



IONIX MINIVIEW FILLING UNIT

INSTRUCTIONS

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1: General

1.1 Information

The IONIX MiniView water filter is used for the desalination of the top up water for heating and cooling systems in accordance with the HVAC manufacturers, VDI 2035, SWKI and ÖNORM H 5195-1 guidelines, to help prevent the damage caused by limestone formation and corrosion.

The MiniView filter is a device which provides ongoing system protection by pre-conditioning mains top up water which is required when completing ongoing system maintenance. Raw water can be harmful to high efficiency systems, as the amount of minerals and salts within can affect performance & reliability, due to the formation of lime scale, sludge and corrosion debris. Water which has a high electrical conductivity has a significant impact on the rate at which corrosion occurs within sealed systems. Fully demineralised (low conductivity) water is produced at the point of fill in accordance with known chemical free guidance.

These instructions will enable you to operate the device safely, correctly and economically.

Prior to the installation and working on this device, you must first read this instruction manual in full. The instructions for installation, the operation and maintenance of the unit must be followed.

In addition to these instructions, the current and locally applicable H&S regulations for accident prevention must be observed.

You should retain these instructions for future reference.

1.2 Application

The MiniView filter system is used to condition untreated mains water reducing the electrical conductivity & salt content. The MiniView filter system produces fully demineralised water by using a premium quality ion exchanger mixed bed resin that changes colour at the end of its capacity as a visual guide.

Operating modern systems with low conductivity water prevents galvanic corrosion, sludge build-up, losses in efficiency, premature component failure and keeps systems reliable allowing you to comply with HVAC manufacturer's warranty conditions.

Providing the unit is operated within the parameters set out in this guide, the MiniView will produce a water quality which has only very small amounts of dissolved salts and an electrical conductivity <10 µS/cm and a total hardness of <0.01°dH within the limits of the filter.

1.3 Safety

Personal injury and property damage resulting from the failure to comply with these instructions are not covered by the Product Liability. The manufacturer also assumes no liability for any other damage caused by the failure to comply with these instructions.

Please read these instructions carefully before using the device. For your own safety and others, it is essential to follow the safety instructions in this instruction manual.

You must always adhere to the relevant local safety regulations. It is the installers responsibility to comply with the local regulations that apply to them and keep to up to date with the latest regulations.

1.4 Safety parameters

The installation, maintenance and replacement of any components of the MiniView system should be done as set out in this manual and only genuine replacement parts should be used. The manufacturer assumes no liability for damage caused by improper commissioning, use or modification, which would immediately void the warranty.

The MiniView filter system may only be used for the treatment of incoming mains water (drinking water). Treatment of acids, alkalis, etc. is not permitted. **The water produced via the MiniView is strictly for technical use and not for human consumption.**

Any damaged equipment must be taken out of service immediately and replaced. Before carrying out any repair or maintenance work, you must isolate the device from the water pressure or the pipe network.

You must keep withing the stated working conditions, as shown in the sticker affixed to the product. If the sticker is tampered, damaged, not legible or missing, the applicable working conditions are:

**Minimum operating temperature 4 °C.
Maximum operating temperature 45°.
Maximum operating pressure 8 bar.**

***If pressure exceeds the working conditions, protect the product with a pressure reducer.
Static day time pressure does not always reflect the static pressure during the evening,
when consumption in the local area is low, please take this into consideration.***

The treated water should only be used if the filter is operating within its capacity limit.

The blue colour of the resin within the filter cartridge should not be faded, once the colour has faded the resin is exhausted and the MiniView will no longer be operating within its capacity, at this point the cartridge must be replaced. Continued use when the resin is exhausted may result in the water having higher than desired electrical conductivity and a reduction in the pH value, which can lead to undesirable water entering the installation.

On first use it is recommended for the filter to be rinsed through using 1-2 litres of water into a bucket/drain, before being allowed to enter the installation.

Please refer to the safety data sheets for the ion exchange filter material, which we will be happy to provide you with if required.

The MiniView filter system is only suitable for cold water applications within the water inlet temperature range specified. Under no circumstances should microbiologically contaminated water or water of unknown quality be used.

The MiniView unit is not resistant to highly concentrated detergents.

The filter unit must not be opened or disassembled during operation. The pressure should be relieved prior to removal of the cartridge.

Protect the filter unit from sunlight and mechanical damage. Do not use near any heat sources and open flames.

The filter should be fitted in line with the current local water regulations.

