



Braukmann HS10S-FA

Water station

APPLICATION

Water stations of this type are suitable for installations with high water demand.

They can be used in large residential buildings, for central water supply as well as in commercial, industrial or similar applications.

The unit consists of all recommended devices for protection as check valve, reverse rinsable filter and pressure reducing valve. The check valve protects the mains water system against back pressure, backflow and back syphonage of health threatening liquids.

The reverse rinsable flange filter prevents the ingress of foreign bodies, for example rust particles, strands of hemp and grains of sand and thus reduces the probability of corrosion. It contains a highly efficient reverse rinsing filtering system and can be retrofitted with the Z11AS fully automatic reverse rinsing actuator and the DDS76 differential pressure switch.

The pressure reducing valves protects installations against excessive pressure from the supply. Pressurisation damage is avoided and water consumption is reduced. Additional reduction of the operating pressure and maintaining it at a constant level minimizes flow noise in the installation.

APPROVALS

- All components are DVGW certified

SPECIAL FEATURES

- Filter insert fully replaceable
- Filtered water supplied even during reverse rinsing
- Patented reverse rinsing system - fast and thorough cleaning of the filter with small amount of water
- Fully automatic reverse rinsing with retrofittable automatic reverse rinsing actuator Z11AS and differential pressure switch
- Powder-coated cast iron gives high level of corrosion protection
- Standardised discharge connection
- Non-rising stem for setting outlet pressure and position indicator on spring bonnet on pressure reducing valve
- The adjustment spring is not in contact with the drinking water
- Inlet pressure balancing – no influence on outlet pressure by fluctuating inlet pressure




TECHNICAL DATA

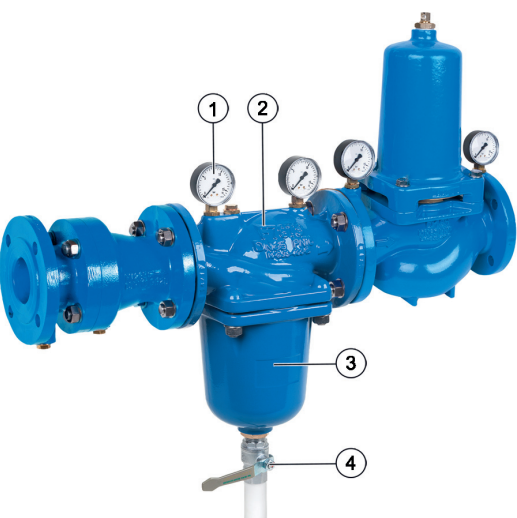
Media	
Medium:	Drinking water
Connections/Sizes	
Connection sizes:	DN65 - DN100
Pressure values	
Operating pressure range:	2 - 16 bar
Outlet pressure:	1.5 - 7.5 bar
Inlet pressure:	max. 16 bar
Nominal pressure:	PN16
Min. pressure drop:	1 bar
Opening pressure check valve:	ca. 0.05 bar
Max. diaphragm pressure loading:	9 bar
Operating temperatures	
Max. operating temperature medium:	65°C (max. operating pressure 6 bar)
Max. operating temperature medium accord. to EN 1567:	30 °C
Specifications	
Installation position:	Horizontal with filter bowl downwards
Flanges on inlet and outlet:	Flanges PN16 acc. to DIN 86021 / ISO 7005-2, EN 1092-2

CONSTRUCTION


Check valve:

Overview	Components	Materials
	1 Housing and housing end casing with flanges	Grey cast iron coated with PA (polyamide)
	Not depicted components:	
	Check valve insert	Stainless steel
	Test and drain plugs	Stainless steel
	Screws and nuts	Stainless steel
	Disc	Stainless steel
	Spring	Stainless steel
	Lip seal ring	EPDM

Fine filter:

Overview	Components	Materials
	1 Pressure gauge	Metal
	2 Housing and filter bowl	Ductile cast iron (EN-GJS-400-15 EN 1563), coated with PA (polyamide)
	3 Fine filter	Stainless steel
	4 Ball valve with lever and drain connection	Ball Valve body: Brass chrome plated Ball: Brass chrome plated Drain adapter: Plastic
	Not depicted components:	
	Inner parts	Stainless steel, brass and plastic

