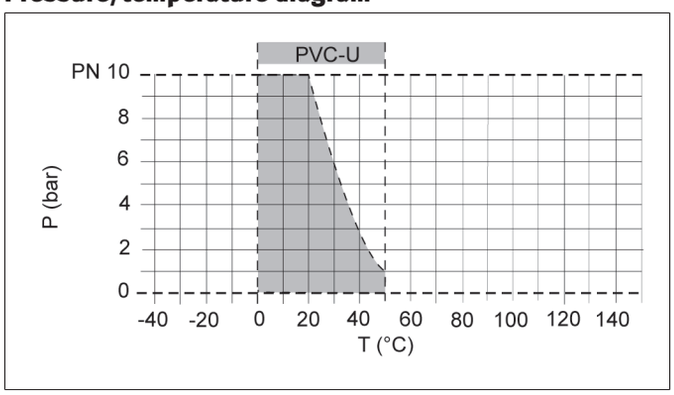
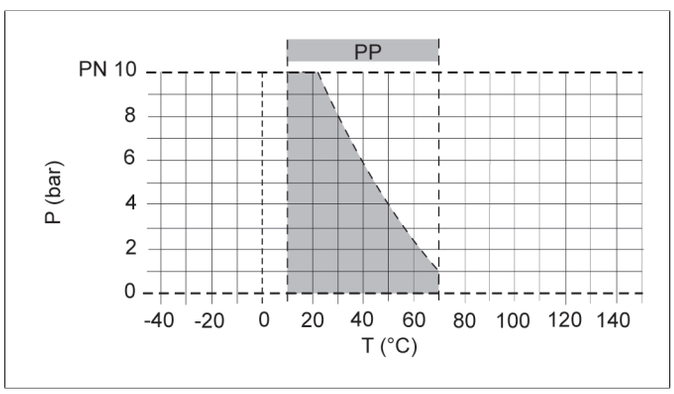
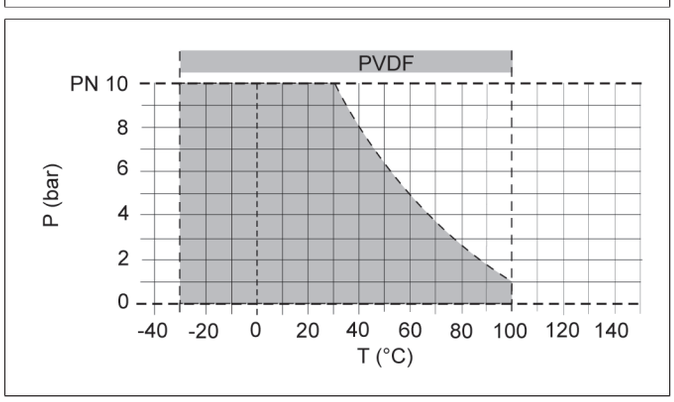
Pressure reducing valves, Pressure Reducing Valve DMV 765

Pressure/temperature diagram



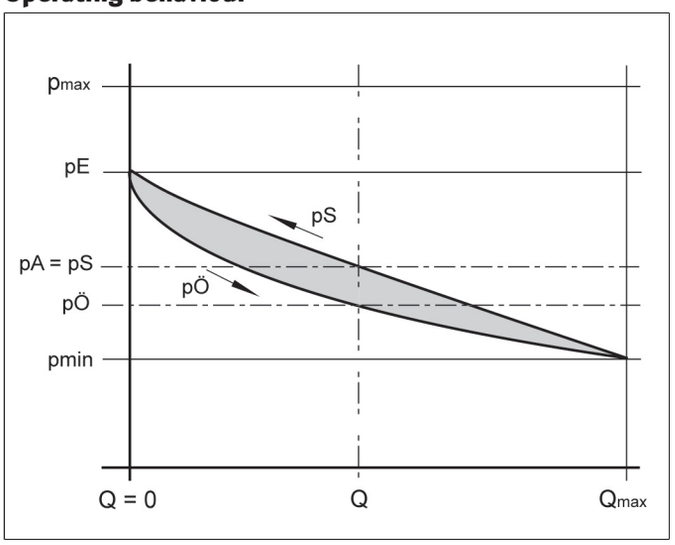




P = operating pressure
T = temperature

The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years. These are standard values for harmless media (DIN 2403), to which the valve material is resistant.
For other media please refer to the ASV resistance guide.
The durability of wear parts depends on the operating conditions of the application.
For temperatures below 0°C (PP < +10°C) please specify the precise operating conditions of the application.
The rated pressure depends on the valve size and material. For the corresponding rated pressure value of the valve, please refer to the »Order table«.

Operating behaviour



pE = set pressure
pA = working pressure
pÖ = opening pressure
pS = closing pressure
pÖ - pS = hysteresis
pA - pE = flow dependent pressure reduction
Q = flow

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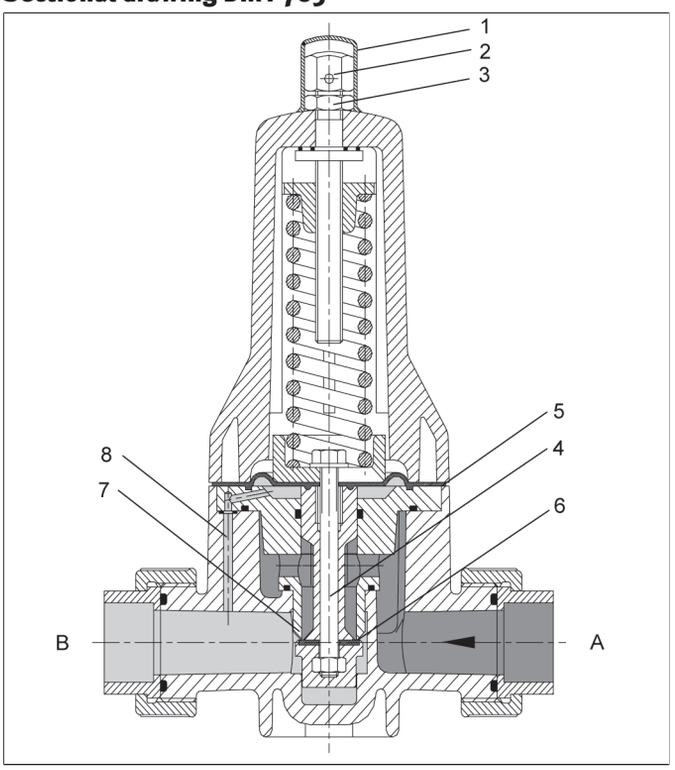
Pressure reducing valves, Pressure Reducing Valve DMV 765

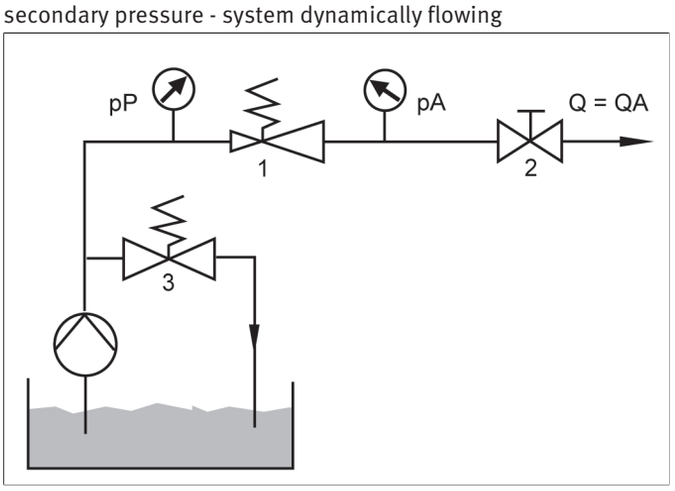
Sectional drawing DMV 765



A = primary side
B = secondary side
1 = protection cap
2 = adjustment screw
3 = counter nut
4 = piston
5= diaphragm
6 = flat sealing ring
7 = valve seat
8 = control bore hole

Applications

secondary pressure - system dynamically flowing

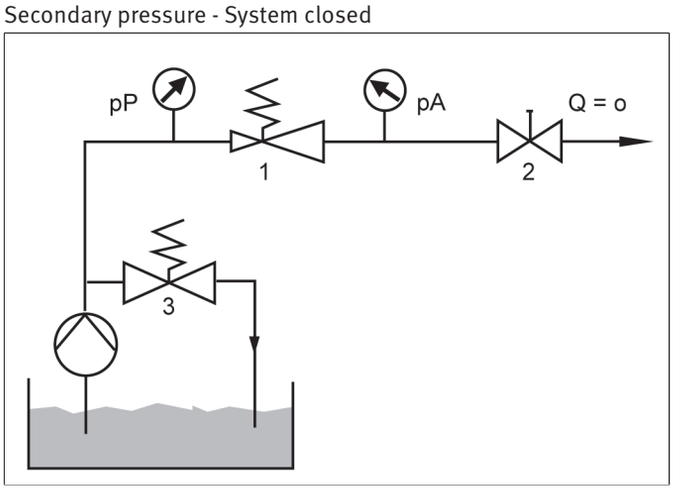


pP = pump pressure
pA = working pressure
1 = Pressure Reducing Valve
2 = stop valve
3 = Pressure Relief Valve

If the stop valve is closed, the working pressure pA rises by the amount of the closing pressure pS.

