

PC300

Surge anticipating valve

APPLICATION

Surge anticipating valves of this type for pumped systems are used for the prevention of negative pressure and water pressure shocks in long pumped pipework systems caused by sudden pump shut-off (e.g. from power failure).

APPROVALS

- DVGW
- WRAS (up to 23 °C)

SPECIAL FEATURES


- High flow capacity
- 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
- Compact construction
- Light weight



TECHNICAL DATA

Media	
Medium:	Drinking water
Connections/Sizes	
Connection size:	DN65 - DN450
Pressure values	
Max. operating pressure:	16 bar
Nominal pressure:	PN16
Minimum pressure:	0.5 bar
Operating temperatures	
Max. operating temperature medium:	80 °C

CONSTRUCTION

Overview	Components	Materials	
	1	Housing with flanges acc. to ISO 7005-2 / EN 1092-2	Ductile iron (ISO 1083), powder-coated
	2	Two pilot valves	Brass
	3	Control circuit with integral rinsable filter insert and ball valves on inlet and outlet	High-quality synthetic material
	Not depicted components		
		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	

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
- A valve must be selected which is capable of discharging the whole available flow from the main pumped pipework
- Discharge pipework should be at least one size larger than the valve size (the discharge flow speed < 4.5 m/s)
- PS300 pump control valve is optional
- Requires regular maintenance in accordance with EN 806-5

Installation Example

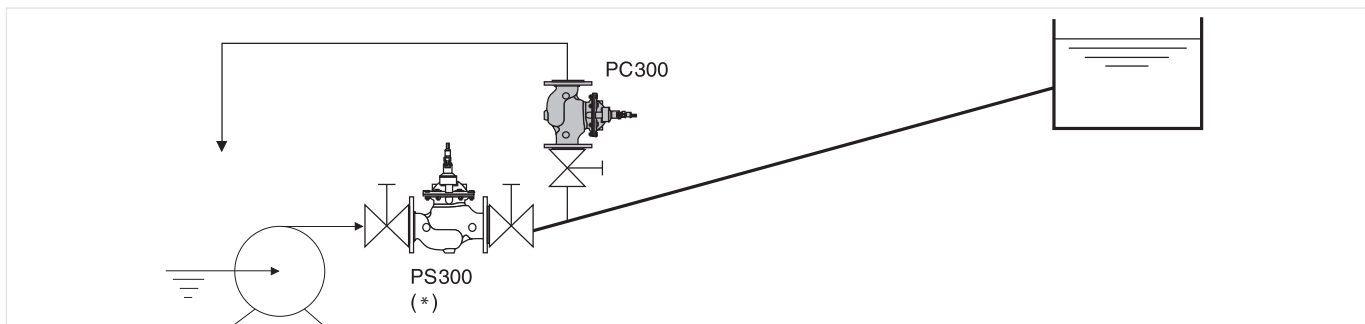


Fig. 1 Standard installation example for surge anticipating valve

* optional

Connection sizes:	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	18"
Distance in mm (W*):	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:	65	80	100	150	200	250	300	350	400	450
k _{VS} -value (m ³ /h):	43	103	167	407	676	1160	1600	2000	3000	3150
Flow rate (Q _{max}) in m ³ /h - V=5.5 m/s:	40	100	160	350	620	970	1400	1900	2500	3100

