

OPTIONAL ACCESSORIES

M10031B	1413 μ S/cm calibration solution, 20 mL sachet (25 pcs.)
MA812/2	Conductivity probe with 2 m cable

SPECIFICATIONS

Range	0.0 to 10.0 mS/cm
Resolution	0.1 mS/cm
Accuracy (@25°C)	\pm 2% Full Scale
Setpoint	0.8 to 2.8 mS/cm
Alarm	active when the measure is bellow / above than the setpoint, in according with the BELLOW / ABOVE switch
Temperature Compensation	Automatic, from 0 to 50°C
Environment	0 to 50°C, 95% RH max.
Probe	MA812/2 (included)*
Power Supply	12 VDC adapter (included)
Dimensions	148.5 x 82.5 x 32 mm
Weight	180 g (controller only)

(*) To be replaced by technical personnel only.

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.

RoHS
COMPLIANT



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 (USA & CAN) or 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 controller's performance. For your and the controller's safety do not use or store the controller in hazardous environment. To avoid damage or burn, do not perform any measurement in microwave ovens.

WARRANTY

This instrument is 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 instrument, make sure it is properly packaged for complete protection.

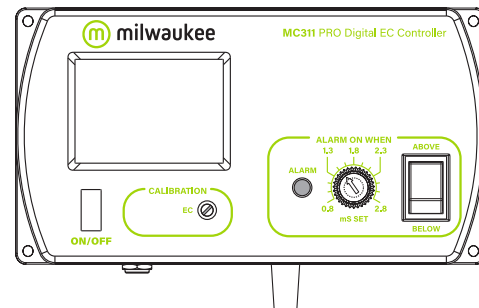
We reserve the right to modify the design, construction and appearance of our products without advance notice.

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USER MANUAL

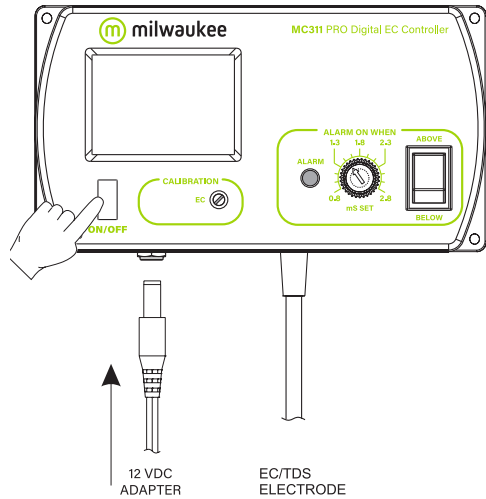
MC311 PRO Digital EC Controller



milwaukeeinstruments.com (USA & CAN)
milwaukeeinst.com



OPERATION

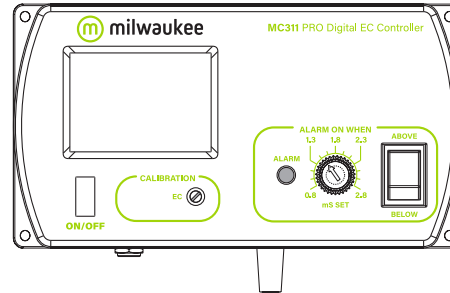


- Connect the supplied 12 VDC power adapter to the controller and to the mains.
- Make sure the controller has been calibrated before taking any measurements (see Calibration Procedure).
- Immerse the tip (4 cm) of the Conductivity probe into the sample.
- Turn the instrument on by pressing the ON/OFF key.
- Wait for thermal equilibrium to be reached and the controller will start continuous monitoring.
- Set the BELLOW / ABOVE alarm activation switch in the desired position.
- A blinking alarm will indicate when the measured EC or TDS value is lower/higher than the setpoint (in accordance the BELLOW / ABOVE switch).

Note: The output power contact has no protection fuse inside the controller. 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 for **MC311** is from 0.8 to 2.8 mS/cm.



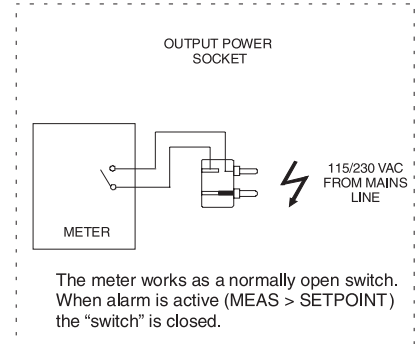
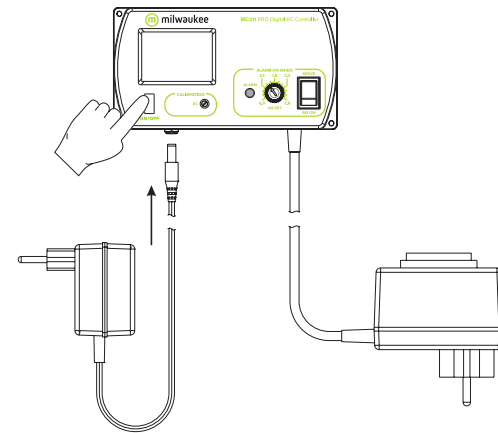
CALIBRATION PROCEDURE

- Clean the probe with alcohol and let it dry (if a more thorough cleaning is required, brush the metal pins with fine sandpaper and then rinse with water).
- Open a sachet of **M10031B** (1413 $\mu\text{S}/\text{cm}$) conductivity calibration solution and immerse the probe, making sure that metal pins are completely submerged.



- Turn the controller on by pressing the ON/OFF key.
- Wait until the reading stabilize for temperature variations, and then adjust the EC/TDS calibration trimmer on the front panel with the supplied screwdriver until the display shows: "1.4" mS/cm.
- The calibration is now complete and the controller is ready for use.
- The instrument should be re-calibrated at least once a month, or when the probe is changed.

INSTALLATION PROCEDURE



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