Applications

Secondary pressure - System closed



pP = pump pressure
pA = working pressure
1 = Pressure Reducing Valve
2 = stop valve
3 = Pressure Relief Valve

If the stop valve is opened, the working pressure pA drops by the amount of the opening pressure pÖ.

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Pressure reducing valves, Pressure Reducing Valve DMV 765

Malfunctions, possible causes, rectification

Malfunction:	Cause:	Rectification:
Valve leaking at the diaphragm.	Insufficient contact pressure (membrane fastening). O-ring defective (13).	Tighten the connecting screws. Renew O-ring (13).
Pressure exceeds the set value.	Valve seat/seat seal defective. Diaphragm defective. Control bore hole soiled or blocked. Valve piston jammed.	Check piston and/or seat seal, replace, if necessary. Replace diaphragm. Dismantle piston and clean bore hole. Clean valve.
Valve closed (does not open).	Valve fitted the wrong way round.	Turn the valve around, observe the arrow for the direction of flow.
Medium leakage at the adjustment screw.	Diaphragm defective.	Replace diaphragm.

Maintenance note

Screw tightening torque (Nm)

d (mm)	16	20	25	32	40	50	63
Md (Nm)	4,5	4,5	6	6	8	8	8

The specified values apply to lubricated screws.

Check the tightening torque of the body screws at certain intervals in case of setting of the diaphragms and/or temperature fluctuations.

Operating note

Safe operation of the valve can only be ensured if it is properly installed, operated, serviced or repaired by qualified personnel according to its intended use while observing the accident prevention regulations, safety regulations, relevant standards, directives/technical regulations or codes of practice such as e.g. DIN, DIN EN, DIN ISO and DVS*. *DVS = German Welding Society
The intended use includes adhering to specified limit values for pressure and temperature, as well as checking the resistance. This requires all components coming into contact with the medium to be "resistant" in accordance with the ASV resistance guide.
Pressure gauge version
If the valve body is equipped with a pressure gauge, do not tighten the pressure gauge with more than max. 3 Nm.
If the secondary pressure is additionally increased by the counterpressure, the pressure reducing valve DMV acts as a non-return valve. This force can lead to destruction of the valve piston.
Please take into account that the material PTFE is classified as resistant against many media, however, PTFE is not diffusion tight when used as a film, e.g. for the ASV membranes. Please contact us for limit cases (nitric acid or sulfuric acid).

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Pressure reducing valves, Pressure Reducing Valve DMV 765




body PVC-U

size	d(mm)	16	20	25	32	40	50	63
pressure range	DN(mm)	10	15	20	25	32	40	50
	DN(inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)	10	10	10	10	10	10	10
	setting range (bar)	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9
Connection	*sealing*	*ident No.*						
PVC-U	EPDM	119342	119343	119344	119345	119346	119347	119348
socket end DIN ISO	FPM	119349	119350	119351	119352	119353	119354	119355
	weight	*1.00 kg*	*1.00 kg*	*2.20 kg*	*2.30 kg*	*6.00 kg*	*6.20 kg*	*6.40 kg*
PVC-U	EPDM	122090	122091	122092	122093	122094	122095	122096
spigot end DIN ISO	FPM	122097	122098	122099	122100	122101	122102	122103
	weight	*1.00 kg*	*1.00 kg*	*2.20 kg*	*2.30 kg*	*6.00 kg*	*6.20 kg*	*6.40 kg*

body PP

size	d(mm)	16	20	25	32	40	50	63
pressure range	DN(mm)	10	15	20	25	32	40	50
	DN(inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)	10	10	10	10	10	10	10
	setting range (bar)	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9
Connection	*sealing*	*ident No.*						
PP	EPDM	119356	119357	119358	119359	119360	119361	119362
socket end DIN ISO	FPM	119363	119364	119365	119366	119367	119368	119369
	weight	*0.80 kg*	*0.80 kg*	*1.90 kg*	*2.00 kg*	*5.20 kg*	*5.40 kg*	*5.60 kg*
PP	EPDM	122104	122105	122106	122107	122108	122109	122110
spigot end DIN ISO	FPM	122111	122112	122113	122114	122115	122116	122117
	weight	*0.80 kg*	*0.80 kg*	*1.90 kg*	*2.00 kg*	*5.20 kg*	*5.40 kg*	*5.60 kg*

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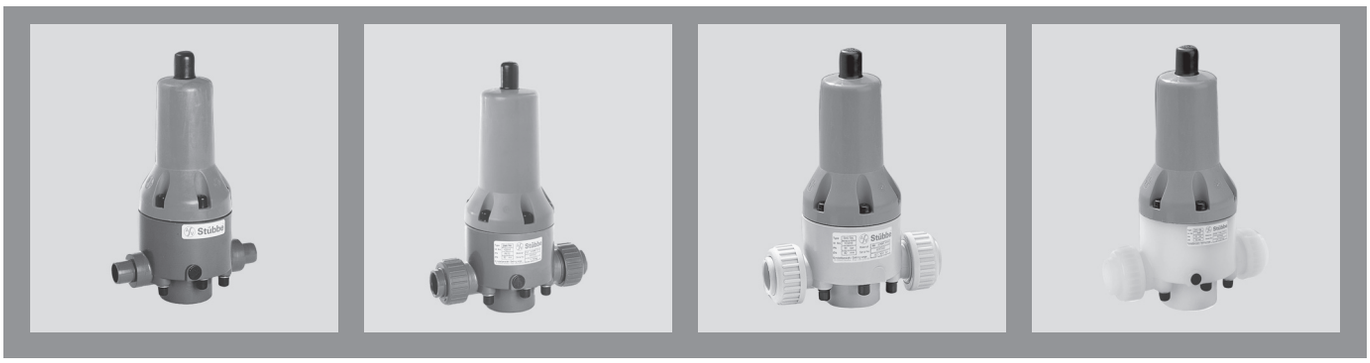
Pressure reducing valves, Pressure Reducing Valve DMV 765



body PVDF

size	d(mm)	16	20	25	32	40	50	63
pressure range	DN(mm)	10	15	20	25	32	40	50
	DN(inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)	10	10	10	10	10	10	10
	setting range (bar)	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9	0.5-9
Connection	*sealing*	*ident No.*						
PVDF socket end DIN ISO	FPM	119377	119378	119379	119380	119381	119382	119383
	weight	*1.20 kg*	*1.20 kg*	*2.50 kg*	*2.50 kg*	*6.50 kg*	*6.70 kg*	*6.90 kg*
PVDF spigot end DIN ISO	FPM	122125	122126	122127	122128	122129	122130	122131
	weight	*1.20 kg*	*1.20 kg*	*2.50 kg*	*2.50 kg*	*6.50 kg*	*6.70 kg*	*6.90 kg*

