



BWT E1 HydroMODUL

Current version February 2021
Technical subject to modifications.

1. Purpose

1.1 Filtration

The BWT E1 is intended for the filtration of drinking and service water. It protects the water pipes and the connected water-bearing system components from functional defects and corrosion damage by foreign particles such as rust particles, shavings, sand, hemp, etc. The filter cannot be used with chemically treated circulation water, process water and cooling water for flow cooling. A coarse dirt separator must be installed upstream for waters with coarse dirt particles. The filters are not suitable for oils, fats, solvents, soaps and other lubricating media.

Neither are they suitable for the separation of water-soluble substances.

Not included in scope of delivery – to be ordered separately:

without pressure reducer
- connection module 3/4"
- connection module 1"
- connection module 5/4"

with pressure reducer
- DR connection module 3/4"
- DR connection module 1"
- DR connection module 5/4"

1.2 Pressure reducer (only E1 HWS)

The integrated pressure reducer installed downstream from the filter serves to reduce pressure and regulate a desired back pressure, predominantly in the domestic water supply plant. It keeps the regulated back pressure almost constant, even when the prepressure fluctuates between, for example, 16 bar and the set back pressure, e.g. 3 bar. A uniform, not too high pressure preserves fittings and devices in the entire domestic water installation, helps to save up to 50 % of water and minimises noise evolution.

2. Function

2.1 Filtration

The raw water flows through the raw water inlet into the filter and then from the outside to the inside through the filter element to the pure water outlet. The foreign particles larger than the filter rating are retained on the outside of the filter fabric. Clean water enters into the pipeline system. If as a result of the increasing contamination of the filter fabric the water pressure decreases perceptibly, the filter element must be replaced. BUT

AFTER 6 MONTHS AT THE LATEST!

2.2 Pressure reducer + backflow preventer (only E1 HWS)

The pressure reducer works according to the principle of the relieved single-seat valve. It is controlled starting from the back pressure via a large-dimensioned membrane and a pressure spring, the tension of which can be changed with the rotary knob. The display shows the respective back pressure setting value. The backflow preventer only opens in the direction of flow when water is removed and is tightly sealed in idle position or counterpressure.

3. Operation

The filter and pressure regulation functions work completely autonomously without the need for operation. For impeccable, hygienic enjoyment of drinking water in accordance with the standards, it is only necessary to replace the filter element at least every 6 months.

3.1 Replace filter

With the new single lever operation, replacing the filter element is easy and only takes seconds:



1. Slowly unlock the stopcock, thus simultaneously and automatically stopping the water



2. Lift the single lever to approx. 130° – Pull out the supporting core, incl. filter cup and filter element



3. Dispose of the used filter element or – for optimum hygiene – the complete hygienic vault (environmentally -friendly plastic recycling).

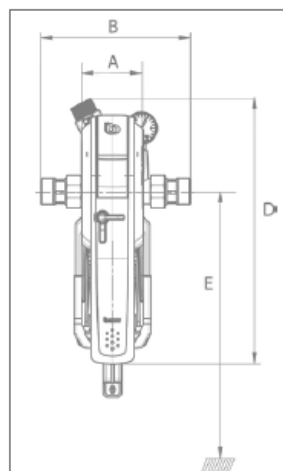
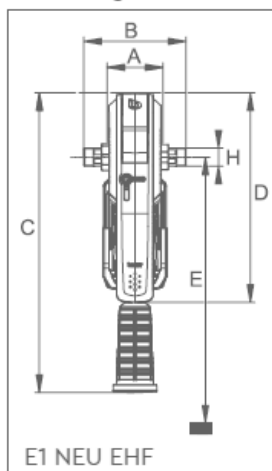
4. Insert the new filter element or hygienic vault, close the lever. Slowly release the stopcock/ unlocking device (90° anti-clockwise)

Technical data

BWT E1 NEU HydroMODUL	Typ	with connection module			with DR connection module"			
		¾"	1"	5/4"	¾"	1"	5/4"	
Nominal width	DN	20	25	32	20	25	32	
Connection thread H		¾"	1"	5/4"	¾"	1"	5/4"	
Swivel nut thread		G 1 ¼"	G 1 ¼"	G 1 ½"	G 1 ¼"	G 1 ¼"	G 1 ½"	
Admission width	µm	90-110						
Flow rate at Δp = 0,2 bar**	m³/h	1,68	2,0	2,0	-	-	-	
Flow rate at Δp = 0,5 bar**	m³/h	3,17	3,25	3,1	-	-	-	
Flow rate*	m³/h	-	-	-	1,6	3,6	5,8	
Output pressure after pressure reducing valve	bar	-	-	-	2-6			
Nominal pressure (PN)	bar	16						
Operating pressure, min./max.	bar	2,5/16						
Water temperature, min./max.	°C	5/30						
Ambient temperature, min./max.	°C	5/40						
Overall length without fitting	A	mm	100	100	105	100	100	130
Overall length with fitting	B/B1	mm	184	184	203	184	184	228
Total height incl. hygienic vault	C/C1	mm	569	569	569			
Total height	D/D1	mm	381	381	381	390	390	390
Minimum distance pipe centre to floor	E	mm	480	480	480	480	480	480
Installation mass pipe centre to wall	mm	90-130						
Approx. operating weight	kg	3,5	4,0	4,0	4,5	4,5	6,7	

* according to DIN EN 1567

** according to DIN EN 13443-1



Flow rate with filter element (m³/h)	Pressure loss (bar)			
	0.2	0.3	0.5	0.6
with module ¾"	1.68	2.45	3.17	3.56
with module 1"	2.00	2.63	3.25	3.56
with module 5/4"	2.00	2.45	3.10	3.61