

Installation Instructions


Sensor assembly without process connection

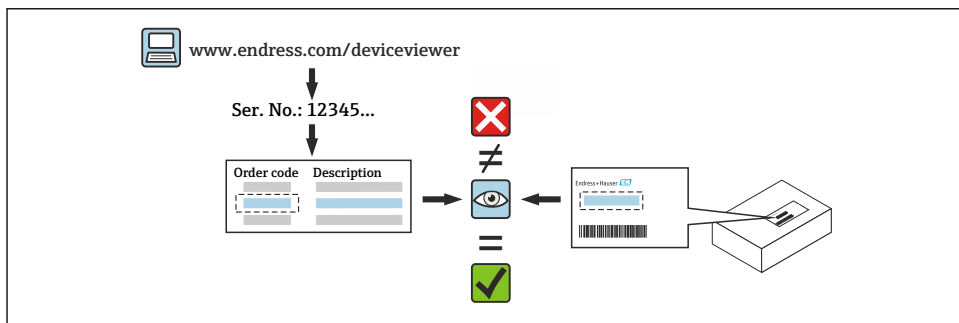
Cerabar PMC51B, PMC71B



1 Intended use

- A defective unit can only be replaced with a functioning unit of the same type.
- Only use original parts from Endress+Hauser.
- Check in the W@M Device Viewer if the spare part is suitable for the existing measuring device.


 A spare parts overview is located in the interior of some measuring devices. If the spare parts kit is specified on this list, no inspection is required.



2 Personnel authorized to carry out repairs

Technical staff must comply with the following requirements for repair, mounting, electrical installation and commissioning of the measuring devices:

- Specialized technical staff must be trained in instrument safety.
- They must be familiar with the individual operating conditions of the devices.
- In the case of Ex-certified measuring devices, they must also be trained in explosion protection.

 Technical staff carrying out work are responsible for ensuring that the work is carried out safely and to the required quality standard. They must also guarantee the safety of the device following repair.

3 Safety instructions

- Comply with national regulations governing mounting, electrical installation, commissioning, maintenance and repair procedures.
- The device is energized! Risk of fatal injury from electric shock. Open the device only when the device is de-energized.
- For devices intended for use in hazardous locations, please observe the guidelines in the Ex documentation (XA).

- In the case of devices in safety-related applications in accordance with IEC 61508 or IEC 61511: Commission in accordance with Operating Instructions after repair. Document the repair procedure.
- Before removing the device: set the process to a safe state and purge the pipe of dangerous process substances.
- Hot surfaces! Risk of injury! Before commencing work: allow the system and device to cool down to a touchable temperature.
- In the case of devices in custody transfer, the custody transfer status no longer applies once the seal has been removed.
- Follow the Operating Instructions for the device.
- Risk of damaging the electronic components! Ensure you have a working environment protected from electrostatic discharge.
- After removing the electronics compartment cover: risk of electrical shock due to missing touch protection!
Turn the device off before removing internal covers.
- Modifications to the device are not permitted.
- Only open the housing for a brief period. Avoid the penetration of foreign bodies, moisture or contaminants.
- Replace defective seals only with original seals from Endress+Hauser.
- If threads are damaged or defective, the device must be repaired.
- Do not lubricate threads (e.g. of electronics compartment cover or connection compartment cover).
- If spacing is reduced or the dielectric strength of the device is not guaranteed during repair work, perform a test on completion of the work (e.g. high-voltage test in accordance with the manufacturer's instructions).
- Service plug:
 - Do not connect in explosive atmospheres.
 - Only connect to Endress+Hauser service devices.
- Observe the instructions for transporting and returning the device outlined in the Operating Instructions.



In case of questions, please contact the local [Endress+Hauser service organization](#).

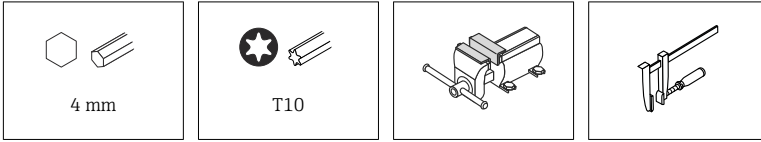
4 Symbols for certain types of information



Forbidden

Procedures, processes or actions that are forbidden.

5 Tools list



6 Mounting instructions

NOTICE

After the replacement of a sensor assembly without a process connection, the technical properties of the device may no longer be within the specifications. The device then measures with reduced accuracy.

