

Installation Instructions


Probe with process connection

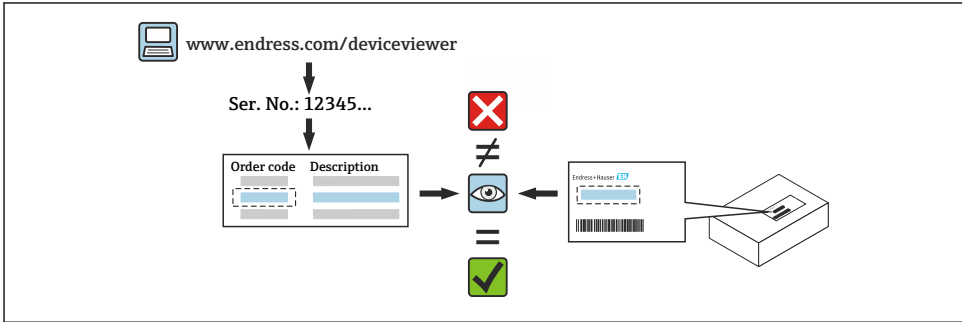
Levelflex FMP5x



1 Intended use

- A defective unit can only be replaced with a functioning unit of the same type.
- Use only original parts from Endress+Hauser.
- In the W@M Device Viewer, check if the spare part is suitable for the existing device.


 In some devices, an overview of spare parts is provided inside the device. If the spare part set is listed in the overview, it is not necessary to check the Device Viewer.



2 Personnel authorized to carry out repairs

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


- Be trained in instrument safety.
- Be familiar with the individual operating conditions of the devices.
- In the case of Ex-certified 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.
- Device is live! Risk of fatal injury from electric shock. Open the device only when the device is deenergized.
- For devices intended for use in hazardous locations, please observe the instructions 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.
- Before removing the device: set the process to a safe state and purge the pipe of dangerous process substances.

- Risk of burns from hot surfaces! 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.
- Observe the Operating Instructions for the device.
- Risk of damage to 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!
Switch the device off before removing internal covers.
- Modifications to the device are not permitted.
- Only open the housing for short periods. Avoid ingress 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 connector:
 - Do not connect in potentially explosive atmospheres.
 - Only connect to Endress+Hauser service devices.
- Observe the instructions for transporting and returning the device outlined in the Operating Instructions.

 Contact Endress+Hauser Service if you have questions: www.addresses.endress.com

4 Tool list

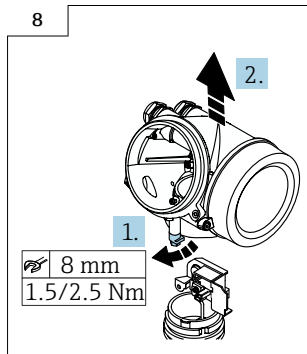
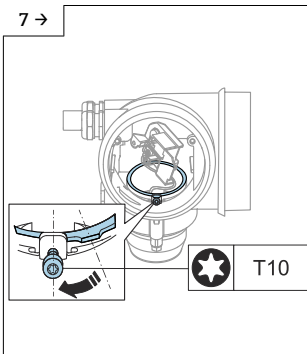
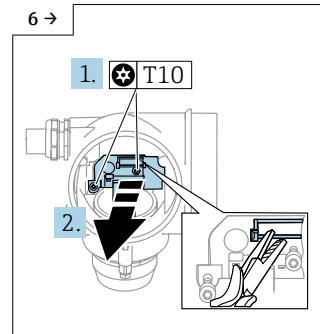
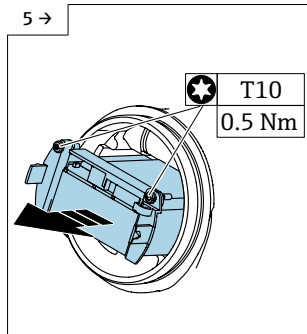
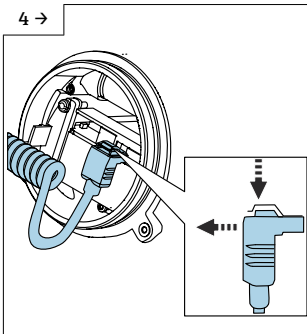
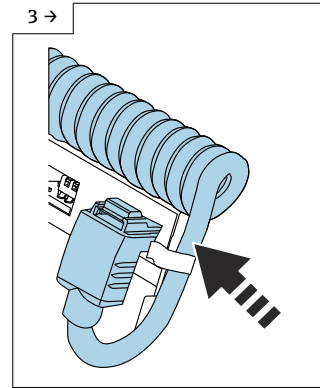
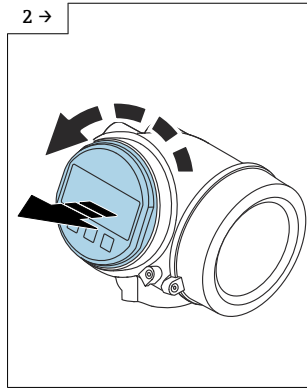
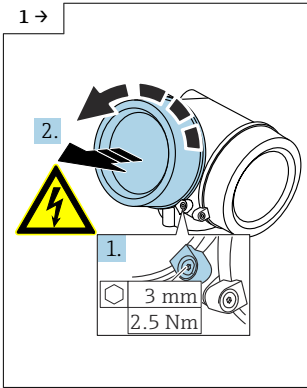
 <p>3 mm 4 mm</p>	 <p>8 mm 14 mm 18 mm</p>	 <p>T10</p>	 <p>T10</p>
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5 Removal

