

## QUICK REFERENCE GUIDE

### Carbon Dioxide Module GM10



- Replacement module for GMW90 and GMW80 series wall mount transmitters
- Carbon dioxide measurement module with CARBOCAP® sensor
- No calibration required after installation

## OVERVIEW OF THE GM10 MODULE

GM10 is the carbon dioxide measurement module utilized in the GMW90 and GMW80 series of wall mount transmitters. Replacing the module restores the CO<sub>2</sub> measurement accuracy of the transmitter.

User calibration settings (if provided by your transmitter model) are stored in the GM10 module. When you replace the module, you do not need to undo the previously applied correction.

**CAUTION** Handle the GM10 module carefully.

**CAUTION** Electrostatic Discharge (ESD) can cause immediate or latent damage to electronic circuits. To avoid damaging the modules or the transmitter, avoid touching any component contacts or connectors.

For best protection, handle the transmitters and modules on a properly grounded and protected ESD workbench.

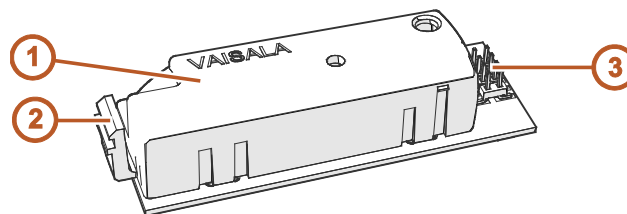


Figure 1 GM10 Parts

- 1 = Measurement cuvette. Do not open.
- 2 = Plastic clip that supports the module when installed. The clip has a groove that grips the component board.
- 3 = Connector.

## INSTALLATION

1. Remove the locking screw(s) from the transmitter if they are installed.
2. Use a flat screwdriver to push down the tab that holds the transmitter cover and mounting base together, and pull the top of the transmitter cover away from the mounting base.

**CAUTION** Do not insert tools into the housing. Be careful not to damage any components when pushing on the tab.

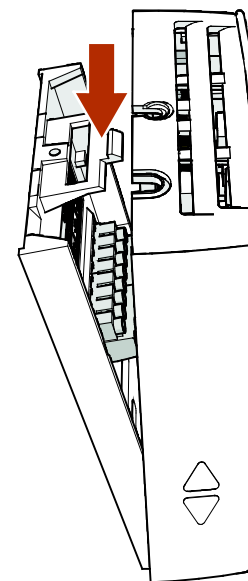


Figure 2 Opening the Transmitter (GMW90 Series)

3. Locate the GM10 module on the transmitter. The module is a separate component board with a golden cuvette that contains the CARBOCAP® sensor. It is connected to the main transmitter board with a connector, and held in place by a plastic clip on the other side.

Note the orientation of the module. The new module must be installed in the same way.



4. Disconnect the module by carefully lifting the module from the connector side. Lift straight up to avoid bending the pins or damaging the connector.

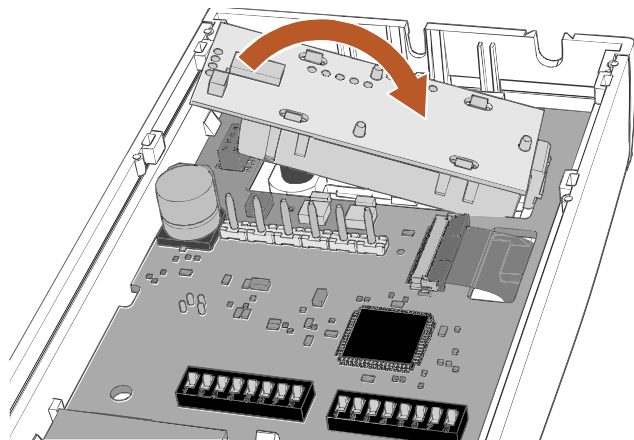


Figure 3 Disconnecting the GM10 Module (GMW90 Series)