- Take the error factors into account
- Follow the instructions carefully

6.1 Error factors

The error factor depends on the measuring range

100 to 400 mbar (1.5 to 6 psi): Error factor 3

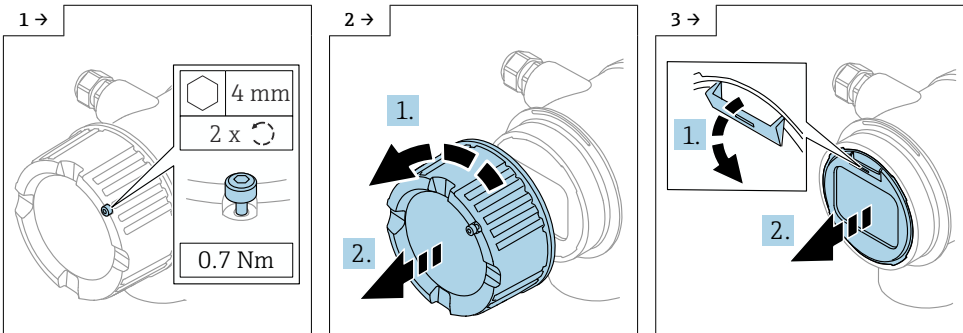
1 to 40 bar (15 to 600 psi): Error factor 2.5

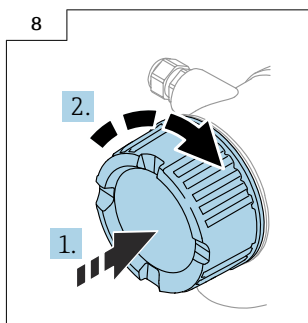
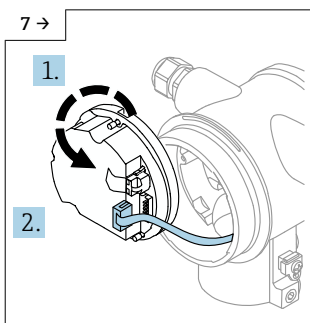
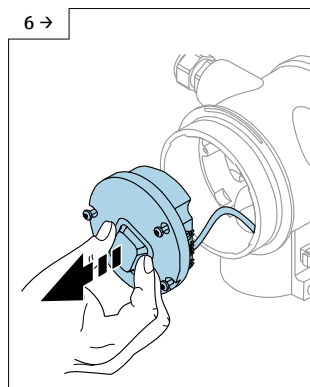
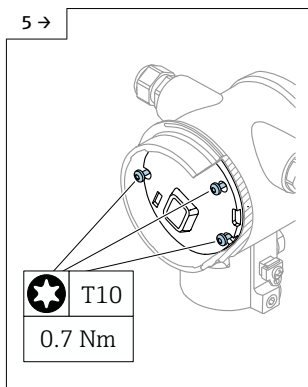
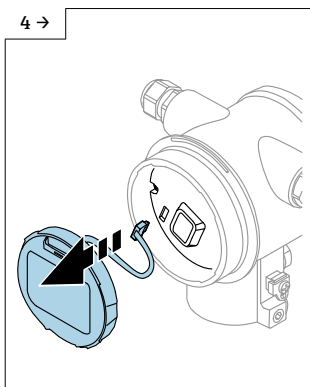
7 Replacing the sensor assembly

7.1 Removing the modules

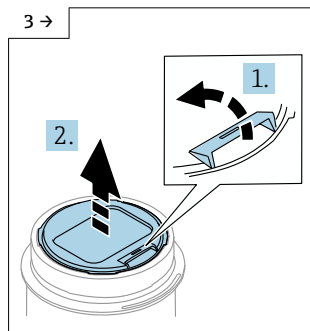
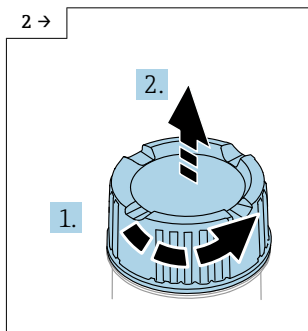
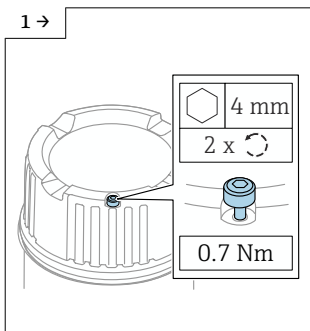
7.1.1 Dual compartment housing

