Pressure relief valve DHV 712-R

set range: 0,3 - 10,0 bar




Advantage
- pressure setting possible at any time, also during operation
- optimum monitoring valves
- high reproducibility of the set pressure
- high level of operating safety and long service life
- constant, low vibration control
- low-maintenance
- can be easily connected to the pipework by proven technologies - solvent or fusion welding
- radial removal is possible even after installation
- low pressure increase until the valve is fully opened
- reliable diaphragm fastening with standard stainless steel screws
- 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
- suitable for oscillating pumps

Application
- chemical plants
- industrial plants
- water treatment

Intended Use
- The pressure relief valve which is directly controlled by the medium, is used in technical processing plants for keeping preset working pressures constant on the primary side.
- The pressure relief valve 712-R, specially designed for dosing technology, is used for ensuring constant dosing quantities in conjunction with oscillating pumps. In the event of any counterpressure on the secondary side, the admission pressure and thus the dosing quantity remain constant.
- not suitable for equipment with safety function according to the Pressure Equipment Directive.

Valve Function
- If the working or inlet pressure rises above the set value, the pressurized valve piston is lifted against the spring force. The valve opens and a pressure relief on the secondary side (outlet side) takes place. The valve closes as soon as the working pressure at the valve piston is lower than the set spring preload.
- When in the case of the dynamic flow valve with set working pressure, counter pressure is generated on the outlet side, this pressure acts simultaneously underneath the active area of the diaphragm and on the loosely guided valve piston, i.e. the forces under the diaphragm surface and the piston cancel each other out. The valve lift and thus the working pressure remain virtually constant.

Valve Setting
- Set or adjust the desired or permissible working pressure at the adjustment screw with the aid of pressure gauges (ASV diaphragm pressure gauge guard, 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.

Classification Of The Identification Number
- refer table on page 7

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

Size
- DN 10 - DN 50

Set Range
- 0.3 - 10.0 bar

Nominal Pressure (H_2O, 20°C)
- PN 10

Working Pressure
- set pressure plus flow dependent pressure increase (see characteristic curves): approx. 0.3 - 10.0 bar

Deviation From The Working Pressure
- up to 5 bar counterpressure: approx. ±0.3 bar
- over 5 bar counterpressure: approx. ±0.5 bar

Opening Pressure
- approx. 0.3 - 0.5 bar

Hysteresis
- Difference between opening and closing pressure approx. 0.3 bar

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Valve Body
- PVC-U
- PP
- PVDF
- PTFE - carbon fibre reinforced
- stainless steel 1.4571 (V4A)

Bonnet
- PP, glass fibre reinforced

Piston
- PVC-U
- PP
- PVDF
- PTFE piston for the media to permeation (penetration) tilt (such as HF, HCl, HNO_3).

Sealing
- FPM
- PTFE
- EPDM

Diaphragm
- PTFE (EPDM diaphragm with PTFE coating on the surfaces coming into contact with the medium)
- PTFE membrane with ECTFE film for media (such as HF, HCl, HNO_3) for the permeation (penetration) tilt.

Screws
- stainless steel (1.4301)

Actuation
- medium controlled

Connection
- refer comments on the identification numbers

Flow Direction
- always in the direction of the arrow

Mounting Position
- as required

Fastening
- via threaded inserts (metal inserts) in the valve body

Colour
- valve body: PVC-U, grey, RAL 7011
- valve body: PP, grey, RAL 7032
- valve body: PVDF, opaque, yellowish-white
- bonnet: orange, RAL 2004
- valve body: PTFE, black
- valve body: stainless steel, unpainted

Pressure Gauge Connection
- see page 14 »version with threaded holes for pressure gauge mounting«

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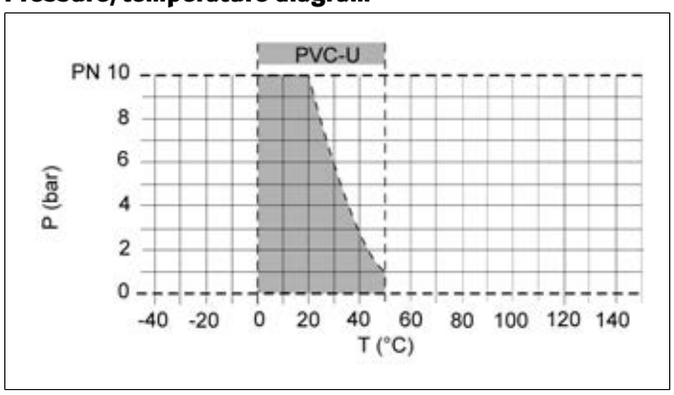
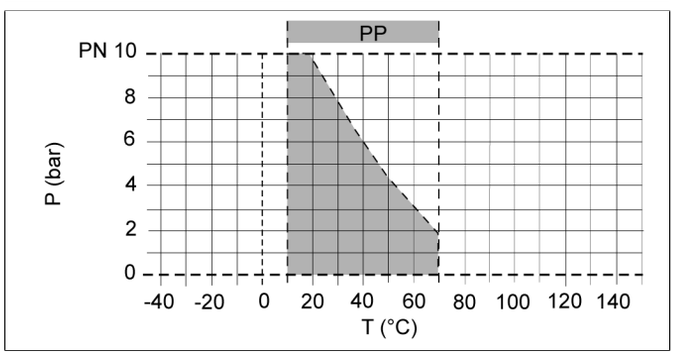
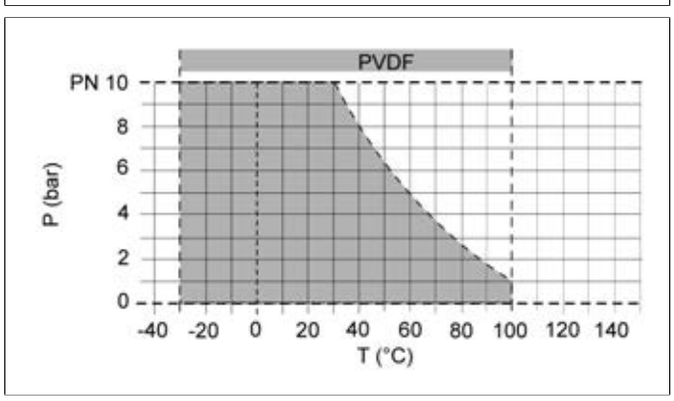
Pressure relief valve DHV 712-R

Pressure/temperature diagram



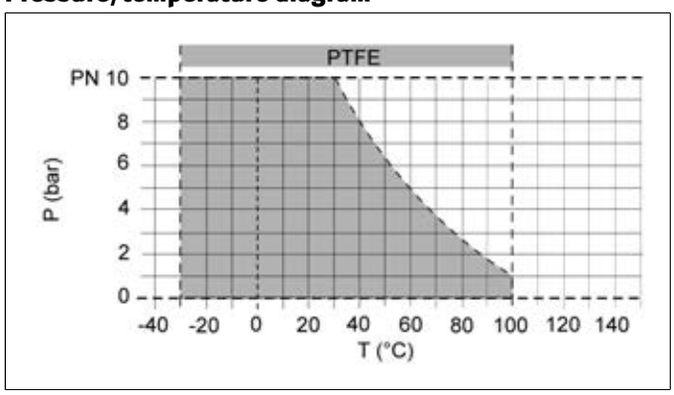


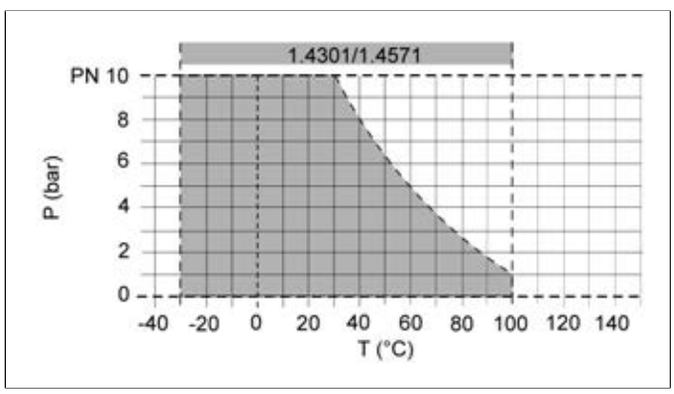


P = operating pressure
T = temperature

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«.

