

limitron

Hardness monitoring unit

The limitron automatic hardness control device without its own controller is installed in the feed of the reverse osmosis system and serves to protect the membranes by continuously monitoring the soft water for residual hardness. The measuring principle is based on resin shrinkage or expansion, so the device does not require any chemicals or water. The potential-free change-over contact of the limitron is connected to the corresponding digital input of a reverse osmosis with microprocessor controller or with PLC.

BENEFITS

- Proven and reliable hardness control device
- No use of water and chemicals
- No complex maintenance and calibration required
- Easy replacement of the shrink resin sensor

APPLICATIONS

- Installation after softening plants to protect a downstream reverse osmosis from hard water breakdown



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DESCRIPTION

Scope of delivery

- Differential pressure transmitter as flow-through fitting for generating a sample water flow
- Hardness sensor based on resin shrinkage with shut-off valves
- Connecting hoses
- Replacement sensor for exchange after hardness break-through and malfunction
- Sensor unit with reed contact
- Output for fault messages as potential-free changeover contact, for example for actuating a visual or acoustic signal or for switching off a downstream reverse osmosis system

Optionally available

- Replacement sensor for limitent / limitron (370 031)
- Upper part for limitent / limitron (370 034)
- Lower part for limitent / limitron (370 034)
- Raw water section (art. no. differs depending on flow rate)

CONDITIONS OF USE

An overpressure protection must be installed in the feed water line upstream of the hardness control unit. The spare sensor must be flushed with soft water before installation and soaked in soft water / permeate when stored. When connecting the potential-free changeover contact to the control unit of the reverse osmosis, the maximum contact load (see technical data) must be observed.

Feed water pressure	2 – 6 ± 0.2 bar
Feed water temperature	5 – 35 °C
Ambient temperature	0 – 40 °C

TECHNICAL DATA OF SERIES

Protection class	IP 54
Contact	floating
Loading max.	50 V DC/AC / 0.15 A / 3 W

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Product name	Flow rate m ³ /h	Hydraulic connection	Suitable for RO sizes	Dimensions in mm W x D x H	Item number
limitron 3/4"	0.025 – 2.5	R 3/4"	UO 100 - 1500	80 x 120 x 290	370 038
limitron 1"	0.20 – 7.0	R 1"	UO 1650 - 3500	80 x 120 x 290	370 069
limitron 1 1/4"	0.50 – 12.0	R 1 1/4"	UO 3800 - 6000	80 x 120 x 290	370 044
limitron 1 1/2"	1.50 – 16.0	R 1 1/2"	UO 7000 - 10000	80 x 120 x 290	370 070
limitron 2"	3.00 – 25.0	R 2"	UO 11000 - 18000	80 x 120 x 290	370 063