Pressure reducing valve:

Overview	Components	Materials
	1 Housing with PN16 flanges per ISO 7005-2, EN 1092-2	Ductile cast iron (EN-GJS-400-15 EN 1563), coated with PA
	2 Pressure gauge	-
	Not depicted components:	
	Adjustment spring	Spring steel
	Cartridge insert	Completely of low-lead (<2.2 % acc. to DIN 50930-6) brass with stainless steel valve spindle
	Diaphragm and seals	EPDM
	Groove ring and sealing disc	High-quality PU
	Thread rod and nuts	Stainless steel
	Spring bonnet with adjustment screw	Ductile cast iron (EN-GJS-400-15 EN 1563), coated with PA

METHOD OF OPERATION

Spring loaded check valves have a moving seal disc which is lifted off the seat by a greater or lesser amount depending on the flow rate through the valve. If the flow falls towards zero, then the spring pushes the disc back onto the seat and seals the waterway.

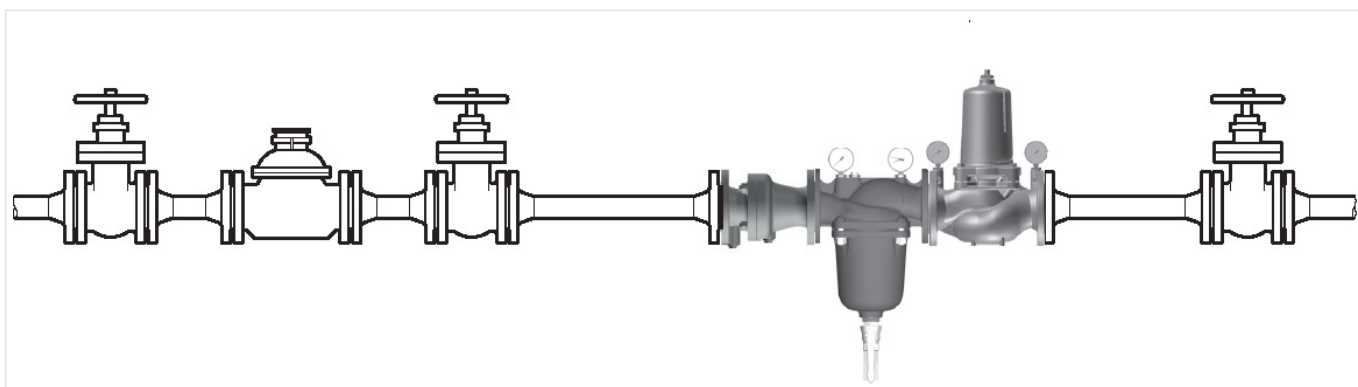
To ensure continuing correct function it is recommended that check valves be regularly checked and maintained (as specified in EN 1717).

The filter insert is divided into two parts. In the „filtering“ position, only the lower, larger section is used for filtering. The small upper section does not come in contact with unfiltered water. An oscillating flap integrated in the sieve prevents the deposition of dirt particles on the upper part of the filter. When the ball valve is opened for reverse rinsing, then the whole filter insert is pushed downwards until the water supply to the outer side of the main filter is stopped. Simultaneously, the water flow is opened to the upper part of the filter. The water needed for cleaning the filter passes through the upper filter section, then the rotating impeller with jets and the main filter from inside to outside, i.e. the filter is reverse rinsed with filtered water. The filter automatically switches back to the operating position when the ball valve is closed again.

Spring loaded pressure reducing valves operate by means of a force equalising system. The force of a diaphragm operates against the force of an adjustment spring. If the outlet pressure and therefore diaphragm force fall because water is drawn, the then greater force of the spring causes the valve to open. The outlet pressure then increases until the forces between the diaphragm and the spring are equal again.

The inlet pressure has no influence in either opening or closing of the valve. Because of this, inlet pressure fluctuation does not influence the outlet pressure, thus providing inlet pressure balancing.

