

## VV300

### Priority valve

#### APPLICATION

Priority valves of this type are a combination between pressure regulating and pressure limiting valves.

They are used to ensure priority drinking water supply to important systems.

Ancillary systems are then supplied only when there is sufficient surplus drinking water available.

In addition downstream installations are protected against excess supply pressures. The compact construction makes them particularly suitable for applications where space is limited, for example in ducts. The application of priority valves prevents pressure damage. The set pressure remains constant even when the inlet pressure fluctuates greatly.

#### APPROVALS

- DVGW
- WRAS (up to 23 °C)

#### SPECIAL FEATURES

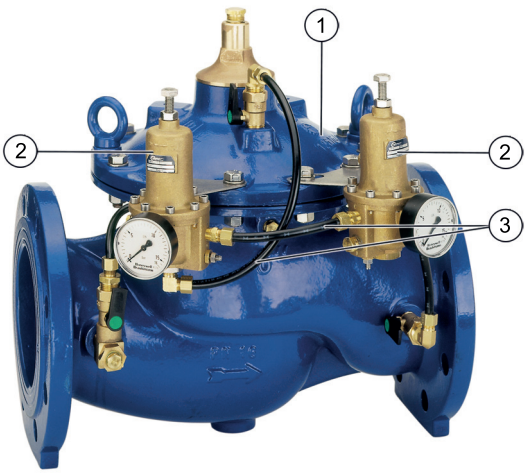
- High precision control during pressure variances and low flow rates
- High flow capacity
- High control accuracy
- Powder-coated inside and outside - Powder used is physiologically and toxicologically safe
- Integral control circuit and ball valves
- Integral fine filter
- No external energy required for operation
- Conforms to BSEN 1567



#### TECHNICAL DATA

Media	
Medium:	Drinking water
Connections/Sizes	
Connection size:	DN50 - DN450
Pressure values	
Max. operating pressure:	16 bar
Nominal pressure:	PN16
Minimum pressure:	0.5 bar
Operating temperatures	
Max. operating temperature medium:	80 °C
Specifications	
Setting range:	Pilot valve CX-PS 3.0 - 15 bar Pilot valve CX-PR 3.0 - 15 bar

## CONSTRUCTION

Overview	Components	Materials
	<b>1</b> Housing with flanges acc. to ISO 7005-2 / EN 1092-2	Ductile iron (ISO 1083), powder-coated
	<b>2</b> Two pilot valves	Brass
	<b>3</b> Control circuit with integral rinsable filter insert and ball valves on inlet and outlet	High-quality synthetic material
<b>Not depicted components</b>		
	Cover plate	Ductile iron (ISO 1083), powder-coated
	Diaphragm plate	Ductile iron (ISO 1083), powder-coated
	Diaphragm	EPDM
	Spring	Stainless steel
	Regulating cone	Stainless steel
	Valve seat	Stainless steel
	Compression fittings	Brass
	Pilot valve housing	Brass
	Filter insert	Stainless steel
	Seals	EPDM

## METHOD OF OPERATION

The priority valve simultaneously regulates a set outlet pressure and also the overflow pressure on the inlet to the valve.

The valve remains in the closed position until the set overflow pressure is reached, at which point the valve begins to open and then also regulates the set outlet pressure as well, independent of any fluctuations in the inlet pressure or flow rate.

As soon as the inlet pressure falls below the set overflow pressure (for example with a pipe fracture) the valve closes and fully seals.

## TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	55 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity:	85 % *

\*non condensing

## INSTALLATION GUIDELINES

### Setup requirements

- Install shut-off valves
- Install downstream of the strainer
  - Protects against damage from coarse particles
  - Note flow direction (indicated by arrow)
- The installation location should be protected against frost and be easily accessible
  - Pressure gauge can be read off easily
  - Simplified maintenance and cleaning
- Provide a straight section of pipework of at least five times the nominal valve size after the pressure reducing valve (in accordance with EN 806-2)
- Safety valve SV300 optional
- Requires regular maintenance in accordance with EN 806-5