Pressure/temperature diagram





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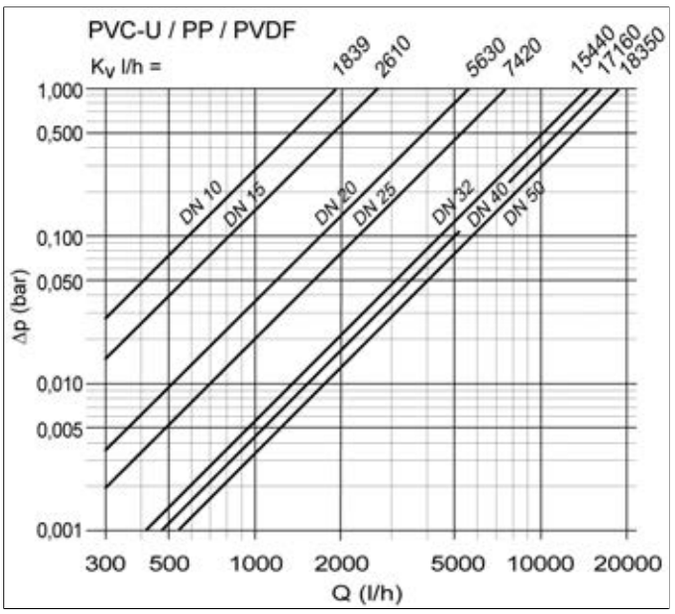
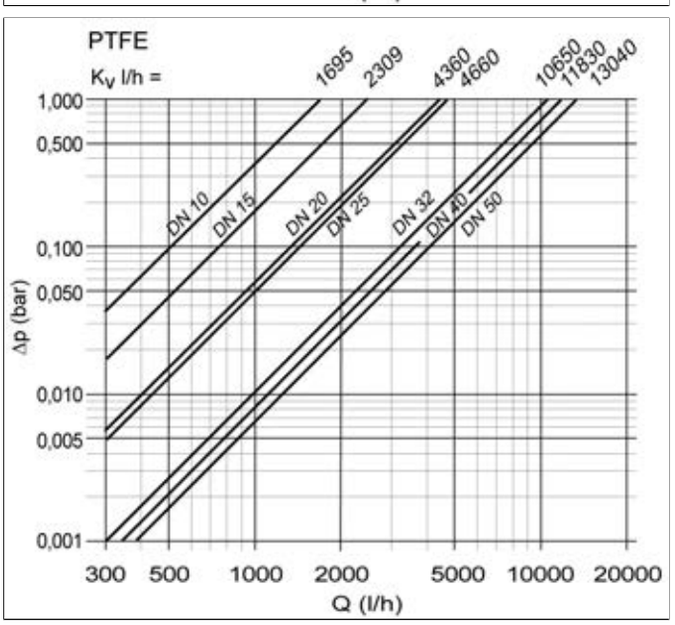
Pressure relief valve DHV 712-R

Pressure loss curve (standard values for H_2O, 20°C)





ΔP = pressure loss
Q = flow

pressure loss and k_v value

The diagram shows the pressure loss ΔP in relation to the flow Q.

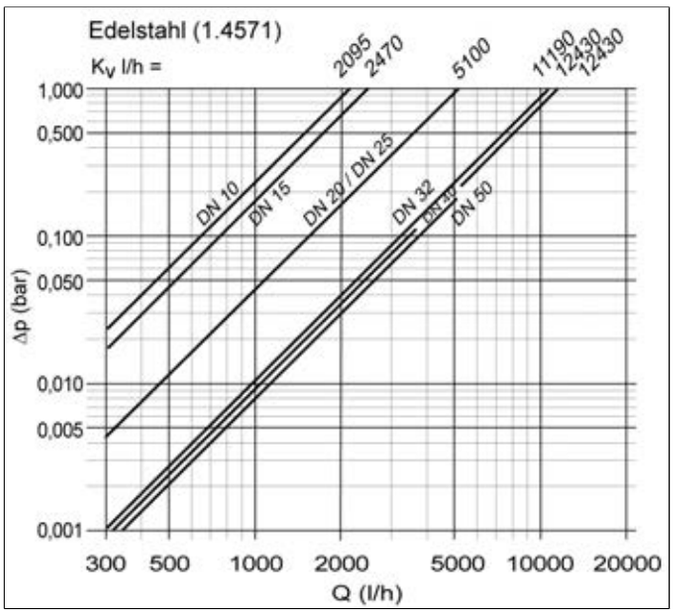
Conversion aid:

$c_v = k_v \times 0.07$; $f_v = k_v \times 0.0585$

Units:

k_v [l/min]; c_v [gal/min] US; f_v [gal/min] GB

Pressure loss curve (standard values for H_2O, 20°C)



ΔP = pressure loss
Q = flow

pressure loss and k_v value

The diagram shows the pressure loss ΔP in relation to the flow Q.

Conversion aid:

$c_v = k_v \times 0.07$; $f_v = k_v \times 0.0585$

Units:

k_v [l/min]; c_v [gal/min] US; f_v [gal/min] GB

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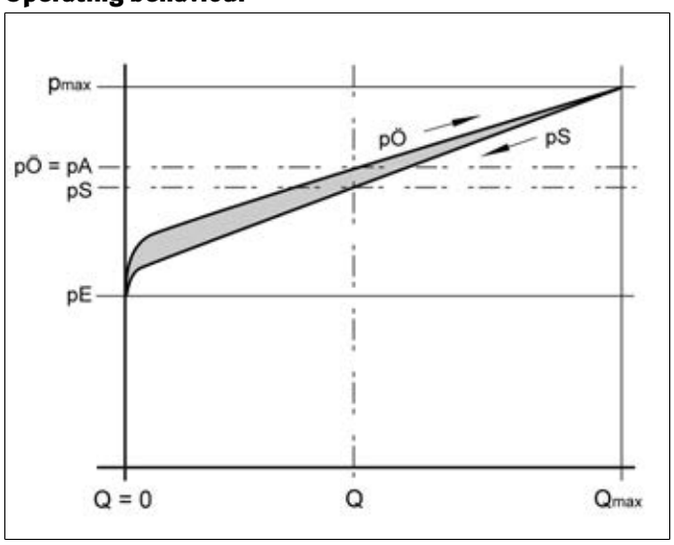
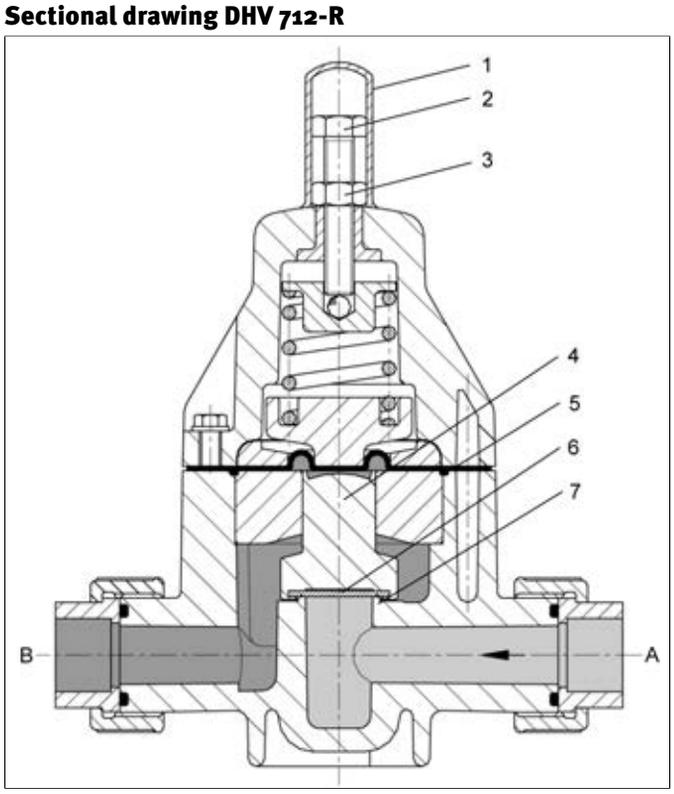
Pressure relief valve DHV 712-R

Operating behaviour



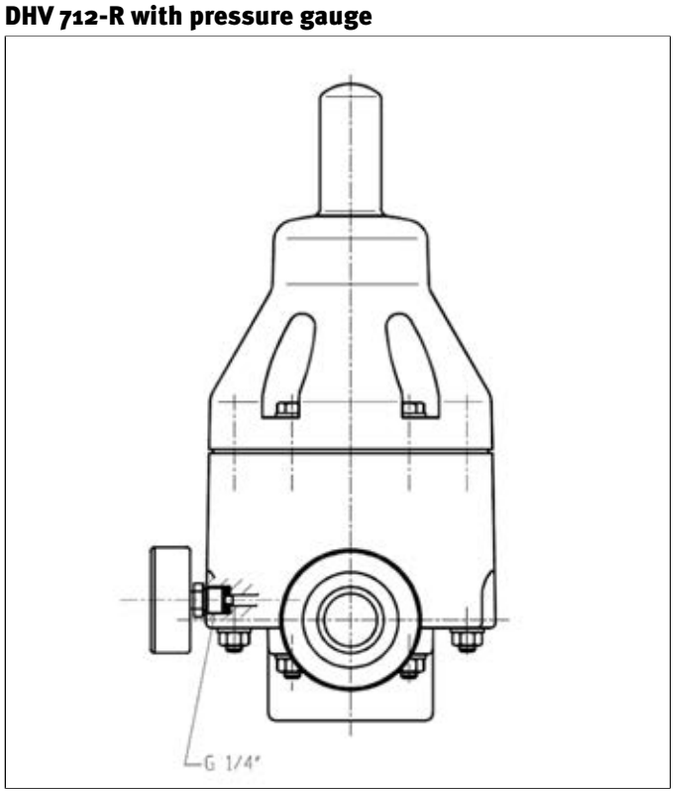
pE = set Pressure
pA = working pressure
pÖ = opening pressure
pS = closing pressure
pÖ - pS = hystersis
pE - pA = flow dependent pressure reduction
Q = flow

