



INDUSTRIAL pH INSTRUMENTATION & ELECTRODES

Wall-Mounted, Single Setpoint and Proportional pH Control

PHCN-901

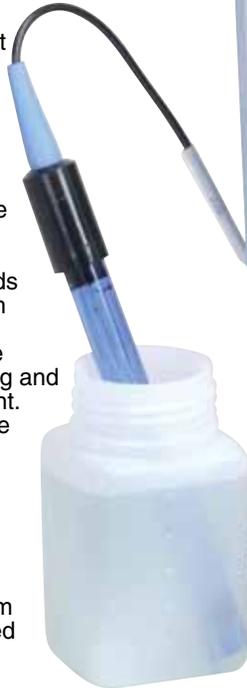


- ✓ Wall Mount
- ✓ Isolated Recorder Output
- ✓ Simple Operation
- ✓ 10 Minute Maximum Dosing Time

The PHCN-901 is a pH controller with a single setpoint for proportional dosage of acid or alkaline solutions. Any pH electrode with a BNC connector can be directly attached to the PHCN-900 series or ORCN-901. The proportional control can be fine tuned through two dials on the front panel. The time cycle is adjustable from 0 to 90 seconds and the proportional band from 0.0 to 2.0 pH. Coarse and fine as well as two offset and slope trimmers make accurate setting and calibration easy and convenient. A pump or electro-valve can be wired directly to the controller and be powered through the terminals.

The PHCN-901 also provides for an alarm relay. The alarm is activated when the measurements stray away from the setpoint by a predetermined value in the 0 to 2 pH range. A max dosing time from 1 to 10 minutes is required to be set, after which the alarm is activated to warn of an abnormality. The alarm can be configured in either normally-closed or normally-open state. The PHCN-900 series also provides an isolated output signal, which is user selectable between 0 to 20 or 4 to 20 mA. A dial on the front panel renders manual temperature compensation fast and easy. For automatic compensation, hook up a 3 wire Pt 100 RTD to the controller. To speed up wiring, PHCN-900 and ORCN-901 series comes with extractable terminal modules. Once wired up, the compartment containing the connections is protected behind a fire-retardant ABS panel. Several LEDs show whether the setpoint or alarm relays are activated from a distance.

The PHCN-902 is a pH controller with two setpoints for proportional dosage of acidic and alkaline solutions. Through two sets of coarse and fine trimmers, the setpoints can be accurately fine tuned to any value in the 0.00 to 14.00 range. Likewise, two trimmers on the front panel make for easy calibration. The proportional control can be adjusted to match your application through the time cycle from 0 to 90 seconds and the proportional band of 0 to 2 pH. Two pumps or valves can be wired directly to the controller and be powered through the terminals. The PHCN-902 provides for two types of alarms. The alarm relay is activated when the measurements are beyond the setpoints by more than a predetermined value in the 0 to 2 pH range. Alternatively, the relay can activate, when one of the two independently-adjustable



PHCN-902 shown smaller than actual size. PHE-1411 laboratory pH electrode sold separately.

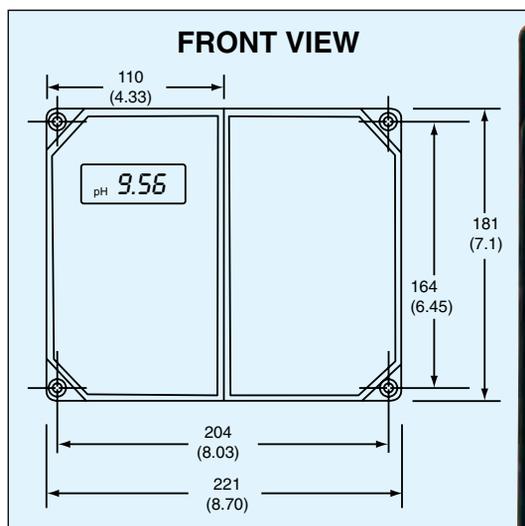
maximum dosing times is exceeded. The alarm can be configured in either normally-closed or normally-open state and turned off during maintenance.

The ORCN-901 is an ORP controller with a single setpoint for user-selectable dosage of reducing or oxidizing solutions. With proportional control, you can fine tune your treatment plant and minimize the use of chemicals. The proportional setting can be adjusted through the time cycle from 0 to 90 seconds and the band from 0 to 200 mV. The setpoint can be accurately adjusted through coarse and fine trimmers. A pump or electro-valve can be wired directly to the controller and be powered through the terminal. In addition to the setpoint relay, the ORCN-901 also provides for an alarm relay. The alarm is activated when the measurements exceed the operator-adjustable threshold of 0 to 200 mV. For extra security, a maximum dosing time from 1 to 10 minutes is required to be set, after which the alarm is activated to signal an abnormality. The alarm configuration is alterable in a normally-closed or a normally-open state to accommodate fail-safe installations. Any recorder accepting a 0 to 20 or 4 to 20 mA output can also be hooked up to the controller. One can judge the controller's status, even from a distance, by observing the dosage or alarm LEDs.