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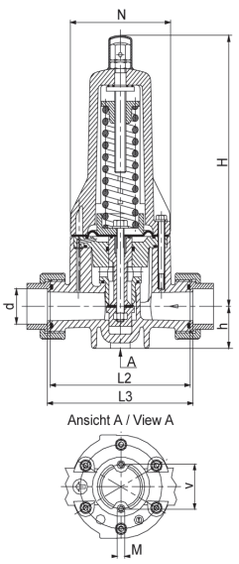
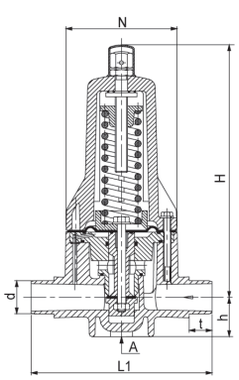
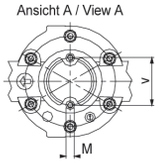


Ansicht A / View A



Ansicht A / View A



dimensions

d(mm)		16	20	25	32	40	50	63
DN(mm)		10	15	20	25	32	40	50
DN(inch)		3/8	1/2	3/4	1	1 1/4	1 1/2	2
dimensions(mm)								
	d	16	20	25	32	40	50	63
PP/PVC-U	h	25	25	37	37	57	57	57
PVDF	h	24	24	36	36	54	54	54
	L1	144	144	174	174	224	224	244
PP/PVC-U	L2	120	120	150	150	205	205	205
PVDF	L2	118	118	147	147	200	200	200
PP/PVC-U	L3	126	126	156	156	211	211	211
PVDF	L3	124	124	153	153	207	207	207
	t	14	16	19	22	26	31	38
	H	207	207	243	243	348	348	348
	N	81	81	107	107	147	147	147
	V	40	40	46	46	65	65	65

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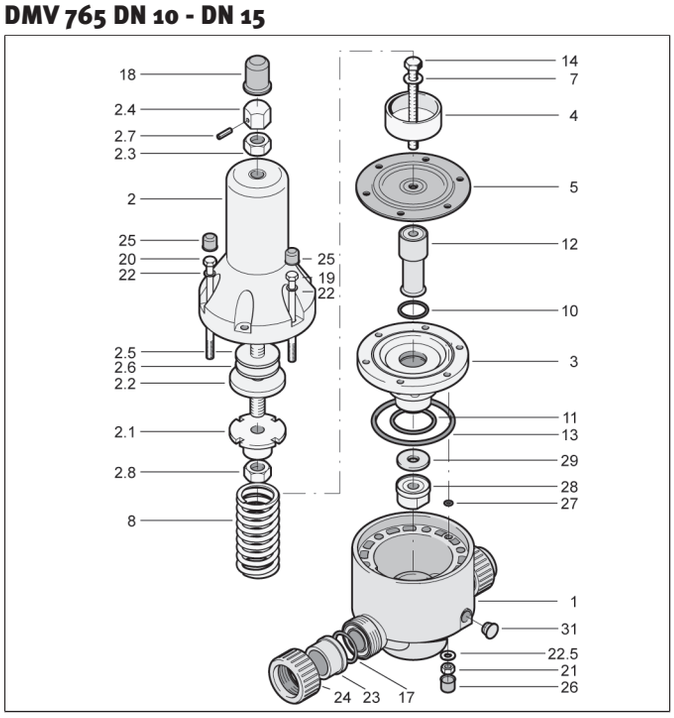
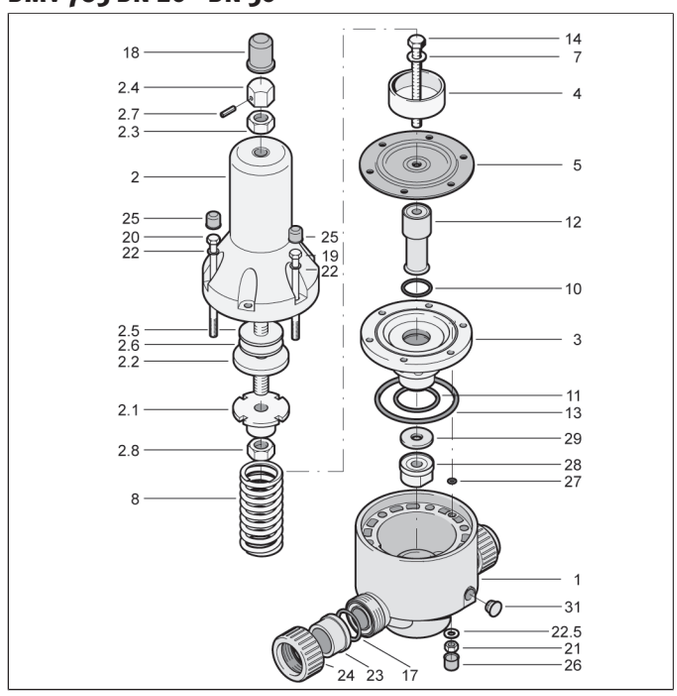
Exploded view

DMV 765 DN 10 - DN 15



position	quantity	designation
1	1	valve body
2	1	bonnet
2.1	1	spring nut
2.2	1	adjustment screw
2.3	1	hexagon nut
2.4	1	cap nut
2.7	1	spring dowel sleeve
2.8	1	hexagon nut
3	1	separating disc
4	1	spring plate
5	1	diaphragm
7	1	disc
8	1	pressure spring
10	1	O-ring
11	1	O-ring
12	1	piston
13	1	O-ring
14	1	hexagon bolt
17	2	O-ring
18	1	protection cap
19	4	hexagon bolt
21	4	hexagon nut
22	4	disc
22.5	4	disc
23	2	union end
24	2	union nut
25	4	protection cap
26	4	protection cap
27	1	O-ring
28	1	piston guidance
29	1	flat sealing ring
31	2	Plug

DMV 765 DN 20 - DN 50



position	quantity	designation
1	1	valve body
2	1	bonnet
2.1	1	spring nut
2.2	1	adjustment screw
2.3	1	hexagon nut
2.4	1	cap nut
2.7	1	spring dowel sleeve
2.8	1	hexagon nut
3	1	separating disc
4	1	spring plate
5	1	diaphragm
7	1	disc
8	1	pressure spring
10	1	O-ring
11	1	O-ring
12	1	piston
13	1	O-ring
14	1	hexagon bolt
17	2	O-ring
18	1	protection cap
19	4	hexagon bolt
20	2	hexagon bolt
21	6	hexagon nut
22	6	disc
22.5	6	disc
23	2	union end
24	2	union nut
25	6	protection cap
26	6	protection cap
27	1	O-ring
28	1	piston guidance
29	1	flat sealing ring
31	2	Plug

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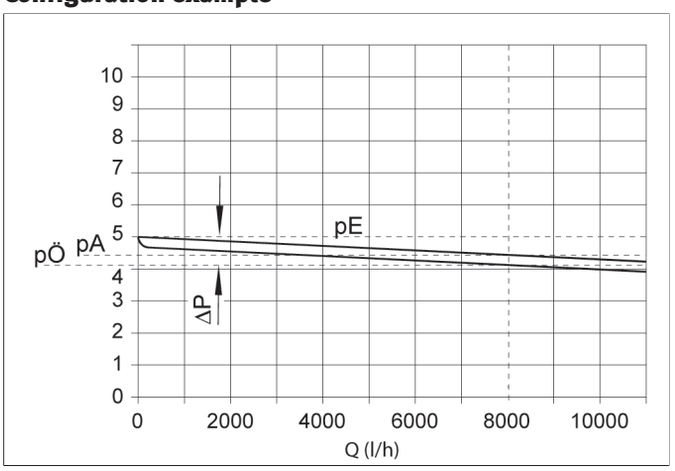
Pressure reducing valves, Pressure Reducing Valve DMV 765