Pressure drop characteristics

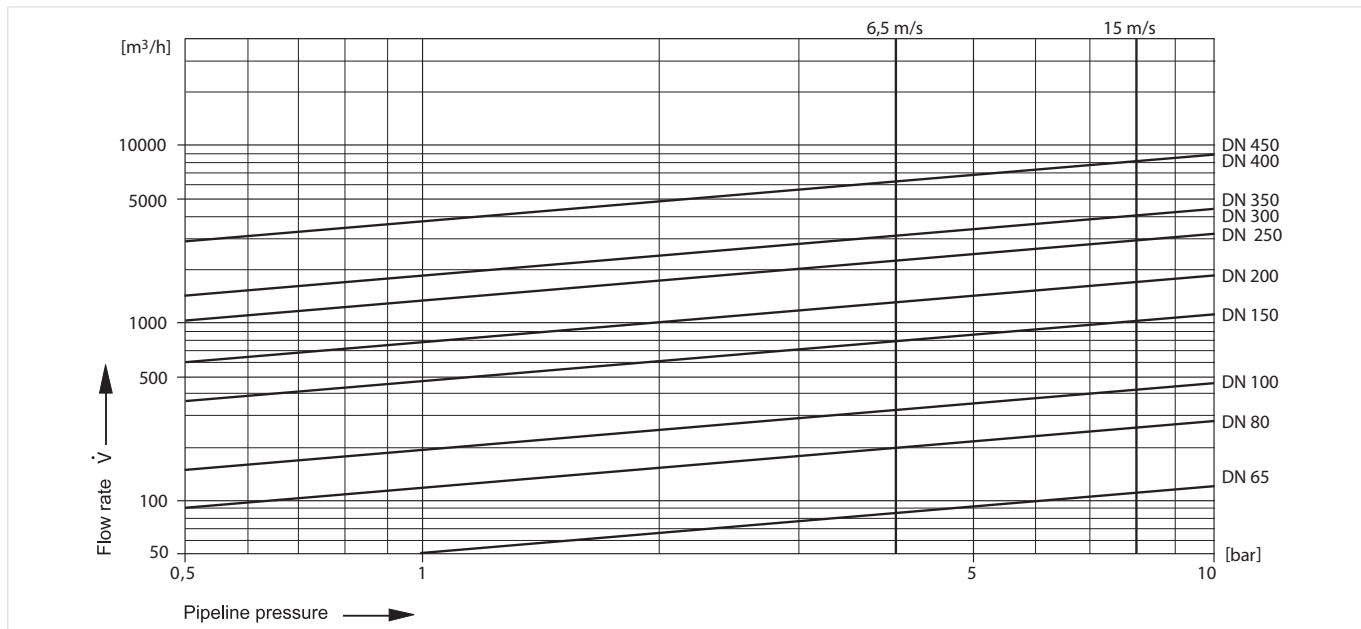
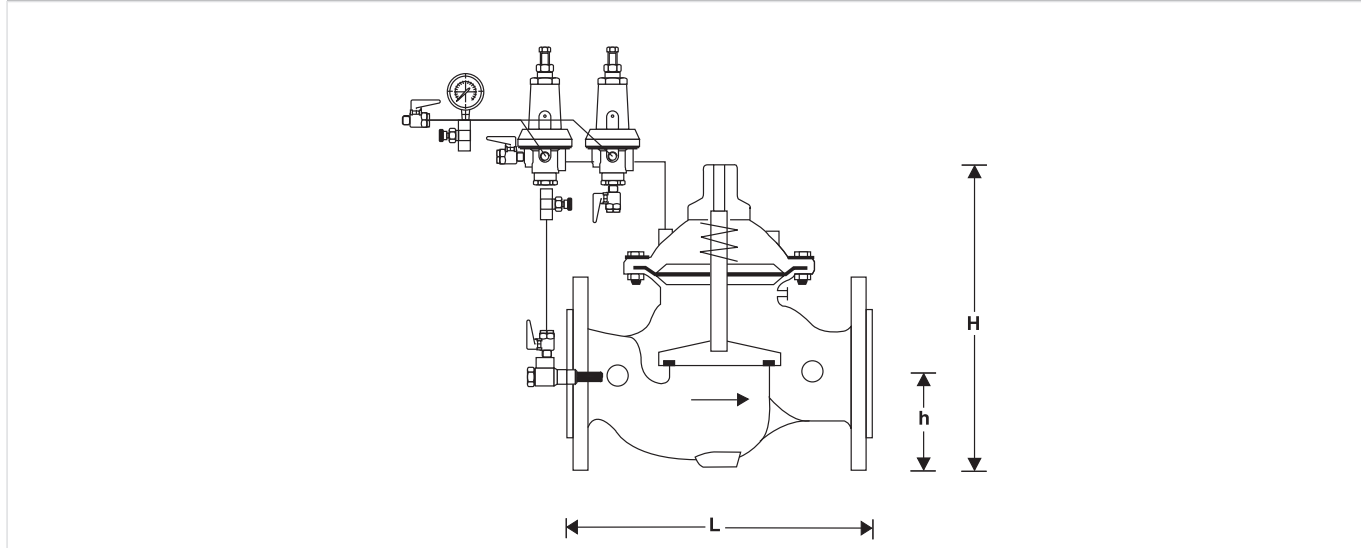