Sectional drawing DHV 712-R



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

DHV 712-R with pressure gauge



The pressure relief valve 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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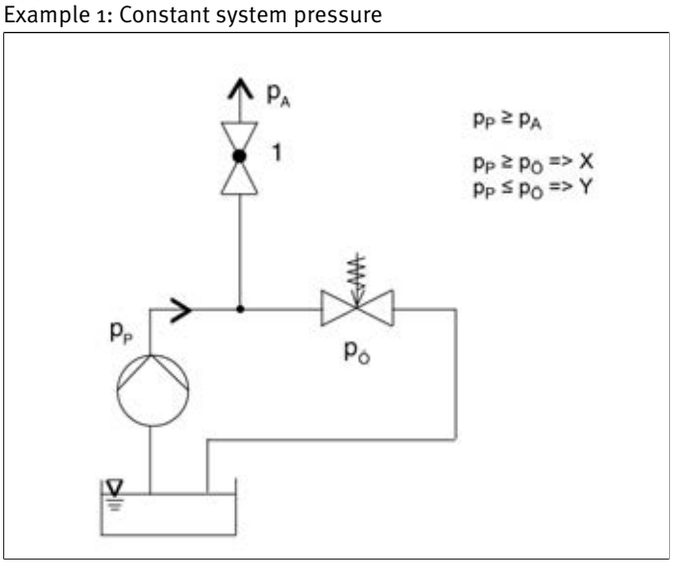
Pressure relief valve DHV 712-R

Applications for Pressure Relief Valve

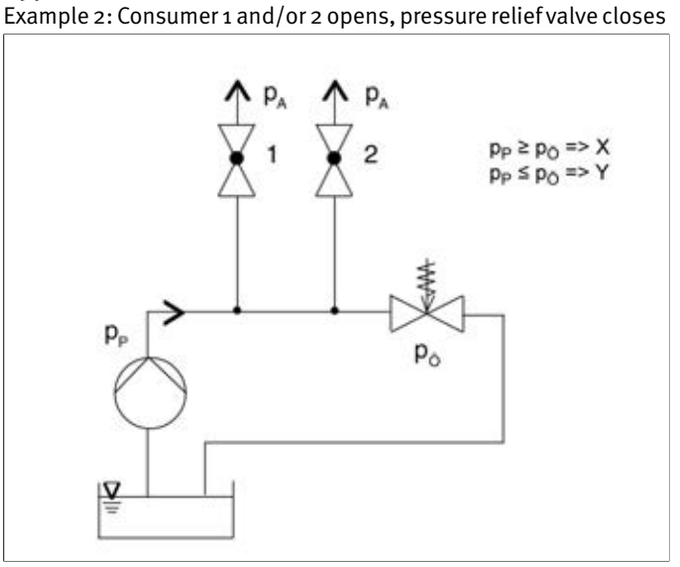
Example 1: Constant system pressure



X = valve opens
Y = valve closed
pA = working pressure
pP = pump pressure
pÖ = opening pressure

Applications for Pressure Relief Valve

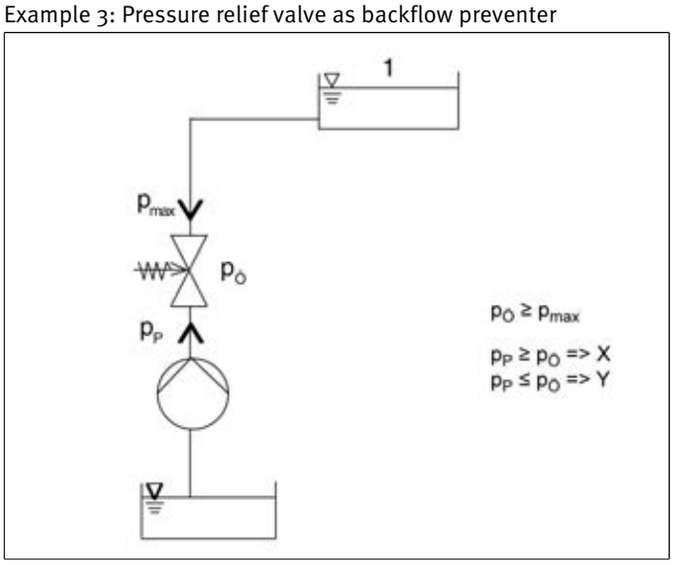
Example 2: Consumer 1 and/or 2 opens, pressure relief valve closes



X = valve opens
Y = valve closed
pA = working pressure
pP = pump pressure
pÖ = opening pressure

Applications for Pressure Relief Valve

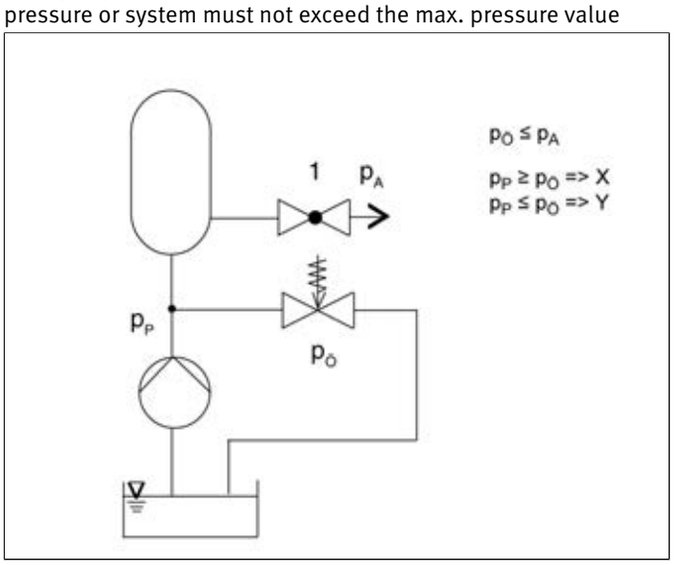
Example 3: Pressure relief valve as backflow preventer



X = valve opens
Y = valve closed
pmax = max. pressure
pP = pump pressure
pÖ = opening pressure

Applications for Pressure Relief Valve

Example 4: Pressure relief valve as overflow valve:The container pressure or system must not exceed the max. pressure value



X = valve opens
Y = valve closed
pA = working pressure
pP = pump pressure
pÖ = opening pressure

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Pressure relief valve DHV 712-R

Malfunctions, possible causes, rectification

Malfunction:	Cause:	Rectification:
Valve leaking at the diaphragm.	Insufficient contact pressure (membrane fastening).	Tighten the connecting screws.
Pressure falls below the set value.	Valve seat/seat seal defective.	Check piston and/or valve seat and replace, if necessary.
Pressure exceeds the set value.	The piston guide sticking, possible due to soiling.	Clean valve.
	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)

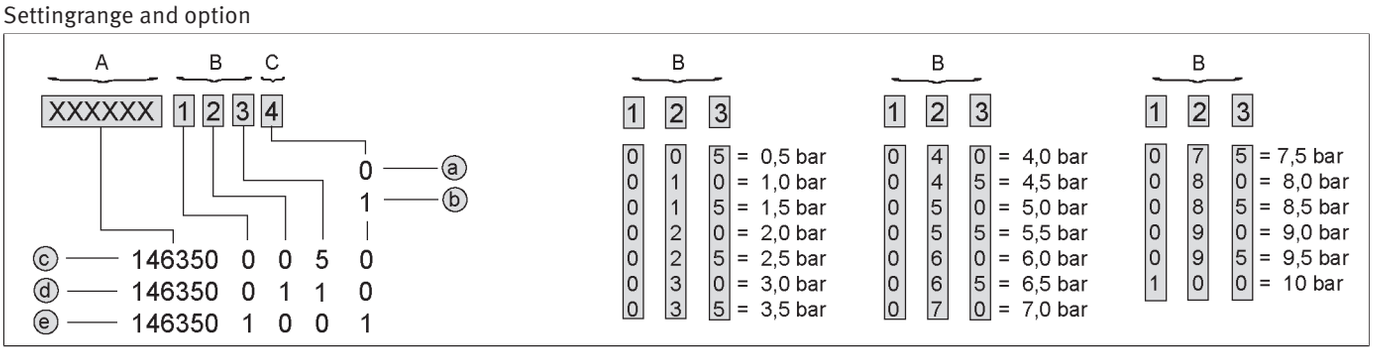
d (mm)	16	20	25	32	40	50	63
Md (Nm)	4,5	4,5	6	6	8	8	8

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.

