

PART 1 GENERAL

1.1 Section includes:

- A. A modular single channel controller that works with analog sensor modules.

1.2 Measurement Procedures

- A. Microprocessor-based sensor controller.
- B. The controller can be used for the following measurements:
 - 1. pH/ORP and temperature.
 - 2. Conductivity
 - a. Conductive conductivity
 - b. Inductive conductivity
 - 3. Disinfection
 - a. Free and Total Chlorine
 - b. Chlorine Dioxide
 - c. Ozone
 - d. Hydrogen Peroxide
 - e. Temperature

1.3 Certifications

- A. CE-Symbol: The product meets the requirements of the Harmonized European standards and complies with the legal requirements of the EC directives.
- B. EMC: EN 61000 6-1 (3) EN 61000 6-2 (4) EN 61326

1.4 Environmental Requirements

- A. Operational Criteria
 - 1. Temperature: 32.0 to 122.0 °F (0.0 to 50.0 °C)
 - 2. Relative humidity: 0 to 90% at 40 °C, non-condensing

1.5 Warranty

- A. Warranted for one year from date of shipment from manufacturer defects.

1.6 Maintenance Service

- A. Clean controller keypad
- B. Calibrate mA output signals

PART 2 PRODUCTS

2.1 Manufacturer

- A. Kuntze Instruments, Lower Burrell, PA and Kuntze Instruments GmbH, Meerbusch, Germany
 - 1. Kuntze model Neon Controller

2.2 Manufactured Unit

- A. The controller is available with the following power requirements:
 - 1. AC powered: 85 to 265 Vac +/-10%, 50/60 Hz;
 - 2. **Optional:** 24 VDC powered: 24 VDC
- B. The controller uses a menu-driven operation system.
- C. The controller display is a touch screen.
- D. The controller is equipped with a real-time clock.
- E. The controller is equipped with an SD card reader for data download and controller software upload.
- F. Three electromechanical relays, each with a potential-free N/O contact, max. 250V, 6A, 550VA.
 - 1. The following can be programmed:
 - a. Alarm
 - b. Warning
- G. Digital Inputs 1 as controller stop by external contact: 2nd as controller stop or flow measurement for volume-based dosing.
- H. **Optional:** Two analog 0/4-20 mA outputs are provided with a maximum impedance of 500 ohms.
 - 1. The controller can be equipped with three additional 4-20 mA outputs with a maximum impedance of 500 ohms. 22mA alarm current selectable via menu. To read out measured value, temperature or controller output. Scaleable within the measuring range
- I. The controller can be equipped with Modbus RTU:

2.3 Equipment

- A. Materials
 - 1. Housing: ABS
 - 2. Rating: Front IP54; IP65
- B. Conduit openings: 2 x M16, 2 x M12 + optionally: 2 x M12 and 1 x M15

2.4 Components

- A. Standard equipment
 - 1. Controller
 - 2. Mounting hardware for wall and panel mounting
- B. Dimensions:
 - 1. Panel Mounted: 138 x 138 x 83 mm (5.43 x 5.43 x 3.27 in.)
 - 2. Wall Mounted: 144 x 144 x 156 mm (5.67 x 5.67 x 6.14 in)

- C. Weight:
 - 1. Panel Mounted: 0.6 kg (1.32 lbs)
 - 2. Wall Mounted: 1.0 kg (2.21 lbs.)

PART 3 EXECUTION

3.1 Preparation

- A. The sensor may need to be installed with additional accessories depending on its application.
 - 1. Mount on panel or wall.
 - 2. Sensor to analyzer distance: 1.0 m (3.0ft.)

3.2 Installation

- A. Contractor will install the analyzer in strict accordance with the manufacturer's instructions and recommendation.
- B. Manufacturer's representative will include a half-day of start-up service by a factory-trained technician, if requested.
 - 1. Contractor will schedule a date and time for start-up.
 - 2. Contractor will require the following people to be present during the start-up procedure.
 - a. General contractor
 - b. Electrical contractor
 - c. Kuntze factory trained representative
 - d. Owner's personnel
 - e. Engineer

3.3 Manufacturer's Service and Start-Up

- A. Contractor will include the manufacturer's services to perform start-up on instrument to include basic operational training and certification of performance of the instrument.
- B. Contractor will include a manufacturer's Service Agreement that covers all the manufacturer's recommended preventative maintenance, regularly scheduled calibration and any necessary repairs beginning from the time of equipment startup through to end user acceptance / plant turnover and the first 12 months of end-user operation post turnover.

END OF SECTION