

## PICCOLO PLUS (ATC pH/°C meter)

This meter is in compliance with the CE directives EN 50081-1 and EN 50082-1



### Operating Instructions:

- Connect the electrode to the meter (both the printings on the body and on the electrode facing upwards, see Fig. 1-2). Turn the meter on by the OFF/pH/°C switch and select the pH position.
- Dip the electrode into the solution. Under no circumstances the immersion shall be above the max. level printed on the rear.
- Stir gently until the display shows a stable reading. The instrument will automatically compensate for the temperature variation.
- Before dipping into a new sample, in order to get an accurate measurement, it is recommended to rinse the electrode with the sample solution.
- It is necessary to replace all 3 x 1.4V batteries when the display becomes faint or the reading is unstable (to replace them see Fig.3). Battery replacement must only take place in a non hazardous area using the battery type specified in this instruction manual.

### Calibration:

- Single point calibration: dip the electrode into a buffer solution close to the operating range and adjust the value by the OFFSET calibration trimmer (see Fig. 4).
- Dual point calibration: dip the electrode into HI 7007S buffer solution (pH 7.01 @ 25°C) and adjust the reading by the OFFSET calibration trimmer to the pH value corresponding to the buffer solution temperature. Dip the electrode into HI 7004S buffer solution (pH 4.01 @ 25°C) or HI 7010 (pH 10.01 @ 25°C) and adjust the reading by the SLOPE calibration trimmer to the pH value corresponding to the buffer solution temperature (see Fig. 4).

### Maintenance:

- If the electrode remains dry for a long period, before taking any measurement or calibrating, it is necessary to reactivate it by dipping into HI 70300 solution for about 4 hours. The electrode should be cleaned after use and stored covered by the cap with some HI 70300 inside.
- Solutions available for the calibration, the maintenance, the storage and the cleaning of the electrode:
  - HI 774P Calibration kit (pH 4.01 & 7.01 @ 25°C, 30 mL each)
  - HI 777P Calibration kit (pH 7.01 @ 25°C, 2 x 30 mL)
  - HI 7710P Calibration kit (pH 7.01 & 10.01 @ 25°C, 30 mL each)
  - HI 70300 Storage solution
  - HI 7061 General cleaning solution (soak for 30 min.)
  - HI 7073 Protein cleaning solution (soak for 15 min.)
  - HI 7074 Inorganic cleaning solution (soak for 15 min)
  - HI 7077 Oil and fat cleaning solution (soak several times with clean solution)

**Recommendations for Users:** Before using this product, make sure that it is entirely suitable for the environment in which it is to be used. Operation of this instrument in residential area could cause unacceptable interferences to radio and TV equipments, requiring the operator to take all necessary steps to correct interferences. The glass bulb at the end of the electrode is sensitive to electrostatic discharges. Avoid touching this glass bulb at all times. During operation, ESD wrist straps should be worn to avoid possible damage to the electrode by electrostatic discharges. Any variation introduced by the user to the supplied equipment may degrade the instrument's EMC performance. To avoid electrical shock, do not use this instrument when voltages at the measurement surface exceed 24VAC or 60VDC. To avoid damages or burns, do not perform any measurement in microwave ovens.



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### Specifications:

<b>Range:</b>	1.00 to 13.00 pH 0.0 to 70.0 °C
<b>Resolution:</b>	0.01 pH 0.1°C
<b>Accuracy:</b> (@ 20°C/68°F)	±0.01 pH ±1°C
<b>Typical EMC deviation:</b>	±0.2 pH ±1°C
<b>Temperature compensation:</b>	Automatic from 0 to 70°C (32 to 158°F)
<b>Battery:</b>	3 x 1.4V
<b>Battery life:</b>	100 hours of continuous use
<b>Calibration:</b>	Manual two point through OFFSET and SLOPE trimmers
<b>Electrode (included):</b>	<b>HI 1295</b> (length 160 mm/6.3")
<b>Environment:</b>	0 to 50°C (32 to 122°F); 95%RH max.
<b>Weight:</b>	360 g (12.7 oz.) complete with carrying case

**Packing:** PICCOLO Plus is supplied with HI 1295 amplified electrode with temperature sensor, HI 7007S and HI 7004S buffer solutions, a small screwdriver and 1.4V batteries (3 each) in a carrying case.

ISTPRPCCE01/86

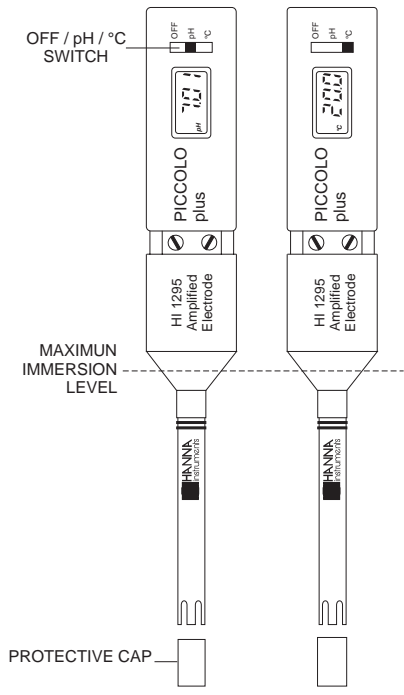


Fig. 1

Fig. 2

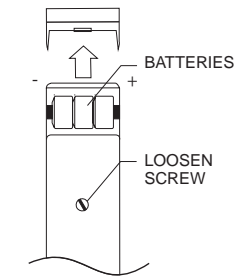


Fig. 3

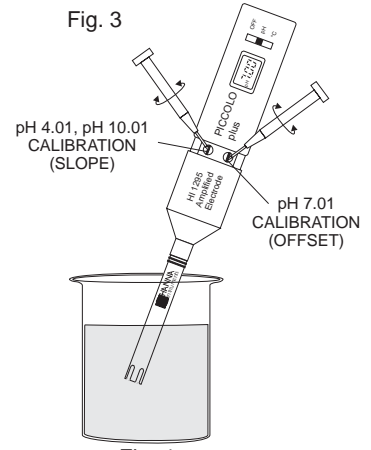


Fig. 4

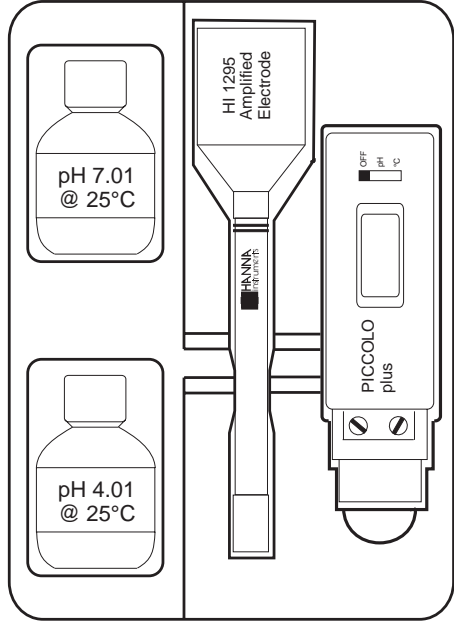


Fig. 5