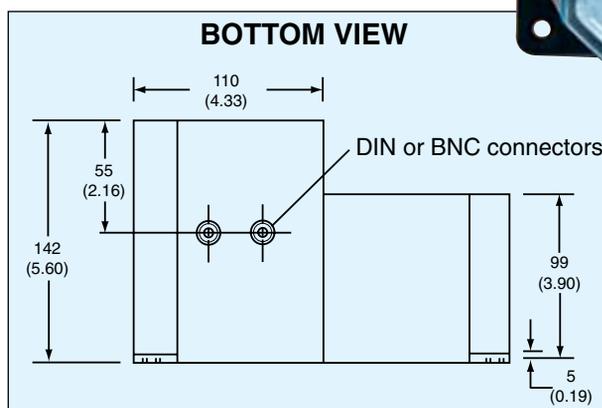


Specifications

Range: 0.00 to 14.00 pH;
ORCN-901: -500 to +1500 mV
Resolution: 0.01 pH; ORCN-901: 1 mV
Accuracy @ 20°C/68°F: ±0.02 pH
ORCN-901: ±5 mV
Typical EMC Deviation: ±0.1 pH;
ORCN-901: ±6 mV
Calibration: PHCN-901, ORCN-901:
 One point, through trimmers on the front
 panel; PHCN-902: Two point
Temperature Compensation:
 Manual or Automatic with Pt100 RTD
 from -10 to 80°C (14 to 176°F)
Setpoint: PHCN-901: one, selectable
 from 0.00 to 14.00 pH;
PHCN-902: Two, selectable
Recorder Output: Selectable from
 0 to 20 mA or 4 to 20 mA, isolated
Proportional Control:
 Adjustable: pH from 0.0 to 2.0 and time
 cycle from 0 to 90 seconds;
ORCN-901: Adjustable: mV from 0 to
 200 and time cycle from 0 to 90 seconds
Dosing Contact: PHCN-901: One
 powered terminal for pH correction
 (115 or 240V) (Maximum 2 A 1,000,000
 strokes); activated proportionally when
 pH > setpoint for acid dosage or
 pH < setpoint for alkaline dosage
PHCN-902: Two powered terminals for
 acid and alkaline correction
 (115 or 240V) (Maximum 2 A
 1,000,000 strokes); Proportional acid
Dosage: activated when pH > setpoint,
 Proportional Alkaline dosage: activated
 when pH < setpoint
ORCN-901: One powered terminal
 for mV correction (115 or 240V)
 (Maximum 2A 1,000,000 strokes);
 activated proportionally
 mV > setpoint for acid dosage or
 mV < setpoint for alkaline dosage
Alarm Relay: One, activated when
 pH varies (selectable 0 to 2.0)
 (ORCN-901 selectable 0 to 200 mV)
 from the setpoint and/or maximum
 dosage time (1 to 10 minutes) elapses.
 Isolated, (maximum 2 A, maximum
 240V, resistive load, 1,000,000 strokes)
Power Supply:
 110/115V or 220/240V; 50/60 Hz
Environment: -10 to 50°C (14 to
 122°F); 95% non-condensing
Enclosure: 181 L x 221 W x 142 H mm
 (7.1 x 8.7 x 5.6")
Weight: 1.6 kg (3.5 lb)



Dimensions: mm (inch)



ORCN-901 shown smaller than actual size.

To Order

Model No.	Description
PHCN-901	Wall mount single setpoint pH controller
PHCN-902	Wall mount dual setpoint pH controller
ORCN-901	Wall mount single setpoint ORP controller
PHE-6510	pH industrial submersible electrode (requires mounting assembly)
PHEH-65-10-PT100	Mounting assembly with temperature compensation (required for PHE-6510)
PHA-4	4.00 pH buffer solution 500 mL (1 pt) bottle
PHA-7	7.00 pH buffer solution 500 mL (1 pt) bottle
PHA-10	10.00 pH buffer solution 500 mL (1 pt) bottle
ORE-6510	ORP industrial submersible electrode (requires PHEH-65-10 mounting assembly)
PHEH-65-10	Mounting assembly for ORE-6510 (required)

Comes complete with operator's manual.

Ordering Examples: PHCN-901, pH controller, PHE-6510, pH electrode, PHEH-65-10-PT100, mounting assembly with temperature compensation, PHA-4, pH 4.00 buffer, PHA-7, pH 7.00 buffer.

PHCN-902, dual setpoint pH controller.