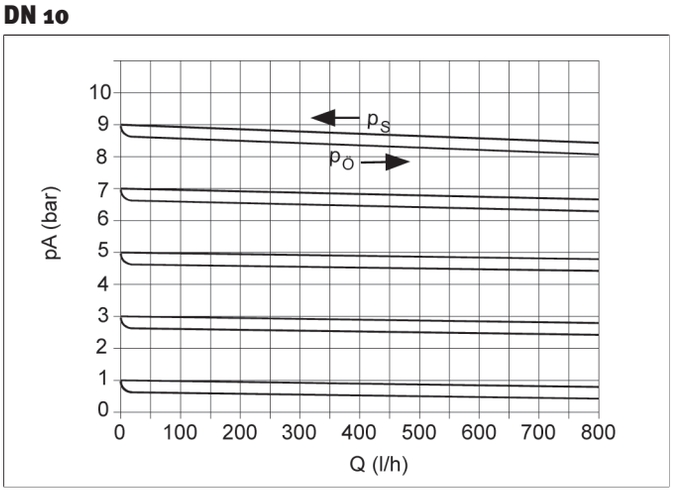
Characteristic curves

Configuration example



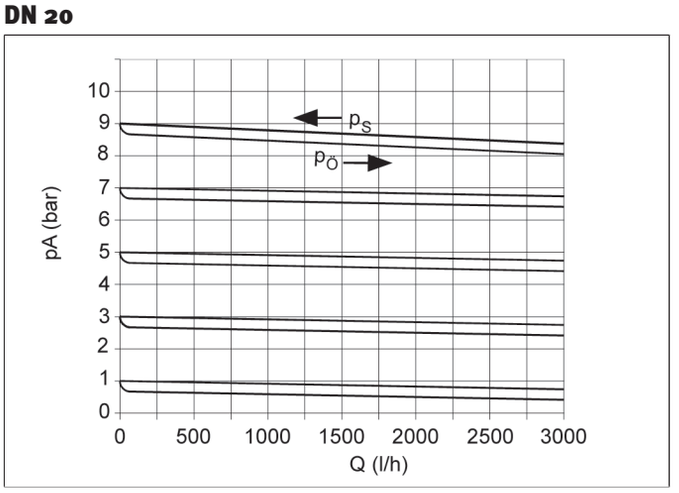
The valve is set tight at 5 bar.
Desired flow rate 8000 l/h, Medium H^2O
According to the curve, this results in the following values:
set pressure pE: 5 bar; Pressure reduction: p = 0,8 bar; Working pressure pA = 4,4 bar

DN 10



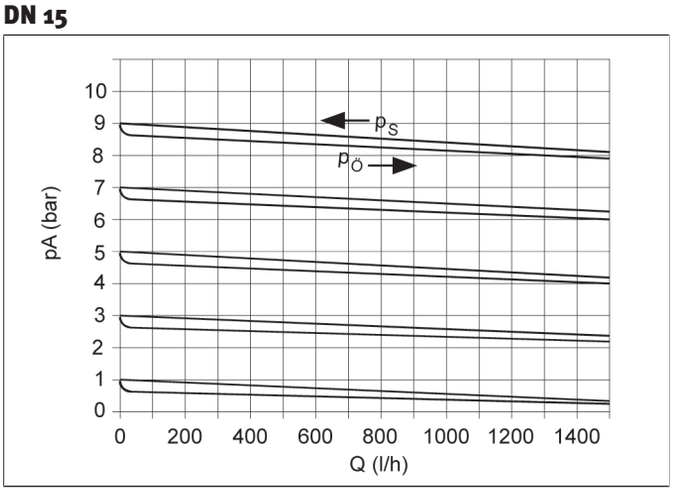
pA = working pressure (secondary pressure)
Q = flow

DN 20



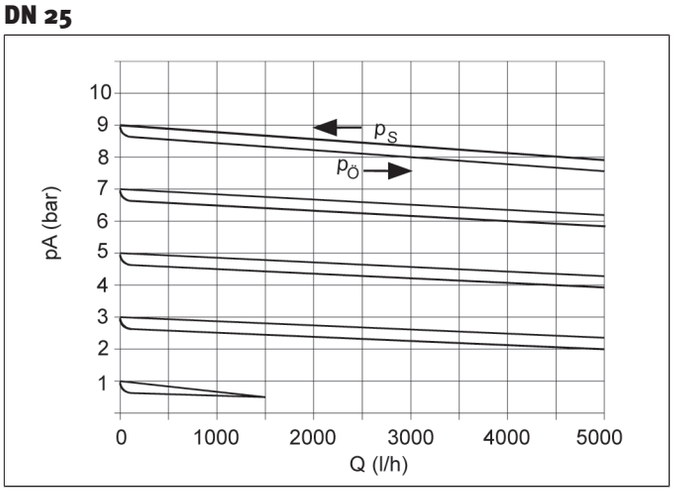
pA = working pressure (secondary pressure)
Q = flow

DN 15



pA = working pressure (secondary pressure)
Q = flow

DN 25



pA = working pressure (secondary pressure)
Q = flow

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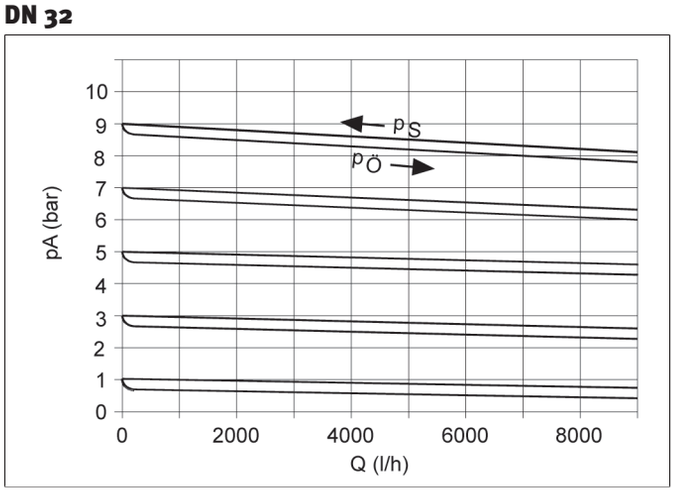
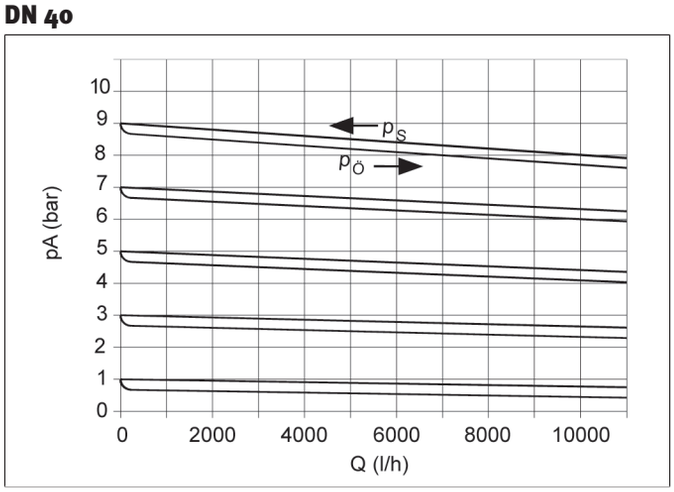
Pressure reducing valves, Pressure Reducing Valve DMV 765

DN 32



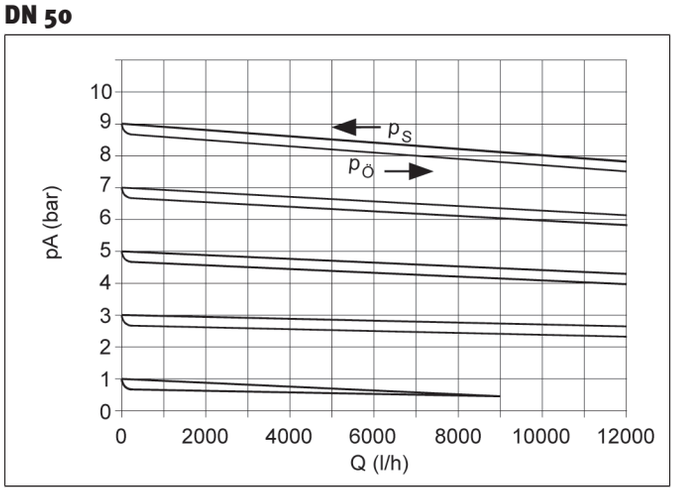
pA = working pressure (secondary pressure)
Q = flow

DN 40



pA = working pressure (secondary pressure)
Q = flow

DN 50



pA = working pressure (secondary pressure)
Q = flow

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Pressure reducing valves, Pressure Reducing Valve DMV 765

