



MicroChem[®] 450 Controller

A Versatile Instrument for Disinfection Control

Introduction

The MicroChem[®] 450 controller is packed with a wide range of features that ensure disinfection control is working at peak performance. Uniquely suited to control schemes that utilize two process inputs, the MicroChem 450 can control a broad range of chemical feed applications. Easy to navigate software with a touch screen interface allows the user to monitor, operate and quickly tune their control system for optimal performance.

User-customizable control modes specific to automating chlorination and water treatment applications include flow proportioning, residual, and compound loop control. For dechlorination with sulfur dioxide or sodium bisulfate, dual input feed forward control mode is available. A standard PID control configuration is also offered for alternate applications if required.

The large color display allows for easy viewing of system conditions quickly. Commonly adjusted parameters such as ratio for dosage control and the setpoint adjustment for residual control are available on the main screen for easy access. An on-screen auto/manual button provides added flexibility to run the system in manual during maintenance periods. The MicroChem 450 controller coupled with a gas dispenser or chemical metering pump makes disinfection process control easy and painless.



450 Controller Features:

- Color Touch Screen user interface
- Intuitive menu driven software for easy setup and operation.
- On screen alarm and warning messages
- Dual input (Compound Loop) control with single channel instrument.
- Remote Setpoint and Ratio available by adding channel cards to instrument.
- Up to (8) software configurable relay outputs.
- Up to (8) software configurable digital inputs.
- 28-day data logging with on screen display of trends
- USB 2.0 connection to USB memory media to allow download of data log file and instrument configuration.
- Serial Communications via RS-232/422/485 via MODBUS protocol.

Technical Data:

Power Supply Input:

- AC Version: 100-240 Vac \pm 10% 50-60 Hz 65 VA
- DC Version: 24 Vdc \pm 10% 3.15 A

LCD Interface:

- Color display resolution 480x272
- Resistive touch panel

Digital Inputs/Outputs:

- 8 digital input contacts (Dry contact, no voltage)
- 8 relay outputs, 230Vac 8A (AC versions) or 24Vdc 2A (DC versions)

Expansion Sockets:

- Capability to accept up to 3 analog channel cards

Analog Inputs:

- 4-20 mA inputs for residual and remote dosage or remote setpoint (1 per channel card)
- One 4-20 mA/PWM input

Analog Output:

- 4-20mA/PWM output for control signal

Language Interface:

- Software selectable: English (default language), Spanish, Italian, French, German, Chinese

Compliance:

- CE
- TUV certified to UL/CSA standards

Enclosure Protection:

- IP65 and NEMA 4X

Outline Dimensions:

- 220 mm x 250 mm x 120 mm (8.7 x 9.8 x 4.7 in)

Weight:

- 2.3 kg (5.1 lb)

Operating Temperature:

- From -10°C to 60°C (14°F to 140°F)

Relative Humidity:

- Up to 95%

Capabilities:

De Nora Water Technologies is ISO 9001 certified to provide quality and precision materials. Disinfection technologies, water quality monitors and instrumentation for water and wastewater are areas of specialization. Over 50 years of industrial and municipal application experience in the water and wastewater industries is incorporated into the equipment design to provide high quality comprehensive solutions for the global market.