Fig. 2 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS

Overview



Parameter		Values									
Connection sizes:	DN	65	80	100	150	200	250	300	350	400	450
Weight with pilot valve:	kg	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	13.0	22.0	37.0	80.0	157.0	245.0	405.0	510.0	822.0	945.0
Dimensions:	L	292	310	350	480	600	730	850	980	1100	1200
	H	280	330	350	480	570	730	870	910	1150	1170
	h	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: DN65, DN80, DN100, DN150, DN200, DN250, DN300, DN350, DN400 and DN450.


- standard

Connection type:	Flange PN16, ISO 7005-2, EN 1092-2	PC300-...A
		•

Note: ... = space holder for connection size

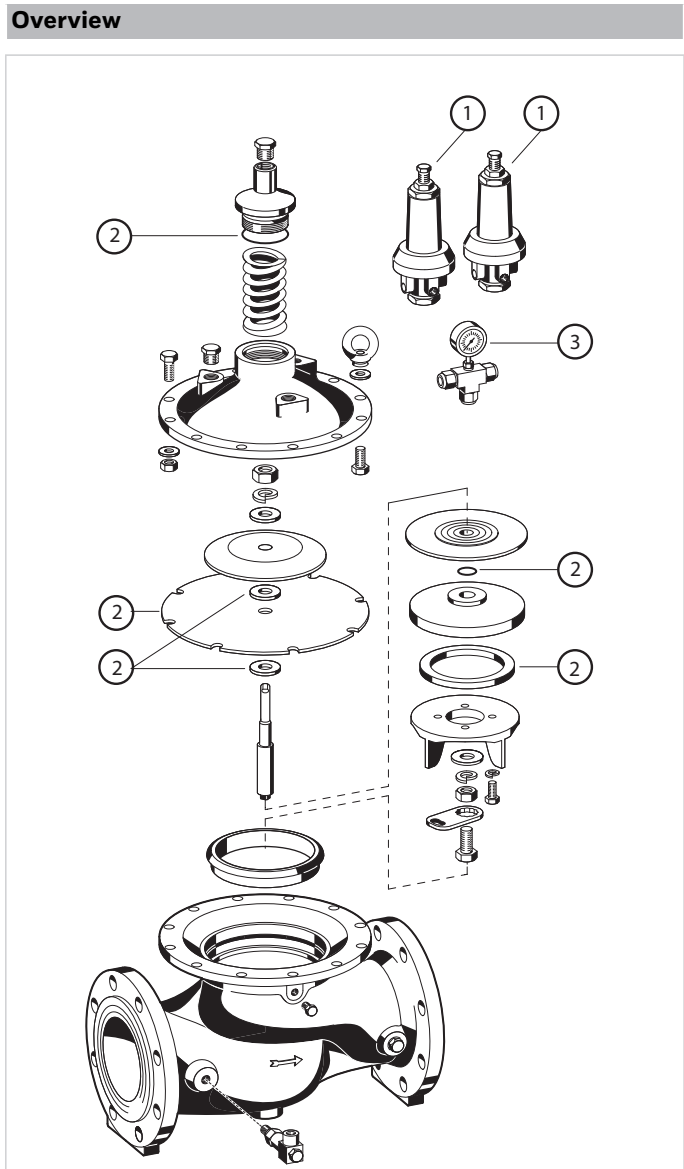
Note: Ordering number example for DN80 and type A valve: PC300-80A

Accessories

	Description	Dimension	Part No.
	EXF125-A Extension flange DN125 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

Surge anticipating valve PC300, from 2002 onwards



Description	Dimension	Part No.
1 Replacement pilot valve		
	DN65 - DN450	66-310
2 Set of seals		
	DN65	0903751
	DN80	0903752
	DN100	0903753
	DN150	0903754
	DN200	0903755
	DN250	0903756
	DN300	0903757
	DN350	0903758
	DN400	0903759
	DN450	0903760
3 Pressure gauge		
	0 - 16 bar	M39M-A16

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