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Pressure Reducing Valve DMV 750

set range: 1.0 - 6.0 bar



Advantage
- pressure setting possible at any time, also during operation
- hermetically sealed by valve diaphragm
- high level of operating safety and long service life
- reliable diaphragm fastening with standard stainless steel screws
- pressure reduction by throttling at the valve seat
- as standard with two lateral threaded connections for pressure gauges or diaphragm pressure gauge guards

Application
- chemical plants
- industrial plants
- water treatment

Utilisation
- for reduction of system pressures to virtually constant working pressures

Valve Function
- The opened valve is in equilibrium between the inlet pressure (primary side) and the lower working pressure (secondary side). If the working pressure goes above or below the desired value, the large area membrane is lifted against the spring force or pressed down by the spring force. The valve starts closing or opening until the equilibrium condition is reached again, i.e. the working pressure remains constant independent of an increasing or decreasing inlet pressure (as long as the inlet pressure › working pressure).
- The valve piston is designed to match the plastic characteristics and is generously dimensioned for reliably withstanding high closing forces at the valve seat. The diaphragm separates the medium in the valve body from the bonnet and the atmosphere. The principle ensures that the secondary pressure acting on the diaphragm is compensated by the spring force which is held in equilibrium by the pressure setting.

Flow Media
- Technically pure, neutral and aggressive fluids, provided that the selected valve materials coming into contact with the media are resistant at the operating temperature according to the ASV resistance guide.
- For nitric acid or sulfuric acid please specify the precise operating conditions of the application.

Valve Setting
- Set or adjust the working pressure to be kept constant at the adjustment screw with the aid of pressure gauges (ASV diaphragm pressure gauge guard with pressure gauge, type MDM 902) in the pipe system after removing the protection cap. The adjustment screw is secured by a counter nut and can be sealed against unauthorized adjustment, if necessary.
- There are two types of application:
  · secondary pressure - system closed or
  · secondary pressure - system dynamically flowing

Fluid Temperature
- see pressure/temperature diagram

Operating Pressure
- see pressure/temperature diagram

Set Range
- 1.0 - 6.0 bar

Nominal Pressure (H_2O, 20°C)
- PN 10

Working Pressure
- set pressure minus flow dependent pressure reduction:
- 1,0 - 6,0 bar

Constant Working Pressure
- approx. ± 0.2 bar

Hysteresis
- Difference between opening and closing pressure
- approx. 0.1 - 0.4 bar

Valve Body
- PVC-U
- PP
- PVDF

Bonnet
- PVC-U
- PP
- PVDF

Diaphragm
- PTFE (EPDM diaphragm with PTFE coating on the surfaces coming into contact with the medium)

Sealing
- EPDM

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Screws
- stainless steel (1.4301)

Actuation
- medium controlled

Connection
- spigot end for solvent welding DIN ISO (PVC-U)
- fusion spigot end DIN ISO (PP)
- fusion spigot end DIN ISO (PVDF)
- backing flange DIN 2501, PN 10/16, on request

Flow Direction
- always in the direction of the arrow

Mounting
- as required

Colour
- PVC-U: grey, RAL 7011
- PP: grey, RAL 7032
- PVDF: opaque, yellowish-white

Pressure Gauge Connection
- The pressure reducing valves can be factory fitted with a pressure gauge for neutral media. The resistance of the pressure gauge material has to be taken into consideration for other media.

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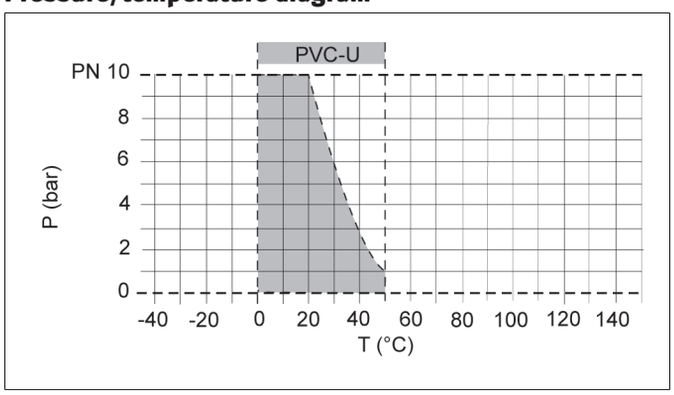
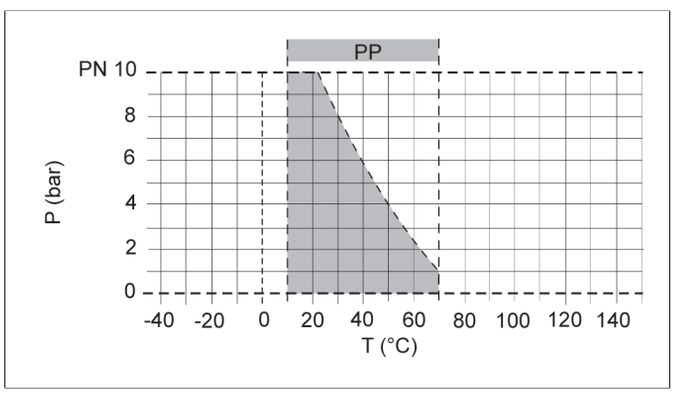
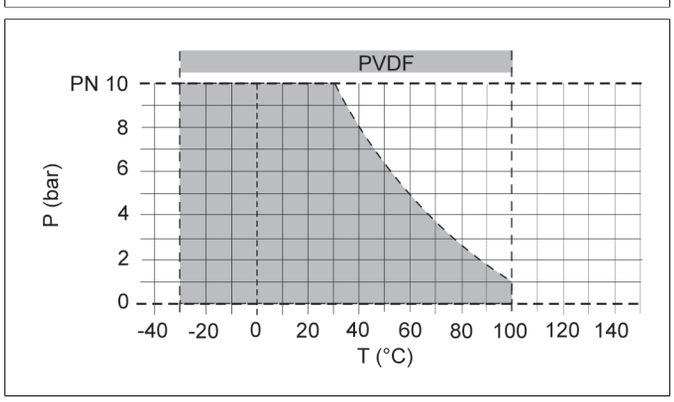
Pressure reducing valves, Pressure Reducing Valve DMV 750

Pressure/temperature diagram



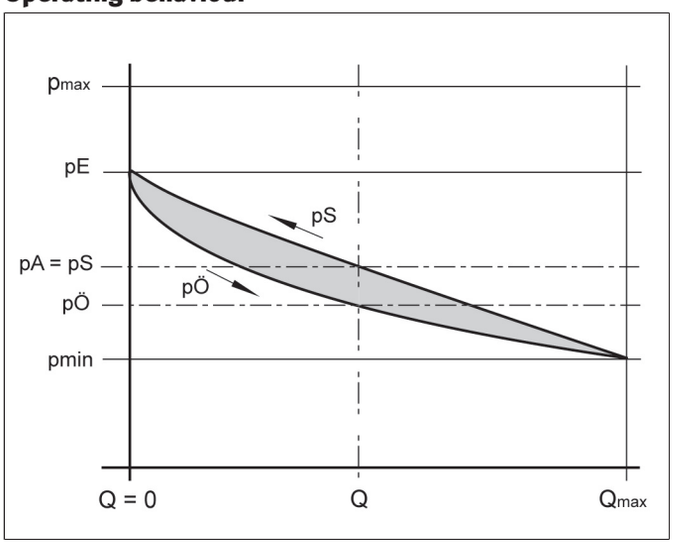




P = operating pressure
T = temperature

The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years. These are standard values for harmless media (DIN 2403), to which the valve material is resistant.
For other media please refer to the ASV resistance guide.
The durability of wear parts depends on the operating conditions of the application.
For temperatures below 0°C (PP < +10°C) please specify the precise operating conditions of the application.
The rated pressure depends on the valve size and material. For the corresponding rated pressure value of the valve, please refer to the »Order table«.

