

# Infinity A + AP

Automatic backwash filter  
AP automatic backwash filter with differential-pressure control  
with waste water connection in accordance with DIN 1988 3/4" - 2" (DN 20 - 50)

Product data sheet

# 6.21



Infinity A



Connection module 3/4" - 1 1/4"  
DR connection module with pressure reducer  
HWS connection module with pressure reducer  
and non-return valve

Date of current version: October 2003  
Replaces all previous versions  
Technical specifications are subject to change.



Connector 1 1/2" - 2"  
HWS connector with pressure reducer  
and non-return valve

## List of supplied parts

**Infinity A/AP** with the possibility of connection to the HydroModul system or a separate connecting module or connector, with or without a pressure reducer (pressure reducer not supplied), consisting of:

- Outer casing (top section in brass)
- Electronic controller and backwashing device with hydraulic drive
- Transformer with plug
- Transparent cylinder with filter element
- Vent tube
- Waste water connection (HT connection or hose nozzle)
- Differential pressure generator and CIC connection (**Infinity AP only**)

### Necessary accessories:

Connecting module/connector

### Accessories for AP only:

- CIC connection cable, 2 m with plug  
Order no. 10908
- Interlock cable for parallel operation  
2 m with plug  
Order no. 10908

## Intended use

The filters are intended for filtering drinking and service water. They protect water pipes and any connected system parts for transporting water from malfunctioning and against corrosion damage caused by foreign particles such as rust, chip, sand, and hemp, etc. up to a diameter of 2 mm.

The filters are not intended for use with chemically treated circulating water. Seek specialist advice when using the filters to filter process water and cooling water for continuous cooling systems.

A coarse sediment bowl should be added for water containing coarse sediment particles.

The filters are **not** suitable for oil, fat, solvents, soap, and other lubricating media. Also, they are not suitable for separating water-soluble materials.

## Function

Untreated water flows through the untreated water inlet into the filter and there from the inside through the filter element to the clean water outlet. Impurities > 90 µm are trapped on the inside of the filter cloth. Depending on their weight and size, these particles either fall directly onto the lower section of the filter element or cling to the filter cloth. The filter element can be cleaned by backwashing at regular intervals.

Backwashing is carried out automatically after a preset time interval according to the effective principle of backwashing by suction (suction-ring backwashing system).

**Infinity AP only:** If heavy soiling of the filter element causes the pressure difference to exceed the preset value (0.8 bar) within the preset time interval, the differential pressure generator triggers the backwashing process. The preset time interval starts again.

The filtering process continues uninterrupted even during the backwashing as 90% of the filter surface is constantly available for filtering (nonstop filtration).

## Installation conditions

Observe all applicable installation regulations, general guidelines and technical specifications.

There must be a flush quantity of at least 3.5 m<sup>3</sup> per hour for backwashing. The pressure downstream of the filter during backwashing must be at least 2.5 bar.

**A connection to the sewage system (min. DN 50) must be available for draining the flushing water.**

**There must be a 230V/50Hz mains socket within 1.2 m to provide the unit with electrical power.**

The installation site must be protected against frost and must guarantee the protection of the filter from solvent vapours, fuel oil, leas, chemicals of all types, UV irradiation, and heat sources over 40°C.

**Caution: Keep plastic parts free of oil, grease, solvents, and acid or alkaline cleaning agents. After hard collisions and impacts (e.g. with unsuitable tools, falls onto stone floor, etc.) the plastic part must be replaced, even if there is no visible damage (danger of bursting). Avoid extreme pressure blows.**

### Functional and warranty conditions

Filters require regular functional monitoring, maintenance and replacement of important parts after certain intervals. See the installation and operating instructions for the maintenance intervals. We recommend that you enter into a service agreement.

# Product description

## BWT Infinity automatic backwash filter

## BWT Infinity AP automatic backwash filter with differential-pressure control

DIN/DVGW-approved.

Automatic backwash filter for connection to the HydroModul system or to a connection module, DR connection module or HWS connection module. Backwashing is carried out automatically after a preset time interval according to the effective principle of backwashing by suction (suction-ring backwashing system).

**Infinity AP only:** If heavy soiling of the filter element causes the pressure difference to exceed the preset value (0.8 bar) within the preset time interval, the differential pressure generator triggers the backwashing process. The preset time interval starts again.

Scope of supply: Filter base plate with brass top section, electronic controller and backwashing device with hydraulic drive and cap, Transparent cylinder with filter element, vent tube, Waste water connection (HT connection or hose nozzle), Differential pressure generator and CIC connector (**Infinity AP only**), transformer plug.

## Technical specifications

Infinity A and AP backwashing filter		Model	3/4"	1"	1 1/4"	1 1/2"	2"
Nominal connection width	DN		20	25	32	40	50
Flow capacity at $\Delta p = 0.2$ bar	m <sup>3</sup> /h		3.5	4.5	5	9	11
Output pressure downstream of pressure reducer with connecting module DR or connection piece HWS	bar		2 - 6				
Lower/upper admission width	$\mu$ m		90 / 110				
Nominal pressure (PN)	bar		16				
Operating pressure, min./max.	bar		2.5 during backwashing / 16				
Water temperature, min./max.	°C		5 / 30				
Ambient temperature, min. - max.	°C		5 / 40				
Power	V/Hz		230/50/60 (unit operation at 24 V -)				
Power consumption during backwashing	W		8				
CIC dry contact, switching capacity			max. 24 V / 1 A (resistive load)				
Connection type			HydroModul connection		Four-hole flange		
Total height	A	mm	460		460		
Minimum distance from pipe centre to floor	B	mm	670		670		
<b>Infinity A. order no.</b>			<b>10194</b>		<b>10191</b>		
Infinity AP order no./production number			10258		10259		