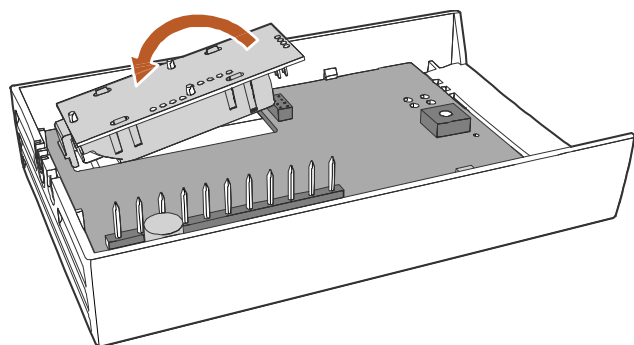


Figure 4 Disconnecting the GM10 Module (GMW80 Series)

5. GMW90 only: A short piece of foam pipe is included with the GM10 spare part. Place it on top of the calibration gas inlet inside the transmitter, as shown in the figure below. If the foam pipe is already in place and appears undamaged, you do not have to replace it.

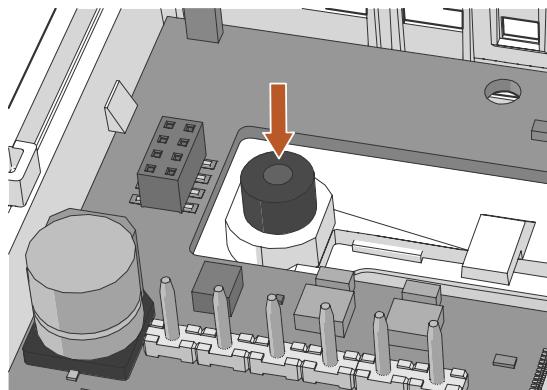


Figure 5 Foam Pipe Inside GMW90

6. Take the new GM10 module and place it in the hole for the module so that the transmitter's component board meets the groove in the plastic clip.

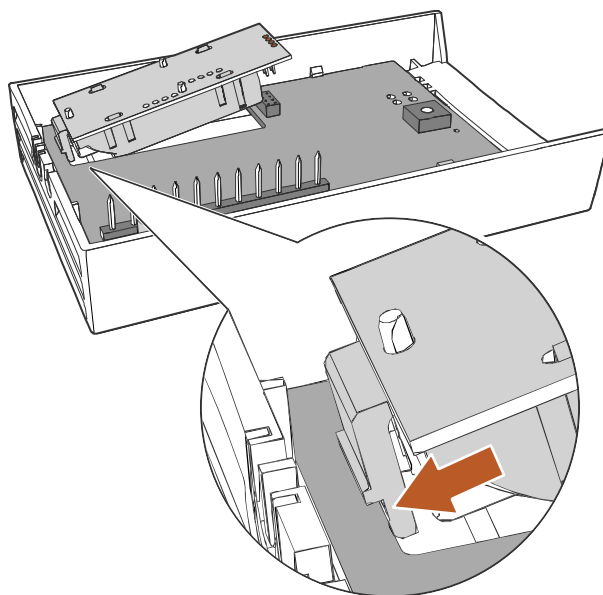


Figure 6 Positioning the Groove in the Plastic Clip

7. Lower the connector end of the module, and push down on the module to secure the connector. The module should now be straight and firmly connected.
8. Reconnect the transmitter to the mounting base.
9. Verify that the transmitter starts up and the CO<sub>2</sub> measurement functions normally.

**NOTE**

More information, including troubleshooting instructions, is available from the User's Guide of the transmitter series. You can download the guides from the product pages at:

[www.vaisala.com/gmw90](http://www.vaisala.com/gmw90)  
[www.vaisala.com/gmw80](http://www.vaisala.com/gmw80)

**NOTE**

This manual does not create any legally binding obligations for Vaisala towards the customer or end user. All legally binding commitments and agreements are included exclusively in the applicable supply contract or Conditions of Sale.