Operating behaviour



pE = set pressure
pA = working pressure
pÖ = opening pressure
pS = closing pressure
pÖ - pS = hysteresis
pA - pE = flow dependent pressure reduction
Q = flow

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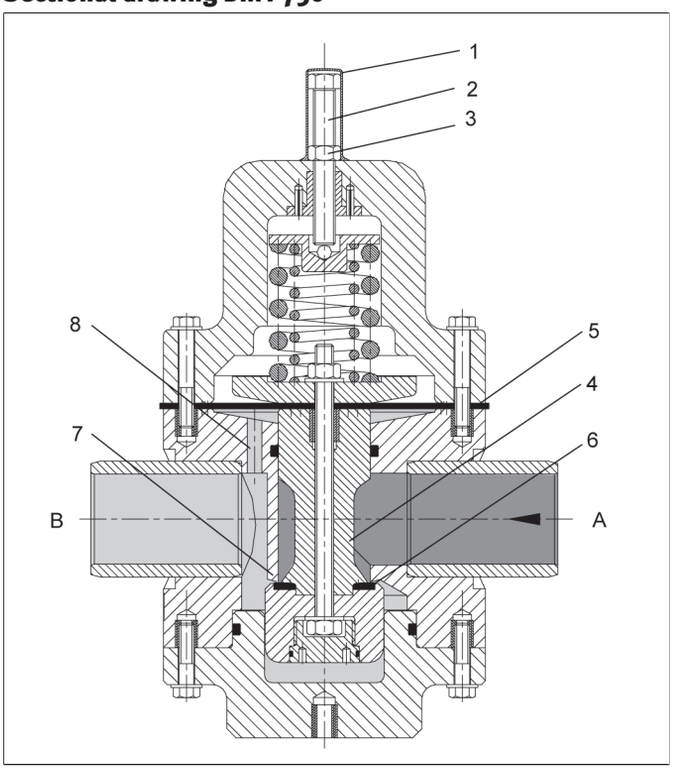
Pressure reducing valves, Pressure Reducing Valve DMV 750

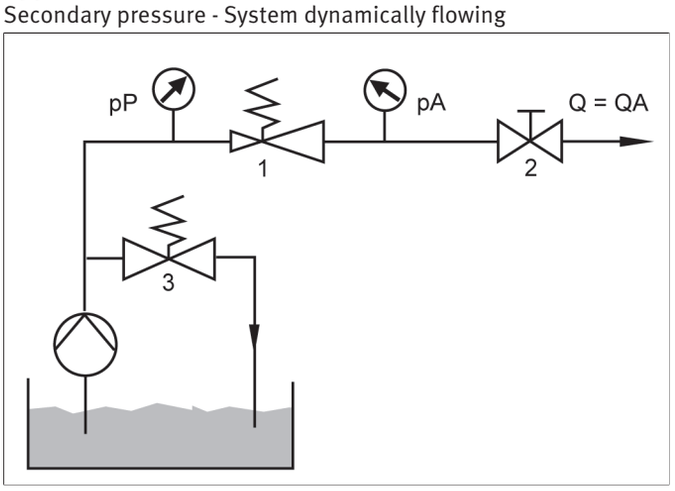
Sectional drawing DMV 750



A = primary side
B = secondary side
1 = protection cap
2 = adjustment screw
3 = counter nut
4 = piston
5= diaphragm
6 = flat sealing ring
7 = valve seat
8 = control bore hole

Applications

Secondary pressure - System dynamically flowing

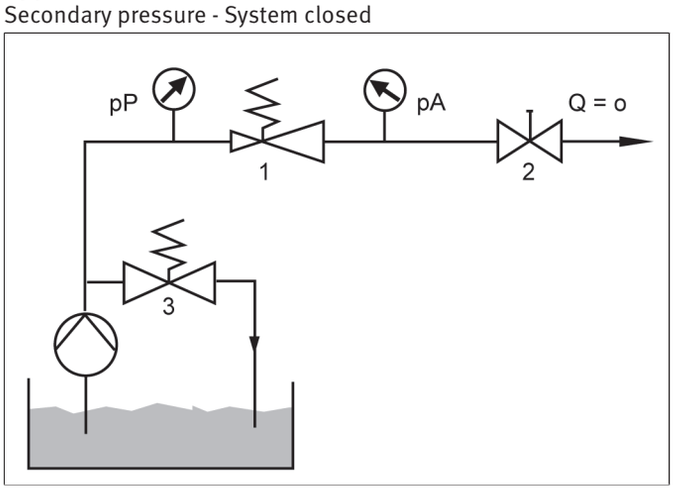


pP = pump pressure
pA = working pressure
1 = Pressure Reducing Valve
2 = stop valve
3 = Pressure Relief Valve

If the stop valve is closed, the working pressure pA rises by the amount of the closing pressure pS.

Applications

Secondary pressure - System closed



pP = pump pressure
pA = working pressure
1 = Pressure Reducing Valve
2 = stop valve
3 = Pressure Relief Valve

If the stop valve is opened, the working pressure pA drops by the amount of the opening pressure pÖ.

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Pressure reducing valves, Pressure Reducing Valve DMV 750

Malfunctions, possible causes, rectification

Malfunction:	Cause:	Rectification:
Valve leaking at the diaphragm.	Insufficient contact pressure (membrane fastening).	Tighten the connecting screws.
Pressure exceeds the set value.	Valve seat/seat seal defective. Diaphragm defective. O-ring defective (17). Control bore hole soiled or blocked.	Check piston and/or seat seal, replace, if necessary. Diaphragm defective. O-ring defective. Dismantle piston and clean bore hole.
Valve closed (does not open).	Valve fitted the wrong way round.	Turn the valve around, observe the arrow for the direction of flow.
Leakage at the plug/flange.	O-ring defective.	Dismantle plug/flange (15) and renew O-ring.
Medium leakage at the adjustment screw.	Insufficient tightening torque between spring plate, diaphragm and piston. Diaphragm defective.	Increase the tightening torque at the nut (13). Replace diaphragm.

Maintenance note

Screw tightening torque (Nm)

d (mm)	75	90
Md (Nm)	20	20

The specified values apply to lubricated screws.

Check the tightening torque of the body screws at certain intervals in case of setting of the diaphragms and/or temperature fluctuations.

Operating note

Safe operation of the valve can only be ensured if it is properly installed, operated, serviced or repaired by qualified personnel according to its intended use while observing the accident prevention regulations, safety regulations, relevant standards, directives/technical regulations or codes of practice such as e.g. DIN, DIN EN, DIN ISO and DVS*. *DVS = German Welding Society

The intended use includes adhering to specified limit values for pressure and temperature, as well as checking the resistance. This requires all components coming into contact with the medium to be "resistant" in accordance with the ASV resistance guide.

Pressure gauge version

If the valve body is equipped with a pressure gauge, do not tighten the pressure gauge with more than max. 3 Nm.

If the secondary pressure is additionally increased by the counterpressure, the pressure reducing valve DMV acts as a non-return valve. This force can lead to destruction of the valve piston.

Please take into account that the material PTFE is classified as resistant against many media, however, PTFE is not diffusion tight when used as a film, e.g. for the ASV membranes. Please contact us for limit cases (nitric acid or sulfuric acid).