## Installation Example

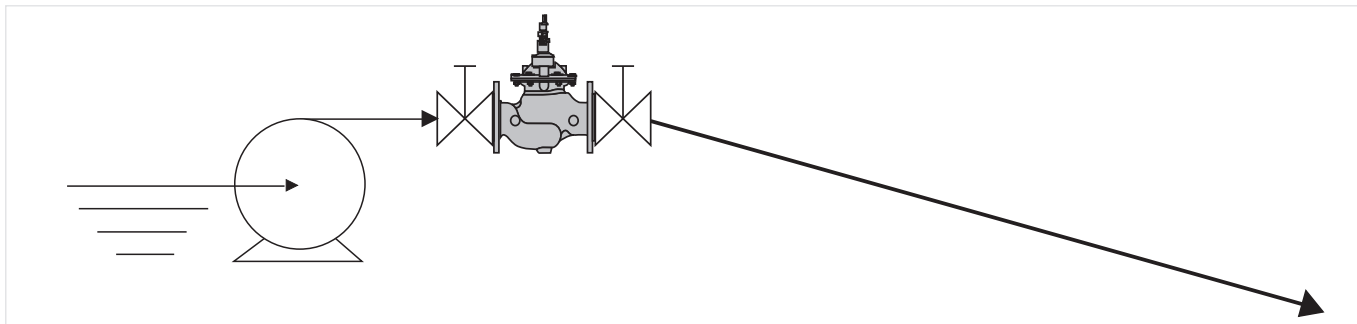


Fig. 1 Standard installation example for the priority valve

Connection sizes:	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"
Distance in mm (W*):	100	110	120	130	160	190	220	250	270	310	330

\* Required installation distances between the centerline of the pipework and the surrounding in dependency of the connection size.

## TECHNICAL CHARACTERISTICS

### kvs-Values

Connection sizes:	50	65	80	100	150	200	250	300	350	400	450
$k_{VS}$ -value ( $\text{m}^3/\text{h}$ ):	43	43	103	167	407	676	1160	1600	2000	3000	3150
Flow rate ( $Q_{\max}$ ) in $\text{m}^3/\text{h}$ - $V=5.5 \text{ m/s}$ :	40	40	100	160	350	620	970	1400	1900	2500	3100

