

SPECIFICATIONS

Range	0.0 to 14.0 pH
Resolution	0.1 pH
Accuracy (@25°C)	±0.2 pH
Setpoint	3.5 to 7.5 pH for <b>MC110</b> 5.5 to 9.5 pH for <b>MC120</b> and <b>MC122</b>
Alarm	active when measure is higher/lower than selected setpoint depending on user selection
Output Power Socket (for <b>MC122</b> only)	active when measure is higher/lower than selected setpoint (5A max) depending on user selection
Power Drivers (for <b>MC122</b> only)	115VAC, 2A, 60Hz or 230VAC, 1A, 50Hz
pH Electrode	<b>MA911B/2</b> (included)
Environment	0 to 50°C, 95% RH not condensing
Power Supply	12 VDC (included)
Dimensions	148.5 x 82.5 x 32 mm
Weight	<b>MC110, MC120</b> 160 g (meter only) <b>MC122</b> 180 g

OPTIONAL ACCESSORIES

<b>M10004B</b>	pH 4.01 buffer solution, 20 ml sachet (25 pcs)
<b>M10007B</b>	pH 7.01 buffer solution, 20 ml sachet (25 pcs)
<b>M10010B</b>	pH 10.01 buffer solution, 20 ml sachet (25 pcs)
<b>M10000B</b>	Electrode rinse solution, 20 ml sachet (25 pcs)
<b>MA9015</b>	Electrode storage solution, 20 ml sachet (25 pcs)

CERTIFICATION

Milwaukee Instruments conform to the CE European Directives.

**Disposal of Electrical & Electronic Equipment.** Do not treat this product as household waste. Hand it over to the appropriate collection point for the recycling of electrical and electronic equipment.

Please note: proper product prevents potential negative consequences for human health and the environment. For detailed information, contact your local household waste disposal service or go to [www.milwaukeeinstruments.com](http://www.milwaukeeinstruments.com) (USA & CAN) or [www.milwaukeeinst.com](http://www.milwaukeeinst.com).



RECOMMENDATION

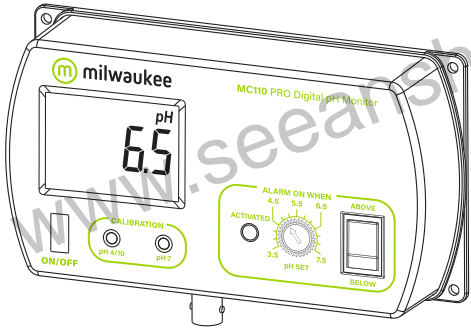
Before using this product, make sure it is entirely suitable for your specific application and for the environment in which it is used. Any modification introduced by the user to the supplied equipment may compromise the meter's performance. For your and the meter's safety do not use or store the meter in hazardous environment. To avoid damage or burn, do not perform any measurement in microwave ovens.

WARRANTY

These instruments are warranted against defects in materials and manufacturing for a period of 2 years from the date of purchase. Probe is warranted for 6 months. This warranty is limited to repair or free of charge replacement if the instrument cannot be repaired. Damage due to accidents, misuse, tampering or lack of prescribed maintenance is not covered by warranty. If service is required, contact your local Milwaukee Instruments Technical Service. If the repair is not covered by the warranty, you will be notified of the charges incurred. When shipping any meter, make sure it is properly packaged for complete protection.

USER MANUAL

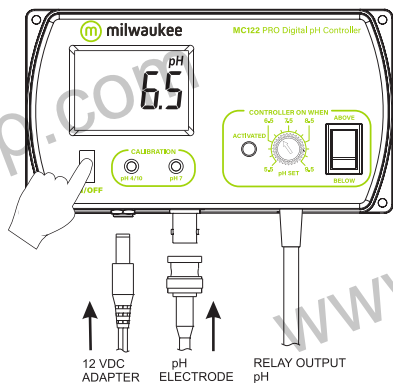
MC110, MC120, MC122  
PRO Digital pH Controller  
& Monitors



[milwaukeeinstruments.com](http://milwaukeeinstruments.com) (USA & CAN)  
[milwaukeeinst.com](http://milwaukeeinst.com)