Ident code

Settingrange and option



A = standard ident no. (6 digits)
B = ident code for settingrange
C = ident code for »washed free of silicone«
a = ident code »0« not washed free of silicone
b = Ident code »1« washed free of silicone

example c = ident no. / setting = 0,5 bar / not washed free of silicone
example d = ident no. / setting = 1,1 bar / not washed free of silicone
example e = ident no. / setting = 10 bar / washed free of silicone

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).

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Pressure relief valve DHV 712-R, Standard




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
Connection	*sealing*	*ident No.*						
PVC-U	EPDM	146350	146351	146352	146353	146354	146355	146356
socket end DIN ISO	FPM	146366	146367	146368	146369	146370	146371	146372
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U	EPDM	146494	146495	146496	146497	146498	146499	146500
spigot end FIX DIN	FPM	146510	146511	146512	146513	146514	146515	146516
ISO	*weight*	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U	EPDM	146382	146383	146384	146385	146386	146387	146388
socket end ANSI	FPM	146398	146399	146400	146401	146402	146403	146404
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U	EPDM	146414	146415	146416	146417	146418	146419	146420
socket end BS	FPM	146422	146423	146424	146425	146426	146427	146428
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U	EPDM	146430	146431	146432	146433	146434	146435	146436
socket end JIS	FPM	146438	146439	146440	146441	146442	146443	146444
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U	EPDM	146446	146447	146448	146449	146450	146451	146452
threaded sockets Rp	FPM	146454	146455	146456	146457	146458	146459	146460
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
A4 1.4571	EPDM	146478	146479	146480	146481	146482	146483	146484
threaded sockets Rp	FPM	146486	146487	146488	146489	146490	146491	146492
	weight	*0.85 kg*	*0.94 kg*	*2.00 kg*	*2.09 kg*	*5.41 kg*	*5.61 kg*	*6.11 kg*
PE	EPDM		146463	146464	146465	146466	146467	146468
spigot end DIN ISO	FPM		146471	146472	146473	146474	146475	146476
	weight		*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
GFR	EPDM		146526	146527	146528	146529	146530	146531
flange DIN EN 1092	FPM		146540	146541	146542	146543	146544	146545
	weight		*1.06 kg*	*2.16 kg*	*2.28 kg*	*5.66 kg*	*5.85 kg*	*6.21 kg*
PP / steel	EPDM		146554	146555	146556	146557	146558	146559
flange ANSI	FPM		146568	146569	146570	146571	146572	146573
	weight		*1.33 kg*	*2.46 kg*	*2.81 kg*	*6.10 kg*	*6.32 kg*	*7.00 kg*

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Pressure relief valve DHV 712-R, Standard




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
Connection	*sealing*	*ident No.*						
PP	EPDM	146582	146583	146584	146585	146586	146587	146588
socket end DIN ISO	FPM	146590	146591	146592	146593	146594	146595	146596
	weight	*0.67 kg*	*0.72 kg*	*1.57 kg*	*1.61 kg*	*4.10 kg*	*4.18 kg*	*4.28 kg*
PP	EPDM		146612	146613	146614	146615	146616	146617
spigot end DIN ISO	FPM		146619	146620	146621	146622	146623	146624
	weight		*0.72 kg*	*1.57 kg*	*1.61 kg*	*4.10 kg*	*4.18 kg*	*4.28 kg*
PP	EPDM	146626	146627	146628	146629	146630	146631	146632
spigot end FIX DIN ISO	FPM	146634	146635	146636	146637	146638	146639	146640
	weight	*0.67 kg*	*0.72 kg*	*1.57 kg*	*1.61 kg*	*4.10 kg*	*4.18 kg*	*4.28 kg*
GFR	EPDM		146642	146643	146644	146645	146646	146647
flange DIN EN 1092	FPM		146649	146650	146651	146652	146653	146654
	weight		*0.94 kg*	*1.89 kg*	*2.02 kg*	*4.69 kg*	*4.94 kg*	*5.28 kg*
PP / steel	EPDM		146656	146657	146658	146659	146660	146661
flange ANSI	FPM		146663	146664	146665	146666	146667	146668
	weight		*1.20 kg*	*2.20 kg*	*2.55 kg*	*5.22 kg*	*5.42 kg*	*6.07 kg*
PP	EPDM		146598	146599	146600	146601	146602	146603
threaded sockets Rp	FPM		146605	146606	146607	146608	146609	146610
	weight		*0.72 kg*	*1.57 kg*	*1.61 kg*	*4.10 kg*	*4.18 kg*	*4.28 kg*

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Pressure relief valve DHV 712-R, Standard

body PVDF

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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
Connection	*sealing*	*ident No.*						
PVDF socket end DIN ISO	FPM	146670	146671	146672	146673	146674	146675	146676
	weight	*1.02 kg*	*1.07 kg*	*2.11 kg*	*2.15 kg*	*5.45 kg*	*5.55 kg*	*5.65 kg*
PVDF spigot end DIN ISO	FPM		146686	146687	146688	146689	146690	146691
	weight		*1.07 kg*	*2.11 kg*	*2.15 kg*	*5.45 kg*	*5.55 kg*	*5.65 kg*
PVDF spigot end FIX DIN ISO	FPM	146700	146701	146702	146703	146704	146705	146706
	weight	*1.07 kg*	*1.07 kg*	*2.11 kg*	*2.15 kg*	*5.45 kg*	*5.55 kg*	*5.65 kg*
PP / steel flange ANSI	FPM		146730	146731	146732	146733	146734	146735
	weight		*1.58 kg*	*2.78 kg*	*3.15 kg*	*6.67 kg*	*6.84 kg*	*7.61 kg*
PP / steel flange DIN EN 1092	FPM		146716	146717	146718	146719	146720	146721
	weight		*1.61 kg*	*2.85 kg*	*3.21 kg*	*6.99 kg*	*7.35 kg*	*7.78 kg*

body PTFE

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
Connection	*sealing*	*ident No.*						
PTFE threaded neck G	PTFE	120711	120712	120713	120714	120715	120716	120717
		1.00 kg	*1.00 kg*	*2.20 kg*	*2.20 kg*	*5.80 kg*	*5.80 kg*	*5.80 kg*

body A4 1.4571

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
Connection	*sealing*	*ident No.*						
A4 1.4571 threaded neck G	PTFE	120705	120706	120704	120707	120708	120709	120710
		2.00 kg	*2.20 kg*	*4.60 kg*	*4.60 kg*	*12.80 kg*	*12.80 kg*	*14.28 kg*

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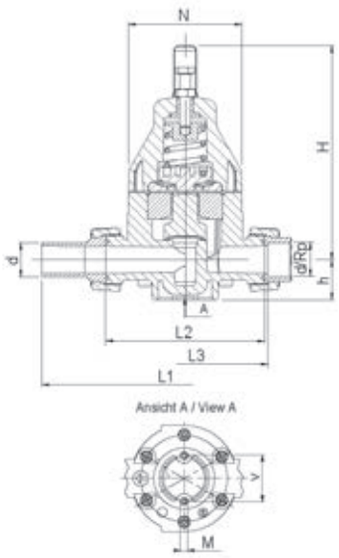
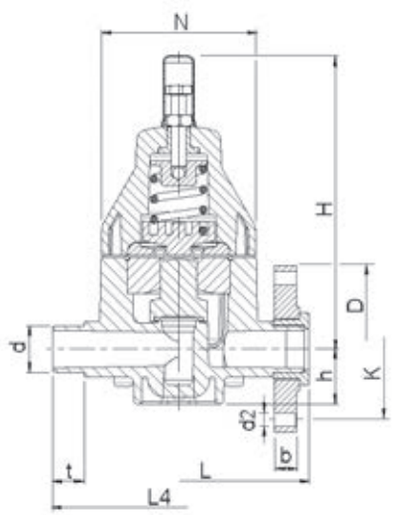
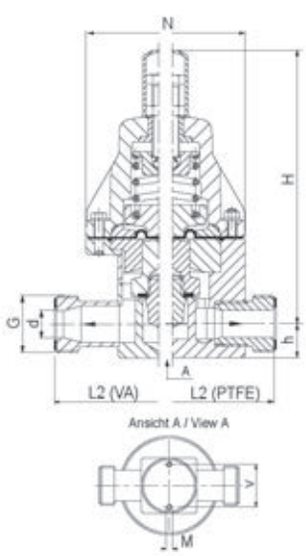
Pressure relief valve DHV 712-R, Standard