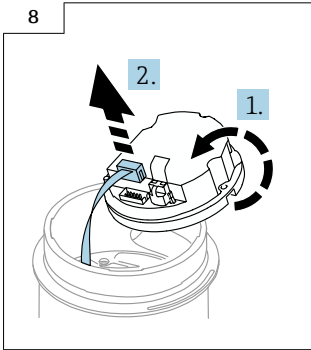
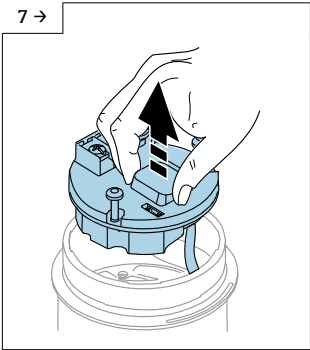
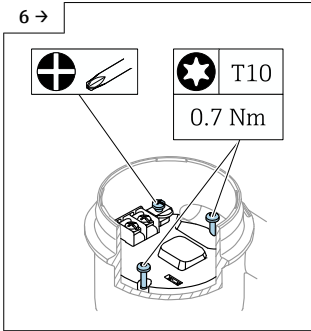
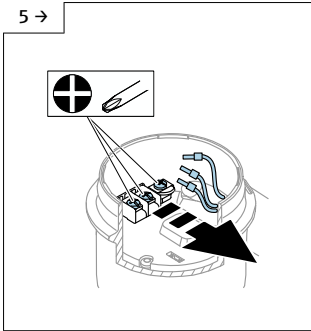
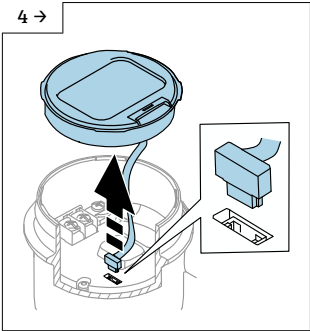
Optional: cover lock, display





7.1.2 Single compartment housing



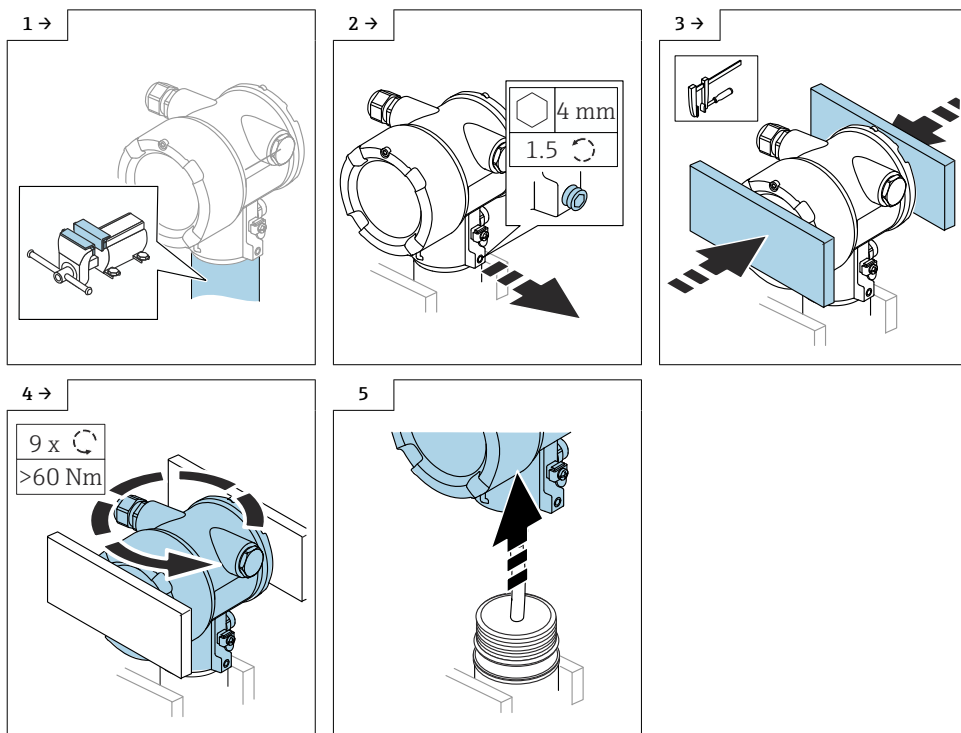


7.2 Separating the housing from the sensor assembly

The procedure is identical for all housing and sensor types. The dual compartment housing is shown in the example.

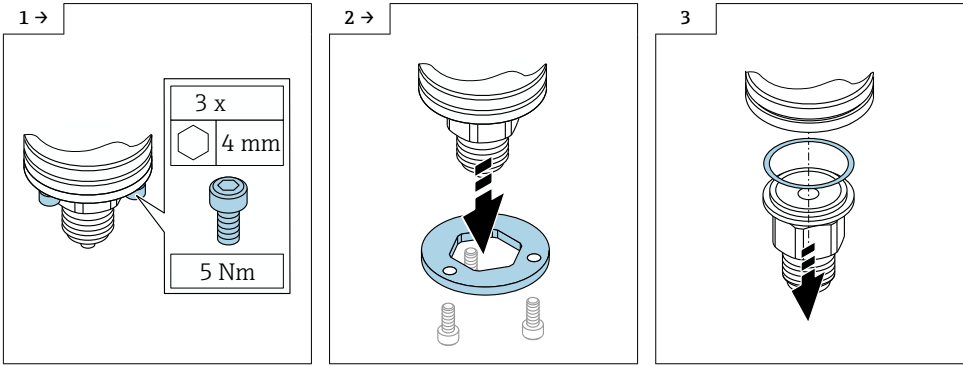


- Protect the sensor assembly and housing from damage.
- Use a bench vise with braces.
- By applying significant force ($> 60 \text{ Nm}$), unscrew the housing from the sensor assembly. This involves applying force several times in and against the screw direction; the snap ring is intentionally destroyed in the process.
- Carefully remove the housing from the sensor assembly to prevent any damage to the sensor cable.