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Pressure reducing valves, Pressure Reducing Valve DMV 750



body PVC-U

size	d(mm)		75	90
pressure range	DN(mm)		65	80
	DN(inch)		2 1/2	3
	PN(bar)		10	10
	setting range (bar)		1-6	1-6
Connection	*sealing*	*ident No.*		
PVC-U spigot end DIN ISO	EPDM		111173	111174
	weight		*12.50 kg*	*15.00 kg*

body PP

size	d(mm)		75	90
pressure range	DN(mm)		65	80
	DN(inch)		2 1/2	3
	PN(bar)		10	10
	setting range (bar)		1-6	1-6
Connection	*sealing*	*ident No.*		
PP spigot end DIN ISO	EPDM		111176	111177
	weight		*11.90 kg*	*13.50 kg*

body PVDF

size	d(mm)		75	90
pressure range	DN(mm)		65	80
	DN(inch)		2 1/2	3
	PN(bar)		10	10
	setting range (bar)		1-6	1-6
Connection	*sealing*	*ident No.*		
PVDF spigot end DIN ISO	EPDM		111179	111180
	weight		*14.10 kg*	*17.20 kg*

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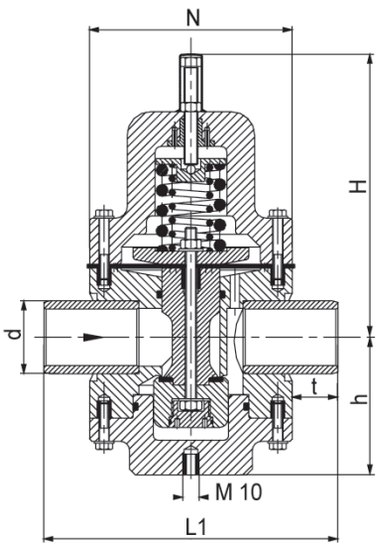
Pressure reducing valves, Pressure Reducing Valve DMV 750



dimensions

d(mm)	75	90
DN(mm)	65	80
DN(inch)	2 1/2	3
dimensions(mm)		
d	75	90
h	121	143
L1	284	360
t	44	55
H	265	340
N	195	250

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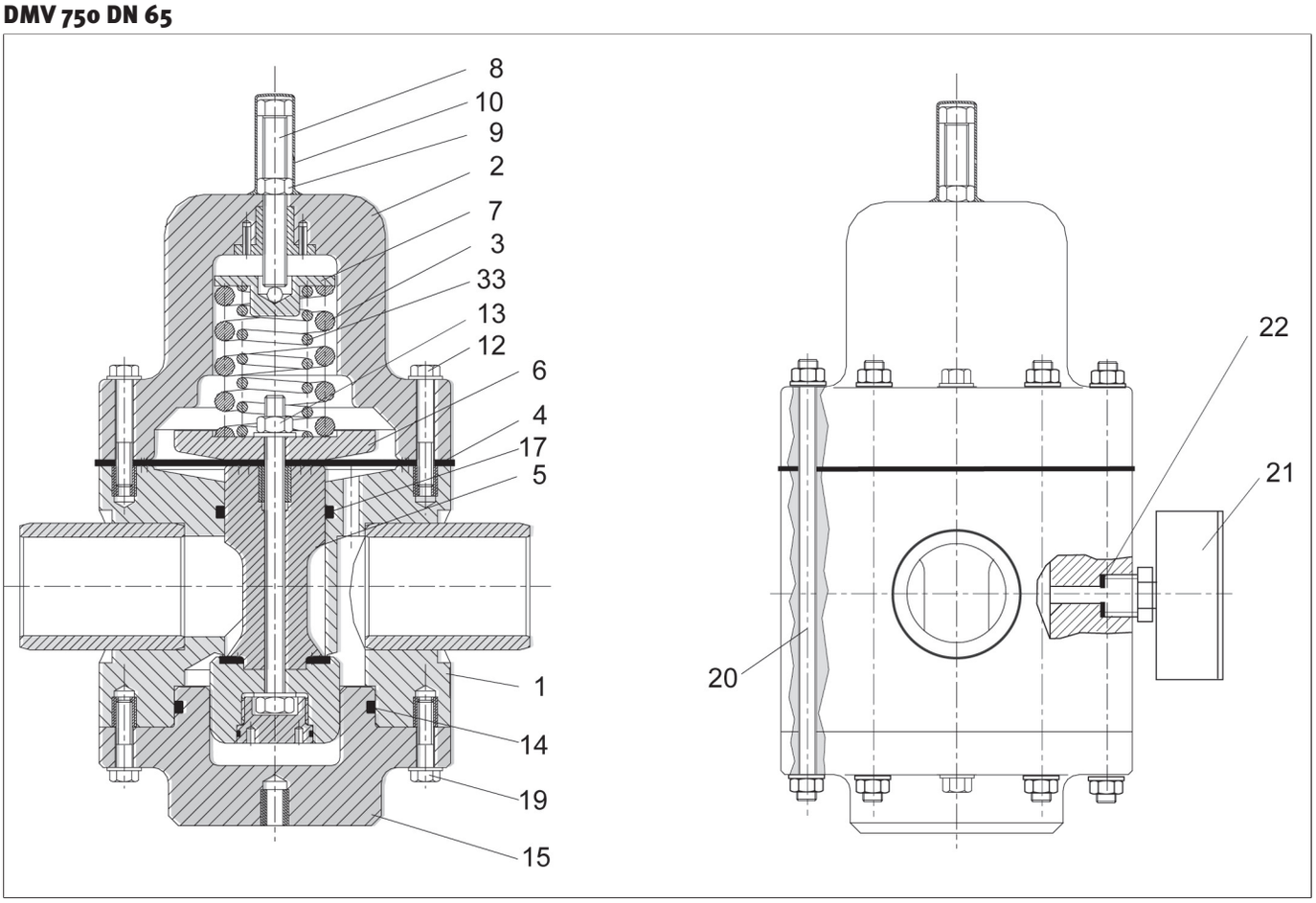
Pressure reducing valves, Pressure Reducing Valve DMV 750

Exploded view

DMV 750 DN 65



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	pressure spring
4	1	diaphragm
5	1	piston, complete
6	1	spring plate
7	1	pressure plate
8	1	adjustment screw
9	1	counter nut
10	1	cap
12	2	screw
13	1	hexagon nut
14	1	O-ring
15	1	Flange
17	1	O-ring
19	2	screw
20	8	threaded bolt
21	1	pressure gauge
22	1	flat sealing ring
33	1	pressure spring

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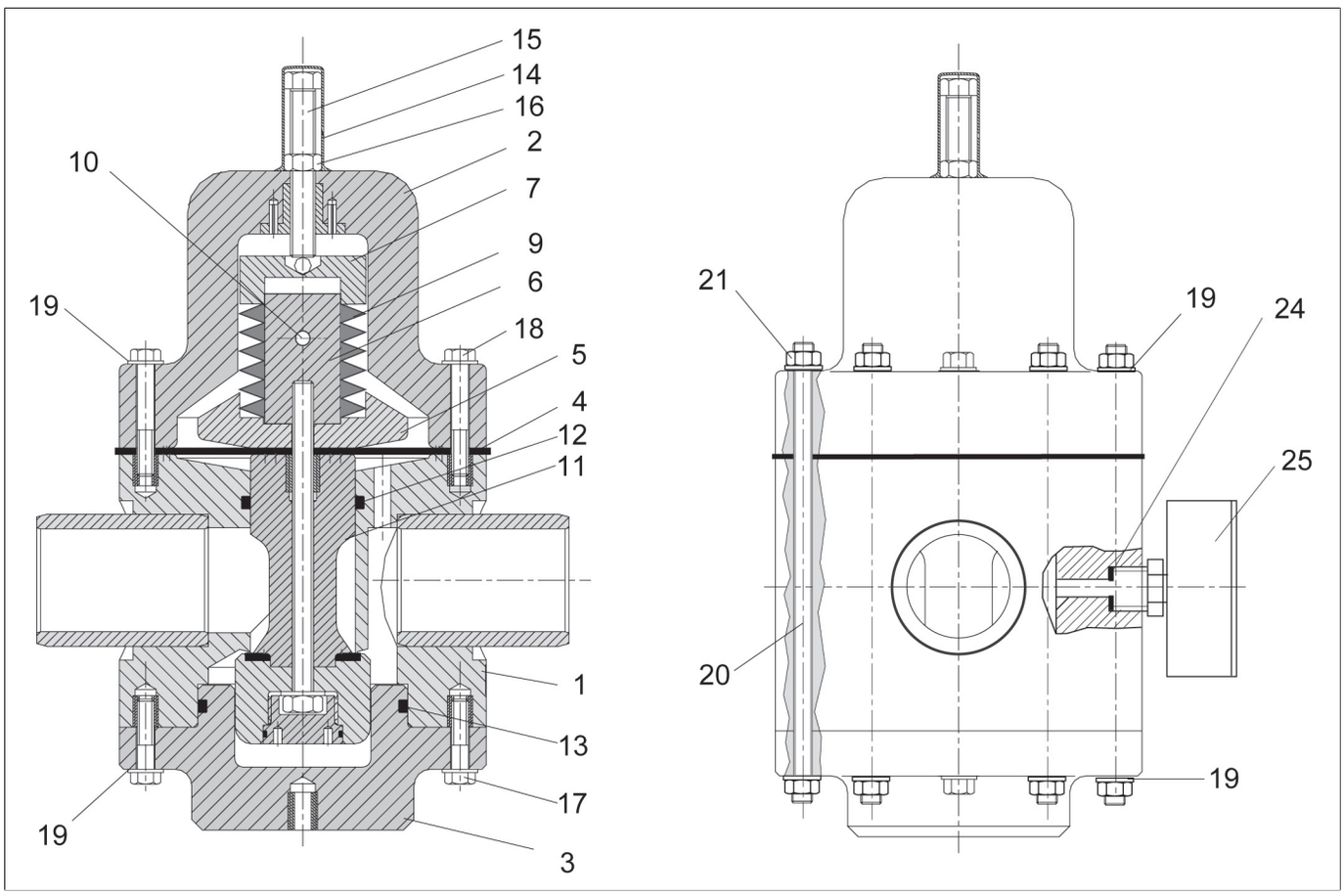