### Pressure drop characteristics

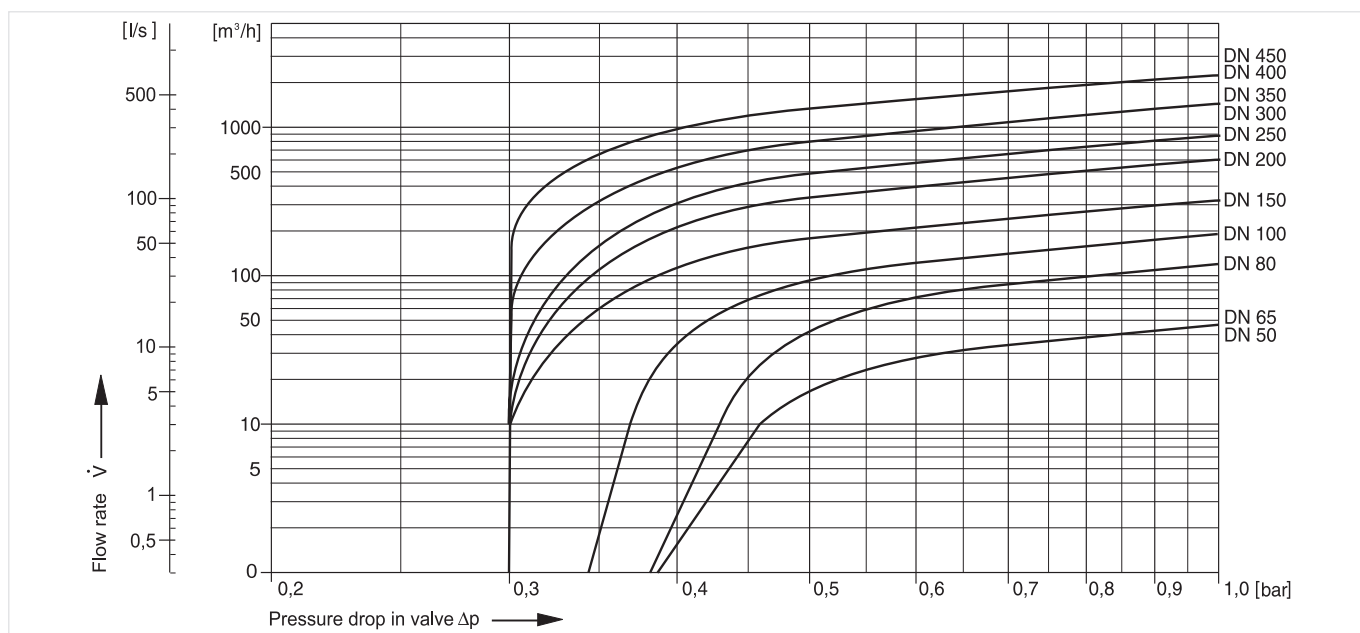
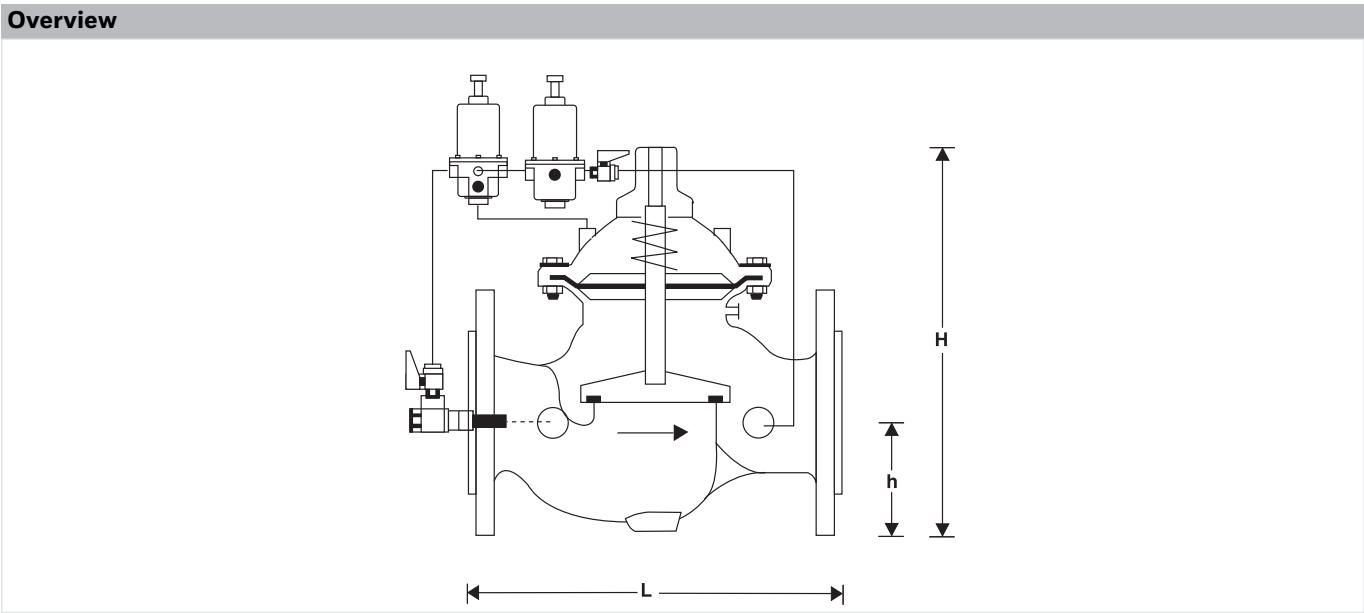


Fig. 2 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS



Parameter		Values											
Connection sizes:	DN	50	65	80	100	150	200	250	300	350	400	450	
Weight with pilot valve:	kg	14.0	15.0	24.0	39.0	82.0	159.0	247.0	407.0	512.0	824.0	947.0	
Weight without pilot valve:	kg	12.0	13.0	22.0	37.0	80.0	157.0	245.0	405.0	510.0	822.0	945.0	
Dimensions:	L	230	292	310	350	480	600	730	850	980	1100	1200	
	H	270	280	330	350	480	570	730	870	910	1150	1170	
	h	83	93	100	110	143	173	205	230	260	290	310	

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

The valve is available in the following sizes: DN50, DN65, DN80, DN100, DN150, DN200, DN250, DN300, DN350, DN400 and DN450.