Installation Example



TECHNICAL CHARACTERISTICS

kvs-Values

Connection sizes:	65	80	100
k _{vs} -value (m ³ /h):	47	70	110

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

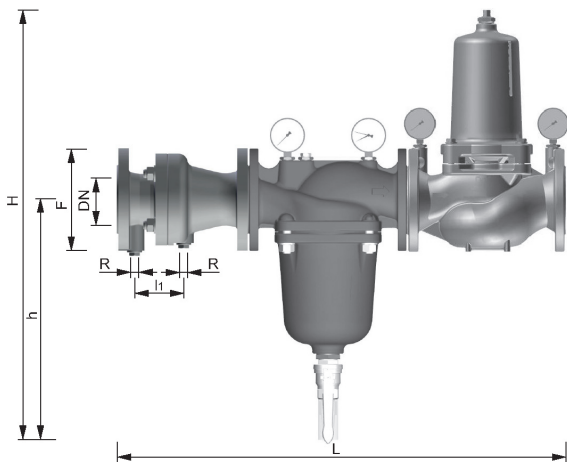
INSTALLATION GUIDELINES

Setup requirements

- Install in horizontal pipework with test and drain plugs and filter bowl downwards and spring bonnet upwards
 - This position ensures optimum draining and filter efficiency
- Install shut-off valves
 - Shut-off valves provide optimal serviceability
- Ensure good access
 - Pressure gauge can be read off easily
 - Simplifies maintenance and inspection
- The installation location should be protected against frost
- Fit immediately after water meter
 - Corresponds to EN 806-5
- 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)

DIMENSIONS

Overview



Parameter		Values		
Nominal size diameter:	DN	65	80	100
Dimensions:	L	820	880	1000
	H	804	878	980
	h	434	508	610
	F	185	200	220
	l ₁	175	225	250
Weight:	kg	58	99	146
Test and drain plug:	R	1/2"	1/2"	1/2"
DVGW registration number:	Check valve	NW - 6310 BU 0492		
	Filter	NW-9301CR0186		
	Pressure reducing valve	NW-6330CN0112		

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 water station is available in the following sizes: DN65, DN80 and DN100.



- standard
- not available

		HS10S-...FA
Connection type:	Standard version with flanges PN16, filter mesh size 100 µm	•

Note: ... = space holder for connection size

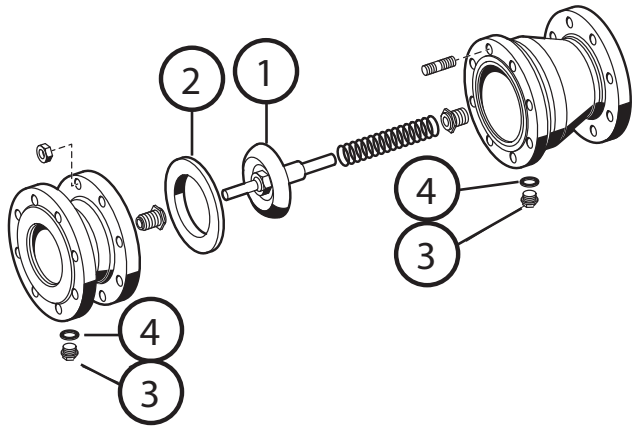
Note: Ordering number example for DN65 and type FA valve: HS10S-65FA