dimensions

d (mm)		16	20	25	32	40	50	63
DN (mm)		10	15	20	25	32	40	50
DN (Zoll)		3/8	1/2	3/4	1	1 1/4	1 1/2	2
Maße dimensions								
	d	16,0	20,0	25,0	32,0	40,0	50,0	63,0
	M	6,0	6,0	6,0	6,0	8,0	8,0	8,0
	G	3/4	1	1 1/4	1 1/2	2	2 1/4	2 3/4
1.4571	h	20,0	20,0	25,0	25,0	37,0	37,0	37,0
PP	h	25,0	25,0	38,0	38,0	56,0	56,0	56,0
PTFE	h	20,0	20,0	25,0	25,0	37,0	37,0	37,0
PVC-U	h	25,0	25,0	38,0	38,0	56,0	56,0	56,0
PVDF	h	25,0	25,0	38,0	38,0	56,0	56,0	56,0
	L	-	150,0	180,0	180,0	230,0	230,0	250,0
PP	L1	-	228,0	264,0	270,0	331,0	338,0	343,0
PE-Stutzen	L1	-	310,0	340,0	340,0	395,0	395,0	395,0
PVDF	L1	-	225,0	261,0	267,0	321,0	327,0	333,0
1.4571	L2	120,0	120,0	150,0	150,0	205,0	205,0	205,0
PP	L2	120,0	120,0	150,0	150,0	204,0	204,0	204,0
PTFE	L2	120,0	120,0	150,0	150,0	205,0	205,0	205,0
PVC-U	L2	120,0	120,0	150,0	150,0	204,0	204,0	204,0
PVDF	L2	120,0	120,0	150,0	150,0	204,0	204,0	204,0
PP	L3	128,0	126,0	156,0	156,0	211,0	211,0	211,0
PVC-U	L3	126,0	126,0	156,0	156,0	211,0	211,0	211,0
PVDF	L3	127,0	125,0	156,0	156,0	209,0	209,0	209,0
PVC-U	L3 ANSI	126,0	126,0	156,0	156,0	211,0	211,0	211,0
PVC-U	L3 JIS	132,0	128,0	160,0	159,0	211,0	211,0	213,0
PVC-U	L3 BS	126,0	126,0	156,0	156,0	211,0	211,0	211,0
PVC-U/PP	L3 Rp	128,0	128,0	158,0	162,0	217,0	221,0	219,0
	Rp	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	t	14,0	16,0	19,0	22,0	26,0	31,0	38,0
1.4571	H	173,0	173,0	201,0	201,0	261,0	261,0	261,0
PP	H	174,0	174,0	202,0	202,0	262,0	262,0	262,0
PTFE	H	173,0	173,0	201,0	201,0	261,0	261,0	261,0
PVC-U	H	174,0	174,0	202,0	202,0	262,0	262,0	262,0
PVDF	H	174,0	174,0	202,0	202,0	262,0	262,0	262,0
	L4	144,0	144,0	174,0	174,0	224,0	224,0	244,0
GFK Flansch DIN EN 1092	b	-	12,0	14,0	15,0	17,0	17,0	18,0
PP/Stahl Flansch ANSI	b	-	13,0	13,0	16,0	16,0	18,0	18,0
PP/Stahl Flansch EN 1092	b	-	13,0	14,0	15,0	17,0	17,0	18,0
	N	81,0	81,0	107,0	107,0	147,0	147,0	147,0
1.4571	V	24	24	46	46	65	65	65
PP	V	40	40	46	46	65	65	65
PTFE	V	40	40	46	46	65	65	65
PVC-U	V	40	40	46	46	65	65	65
PVDF	V	40	40	46	46	65	65	65

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Pressure relief valve DHV 712-R, Pressure gauge version



Version For Pressure Gauge Installation

- version with 2 x threaded hole G 1/4" for pressure gauge connection

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
Connection	*sealing*	*ident No.*						
PVC-U socket end DIN ISO	EPDM	146358	146359	146360	146361	146362	146363	146364
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U spigot end FIX DIN ISO	EPDM	146502	146503	146504	146505	146506	146507	146508
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U socket end ANSI	EPDM	146390	146391	146392	146393	146394	146395	146396
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
GFR flange DIN EN 1092	EPDM		146533	146534	146535	146536	146537	146538
	weight		*1.06 kg*	*2.16 kg*	*2.28 kg*	*5.66 kg*	*5.85 kg*	*6.21 kg*
PP / steel flange ANSI	EPDM		146561	146562	146563	146564	146565	146566
	weight		*1.33 kg*	*2.46 kg*	*2.81 kg*	*6.10 kg*	*6.32 kg*	*7.00 kg*

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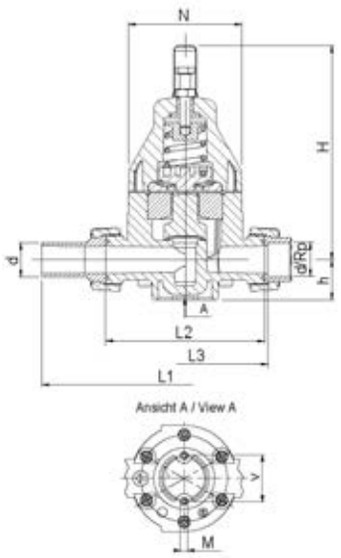
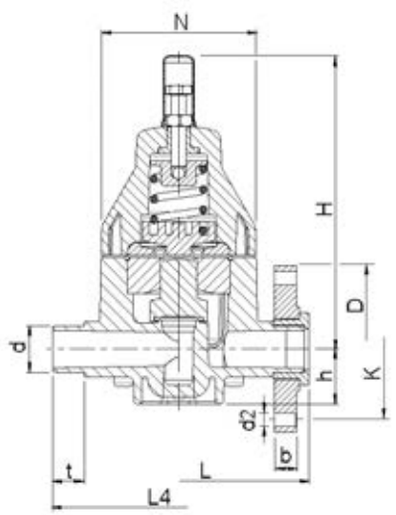
Pressure relief valve DHV 712-R, Pressure gauge version





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
	M	6	6	6	6	8	8	8
	h	25	25	38	38	56	56	56
	L	-	150	180	180	230	230	250
	L1	144	144	174	174	224	224	244
	L2	120	120	150	150	204	204	204
	L3	126	126	156	156	211	211	211
	t	14	16	19	22	26	31	38
	H	174	174	202	202	262	262	262
	L4	144	144	174	174	224	224	244
GFR	b	-	12	14	15	17	17	18
PP / steel	b	-	13	13	16	16	18	18
	N	81	81	107	107	147	147	147
	V	40	40	46	46	65	65	65

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Pressure relief valve DHV 712-R, Special Version



Special Version

- for media (such as HF, HCl, HNO3) for the permeation (penetration) tilt.
- piston PTFE
- PTFE-Membrane with ECTFE film

body PVC-U

size / *pressure range*								
	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
	PN(bar)	10	10	10	10	10	10	10
Connection	*sealing*	*ident No.*						
PVC-U socket end DIN ISO	FPM	146374	146375	146376	146377	146378	146379	146380
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U spigot end FIX DIN ISO	FPM	146518	146519	146520	146521	146522	146523	146524
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
PVC-U socket end ANSI	FPM	146406	146407	146408	146409	146410	146411	146412
	weight	*0.80 kg*	*0.85 kg*	*1.86 kg*	*1.90 kg*	*5.00 kg*	*5.10 kg*	*5.20 kg*
GFR flange DIN EN 1092	FPM		146547	146548	146549	146550	146551	146552
	weight		*1.06 kg*	*2.16 kg*	*2.28 kg*	*5.66 kg*	*5.85 kg*	*6.21 kg*
PP / steel flange DIN EN 1092	FPM		146575	146576	146577	146578	146579	146580
	weight		*1.33 kg*	*2.46 kg*	*2.81 kg*	*6.10 kg*	*6.32 kg*	*7.00 kg*

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Pressure relief valve DHV 712-R, Special Version



