Limitent

Automatic hardness monitoring unit for installation after water softeners.

The unit is designed for continuosly monitoring the soft water quality without consumption of neither chemicals nor water. In case of hardness breakthrough, a LED signalizes 'hard water'. An output for a malfunction alarm signal and/or the shut-down of a downstream reverse osmosis unit is provided.

Design features:

- differential pressure valve
- hardness sensor on a resin expansion/shrinkage base
- replacement sensor
- shut-off valves
- connecting tubes
- transmitter unit with Reed contact
- control

Technical Data

flow rate	min. max.	l/h	25 2500	200 7000	500 12000	1500 18000	3000 25000
nominal width (connection)			¾"	1"	1 ¼"	1 ½"	2"
pressure loss max.		bar	0,2				
change-over contact			floating - max.load 250V/ 5A/ 600W				
feed water pressure max.		bar	6				
feed water temperature min./max.		°C	5/35				
ambient temperature max		°C	40				
Item-No:			370037	370067	370043	370068	370055

Replacement Parts

Item No. 370031 *limitent* hardness sensor
Item No. 370034 *limitent* head
Item No. 370024 *limitent* control

Mode of Operation

The differrencial pressure valve which is installed in the soft water line creates a slight difference in the water pressure. Therefore part of the water passes through a bypass an the hardness sensor which is mounted there before returne to the main stream.

In case of hard water leakage the sensor will be charged which makes the special resin contained therein shrink. The transmitter with Reed contact activates the optical alarm signal 'hard water'. The potential-free contact can be used to emit an optical or acoustic signal and/or shut-off the reverse osmosis unit.

Mounting

- Install hose an fittings in soft water line
  Observe direction of water flow!
- Mount PVC panel vertically to wall nearby.
- Connect hoses as shown on enclosed drawing.
- Connect additional control functions athe terminals 1-2-3 (potential-free contact) in the control unit.

Start-Up

- Make sure that soft water is available.
- Connect to 230V/50Hz outlet. The light 'operation' resp. 'Betrieb' is on.
- Slowly open both shuth-off valves and check that joints do not leak.

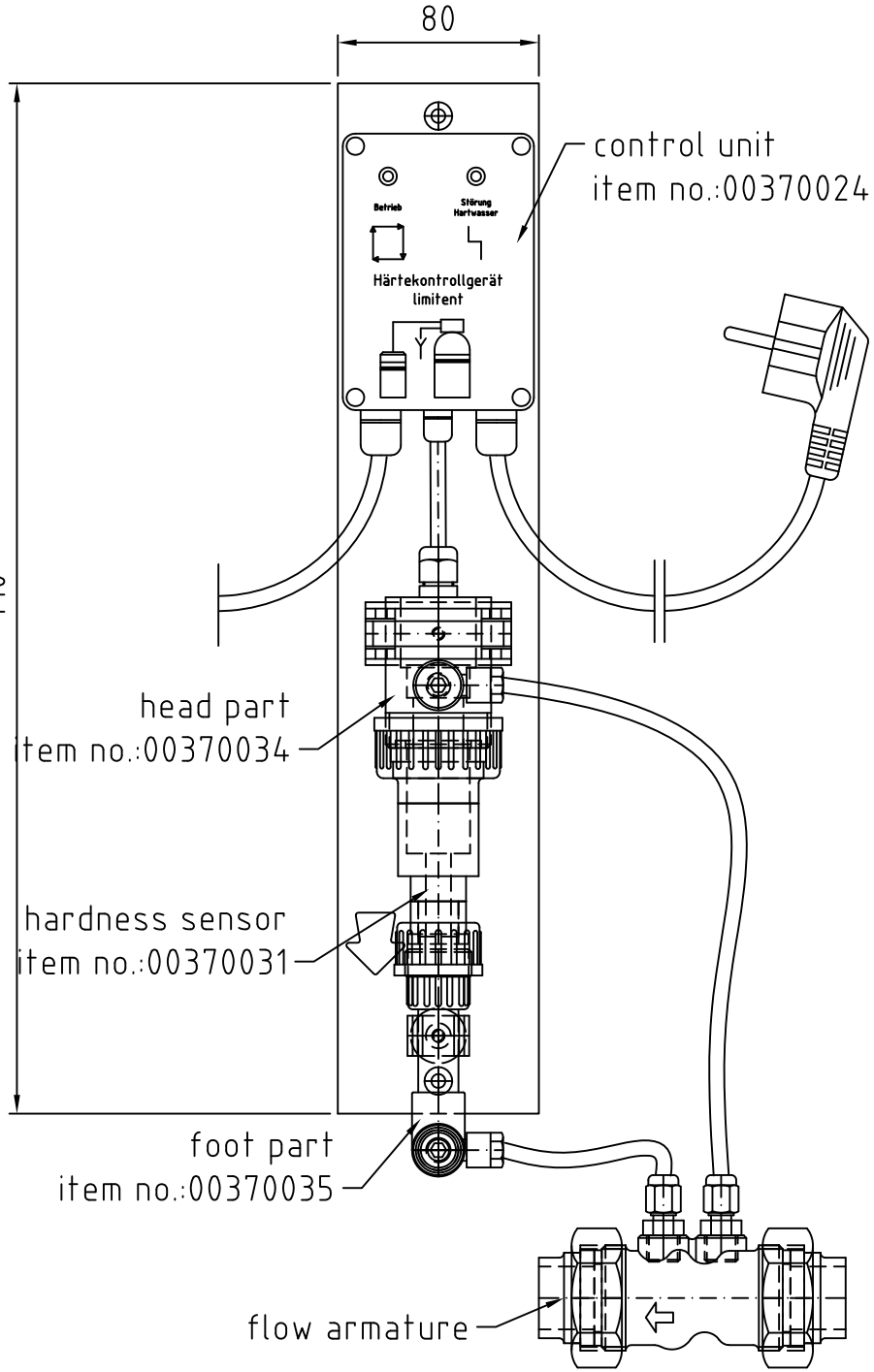
What to do in case of 'hard water' alarm

- Close shut-off valves (angle valves) at top and bottom.
- Unscrew and exchange sensor.
- Before rerun make sure that soft water is available. Do not open inlet valve to *limitent* if soft water is not available.

Attention: The replacement sensor must be rinsed with soft water before installation. It should be kept humid during storage.

Maintenance

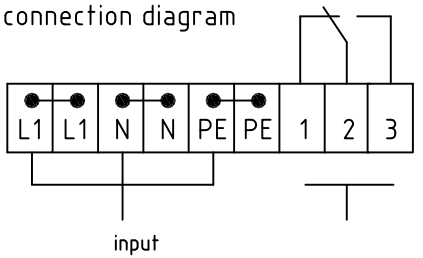
Sensor must be changed one time a year!



Technical Data

elektrical connection	230V/50Hz
power consumption	1,8VA
housing	PVC, IP 54
contact	floating
current	max. 250V 5A/600W
LED-display	"ON"
	"hard water"
pressure loos	max. 0,2 bar
feed water temperature	min./max.5/35°C
feed water pressure	max. 6bar
ambient temperature	max. 40°C

connection diagram



				Allgemein-Toleranzen DIN ISO 2768 - mK		Oberfläche	Maßstab 1:2
					Datum	Name	
				Bearb.	21.07.2004	Münzer	Hardness Control Limitent
				Gepr.			
				Norm			
							00370037-50010
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Position | Menge

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