

OAKTON®

pH/ORP/°C

pH 800 Controller

Economical, reliable on/off control—even in high electrical noise applications!

Large dual display shows pH (or ORP) and temperature
features clear multiple annunciators, set points, and status and error messages

Two set point, two SPDT relay operation for on/off control
choose from lo/lo, lo/hi, hi/lo or hi/hi control

Symmetrical mode operation
eliminates electrical noise problems when used with solution ground

HOLD feature deactivates relays on contact closure
ideal for float switches or dual controller (master/slave) applications

0 to 2000 second time delay adjustment on all relays
minimizes false alarms

Separately adjustable high and low set point hysteresis bands
prevent rapid contact switching if your pH or ORP value is fluctuating near the set point

Push button two-point calibration, plus a separate electrode offset adjustment
calibration is easy with auto buffer recognition

4-20 mA transmitter/ recorder output
for remote monitoring and hard copy recording

Protected against electromagnetic interference
meets CE requirements

LED indicators signal control activities
monitor controller status from a distance

Nonvolatile memory
maintains set-up even if power fails



3 year warranty



ISO 9001
CERTIFIED



Top: All operations on this flexible controller are accessible from the front-panel keypad.

Bottom left: OAKTON offers a large assortment of industrial pH and ORP electrodes—see the back of this sheet for more details.

Bottom right: 1/4 DIN size fits into standard-size panel cutouts.

Reliable, easy-to-use pH and mV control! The economical pH 800 controller provides high ± 0.01 pH accuracy for rapid on/off control of your process. Two separately programmable relays are ideal for acid feed/base feed applications. Use the isolated 4-20 mA output to send data to your recorder or data acquisition system for hard copy reports.

The controller's convenient 1/4 DIN size fits into standard panel cutouts; it includes mounting hardware for fast panel installation. The IP54 rated front panel keypad is weather resistant.

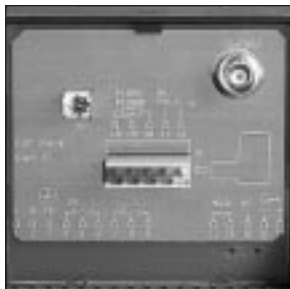
The pH 800 controller is supported by a full selection of OAKTON calibration buffers and industrial electrodes. See the back of this sheet for ordering information and complete specifications.

OAKTON® ...setting the standard, again and again™

Dual LCD shows pH or mV reading and temperature simultaneously, plus clear mode and function annunciators.



Removable power blocks on back for power supply, temperature input and cold contact SPDT relay terminals.



Splash-resistant, IP54 rated membrane keypad with audible "clicks" that confirm button press.



Mounting hardware (included) allows easy surface mounting to all panels and protective enclosures.



pH calibration buffer solutions in economical 1-pint bottles are available at right.



pH 800 pH/ORP Controller

• Applications •

Industrial applications: Use this reliable pH/ORP controller for on/off control in chemical processing, food processing, aquarium, pharmaceutical, hydroponics, metal plating and waste control industries.

Water purification/treatment: Use this controller for batch and on-line control of incoming process water, rinse water treatment, recirculating and waste water treatment.

Regulatory compliance: Hook these controllers to a recorder to document data for regulatory compliance.

General applications: Useful for any batch or on-line type application that requires accurate pH or ORP control.

Hold function: Contact closure shuts off control functions. Use with manual, float, or flow switches for safety control.