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
Connection	*sealing*	*ident No.*						
PVDF socket end DIN ISO	FPM	146678	146679	146680	146681	146682	146683	146684
	weight	*1.02 kg*	*1.07 kg*	*2.11 kg*	*2.15 kg*	*5.45 kg*	*5.55 kg*	*5.65 kg*
PVDF spigot end DIN ISO	FPM		146693	146694	146695	146696	146697	146698
	weight		*1.07 kg*	*2.11 kg*	*2.15 kg*	*5.45 kg*	*5.55 kg*	*5.65 kg*
PVDF spigot end FIX DIN ISO	FPM	146708	146709	146710	146711	146712	146713	146714
	weight	*1.02 kg*	*1.07 kg*	*2.11 kg*	*2.15 kg*	*5.45 kg*	*5.55 kg*	*5.65 kg*
PP / steel flange ANSI	FPM		146737	146738	146739	146740	146741	146742
	weight		*1.58 kg*	*2.78 kg*	*3.15 kg*	*6.67 kg*	*6.84 kg*	*7.61 kg*
PP / steel flange DIN EN 1092	FPM		146723	146724	146725	146726	146727	146728
	weight		*1.61 kg*	*2.85 kg*	*3.21 kg*	*6.99 kg*	*7.35 kg*	*7.78 kg*

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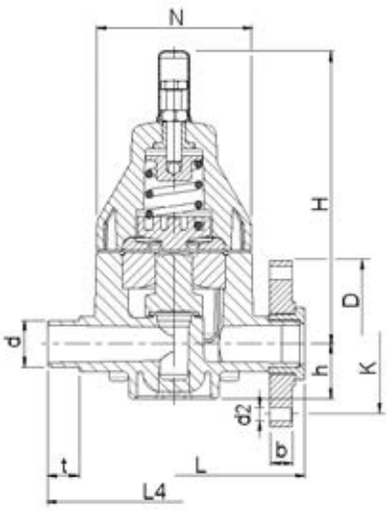
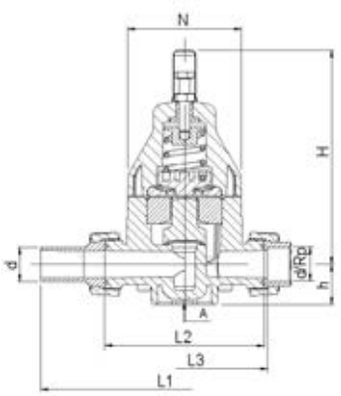
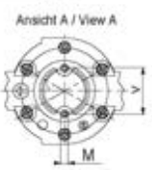
Pressure relief valve DHV 712-R, Special Version







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
	M	6	6	6	6	8	8	8
	h	25	25	38	38	56	56	56
	L	-	150	180	180	230	230	250
PVC-U	L1	144	144	174	174	224	224	244
PVDF	L1	-	225	261	267	321	327	333
PVC-U	L2	120	120	150	150	204	204	204
PVDF	L2	119	119	149	149	203	203	203
PVC-U	L3	126	126	156	156	211	211	211
PVDF	L3	127	125	156	156	209	209	209
	t	14	16	19	22	26	31	38
	H	174	174	202	202	262	262	262
	L4	144	144	174	174	224	224	244
PVC-U GFR	b	-	12	14	15	17	17	18
PVC-U/PVDF PP / steel	b	-	13	13	16	16	18	18
PVDF	b	-	13	14.5	15.5	17.5	17.5	19
	N	81	81	107	107	147	147	147
	V	40	40	46	46	65	65	65

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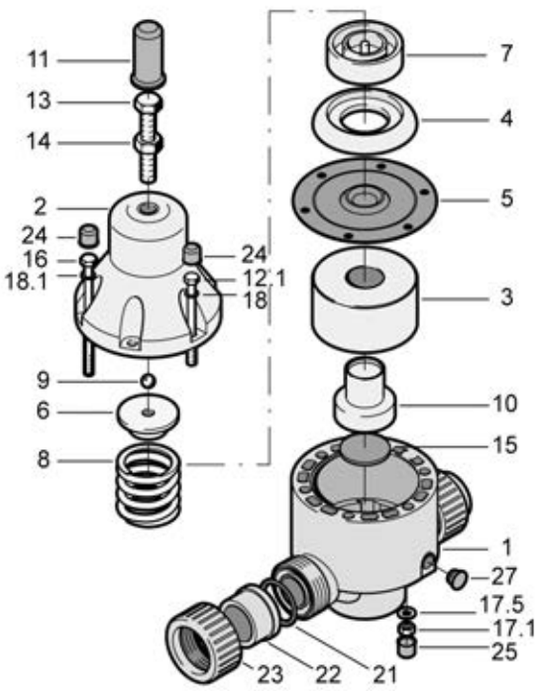
Pressure relief valve DHV 712-R

Item Overview

DHV 712-R, PVC-U, PP, PVDF

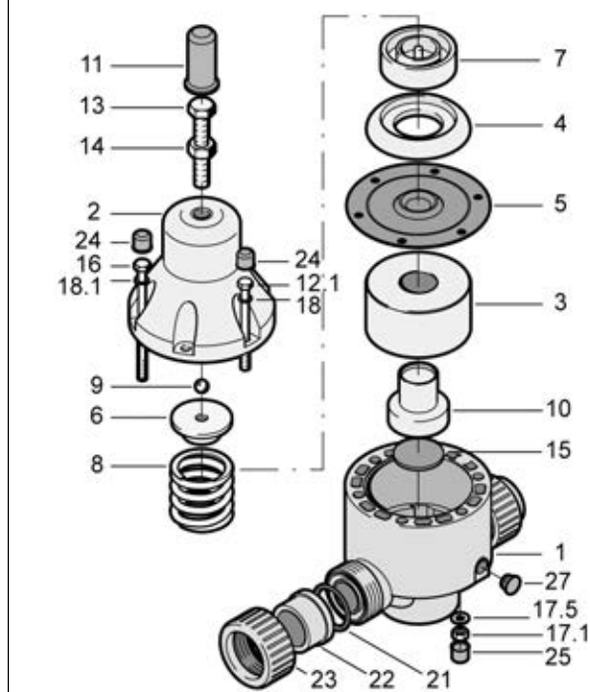
DN 10 - DN 15



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	separating disc
4	1	pressure disc
5	1	diaphragm
6	1	pressure plate
7	1	spring plate
8	1	pressure spring
9	1	steel ball
10	1	piston, complete
11	1	protection cap
12.1	4	hexagon bolt
13	1	hexagon bolt
14	1	counter nut
15	1	flat sealing ring
17	4	hexagon nut
17.5	4	washer
18	4	washer
21	2	O-ring
22	2	union end
23	2	union nut
24	4	protection cap
25	4	protection cap
27	2	Plug

DHV 712-R PVC-U, PP, PVDF

DN 20 - DN 50



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	separating disc
4	1	pressure disc
5	1	diaphragm
6	1	pressure plate
7	1	spring plate
8	1	pressure spring
9	1	steel ball
10	1	piston, complete
11	1	protection cap
12.1	2	hexagon bolt
13	1	hexagon bolt
14	1	counter nut
15	1	flat sealing ring
16	4	hexagon bolt
17	6	hexagon nut
17.5	6	washer
18	6	washer
21	2	O-ring
22	2	union end
23	2	union nut
24	4	protection cap
25	4	protection cap

