

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 MC110<br>5.5 to 9.5 pH for MC120 and MC122                                    |
| Alarm                                | active when measure is higher/lower than selected setpoint depending on user selection          |
| Output Power Socket (for MC122 only) | active when measure is higher/lower than selected setpoint (5A max) depending on user selection |
| Power Drivers (for MC122 only)       | 115VAC, 2A, 60Hz or 230VAC, 1A, 50Hz                                                            |
| pH Electrode                         | MA911B/2 (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                               | MC110, MC120 160 g (meter only)<br>MC122 180 g                                                  |

OPTIONAL ACCESSORIES

|         |                                                 |
|---------|-------------------------------------------------|
| M10004B | pH 4.01 buffer solution, 20 ml sachet (25 pcs)  |
| M10007B | pH 7.01 buffer solution, 20 ml sachet (25 pcs)  |
| M10010B | pH 10.01 buffer solution, 20 ml sachet (25 pcs) |
| M10000B | Electrode rinse solution, 20 ml sachet (25 pcs) |
| MA9015  | Electrode storage solution, 230 ml bottle       |

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.milwaukeeinstruments.eu](http://www.milwaukeeinstruments.eu).



RoHS compliant



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.

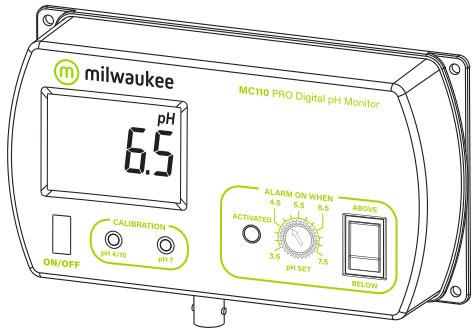
WARRANTY

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.

**Milwaukee Instruments reserves the right to make improvements in design, construction and appearance of its products without advance notice.**

USER MANUAL

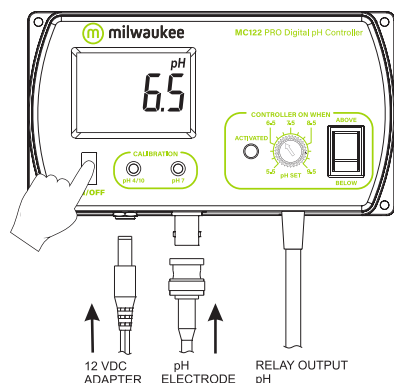
MC110, MC120, MC122  
PRO Digital pH Controllers  
& Monitors



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



## 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) **M9015** storage solution for one hour 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.

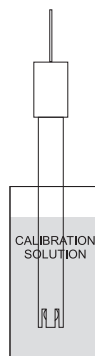
**Note:** The output power contact (MC122 only) has no protection fuse inside the meter. It is recommended to protect it outside, against failure.

## SETPOINT

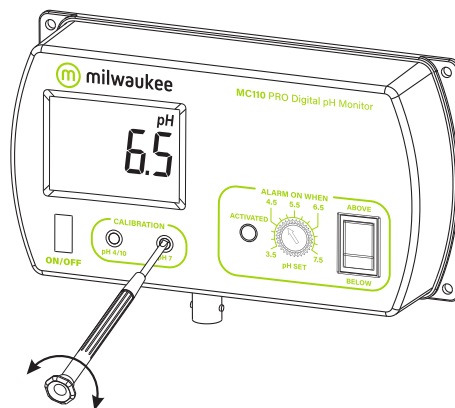
- The setpoint can be selected by adjusting the central front knob to the desired value.
- The selectable range is from 3.5 to 7.5 pH for **MC110**; from 5.5 to 9.5 pH for **MC120** and **MC122**.
- The nature of the setpoint can be selected by setting the switch to the desired position (ABOVE or BELOW).

## 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)

