

ONLINE WATER-QUALITY MONITORING / DATA SHEET

SW41-02

ONLINE DPD RESIDUAL (TOTAL) CHLORINE MONITOR

Wall-mounted DPD spectrophotometric monitor for residual and total chlorine measurement with remote data functions.

Overview

SW41-02 adopts a DPD spectrophotometric measurement system and a self-designed flow trough and filtration system. The result is high detection sensitivity with stable and reliable operation in a wall-mounted format.

The supplied data-processing software supports online detection, historical data trend analysis, storage and real-time query on a remote platform.



0–10 mg/L CHLORINE RANGE	0.01 mg/L RESOLUTION	<2.5 min MEASUREMENT INTERVAL	RS485 / DTU COMMUNICATION
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FEATURES & APPLICATIONS

Key Features & Applications

Key Features

- Simple installation; low maintenance.
- Automatic diagnosis function; intelligent control.
- Remote monitoring; factory reset.
- Intelligent operation; one-click upgrade.

Application Areas

- Waterworks.
- Secondary water supply.
- Swimming pools.

MEASUREMENT PRINCIPLE

DPD Spectrophotometric Measurement

The monitor uses a DPD spectrophotometric measurement system. The source material specifies N,N-diethyl-1,4-phenylenediamine (DPD Method) for residual and total chlorine measurement, together with a flow trough and filtration system designed for online operation.

TECHNICAL SPECIFICATIONS

Technical Data

Parameter	Specification
Measurement Parameters	Residual Chlorine / Total Chlorine; Total Residual Chlorine
Measurement Method	Spectrophotometric method using N,N-diethyl-1,4-phenylenediamine (DPD Method)
Measurement Range	0–10 mg/L for Residual Chlorine / Total Chlorine and Total Residual Chlorine

Parameter	Specification
Accuracy	Residual Chlorine / Total Chlorine: 0–5 mg/L: $\pm 5\%$ or ± 0.05 mg/L (whichever is greater); 5–10 mg/L: $\pm 10\%$. Total Residual Chlorine: $\pm 5\%$ or ± 0.05 mg/L (whichever is greater).
Detection Limit	Residual Chlorine / Total Chlorine: 0.02 mg/L; Total Residual Chlorine: 0.03 mg/L
Lower Limit of Detection	Residual Chlorine / Total Chlorine: 0.05 mg/L; Total Residual Chlorine: 0.1 mg/L
Repeatability	<3%
Resolution	0.01 mg/L
Measurement Interval	<2.5 min
Communication Method	RS485, DTU
Reagent Consumption	0.5 L indicator + 0.5 L buffer solution, 30 days
Measurement Modes	Manual test; continuous measurement; periodic measurement
Filter Device	Filter set with 80 mesh filter
Working Temperature	5–40 °C
Working Humidity	<90% RH (no condensation)
Storage Temperature	–15–60 °C
Electrical Installation Category	Indoor installation
Installation Method	Wall-mounted
Power Supply	AC 220 V $\pm 10\%$, 50 Hz $\pm 10\%$, <20 W
Size	580 × 400 × 240 mm
Weight	<20 kg (NW)

Note: Technical parameters may be updated as technology continues to evolve.

CONTACT / SUPPORT

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