



# INDUSTRIAL pH INSTRUMENTATION & ELECTRODES

## pH/ORP Transmitters

PHTX-271 Series  
Starts at  
**\$512**



- ✓ Display Temperature in °C or °F
- ✓ Hold and Simulate Functions
- ✓ Integral or Remote Mounting
- ✓ Open Collector or SPDT Relay Output
- ✓ 4 to 20 mA Output Standard
- ✓ Dual Output Option Allows Temperature and pH Signal Transmission
- ✓ 2 x 16 Character Dot Matrix LCD
- ✓ Chemical Resistant Enclosure and Self-Healing Window
- ✓ Large Pushbuttons
- ✓ Clearly Marked Terminal Labels

### Applications:

- ✓ Neutralization Systems
- ✓ Heavy Metals Recovery
- ✓ Plating Control
- ✓ Scrubber Control
- ✓ Environmental Study
- ✓ Water Treatment
- ✓ Water Quality Monitoring
- ✓ Waste Treatment
- ✓ Disinfecting

The PHTX-271 Series Transmitter is designed for broad application and ease of setup and use. The unit auto-configures for either pH or ORP use when connected to recommended OMEGA® pH or ORP sensors. Multiple mounting options allow for installation best suited to your particular application. The automated "easy-cal" menu features automatic buffer recognition for mistake proof pH or ORP sensor calibrations. Two-line LCD provides sensor diagnostic information for ease in system maintenance.



PHTX-271-2P, \$612, shown larger than actual size.

### Specifications

**Accuracy:** ±0.03 pH; ±2 mV ORP

**pH Range:** 0 to 14 pH

**Temperature Range:** -25 to 120°C (-13 to 248°F); 3K Balco

**ORP Range:** -2000 to +2000 mV, isolated (10 kΩ ID resistance T+, T-)

**Relay Output:** 4 to 20 mA, isolated, passive, fully adjustable and reversible

**Loop Impedance:** 50 Ω max @ 12V; 325 Ω max @ 18V; 600 Ω max @ 24V

**Update Rate:** 0.5 sec

**Accuracy:** ±0.03 mA @ 25°C, 24V

**Open-Collector Output:** Mechanical SPDT; Hi, Lo, Pulse, Off

**Maximum Voltage Rating:** 5 A @ 30 Vdc or 5 A @ 250 Vac, resistive

**Hysteresis:** User-adjustable, 400 pulses/min max

**Open-Collector Output:** Hi, Lo, Pulse, Off;

**Type/Rating:** Optically isolated, 50 mA max, sink, 30 Vdc max pull-up voltage

**Hysteresis:** User-adjustable, 400 pulses/min max

**Operating Ambient:** -10 to 70°C

(14 to 158°F); 0 to 95% RH, non-condensing

**Storage Temperature:** -15 to 80°C (5 to 176°F)

**Display:** Alphanumeric 2 x 16 LCD; User selectable contrast, 5 levels

**Enclosure Rating:** NEMA 4X (IP65) front

**Keypad:** Sealed 4-key silicone rubber

**Display Window:** Polyurethane coated polycarbonate

**Power:** 12 to 24 Vdc ±5%, regulated

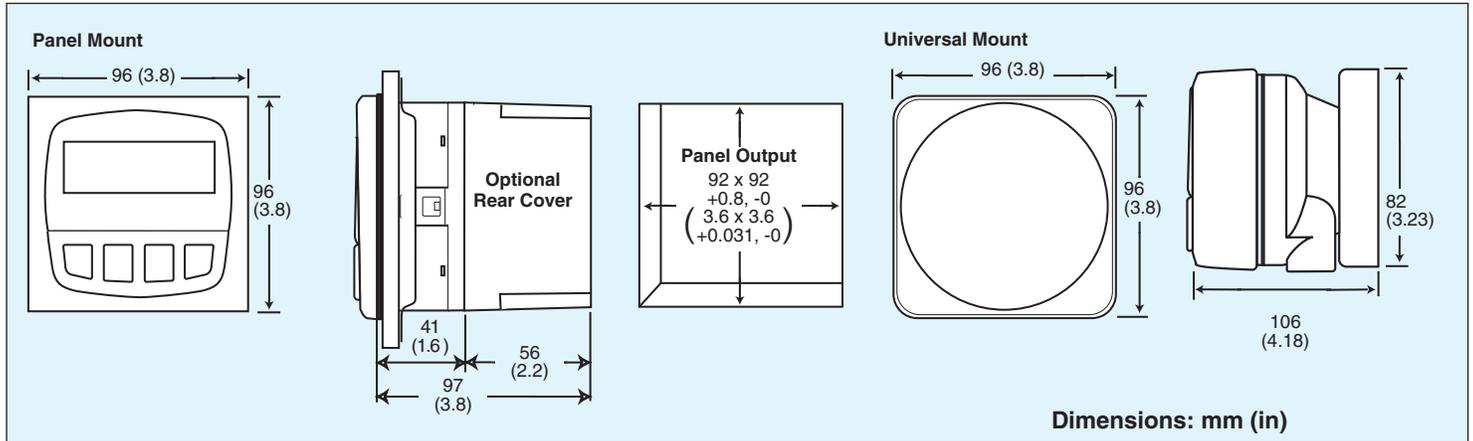
**Max Current:** 21 mA max for PHTX-271-1, 220 mA max for PHTX-271-2, 60 mA max for PHTX-271-3