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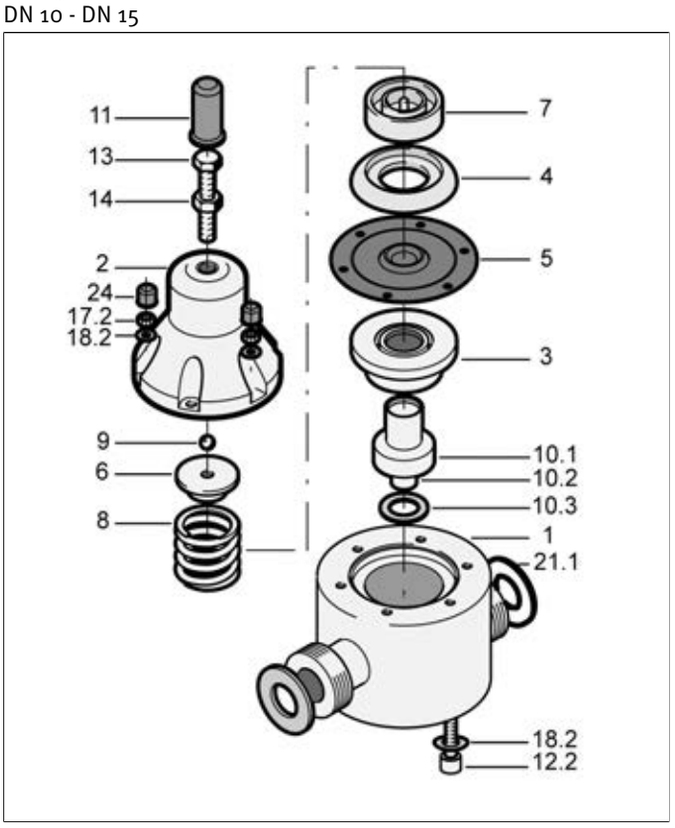
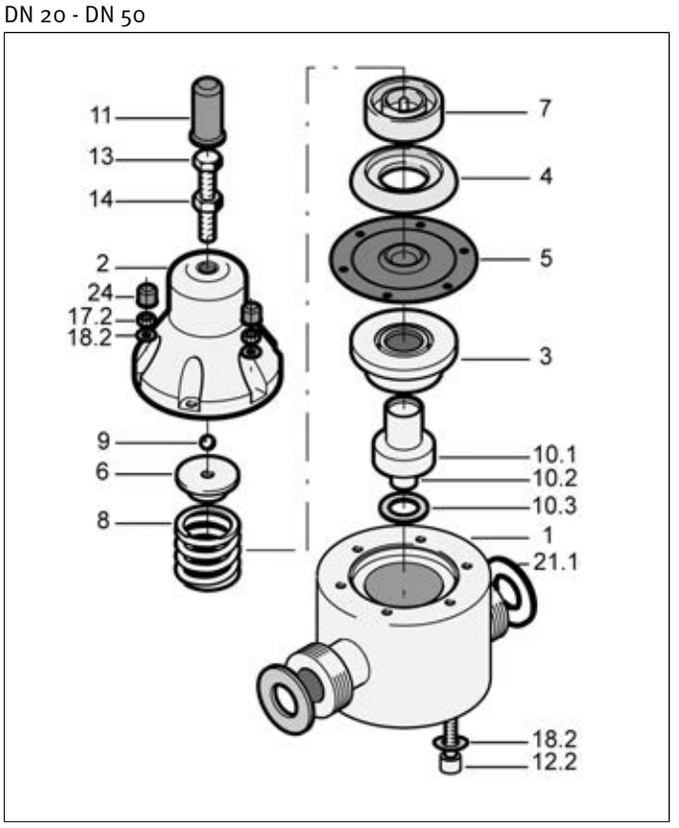
Pressure relief valve DHV 712-R

DHV 712-R PTFE
DN 10 - DN 15



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	separating disc
4	1	pressure disc
5	1	diaphragm
6	1	pressure plate
7	1	spring plate
8	1	pressure spring
9	1	steel ball
10.1	1	piston
10.2	1	piston point
10.3	1	flat sealing ring
11	1	protection cap
12	4	hexagon bolt
13	1	hexagon bolt
14	1	counter nut
15	1	flat sealing ring
17	4	hexagon nut
17.2	4	washer
18.2	4	washer
21	2	O-ring
22	2	union end
23	2	union nut
24	4	protection cap
25	4	protection cap
27	2	Plug

DHV 712-R PTFE
DN 20 - DN 50



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	separating disc
4	1	pressure disc
5	1	diaphragm
6	1	pressure plate
7	1	spring plate
8	1	pressure spring
9	1	steel ball
10.1	1	piston
10.2	1	piston point
11	1	protection cap
12	4	hexagon bolt
13	1	hexagon bolt
14	1	counter nut
15	1	flat sealing ring
17	4	hexagon nut
17.2	4	washer
18.2	6	washer
21	2	O-ring
22	2	union end
23	2	union nut
24	4	protection cap
25	4	protection cap
27	2	Plug

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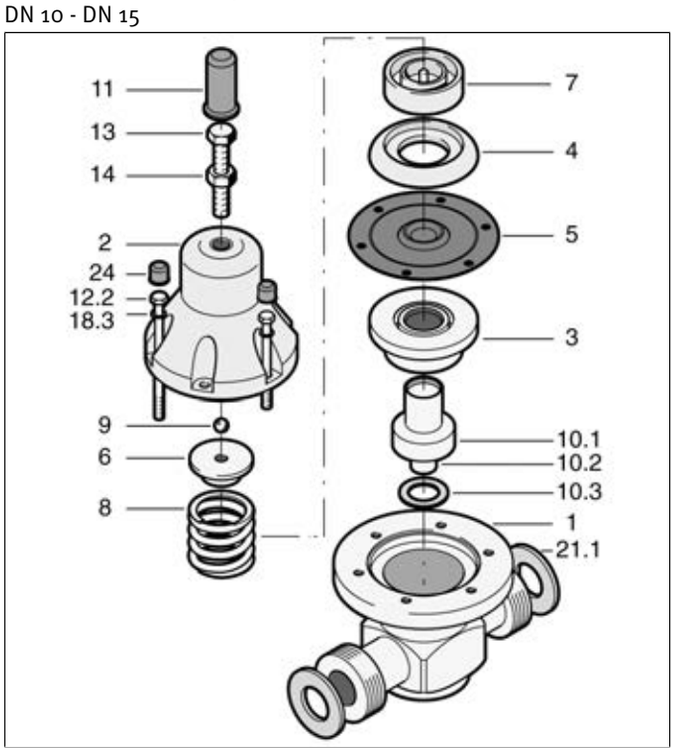
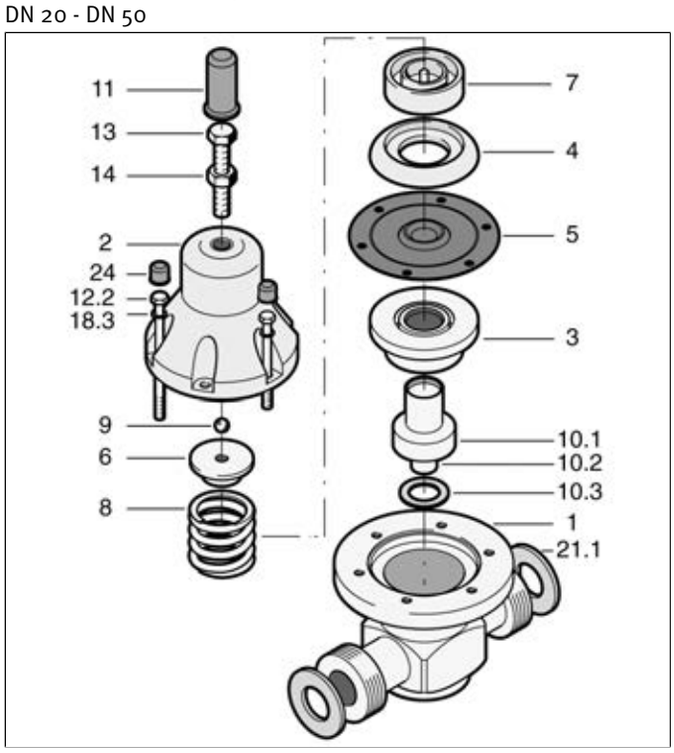
Pressure relief valve DHV 712-R

stainless steel 1.4571
DN 10 - DN 15



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	separating disc
4	1	pressure disc
5	1	diaphragm
6	1	pressure plate
7	1	spring plate
8	1	pressure spring
9	1	steel ball
10.1	1	piston
10.2	1	piston point
10.3	1	flat sealing ring
11	1	protection cap
12	4	hexagon bolt
13	1	hexagon bolt
14	1	counter nut
18	4	washer
21	2	O-ring
24	4	protection cap

stainless steel 1.4571
DN 20 - DN 50



position	quantity	designation
1	1	valve body
2	1	bonnet
3	1	separating disc
4	1	pressure disc
5	1	diaphragm
6	1	pressure plate
7	1	spring plate
8	1	pressure spring
9	1	steel ball
10.1	1	piston
10.2	1	piston point
10.3	1	flat sealing ring
11	1	protection cap
12	6	hexagon bolt
13	1	hexagon bolt
14	1	counter nut
18	6	washer
21	2	O-ring
24	6	protection cap

