



Braukmann BV300

Basic valves

APPLICATION

The basic valves are used as shut-off valves. They may be controlled by the common medium or by an external medium. The basic valves are actuated by a manual valve. Other pilot valves can be retrofitted for different application.

Their compact construction makes them ideally suited for applications where space is limited, for example in ducts. They can be used for commercial or industrial applications within the scope of their specification.

APPROVALS

- DVGW
- WRAS (up to 23 °C)

SPECIAL FEATURES


- Very low flow rates possible, no need for bypass lines
- High flow capacity
- Double guided piston for high control accuracy
- Linear control characteristic
- Powder-coated inside and outside - Powder used is physiologically and toxicologically safe
- Integral fine filter
- Compact construction
- Light weight



TECHNICAL DATA

Media	
Medium:	Drinking water
Connections/Sizes	
Connection size:	DN50 - DN450
Pressure values	
Operating pressure:	0.5 - 16 bar
Nominal pressure:	PN16
Operating temperatures	
Max. operating temperature medium:	80 °C
Specifications	
Possible flow rates for all sizes:	<1 m ³ /h

CONSTRUCTION

Overview		Components	Materials
	1	Housing with PN16 flanges per ISO 7005-2, EN 1092-2	Ductile iron (ISO 1083), powder-coated
		Not depicted components:	
		Cover plate	Ductile iron (ISO 1083), powder-coated
		Diaphragm plate	Ductile iron (ISO 1083), powder-coated
		Regulating cone	Stainless steel (up to DN150) Cast steel (from DN200 on)
		Pressure spring and control rod	Stainless steel
		Diaphragm	EPDM
		Seals	EPDM
		Valve seat	Stainless steel

METHOD OF OPERATION

The basic valves are actuated by a manual valve. Under zero pressure conditions the basic valve is closed. If medium is supplied and the manual valve is closed, water flows into the inlet section and the rising pressure opens the valve so that water can flow into the outlet section. If the manual valve is opened the pressure from the inlet side passes via the fine regulation valve and increases the pressure in the chamber above the diaphragm.

The diaphragm surface subjected in this way to the inlet pressure is greater than valve plate surface which is also subjected to the inlet pressure, so the basic valve closes.

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 % *

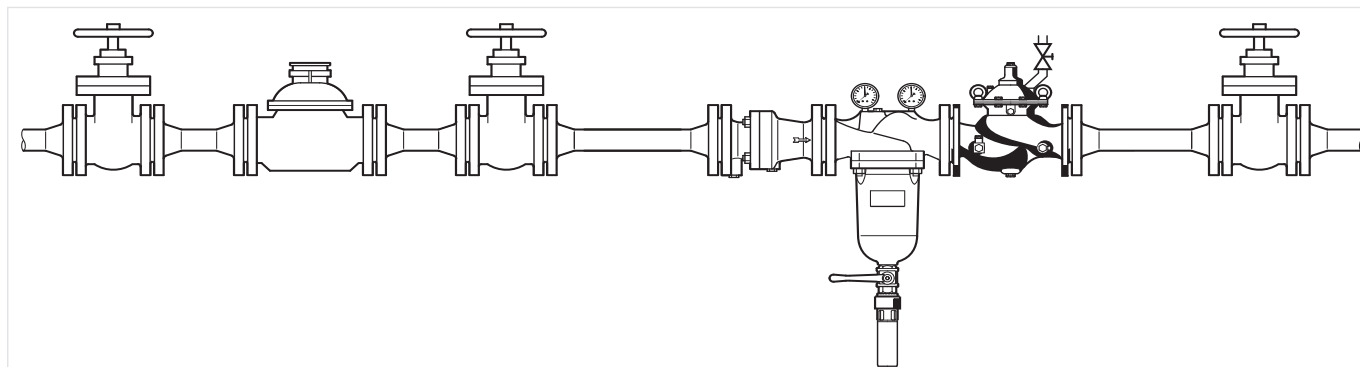
*non condensing

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
- Safety valve SV300 optional
- Requires regular maintenance in accordance with EN 806-5

Installation Example



Connection sizes:	2"	2½"	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 (m^3/h):	43	43	103	167	407	676	1160	1600	2000	3000	3150
Flow rate in m^3/h $V=5.5$ m/s:	40	40	100	160	350	620	970	1400	1900	2500	3100

