



Reverse osmosis – from dishwater to fresh water



Conductivity measuring device
UNICON-LF

Reverse osmosis firmly under control

The requirements placed on us

The physical effect of reverse osmosis is used for the treatment of industrial water, the desalination of brackish water as well as sea water for the extraction of drinking water, as well as the treatment of river water. The filtered liquid is pressed through an industrially manufactured semi-permeable membrane with the aid of proportionately high pressure. This results in the accumulation of only pure water molecules on the other side, which are then used for the self-sufficient freshwater supply. All contaminants and salt remain behind mechanically above the filter and can be removed. Cleaning and care of the membrane should be carried out for prolonged use. The plant size corresponds equally to the mobile and stationary requirements on cruise and freight ships as it does to the independent supply of off-shore stations and settlements on land.

In each circumstance, the customized construction of the sensors must function dependably and precisely for the monitoring of fill level, flow volume, pressure and conductivity. It must also be robust, require little maintenance and conform to the particular application.



BENEFITS.

- reduced maintenance thanks to a self-cleaning function of the sensor
- transducer supply through the current loop saves on cabling
- multifunction device for complete control and regulation removes the need for many individual devices
- quick calibration and device maintenance due to individual operation

The purity of drinking water is an essential requirement. This is determined in reverse osmosis by conductivity.

Our solution

With the Unicon System, the GHM GROUP offers devices specifically for analytical measuring technology, which are fed through the electrical interface. This means that the wiring requirements are very simple. GHM customises the display and control panels individually to the needs of the user, so that time-consuming breakdowns of monitoring do not occur. Additional sensors of the GHM sensor family are in use for industry and the hygiene sector for management and continuous quality monitoring of reverse osmosis plants, depending on their design and operation.

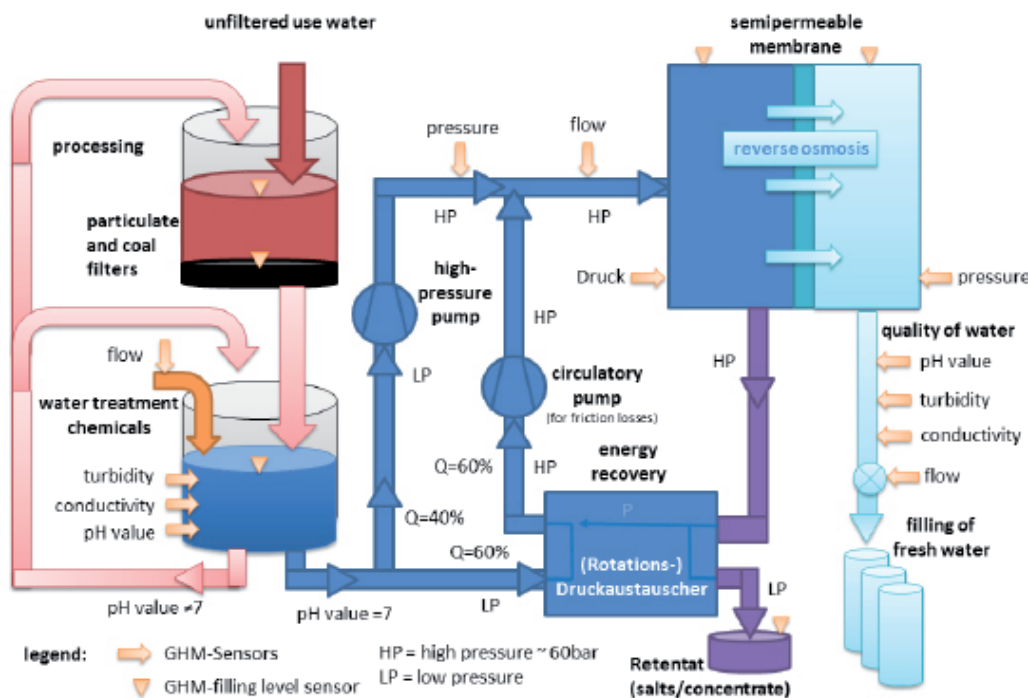
The benefits

Our practice-oriented devices win trust with their technical refinements – such as the monitoring of glass breakage by UNICON-pH or the 4-electrode conductivity measuring cell by UNICON-LF. They avoid the influence of polarisation resistances and

provide for the monitoring of two measuring ranges for precise process values. The GHM GROUP not only supplies perfectly compatible sensors for these fields of use, it also provides appropriate devices for monitoring, display and registration of process data: This includes UNICON-DF and UNICON-LF, which are integrated into sensors and transducers, as well as the compact solution of the multifunction unit GHM-ONE, offering completely automated functions and control, with coloured touch-control panel.

Focus on the customer – purchase decision

For years the established technical range of the GHM GROUP convinces through its small and compact construction, surprisingly simple assembly and configuration, as well as practical simulation operation and calibration. An example of this is the USP 645, with automatic temperature compensation of the readings and low-maintenance, long-term use. Suppliers of equipment and components make full use of reliable products from experienced specialists in the area of measurement and control technology.



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