## OPERATION



- Connect the supplied 12VDC power adapter to the meter and to the mains line.
- Connect the pH-electrode to the BNC socket on the bottom of the meter.
- Always remove the electrode protective cap before taking any measurement. If the electrode has been left dry, soak the tip (bottom 2.5 cm) in **M10000B** rinse solution for a few minutes to reactivate it.
- Make sure that the meter has been calibrated before taking any measurements (see Calibration Procedure).
- Immerse the tip (2.5 cm) of the pH-electrode into the sample.
- Turn the instrument on by pressing the ON/OFF key.
- Allow the reading to stabilize and the meter will start continuous monitoring.
- A blinking alarm will indicate when the measured pH value is higher or lower than selected setpoint, depending on user selection.

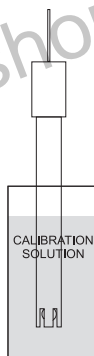
**Note:** The output power contact (MC122 only) has no protection fuse inside the meter. It is recommended to protect it outside, against failure.

## SETPOINT

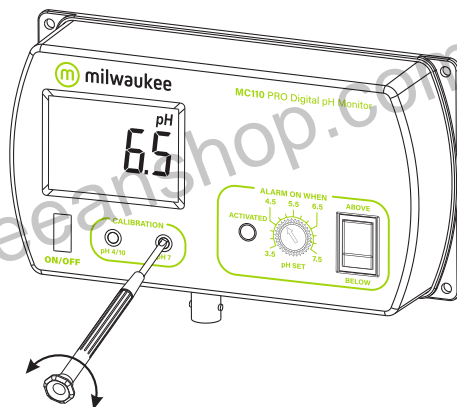
- The setpoint can be selected by adjusting the central front knob to the desired value.
- The selectable range is from 3.5 to 7.5 pH for **MC110**; from 5.5 to 9.5 pH for **MC120** and **MC122**.
- The nature of the setpoint can be selected by setting the switch to the desired position (ABOVE or BELOW).

## CALIBRATION PROCEDURE

- Remove the protective cap from the electrode.
- Immerse the electrode tip into a new sachet of pH 7 calibration solution and allow the reading to stabilize.

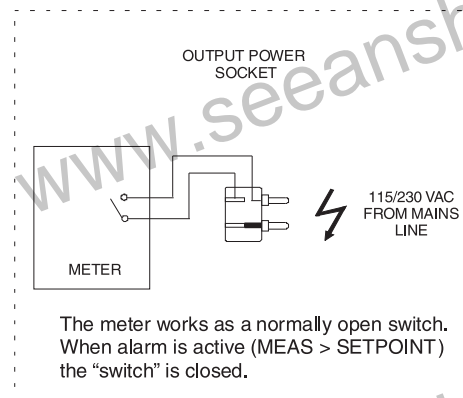
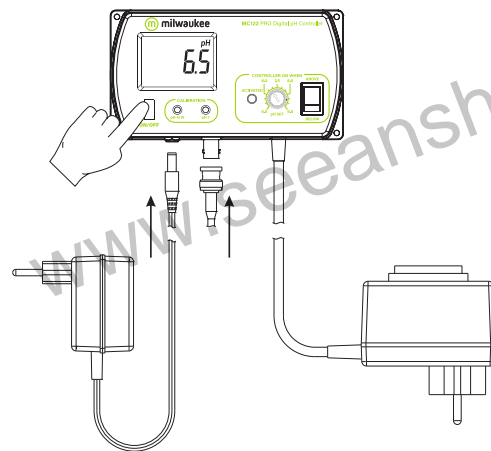


- Adjust the pH7 calibration trimmer (on the front) to display "7.0 pH".
- Open a new sachet of pH 4 calibration solution and use a small quantity to rinse the electrode.
- Immerse the electrode tip into the pH 4 sachet and allow the reading to stabilize.
- Adjust the pH4/10 calibration trimmer (on the front) to display "4.0 pH".



- The calibration is now complete and the meter is ready to take measurements.
- It is suggested to recalibrate the meter at least once a month, after a prolonged stocking time and after pH-electrode replacement.

## INSTALLATION PROCEDURE (for MC122 only)



The meter works as a normally open switch. When alarm is active (MEAS > SETPOINT) the "switch" is closed.