- standard

		VV300-...A
Connection type:	Flange PN16, ISO 7005-2, EN 1092-2	•

Note: ... = space holder for connection size

Note: Ordering number example for DN50 and type A valve: VV300-50A

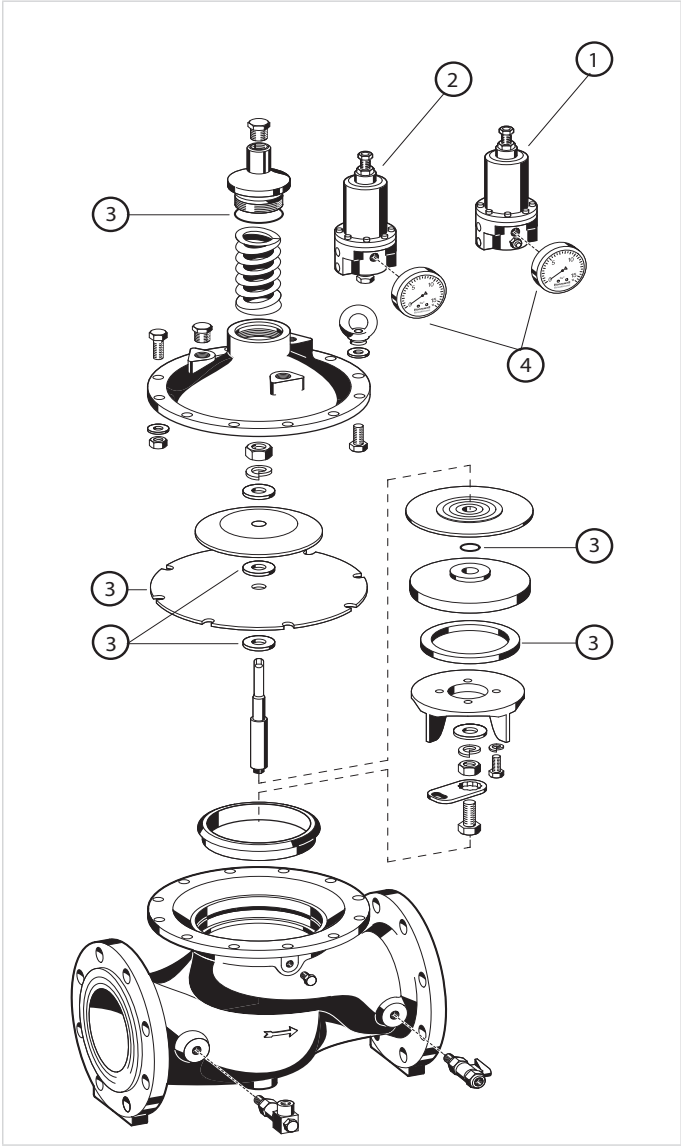
Accessories

	Description	Dimension	Part No.
	<b>EXF125-A Extension flange DN125</b> Adapter flanges DN100 to DN125 Ductile iron, PN16 acc. ISO 7005-2 and EN 1092-2. Overall length with adapter flanges (without bolts) DN125 L=416mm, DVGW approved, including bolts, nuts and the seal disc.		
			EXF125-A

Spare Parts

Priority valve VV300, from 2002 onwards

Overview



Description	Dimension	Part No.
1 Replacement pilot valve	DN50 - 450	CX-PR
2 Replacement pilot valve	DN50 - 450	CX-PS
3 Set of seals		
	DN50	0903750
	DN65	0903751
	DN80	0903752
	DN100	0903753
	DN150	0903754
	DN200	0903755
	DN250	0903756
	DN300	0903757
	DN350	0903758
	DN400	0903759
	DN450	0903760
4 Pressure gauge		
	0 - 16 bar	M07M-A16

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