• Specifications •

Type	pH	mV	Temperature
Range	0.00 to 14.00 pH	±1000 mV	-9.9 to 125.0°C
Resolution	0.01 pH	1 mV	0.1°C
Accuracy	±0.01 pH	1 mV	±0.1°C

Control type: on/off

Number of inputs: one

Number of set points: two (high and low)

Output

Control: 2 SPDT relays, 6 A @ 110 VAC, 250 VAC max
Current: isolated 4-20 mA, 600 Ω max load

Hysteresis: (dead band) 0.1 to 1.0 pH, 10 to 100 mV, or 1 to 10%

Relay delay: selectable, 0 to 2000 seconds

Input impedance: 10⁹ MΩ

Electrical isolation: yes, galvanically

Temperature sensor: 100 Ω or 1000 Ω Platinum RTD, terminal strip

Temperature compensation: Automatic/manual from -9.9 to 125°C

Calibration:

pH: one or two points

(select from pH 1.00, 4.01, 6.86, 7.00, 9.00, 9.18 or 10.00)

ORP: mV offset

Temperature: offset up to ±5°C

Display: dual-line LCD; 4-digit upper and 3½-digit lower

Operating temperature: 14 to 140°F (-10 to 60°C)

Housing: IP54 front; ½ DIN size

Dimensions:

Unit only 3¼"W x 3¾"H x 6¼"D (9.6 x 9.6 x 17.5 cm);

Boxed 6½"W x 6"H x 9¼"D (16.5 x 15.2 x 23.5 cm)

Panel cut-out: 3¼"W x 3¾"H (9.2 x 9.2 cm)

Weight: Unit only 1.5 lbs (0.7 kg); Boxed 2.5 lbs (1.2 kg)

• Ordering Information •

Controllers

WD-35108-00 pH 800 controller, 120 VAC, 48-62 Hz

WD-35108-05 pH 800 controller, 220 VAC, 48-62 Hz

WD-35100-90 Power cord; 3 ft with bare leads,
3 prong U.S. plug, 110 VAC

pH Calibration Buffer Solutions

Each bottle contains one pint premixed calibration solution.
Accuracy ±0.01 pH at 25°C. Shpg wt 1.1 lbs (0.6 kg)

WD-00654-00 pH 4.01 buffer

WD-00654-04 pH 7.00 buffer

WD-00654-08 pH 10.00 buffer



Semi-Domed Electrodes

These electrodes feature a unique surface design that provides protection from particulates while increasing flow across the junction for cleaning. Ceramic junction gives toughness along with steady electrolyte flow. Graphite body probes act as solution ground—takes advantage of controller's high-impedance symmetrical mode. Double junction; sealed KCl/AgCl reference. 10-ft cable, BNC connector, stripped ends for ATC element.

WD-35807-00 Semi-domed bulb electrode,
Kynar® body, ¼" NPT thread

WD-35807-05 Semi-domed bulb electrode,
Kynar® body, 1" NPT thread

WD-35807-10 Semi-domed bulb electrode,
graphite body, ¼" NPT thread

WD-35807-15 Semi-domed bulb electrode,
graphite body, 1" NPT thread



In-Line/Submersible Electrodes

These permanently encapsulated combination electrodes have a CPVC body and ¼" NPT threads on both ends. Install in a tee fitting or on a submersion pipe for tank mounting. Sealed KCl/AgCl reference. Have 10-ft cable, BNC connector, stripped ends for ATC element.

WD-35801-08 In-line/submersible pH electrode;
double junction

WD-35801-21 In-line/submersible ORP electrode;
double junction, Pt band sensor



Submersible Electrodes

These combination electrodes are permanently encapsulated in a 3-ft L x 1" OD ABS pipe—install in a tank. Sealed KCl/AgCl reference. Have 10-ft cable, BNC connector, stripped ends for ATC element.

WD-35806-01 Submersible pH electrode;
double junction

WD-35806-02 Submersible ORP electrode;
double junction, Pt band sensor



Self-Cleaning Flat pH Electrodes

Flat electrode surface prevents solids build-up. Feature CPVC housing with ¼" NPT(M) on both ends; sealed KCl/AgCl reference; 10 ft vinyl cable; BNC connector; stripped ends for ATC element.

WD-35806-21 Self-cleaning flat electrode;
double junction

WD-35806-22 Self-cleaning flat ORP electrode;
double junction

Request the OAKTON Bulletin # pH D1 for information on our ½ DIN pH controller; request Bulletin # pH D3 for information on our advanced ½ DIN pH 1000 controller.

• ORDER FROM •