**Dimensions:** 96 H x 96 W x 97 mm D (3.780 x 3.780 x 3.819")

**Panel Cutout:** 92 mm<sup>2</sup> (3.622 in<sup>2</sup>)

**Shipping Weight:** 0.6 kg (1.3 lb)

# INDUSTRIAL pH INSTRUMENTATION & ELECTRODES



All panel mount transmitters PHTX-271-XP include a mounting bracket and gasket for a NEMA-4X (IP65) watertight panel installation. Panel mount transmitters fit into a standard ¼ DIN panel cutout. The Universal Mount Kit FP90UM can be ordered separately and includes a conduit base, locking ring, and universal adapter for mounting the transmitter on a pipe wall or other stationary surface.

**MOST POPULAR MODELS HIGHLIGHTED!**

## To Order (Specify Model Number)

Model No.	Price	Description	Mounting	Output(s)
PHTX-271-1	\$512	pH/ORP transmitter	Field mount*	Open collector output
PHTX-271-2	612	pH/ORP transmitter	Field mount*	Dual relays
PHTX-271-3	756	pH/ORP transmitter	Field mount*	Dual open collector output
PHTX-271-1P	512	pH/ORP transmitter	Panel mount	Open collector output
PHTX-271-2P	612	pH/ORP transmitter	Panel mount	Dual relays
PHTX-271-3P	756	pH/ORP transmitter	Panel mount	Dual open collector output

\* Field mount transmitters require **FP90UM** universal mounting kit, \$50.

## Pre-Amplifier and Sensors

Model No.	Price	Description
PH-2720-PA	\$209	Pre-amplifier with 4.5 m (15') cable, ¾ FNPT
PHE-3271	267	Flat style pH electrode with ATC
PHE-3271-HF	341	Flat style pH electrode with ATC, HF resistant
PHE-2716	231	Bulb style pH electrode with ATC
PHE-2716-D1	272	Bulb style pH electrode with ATC, deionized water
ORE-2715	293	Flat style ORP sensor
ORE-2717	256	Bulb style ORP sensor

## Accessories

Model No.	Price	Description
FP90UM	\$50	Universal mounting kit
FP90-4X	45	NEMA 4X (IP65) rear cover (panel mount)
PH-31542-TC	12	Threaded cap for in-line installation 1¼ NPT
PHA-4	5	4.00 pH buffer solution 500 mL (1 pt) bottle
PHA-7	5	7.00 pH buffer solution 500 mL (1 pt) bottle
PHA-10	5	10.00 pH buffer solution 500 mL (1 pt) bottle
PSS-D12B	175	115 Vac to 12/24 Vdc, 240 mA power supply

Comes complete with operator's manual.

**Ordering Examples:** PHTX-271-1P pH/ORP transmitter panel mount, PHE-3271 flat style pH electrode, PH-2720-PA pre-amplifier with 4.5 m (15') cable, PHA-4 pH 4 buffer solution, PHA-7 pH 7 buffer solution, \$512 + 267 + 209 + 5 + 5 = \$998.

PHTX-271-1 pH/ORP transmitter field mount, FP90UM universal mounting kit, PHE-3271 flat style pH electrode, PH-2720-PA pre-amplifier with 4.5 m (15') cable, PHA-7 pH 7 buffer solution \$512 + 50 + 267 + 209 + 5 = \$1043.

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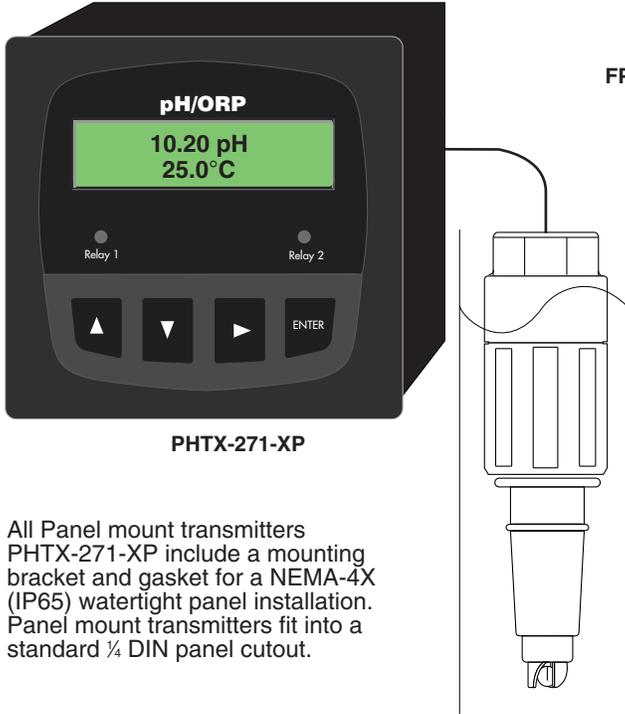
D-X



