

Microprocessor-Based pH and ORP Controllers for ON/OFF or Proportional Control

PHCN-90 Series

\$810

Basic Unit

- ✓ Plug-in Input/Output Cards for Maximum Flexibility and Control Capabilities
- ✓ Front Panel Scaling and Calibration
- ✓ 0.1 or 0.01 pH Resolution
- ✓ NEMA 4X Front Face
- ✓ Non-Volatile Program Memory

Model PHCN-90 \$810

Shown Actual Size.



The PHCN-90 pH controller and ORCN-90 ORP controller are microprocessor-based panel meters with field installable plug-in cards for maximum flexibility. The isolated input cards allow for preamplified pH or ORP sensor input. The output cards plug into three sockets. Output sockets 1 and 2 accept any combination of analog cards; socket 2 accepts an analog or the dual proportional control card to provide either pulse outputs for up to two metering pumps, or two Hi/Lo on/off SPST 5 A relays. The third socket is dedicated to the PHOR-90-R2 dual 5 A, SPDT relay card.

Both the PHOR-90-R2 and PHOR-90-PC relay cards feature independent settings for high or low operation, setpoints and hysteresis (deadband). Use no outputs for basic digital display, or fill anything from one to all three sockets and the software will automatically adjust to allow programming for only those option cards which are installed—makes setup, wiring, and function identification a snap! The front panel and internal circuit board slide forward for simple installation of the cards—without removing the unit from the panel. All calibration, scaling and setpoint inputs are done from the alphanumeric front panel display.

The ORCN-90 ORP controller can also display raw sensor mV input for easy maintenance and trouble shooting.

The pH and ORP electrodes for the PHCN-90 and ORCN-90 controllers require the PH-2720-PA preamplifier. The preamplifier is supplied with 15 feet of

cable and has a 3/4" FNPT thread for submersion applications. For in line applications simply add the PH-31542-TC, 1 1/4" threaded cap. The pH and ORP electrodes are detachable and easily lock into the preamplifier with a simple 1/4 turn. Removal and replacement is accomplished in a matter of seconds with this twist lock design. Choose from either a double junction bulb style electrode or a flat double junction electrode for more difficult applications. The pH electrodes feature an integral temperature sensor for automatic temperature compensation.

Specifications

Range: pH 0.00 to 14.00; ORP ± 1000 mV

Display Accuracy: pH = ± 0.02 ; ORP = $\pm 0.1\%$ of full scale

Analog Output: $\pm 0.5\%$ of full scale

Temperature Compensation: 3K Balco

Power Requirements: 17 to 30 Vdc @ 0.5 A max. and/or 90-132 Vac or 180 to 264 Vac, 50-60 Hz

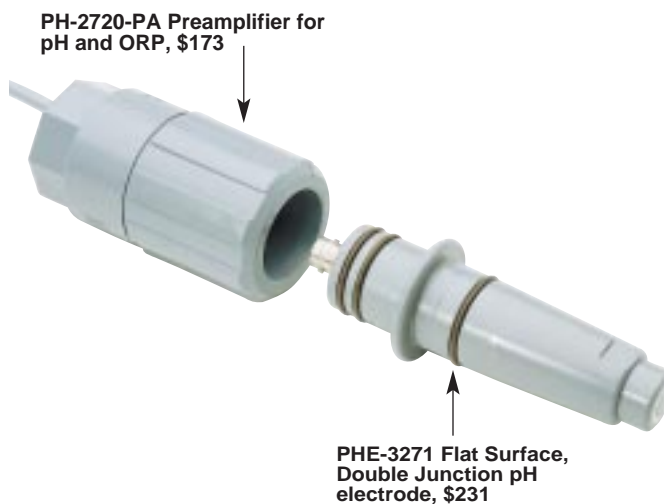
Operating Temperature: 0 to 55°C (32 to 130°F)

Relative Humidity: 95% R.H. max. non-condensing

Enclosure: ABS plastic case with NEMA 4X (IP 65) front face; NEMA 4X (IP 65) rear cover (optional)

Dimensions: 88 H x 88 W x 165 mm D (3.5" x 3.5" x 6.5"), 3.622" square panel cutout (1/4 DIN), 3.8" square front bezel

Weight: .77 kg (1.7 lb.)



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)		
Model No.	Price	Description
CONTROLLER ONLY		
PHCN-90	\$810	Controller with pH input
ORCN-90	810	Controller with ORP input

Model No.	Price	Description
OUTPUT CARDS (ALL ARE OPTIONAL-SELECT UP TO A MAXIMUM OF THREE)		
PHOR-90-R2	\$ 82.00	2 SPDT relay card; 5A @ 250 Vac or 30 Vdc
PHOR-90-PC	82.00	Proportional control card; 2 SPST contact outputs; 5A @250 Vac or 30 Vdc. (For use with 2 pulse frequency metering pumps or 2 relay contacts.)
PHOR-90-MA-N	66.00	4 to 20/0 to 20 mA, non-isolated
PHOR-90-MA-I	131.00	4 to 20/0 to 20 mA, isolated
PHOR-90-5V-I	131.00	0 to 5 Vdc, isolated
PHOR-90-10V-I	131.00	0 to 10 Vdc, isolated

Note: 4 to 20/0 to 20 mA cards—Max. loop resistance 425 ohms. 0 to 5 Vdc or 0 to 10 Vdc cards—Min. load resistance 1 kohm)
Controller Ordering Example: PHCN-90 \$810; PHOR-90-PC \$82; PHOR-90-MA-I \$131; PHOR-90-R2 \$82 = \$1105. pH controller with two pulse frequency outputs, 2 SPDT relays, one 4 to 20/0 to 20 mA isolated current output. (**Note:** order electrode separately. Complete operator's manual included.)

Accessories

Model No.	Price	Description
PHOR-9FUZE	4.50	Fuse, 2AG ¼ amp fast blow

pH Electrodes (preamplifier required)

Model No.	Price	Description
Preamplifier for pH and ORP Electrodes		
PH-2720-PA	\$173	Preamplifier for pH or ORP, ¾" FNPT, 15 ft. shielded cable.

pH Electrodes		
PHE-3271	231	Flat surface, double junction, combination pH electrode, CPVC construction. Integral ATC.
PHE-2716	200	Bulb style, double junction, combination pH electrode, CPVC construction. Integral ATC.

ORP Electrodes		
ORE-2715	253	Flat surface, double junction ORP electrode, CPVC construction.
ORE-2717	221	Bulb style, double junction ORP electrode, CPVC construction.

Accessories		
PH-31542-TC	11	Threaded cap for in-line installation 1¼" FNPT

Electrode Ordering Example: PH-2720-PA (\$173) and PHE-3271 (\$231), and PH-31542-TC (\$11) flat surface pH electrode with ATC for in-line installation, \$173 + 231 + 11 = \$415.



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