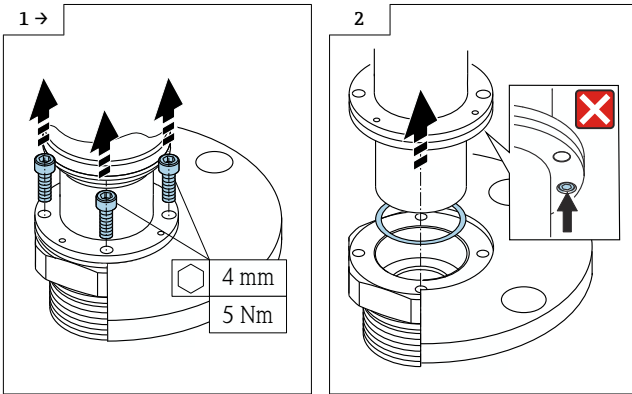


7.3 Removing the sensor assembly

7.3.1 Membrane, internal



7.3.2 Membrane, flush mount

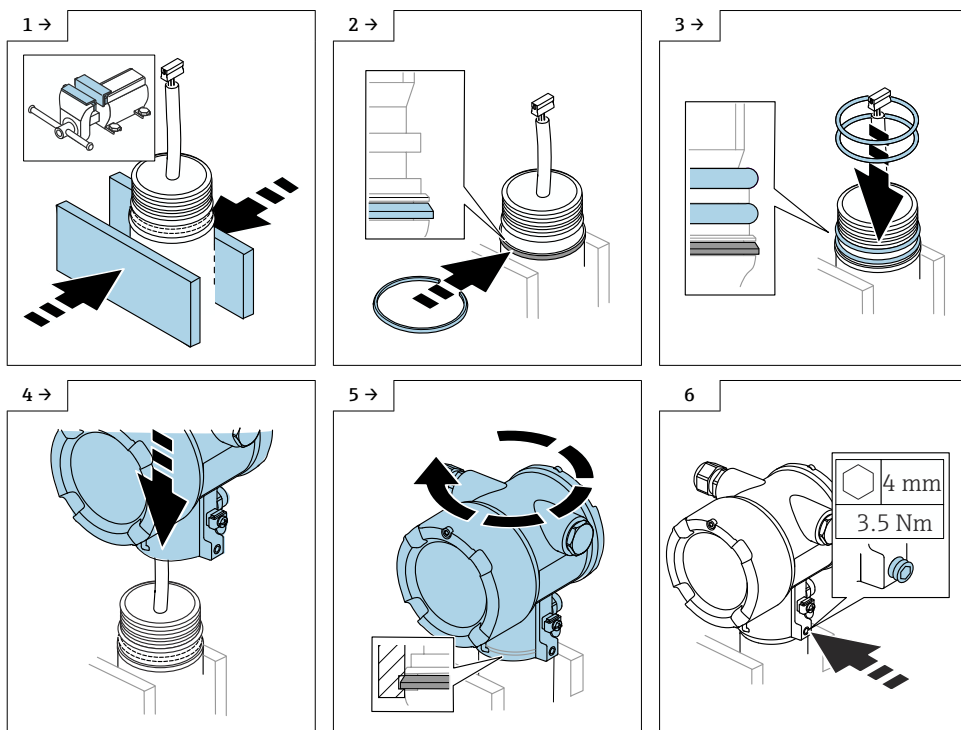


7.4 Mounting the sensor assembly

Installation is performed by following the removal procedure in reverse order.

7.5 Installing the sensor assembly

The procedure is identical for all housing and sensor types. The dual compartment housing is shown in the example.



7.6 Installing the modules

Installation is performed by following the removal procedure in reverse order. After assembly, the device is ready for operation again.

NOTICE

After the replacement of the sensor assembly without a process connection, the device cannot be aged like in the manufacturing process.

Deviations may occur in the zero point and span.

- Deviations can be corrected by recalibrating the device.

8 Disposal



If required by the Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), the product is marked with the depicted symbol in order to minimize the disposal of WEEE as unsorted municipal waste. Do not dispose of products bearing this marking as unsorted municipal waste. Instead, return them to Endress+Hauser for disposal under the applicable conditions.



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