Pressure drop characteristics

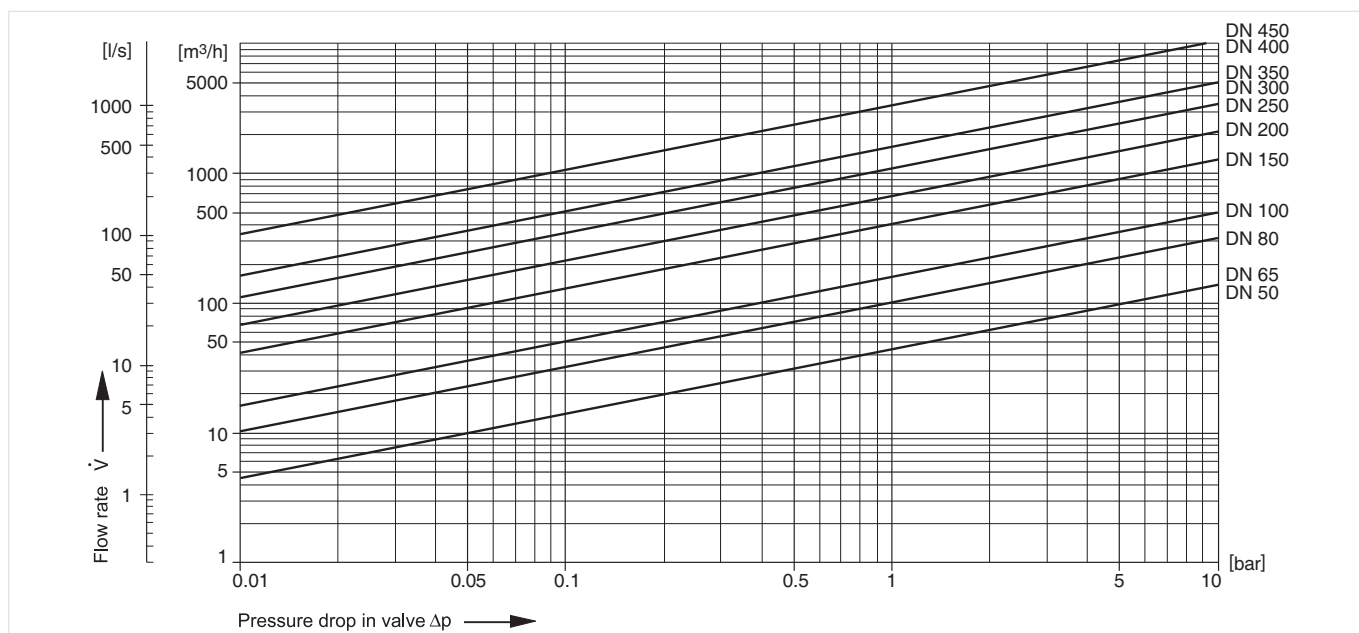
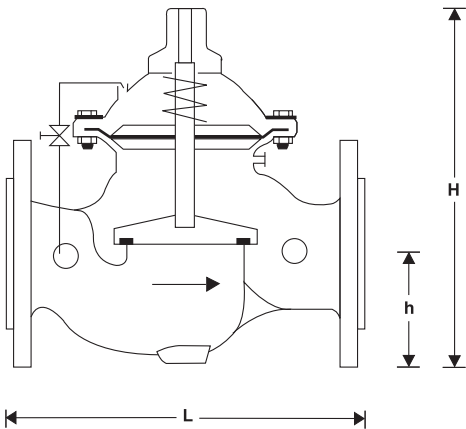


Fig. 1 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS

Overview



Parameter		Values											
Connection size:	DN	50	65	80	100	150	200	250	300	350	400	450	
Weight:	kg	12	13	22	37	80	157	245	405	510	822	945	
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

		BV300-...A
Connection type:	Housing with PN16 flanges per ISO 7005-2, EN 1092-2	•

Note: ... = space holder for connection size

Note: Ordering number example for DN50 and type A valve: BV300-50A

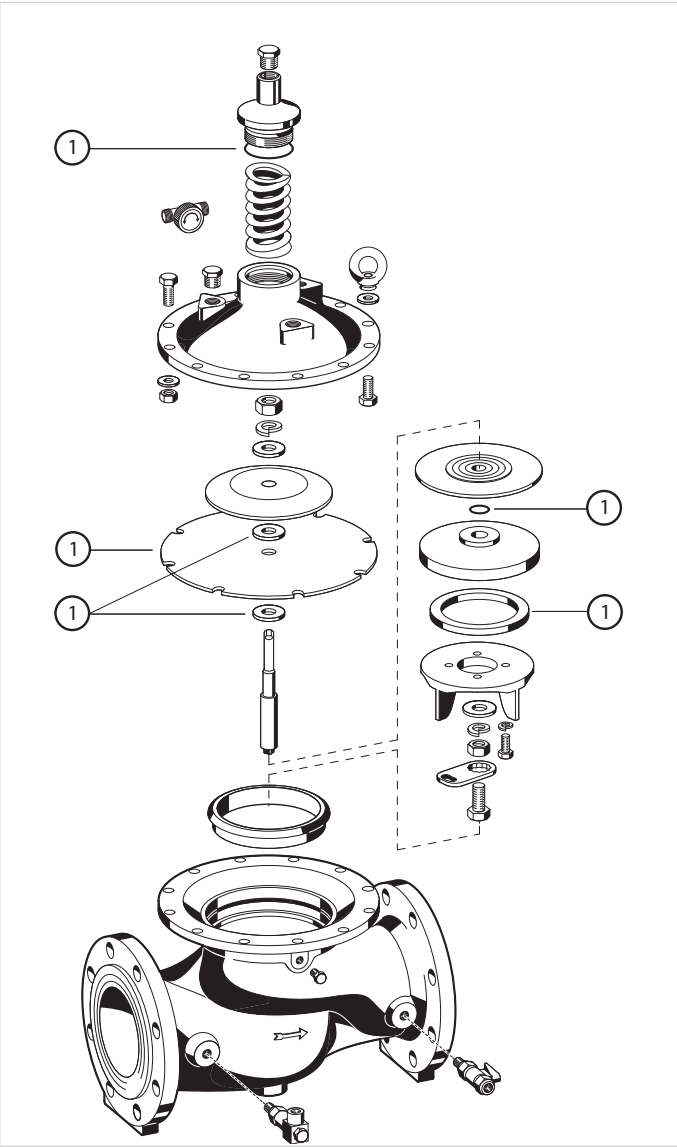
Accessories

	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

Basic valves BV300, from 2002 onwards

Overview



Description		Dimension	Part No.
1 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



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