

Limescale protection unit up to 20° dH



AQA nano

Purpose

AQA nano is used to avoid the depositing of limescale in pipes that guide drinking water (up to 20°dH total hardness) and in their downstream, closed water heaters (up to 80°C surface temperature) as well as for the good of your health.

The preparation of other media as drinking water for human consumption and use outside of the flow rate limits of 25 l/min is not intended and will lead to the manufacturer voiding all liability claims.

AQA nano is particularly recommended for use in detached houses with up to three people and a maximum simultaneous water extraction of 25 l/min (1.5 m³/h).

Function

AQA nano is a device used to protect against limescale in the domestic water system.

Protection against limescale is based on the electro-physical principle of nanocrystal formation. Through precisely defined energy/voltage impulses, a short-term, local displacement of the limescale-carbon dioxide balance prevailing in the water is achieved, whereby tiny calcite crystals (so-called nanocrystals) are formed.

The pulse height and width are dependent on the relevant water quality and the flow speed. Due to their specific size, these crystals all carry the same load, whereby a renewed integration is effectively prevented. All the nanocrystals are able to catch the limescale in the water and, consequently, prevent deposits in the pipes and water heaters (e.g. boilers).

AQA nano displays all operating statuses and the imminent replacement of the limescale protection unit using LEDs.

Scope of Delivery

Assembly

AQA nano is a device to protect against limescale deposits with an integrated electronic control unit. Using the two light-emitting diodes (LED), all operating statuses are displayed. The connection part on the back of the device is produced from high-quality brass. The device cladding is made of high-quality plastic.

Scope of Delivery

- Ready-to-use AQA nano wall device with:
- Connecting module made of high-quality cast brass with installed backflow preventer
 - Limescale protection unit
 - Flow sensor and screwed-on
 - Control unit with network connection
 - Device cladding
 - Connecting screws
 - Fittings

Accessories

For perfect connection to the tried-and-tested BWT HydroMODUL domestic water distribution system, we recommend the HM installation set for AWA nano, which is available as an optional extra.

Limescale Protection Unit

The limescale protection unit has a capacity for max. 110 m³ (± 10) or 1 year of limescale protection for pipes and boilers.

The optical control system shows when the limescale protection unit must be replaced. The limescale protection unit is supplied in a package with hygienic gloves; this makes it possible to replace the unit without any hygiene issues.

Installation conditions

Local installation regulations, general guidelines, general hygiene requirements and technical data shall be followed.

The installation area must be frost-proof and guarantee the protection of the system against chemicals, dyes, solvents, vapours and environmental influences.

The ambient temperature must not exceed 40°C. Protect the device from direct sunlight and ultra-violet light.

The area from the water meter to 1 m after the AQA nano device shall have a corrosion-resistant finish. We recommend the use of a HydroMODUL domestic water distributor, which also enables a rapid and cost-effective installation.

The unit must have an upstream DIN/DVGW (or ÖVGW) certified drinking water filter to protect against foreign material.

For community water supplies, we recommend a backwash filter (automatic or manual), and a BWT filter with changeable cartridges for spring water. Both can be easily docked on to a DR pressure reducer module.

At high inlet pressures (e.g.: 10 bar or more) it may be necessary to install a calming section downstream of the pressure reducer.

A testing line is required for the function check of the AQA nano. This can be done simply with 2 HM-extensions (= 244 mm) in the HydroMODUL system.

Technical data

AQA Nano		
Connection nominal width	DN	25
Connecting thread	Inch	1" AG
Maximum treatment capacity	l/min	25
	m ³ /h	1,5
Minimum treatment capacity	l/min	0,6
Limescale protection capacity	m ³	110 ±10
	Months	12
Nominal pressure	bar	16
Operating pressure, min/max	bar	2 / 10
Pressure loss at nominal pressure	bar	0,8
Water-/Ambient temperature, max	°C	30 / 40
Boiler temperature, max	°C	80
Height x Width	mm	710 x 300
Distance between pipe centre and wall	mm	80
Operating weight, approx.	kg	11
Mains supply	V/Hz	230/50
Electrical connection	W	5,5
Capacity in standby mode	W	1,8
Energy consumption	kWh/m ³	0,018
Protection class		IP 54
Order number		23301

To protect the whole installation and the system, a pressure reducer should be added at a mains pressure greater than 4 bar.

A mains connection (230V/50 Hz fuse contact socket) must be available nearby.