## Installation

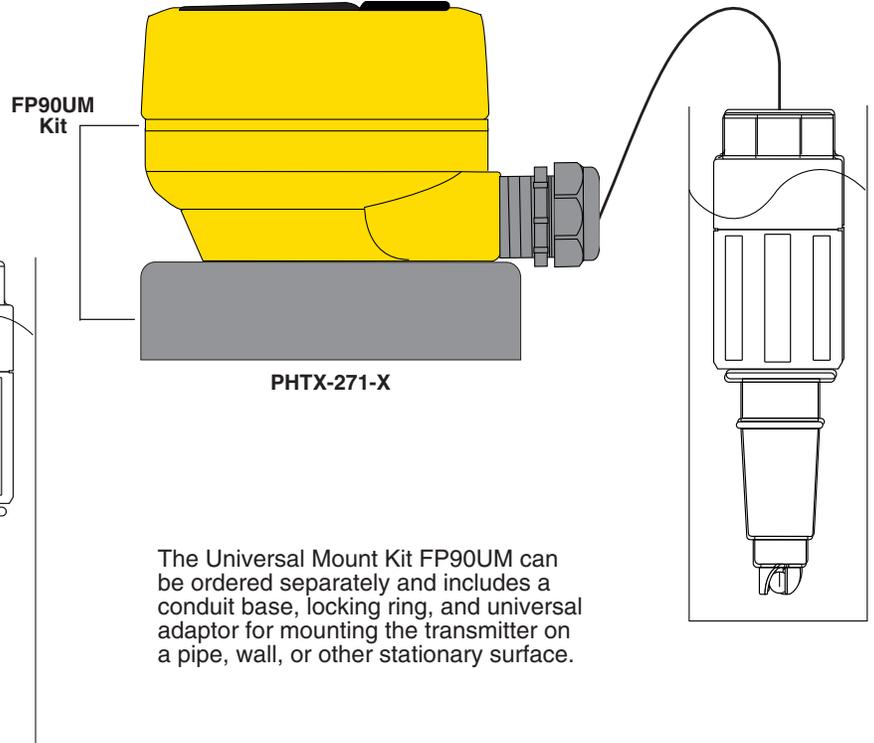
The transmitter is available in a panel mount or a field version.  
Select the universal mount kit FP90UM to mount the transmitter on a surface near the sensor.

### 1. Panel Mount



All Panel mount transmitters PHTX-271-XP include a mounting bracket and gasket for a NEMA-4X (IP65) watertight panel installation. Panel mount transmitters fit into a standard ¼ DIN panel cutout.

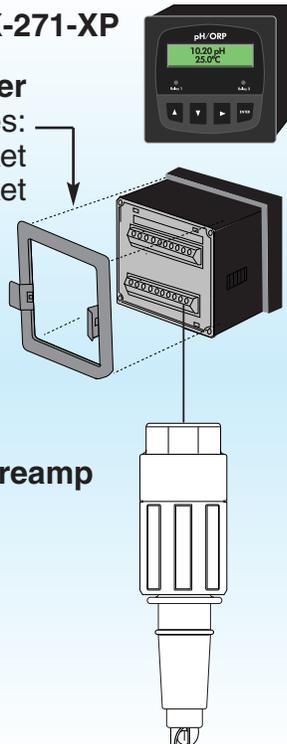
### 2. Universal Mount



The Universal Mount Kit FP90UM can be ordered separately and includes a conduit base, locking ring, and universal adaptor for mounting the transmitter on a pipe, wall, or other stationary surface.

### PHTX-271-XP

**pH/ORP Transmitter** includes:  
mounting bracket  
and panel gasket



### pH/ORP Transmitter (PHTX-271)

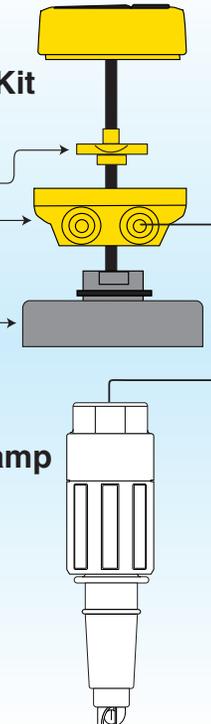
**Universal Adaptor Kit (FP90UM)** includes:

locking ring

conduit base

universal adaptor  
(for pipe,  
wall)

**Sensor w/ Preamp**



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