



# pH FIELD & LAB INSTRUMENTS

## Economical pH/mV/ORP/Conductivity/TDS Meter with RS232 Output

PHH224  
\$289



- ✓ Conductivity/TDS/pH/mV
- ✓ Splashproof Front
- ✓ Records Maximum and Minimum Readings
- ✓ RS232 Output

The PHH224 is ideal for water conditioning, beverage, fish hatcheries, laboratory, universities and many other Industrial applications. These microprocessor based digital meters are rugged, portable units which are able to recognize and compensate for electrode offset and slope. The PHH224 also features RS232 output, data hold, °C or °F selectable, auto shutoff, overload indication and automatic or manual temperature compensation.

### Specifications

**Sensor:** Conductivity included, all others purchased separately

**Display:** 51 x 32 mm (2 x 1.3"), dual function LCD, 15 mm (0.6") digit

**Measurement:** pH/mV/ORP/conductivity/TDS

**Ranges/Resolution/Accuracy:**

**pH:** 0 to 14/0.01/±(0.02 pH +2d)

**mV:** -1999 to 1999 mV/1 mV/±(0.5% + 2d)

**Conductivity:**

2 mS: 0.2 to 2.0 mS/0.001 mS/±(3%FS +1d)

20 mS: 2 to 20.0 mS/0.01 mS/±(3%FS +1d)

2000 ppm: 132 to 1320 ppm/1 ppm/±(3%FS +1d)

20,000 ppm: 1320 to 13200 ppm/10 ppm/±(3%FS +1d)

**Temperature:** 0 to 60°C (32 to 140°F)/0.1/±0.8°C (1.5°F)

**Input Impedance:** 10<sup>12</sup> Ω

**Temperature:**

Manual: 0 to 100°C (32 to 212°F)

Automatic: ATC probe 0 to 65°C (32 to 149°F) compensation

**Data Output:** RS232

**Data Hold:** Yes

**Sampling Time:** Approx. 0.8 sec

**Operating Temp:** 0 to 50°C (32 to 122°F)

**Operating Humidity:** Less than 80% RH

**Memory Recall:** Max/Min

**Power Supply:** 9V battery (included)

**Dimensions:** 195 x 68 x 30 mm

(7.7 x 2.7 x 1.2")

**Weight:** 250 g (0.55 lbs)

**Probe Connections:**

pH/ORP: BNC

Conductivity/TDS: Plug and play socket

Probe Specs	Temperature	Dimensions
Conductivity/TDS (CDE224)	0 to 60°C (32 to 140°F)	22 mm Dia. x 120 mm length w/1 m (3.3') cable
Temp Probe (Thermistor) (PHAT2234)	0 to 65°C (32 to 149°F)	Probe: 3.9 mm Dia. x 106 mm length Handle: 11 mm Dia. x 60 mm length w/1 m (3.3') cable



Please see section C for the complete section of laboratory pH and ORP electrodes available from Omega.

PHH224 comes complete with conductivity/TDS/temperature probe and carrying case.



PHH224, \$289, with optional PHE-1411 electrode, \$63, shown smaller than actual size.

Recommended Reference Book:  
Advanced pH Measurement and Control,  
FW-332, \$89.  
Visit [omega.com/bobi](http://omega.com/bobi) for  
Additional Books

**AVAILABLE FOR FAST DELIVERY!**

### To Order (Specify Model Number)

Model No.	Price	Description
PHH224	\$289	Meter with conductivity/TDS probe and carrying case; pH electrode sold separately

### Accessories

Model No.	Price	Description
PHE-1411	\$63	pH lab electrode, see page C-13
ORE-1411	86	ORP electrode, see page C-13
CDE224	150	Conductivity/TDS probe
SWCABLE	115	Cable and software for RS232
PHA-4	5	4.00 pH buffer solution 500 ml (1 pint) bottle
PHA-7	5	7.00 pH buffer solution 500 ml (1 pint) bottle
PHA-10	5	10.00 pH buffer solution 500 ml (1 pint) bottle
MN1604	3	Replacement 9V battery

Comes complete with operator's manual, conductivity/TDS probe, carrying case, and 9V battery. pH electrode sold separately.

**Ordering Example:** PHH224, pH meter, PHE-1411, pH electrode, PHA-4, buffer 4, PHA-7, buffer 7, \$289 + 63 + 5 + 5 = \$362.



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