Accessories

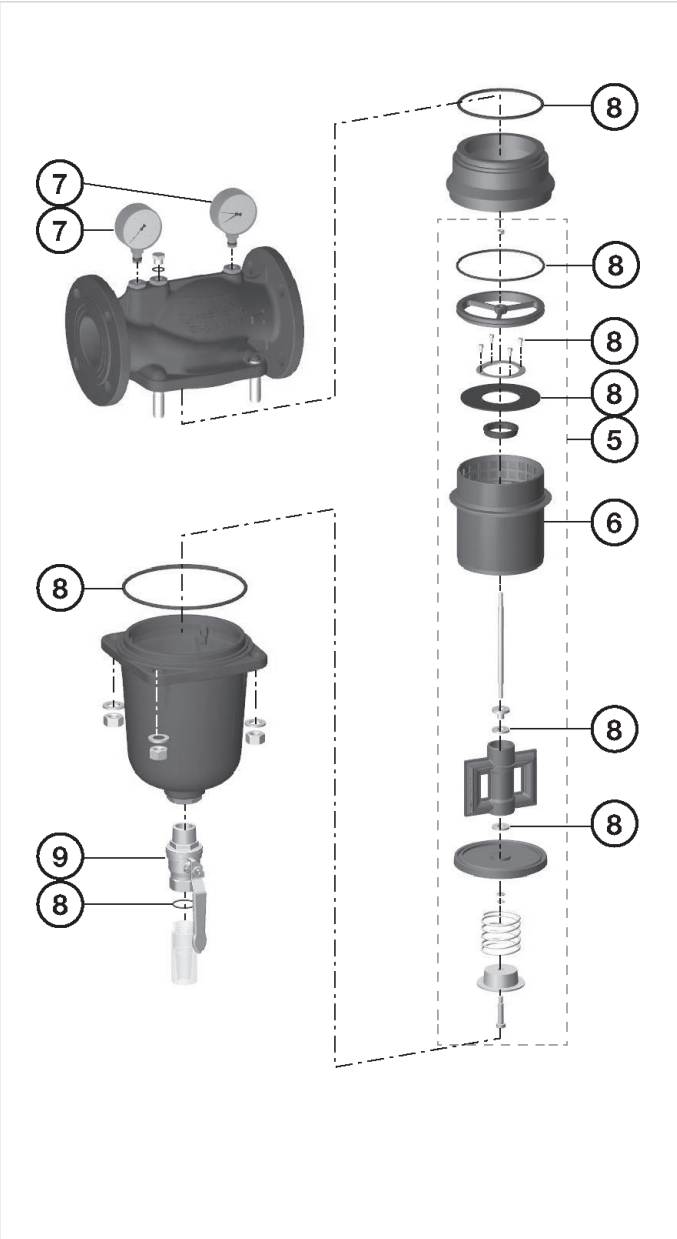
	Description	Dimension	Part No.
	Z11AS Automatic reverse rinsing actuator		
	For automatic reverse rinsing of the filter at presettable intervals		
	230 V, 50/60 Hz, 10 W with moulded Schuko electrical plug		Z11AS-1A
	24 V, 50/60 Hz, 10 W without electrical plug		Z11AS-1B
	230 V, 50/60 Hz, 10 W with moulded Type 12 electrical plug for Switzerland		Z11AS-1Z
	DDS76 Differential pressure switch		
		DN65/80/100	DDS76-1