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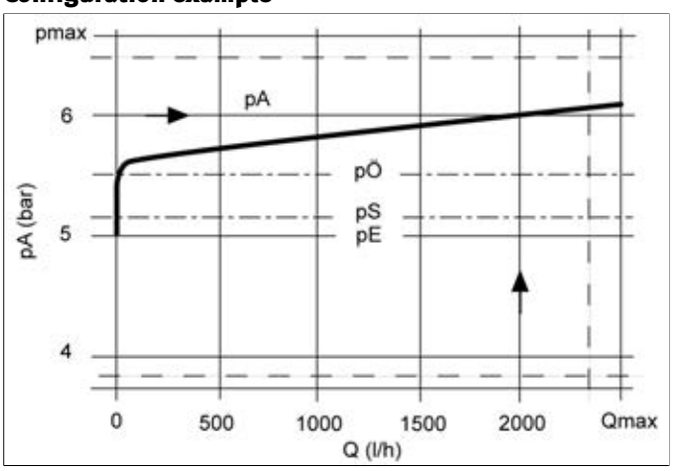
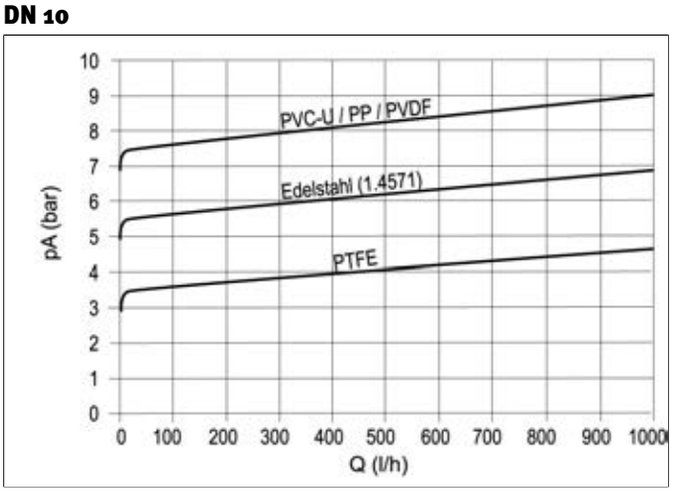
Characteristic curves

Configuration example



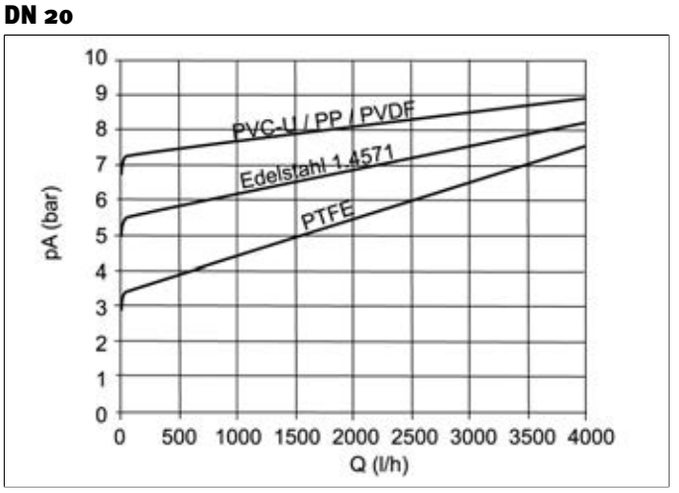
The valve is set tight at 5 bar.
A flow of approx. 2000 l/h is reached at a pressure increase of 1 bar.
According to the curve, this results in the following values:
set pressure pE: 5 bar; working pressure pA: 6 bar; opening pressure pÖ: 5.5 bar; closing pressure pS: 5.2 bar

DN 10



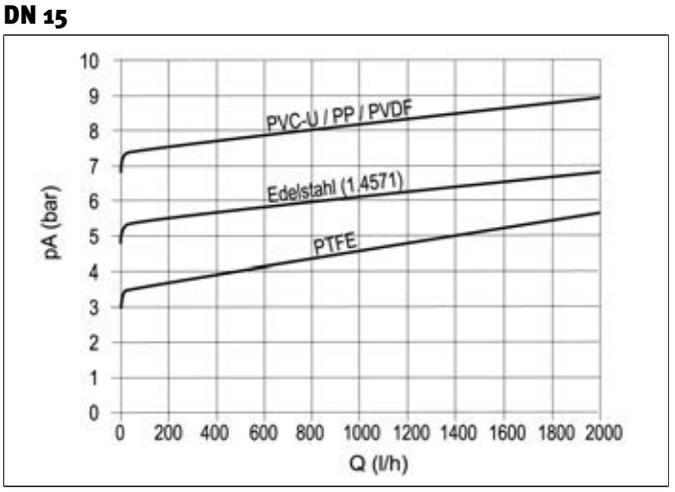
pA = working pressure
Q = flow

DN 20



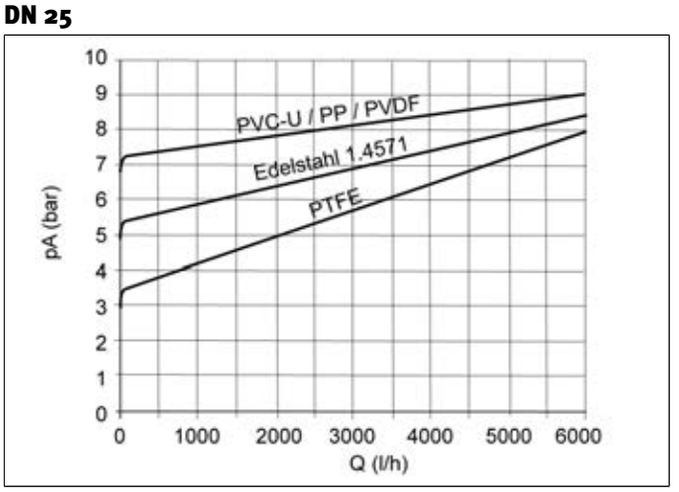
pA = working pressure
Q = flow

DN 15



pA = working pressure
Q = flow

DN 25



pA = working pressure
Q = flow

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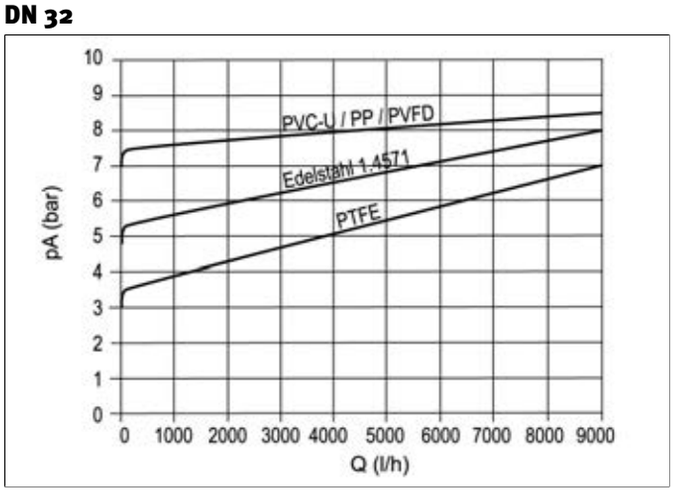
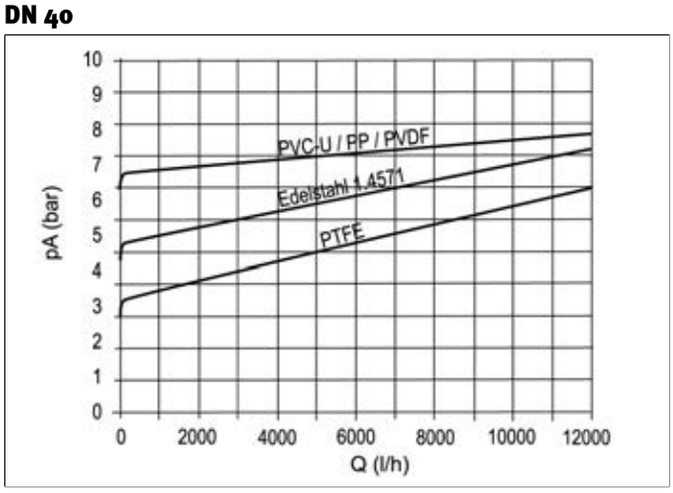
Pressure relief valve DHV 712-R

DN 32



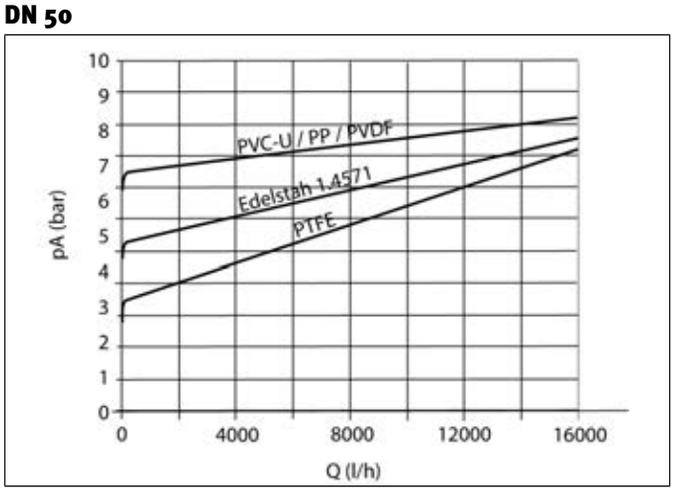
pA = working pressure
Q = flow

DN 40



pA = working pressure
Q = flow

DN 50



pA = working pressure
Q = flow

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