position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	
4	1	diaphragm
5	1	spring plate
6	1	
7	1	pressure piece
9	1	
10	1	steel ball
11	1	piston, complete
12	1	O-ring
13	1	O-ring
14	1	protection cap
15	1	adjustment screw
16	1	counter nut
17	2	screw
18	2	screw
19	20	disc
20	8	threaded bolt
21	16	hexagon nut
24	2	Plug
25	1	pressure gauge

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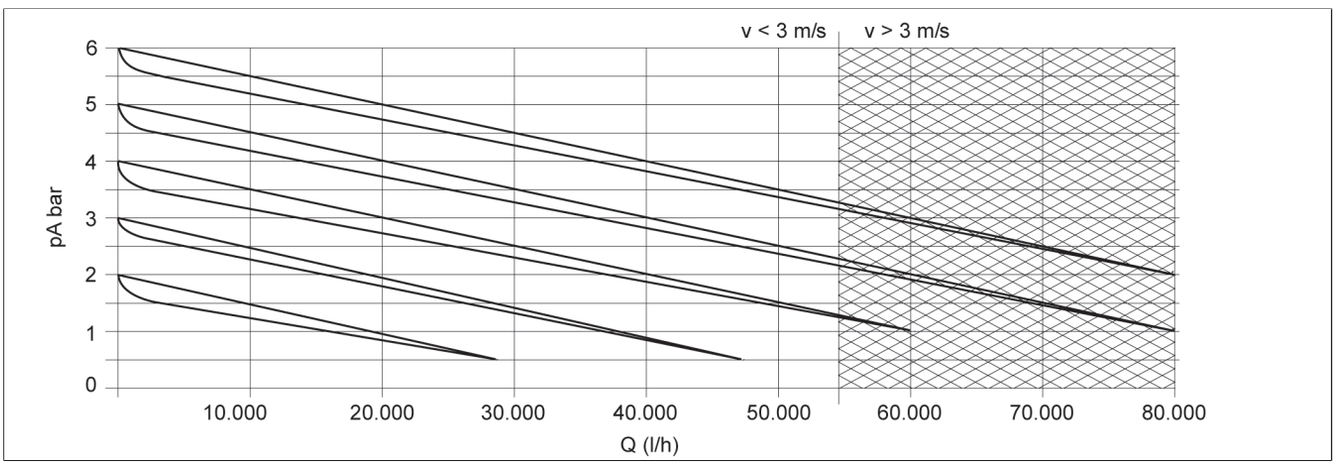
Pressure reducing valves, Pressure Reducing Valve DMV 750

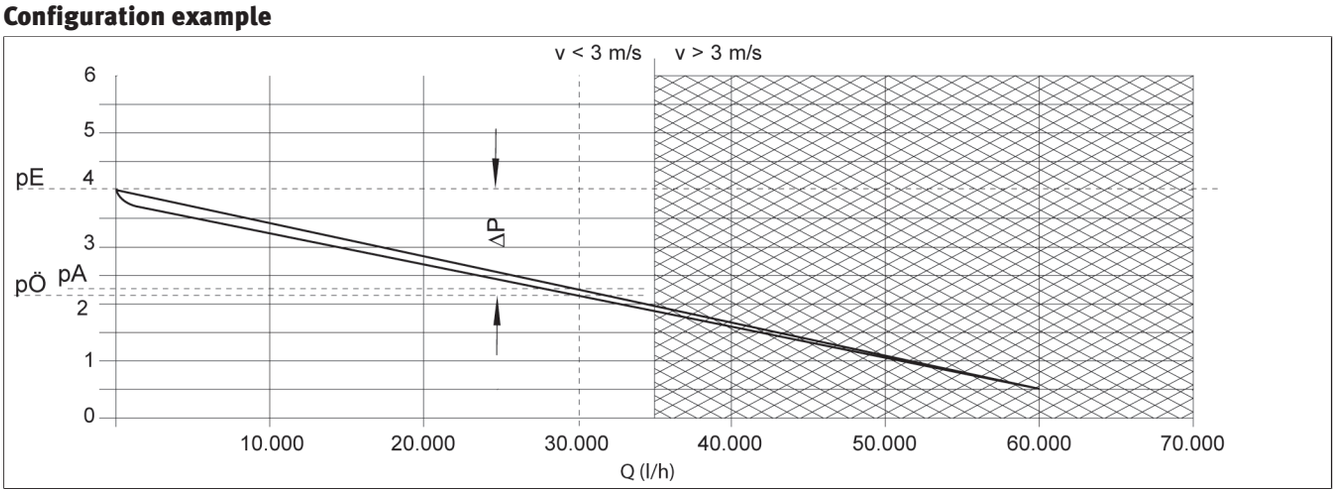
Characteristic curves

DN 80



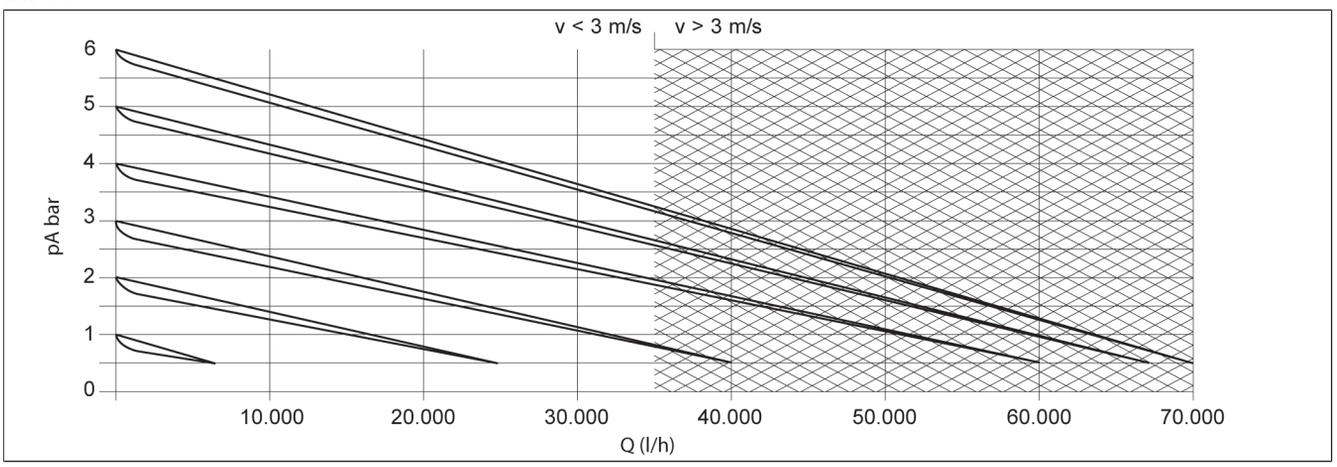
pA = working pressure
Q = flow

Configuration example



The valve is set tight at 4 bar.
Desired flow rate 30000 l/h, Medium H^2O
According to the curve, this results in the following values:
set pressure pE: 4 bar; Pressure reduction: p = 1,8 bar; Working pressure pA = ca. 2,2 bar

DN 80



pA = working pressure
Q = flow

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