



## Bench pH Meters with 0.001 pH Resolution and Custom Buffers

The HI 112 and HI 113 are designed for those users that require the highest level of precision over the entire pH range. These meters are ideal for challenging measurement applications where the sample pH will vary greatly.

Depending on the level of precision required each application, the user can select the pH resolution 0.01 or 0.001.

These meters can sustain the selected level of precision over the entire range as they can perform an automatic 5 point calibration, choosing the most suitable buffers among 7 memorized values (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45).

If memorized buffer values are not the most ideal for your application, the HI 112 and HI 113 will allow you manually set 2 custom pH values for calibration.

These instruments also feature an extended temperature range (from -9.9 to 120°C), GLP functions, manual or automatic temperature compensation and an RS232 serial port for PC connection using the HI 92000 application software.

### Specifications

		HI 112	HI 113
Range	pH	—	-2.00 to 16.00; -2.000 to 16.000
	mV	—	±999.9 mV, ±2000 mV
Resolution	Temperature	—	-9.9 to 120.0°C
Resolution	pH	—	0.01 pH; 0.001 pH
	mV	—	0.1mV; 1 mV
Accuracy (@20°C)	Temperature	—	0.1°C
	pH	—	±0.01 pH; ±0.002 pH
Accuracy (@20°C)	mV	—	±0.5 mV; ±1mV
	Temperature	—	±0.4°C
Relative mV Offset		±2000 mV	
pH Calibration		automatic, up to 5 points with 7 memorized values (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45) + 2 custom buffers	
Temperature Compensation		automatic (with HI 7669/2W probe) or manual from -9.9 to 120°C	
pH Electrode		HI 1131B, glass-body, double junction, refillable, BNC connector, 1 m cable (included)	
Temperature Probe		HI 7669/2W with 1 m (3.3') cable (included)	
Input Impedance		10 <sup>12</sup> Ohm	
PC Connection		RS232 opto-isolated serial port	
Power Supply		12 Vdc adapter (included)	
Environment		0 to 50°C (32 to 122°F); RH max 95%	
Dimensions		240 x 182 x 74 mm (9.4 x 7.2 x 2.9")	
Weight		1.1 kg (2.4 lb.)	

### Accessories

HI 1131B	Refillable pH electrode with BNC connector	HI 77400P	pH 4 and pH 7 buffer sachets, 20 mL, 5 pcs. each
HI 7669/2W	Temperature probe	HI 70300L	Electrode storage solution, 500 mL bottle
HI 76404	Electrode holder	HI 710005	115 Vac/12 Vdc power adapter
HI 7004L	pH 4.01 buffer solution, 500 mL bottle	HI 710006	230 Vac/12 Vdc power adapter
HI 7007L	pH 7.01 buffer solution, 500 mL bottle	HI 92000	Windows® compatible software
HI 7010L	pH 10.01 buffer solution, 500 mL bottle	HI 920010	Serial cable for PC connection

### Ordering Information

HI 112 and HI 113 are supplied complete with HI 1131B pH electrode, HI 7669/2W temperature probe, pH 4 and pH 7 buffer sachets (20 mL each), electrode refilling solution, electrode holder, 12 Vdc power adapter and instructions.

For a complete range of calibration, cleaning and maintenance solutions, see section F. For pH and ORP electrodes, see section E. For accessories, see section U.