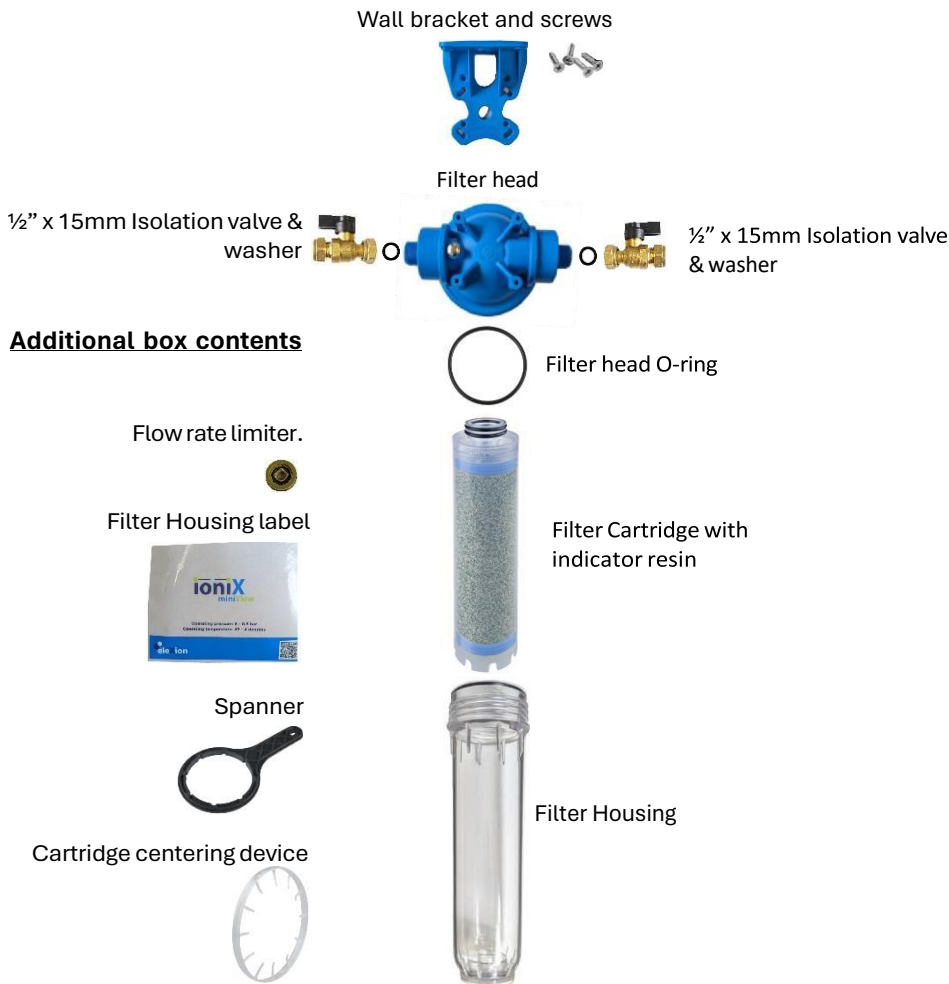
Freezing conditions:

Freezing conditions can damage the unit. Storage of water-filled systems below 4°C should be avoided.

The manufacturer is not liable for any damage which has arisen from incorrect installation or use of the product.

2: System Overview

2.1 IONIX MiniView components.



Correct fitting of the Flow rate limiter



2.2 IONIX MiniView 360 components.



Filter head & Nuts and washers



Double O-ring for 360 body to filter head

1 1/4" x 15mm Isolation valve
& washer



360 Body



1 1/4" x 15mm Isolation valve
& washer

Additional box contents

Flow rate limiter.



Filter Housing label



Spanner



Cartridge centering device



Filter head O-ring



Filter Cartridge with
indicator resin

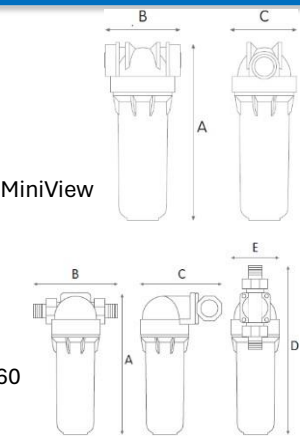


Correct fitting of the Flow rate limiter



2.3 Technical data

- Max. operating pressure 8 bar
- Min. operating / water temperature..... 4°C
- Max. operating / water temperature..... 45°C
- Storage temperature new filter..... -5 - 50°
- Recommended nominal flow rate..... 2 l/min.
- Input connection..... 1/2" male (MiniView)
- Output connection..... 1/2" male (MiniView)
- Input connection..... 3/4"/1" male (MiniView 360)
- Output connection..... 3/4"/1" male (MiniView 360)



2.4 Dimensions

Unit	Operating Position	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Recommended nominal flow rate	Empty Weight
IONIX MiniView	Horizontal	330	150	107	N/A	N/A	2 l/min	2.85
IONIX MiniView 360	Horizontal / Vertical	330	100	170	350	107	2 l/min	3.85

2.5 Filter Capacity

The resin capacity is heavily influenced by the incoming water quality, temperature and flow rate. Depending on these values the capacity of the filter will vary. A flow restrictor, which reduces the flow rate to 2lpm has been supplied as part of the kit.

We recommend using the flow restrictor to ensure the water produced is of the highest quality.

