Datasheet AquaDETECT

Central leakage monitoring system

Leakage Detection Device

Central Control Unit

Leakage Sensor

Original may vary from illustration

Key features & functionality

- The AquaDETECT is an extension of the established standard leakage monitoring of the water treatment unit providing full leakage monitoring of a dialysis center for building protection
- Leakage monitoring is accomplished by up to 55 leakage detection devices with leakage sensors
- Provides reliable operation of a reverse osmosis and central fluid delivery system even when no staff is present to ensure its proper function
- Initial self-test of all leakage detection devices
- Visual indicator of the monitoring status on the display of the central control unit
- Optionally operate a magnetic valve to control the flow of purified water to the water treatment units
- Visual LED indicator (green/red) at the leakage detection device
- Leakage detection devices can be distributed across four separate communication lines
- Status events are documented and can be accessed in the report menu
- Leakage detection devices address encoding via DIP switches
- Several different operating modes:
  - Timeplan
  - Manual activation
  - Manual deactivation
  - Test mode

Central Control Unit

Display	TFT LCD Display Resolution: 800 x 480 Screen size: 5.0 inch Touchscreen
Dimensions (h x w x d)	160 mm x 250 mm x 90mm
Weight	approx. 1kg
Languages	German, English, French, Spanish, Italian, Portuguese
Documentation of events	Documentation of the last 100 status messages of the system Format of an error message: -Date, time, error event, device number Format of a mode message: -Date, time, mode change event
External signalling	**5x Closing contacts** (max. 30VDC, 200mA, solid state relay) -Establishes a low impedance connection between two contacts -Without external connection the contacts are potential-free **Use with:** -AquaA -AquaBplus, etc. -GRANUMIXplus / CDSplus -CDS3 **2x Changeover contacts** (max. 240VAC, 2A, SPDT relay) -Without external connection the contacts are potential-free **Use with:** -Booster Pump -Optical signalling and staff call
Communication Line	Connection of up to 55 leakage detection devices distributed across four communication lines with a length of up to 350 m each -Bus 1: max. 15 individual devices on a 350m bus line -Bus 2: max. 15 individual devices on a 350m bus line -Bus 3: max. 15 individual devices on a 350m bus line -Bus 4: max. 10 individual devices on a 350m bus line Cable type: 4 x 2 x 0.8
Electrical Supply for communication lines	30 VDC at max. 1 A
Magnetic valve	**1x Output for the operation of a magnetic valve** -Magnetic Valve 230 VAC 50-60Hz at max. power 24 VA or -Magnetic Valve 24 VDC at max. power 11W
Indication	Visual and audible indication of: -Leakage detection -Sensor position error -Communication error on the bus line

Leakage detection device

Electrical Supply	30 VDC at approx. 7 - 15 mA
External connection	**1x RJ45 (front)/ 1x Connection terminal (back)** **Use with:** - Leakage sensor **1x Solid state relay** (max. 30 VDC, 200 mA) -Establishes a low impedance connection between two contacts -Without external connection the contacts are potential-free -Current limit at 50 mA **Use with:** -Optocoupler input at 24 VDC/20 mA
Indication	Visual indication of: -Leakage detection -Sensor position error -Communication error on the bus line

Leakage sensor

Sensitivity	Sensor detection threshold: 1 µS/cm (± 10%)
Position sensor	Reports an error when the leakage sensor is upside down

Electrical Supply

Voltage Supply / single-phase current	100- 240 VAC, 50/60 Hz
Power consumption	max. 70 VA
Mains connection	Receptacle IEC-60320 C14 mates with IEC-60320 C13 connector cable
Safety class	1
Degree of protection against ingress of liquids	IPX1, drip-proof
Overvoltage category	2
Pollution level	2
Operation mode	Continuous operation

Operation conditions

Atmospheric pressure	700 – 1150 hPa
Ambient temperature range	+5°C to +40°C
Relative humidity	max. 80% (non-condensing)
Operating altitude	max. 3000 m

Transport and storage conditions

Storage temperature range	+ 5°C to +40°C (protect from frost!)

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