SEM SPI C170 / P170

The SPI 170 monitors the water treatment process optimally by measuring and controlling it in a unique way. The SPI 170 stands for the perfect water quality.

Measurement

The SPI 170 measures the most important values that determine the quality of (swimming) water, namely the pH and chlorine value or the pH and peroxide value. The chlorine and peroxide value is determined by means of a photometric method.

By adding a reagent liquid (DPD or Peroxide color) discoloration occurs. The intensity of discolouration is measured by means of a light sensor. The major advantage of this photometric method is that the measurement is not or hardly affected by external factors (pH en flow) as this is the case with many electrochemical sensors. This precise control ensures that the (swimming) water meets the legal quality requirements in terms of chlorine (or peroxide) and pH values.

Security

The SPI 170 is equipped with a flow measurement . By connecting a flow sensor, the SPI 170 measures the current flow in the filter system. If the flow is too low, the dosing of chlorine, acid or peroxide will be stopped. In addition, the SPI 170 is equipped with a variety of safety features to ensure optimal water quality.

Dosage

Based on the measured values, the SPI 170 can control all types of dosing pumps with a pulse signal or on / off signal. If the optional analogue module is applied, 4-20mA or 0-10V control is possible.

Technical specifications

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- Control: Pulse / On-Off (Potential Free Solid State Contact) / 0 - 10V / 4 - 20mA.
- Based on flow, the dosage is protected (no flow = no dosage)
- Circulation contact on / off security
- Sending a general alarm signal with adjustable alarm delay time.
- Water connection: Supply 5-50 l/uur, min. pre pressure 0,3 bar, return pressureless to buffer, pool or drain, Reagent pressureless to drain
- Dimension panel: H x W x D : 485 x 485 x 100 mm
- For detailed technical specifications or applicability see SPI 170 manual
- Various accessories and options available

Specifications of the parameters to be measured for the SPI - C 170

Measurement	Method	Range	Accuracy
Chlorine	DPD	0,00-5,00 mg/l	±3%
pH	Glass electrode	2-14 pH	±0.05 pH
Flow	Puls sensor/ Current sensor	0–100 % 0- 2.5 m/s	±5%

Specifications of the parameters to be measured for the SPI - P 170

Measurement	Method	Range	Accuracy
Peroxide	Peroxide color	0,00-100,0 mg/l	±3%
pH	Glass electrode	2-14 pH	±0.05 pH
Flow	Puls Sensor/ Current sensor	0–100 % 0- 2.5 m/s	±5%

Options :

- **Communication module**

The SPI 170 is expandable with a communication module. This allows that the SPI 170 is fully controlled on distance via the standard TCP/IP protocol. It is possible to log 250 measurements and view these measurements in a chart. It is also possible to check the SPI 170 on distance together with the customer which makes solving problems much easier.

- **Analogue module**

The analogue module is a module for expanding the SPI 170 with 4 analogue outputs:

- *Current Chlorine/Peroxide value*
- *Current pH value*
- *Pomp action Chlorine/Peroxide*
- *Pomp action acid*

These analogue outputs are adjustable from:
0-10 V/ 2-10 V/0-20 mA/4-20 mA
This allows the SPI to be connected to a PLC or a building management system.

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