Spare Parts

Water station with flanges HS10S-FA from 2019 onwards

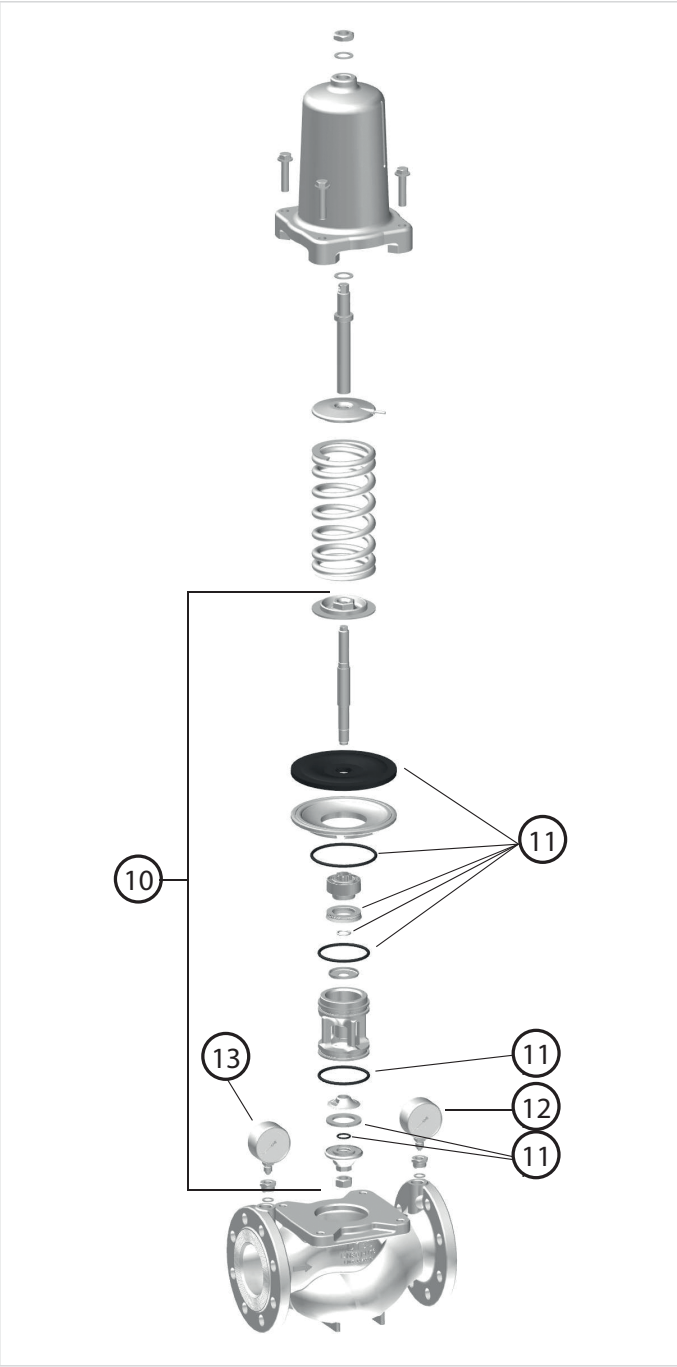
Overview	Description	Dimension	Part No.
	1 Valve disc guide		
		DN65	2240065
		DN80	2240080
		DN100	2240100
	2 Lip seal ring		
		DN65	2241065
		DN80	2241080
		DN100	2241100
	3 Hexagonal blanking plug		
		DN65 - DN100	2240000
	4 Seal ring		
		DN65 - DN100	2166600

Overview



Description	Dimension	Part No.
5 Filter insert complete		
Filter mesh 100 µm	DN65	AF78TS-065A
Filter mesh 100 µm	DN80	AF78TS-080A
Filter mesh 100 µm	DN100	AF78TS-100A
Filter mesh 200 µm	DN65	AF78TS-065D
Filter mesh 200 µm	DN80	AF78TS-080D
Filter mesh 200 µm	DN100	AF78TS-100D
Filter mesh 50 µm	DN65	AF78TS-065C
Filter mesh 50 µm	DN80	AF78TS-080C
Filter mesh 50 µm	DN100	AF78TS-100C
6 Replacement sieve		
Filter mesh 100 µm	DN65	ES78TS-065A
Filter mesh 100 µm	DN80	ES78TS-080A
Filter mesh 100 µm	DN100	ES78TS-100A
Filter mesh 200 µm	DN65	ES78TS-065D
Filter mesh 200 µm	DN80	ES78TS-080D
Filter mesh 200 µm	DN100	ES78TS-100D
Filter mesh 50 µm	DN65	ES78TS-065C
Filter mesh 50 µm	DN80	ES78TS-080C
Filter mesh 50 µm	DN100	ES78TS-100C
Filter mesh 500 µm	DN65	ES78TS-065F
Filter mesh 500 µm	DN80	ES78TS-080F
Filter mesh 500 µm	DN100	ES78TS-100F
7 Pressure gauge		
	0 - 16 bar, G ¹ / ₄ "	M78M-A16
	0 - 16 bar, G ¹ / ₄ " with memory indicator	M78M-A16MR
8 Seal set complete		
	DN65	SOS78TS-065
	DN80	SOS78TS-080
	DN100	SOS78TS-100
9 Ball valve		
		5622100

Overview



Description	Dimension	Part No.
10 Valve insert complete		
	DN65 - DN100	0904122
11 Set of seals complete		
	DN65 - DN100	0904121
12 Pressure gauge		
	0 - 10 bar	M39M-A10
13 Pressure gauge		
	0 - 16 bar	M39M-A16



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