The end of the filter capacity is indicated by the colour change of the filter material. Initially the resin is coloured blue, as it expires the blue colour will fade. When the filter has completely lost its blue colour in the direction of flow and has turned a sandy colour, the filter capacity is exhausted and the resin cartridge should be replaced.

Onsite testing can confirm the resin is operating at its optimal performance where a reading of <10 µS/cm is recorded, if the reading is above this then the resin should be replaced.



RESIN ACTIVE.
When resin colour is blue.
Continue to use.



RESIN EXHAUSTED
When resin colour has faded
Replace the cartridge.

3: Installation / Operation

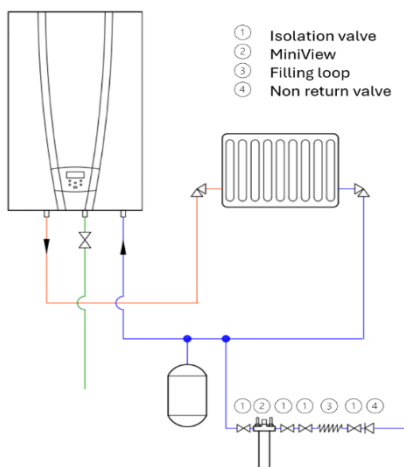
3.1 Unit assembly

Decide on the location of the MiniView filter unit.

WARNING!! The indicator colour of the resin may also fade due to reaction with the ambient air or UV radiation. The installation site should therefore not be exposed to direct sunlight. Also, to avoid a reaction with ambient air, the valves should always be closed and the filter filled with water.

Ensure the mains supply has been isolated & confirmed by opening a tap outlet.

It is recommended that the MiniView is located on the closed loop system side after the connection of the filling loop, the filling loop used should be WRAS approved & consist of a CAT 3 compliant non return valve.



Installation Note – Double Check Valve and Flow Rate Limiter

To provide CAT3 protection, a WRAS approved double check valve must be installed in the direction of flow before the MiniView filter unit.

A flow rate limiter has been provided to ensure that the Di water produced is of a very low electrical conductivity with the optimal pH.

If using the MiniView filter without the flow limiter, the quality of the water cannot be guaranteed.

The flow rate limiter should be fitted into the inlet isolation valve as shown on pages 4 and 5 prior to inserting into the pipe. The flow rate limiter should be fitted with the washers facing outwards, then fully insert the supply pipe, tightening the nut and olive to complete the joint.

Install the wall bracket (not applicable for 360 model) in a suitable location and assemble all components of the filter according to the diagrams on pages 4 and 5.

The 360 model can be installed on either horizontal or vertical pipework.



3.1 Unit assembly continued.

Please note the correct flow direction, marked by an embossed arrow at the top of the filter head (Fig 1). Ensure the filter cartridge is firmly inserted into the filter head.

Fit the isolation valves to the unit using the supplied washers (Note the location of the flow restrictor as detailed in the installation note above).

Fix the supplied MiniView housing label to the front of the MiniView housing.

3.2 Commissioning

Turn the water mains back on filling the MiniView unit completely with water. Vent the filter by unscrewing the breather valve, then retighten it (Fig 2).

Note: After the installation, let the water flow for at least 1-2 litres before use

ATTENTION!! Make sure that the filter housing is not exposed to UV radiation as this can damage the ion exchange resin and cause the indicator to fade prematurely.

3.3 Maintenance

The MiniView unit should require little maintenance. When replacing the cartridge, the unit should be cleaned and the seals greased.

3.4 Ion Exchange Resin

Only use the resin or cartridge provided by the manufacturer.

3.5 Disposal

The ion exchange cartridge can be disposed of with normal household waste, provided that only drinking water has passed through the ion exchange resin.

The MiniView unit must be disposed of in accordance with local regulations.

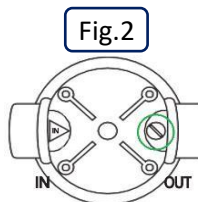
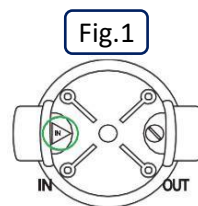
4: Replacing the cartridge

3.1 Changing the ion exchange cartridge

Once the indicator has faded (completely lost its blue colour) the ion exchange resin is depleted. At this point the cartridge must be replaced. To do this, follow these simple steps:

1. Turn off the water mains before opening the filter housing.
2. Release the pressure from the product by un-screwing the vent valve of the head. Then screw and tighten the vent valve.
3. Open the housing unscrewing the housing using the supplied spanner or suitable tool.
4. Remove the used cartridge.
5. Clean the filter housing with cold water and a soft sponge.
6. Put a new cartridge in the container.
7. Tighten the housing to housing's head using the supplied spanner or suitable tool. Do not over tighten.
8. Turn on the water mains.
9. Slowly turn on a water supply (tap) downstream of the filter.
10. Wait for air purge from the vent valve, then screw and tighten the vent valve.

Note: Let the water flow for at least 1-2 litres before use.





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