WARNING

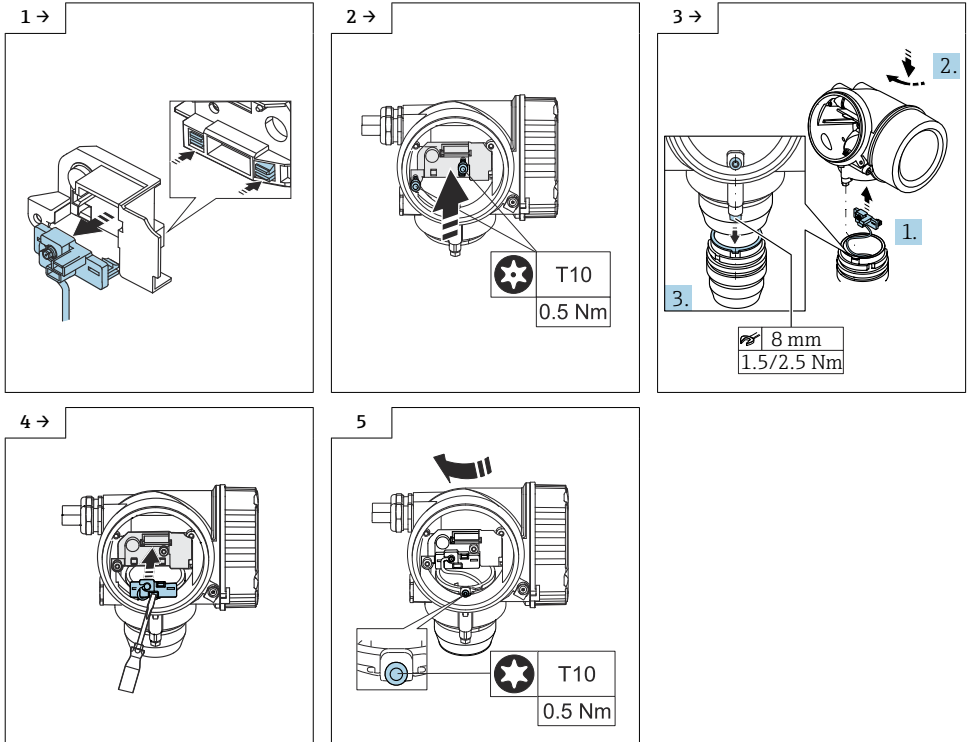
Before removing the main electronics module, de-energize the device. e.g. by disconnecting the terminals). The device may be damaged if the electronics module is replaced while energized.

5.1 Removing the probe with process connection



- ▶ Housing GT18/20: 2.5 Nm
- ▶ Housing GT19: 1.5 Nm

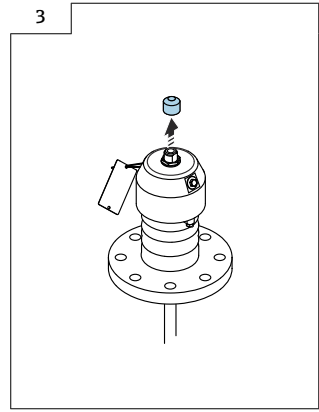
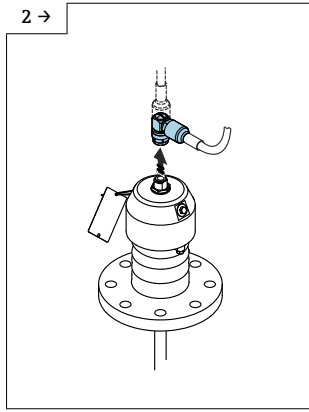
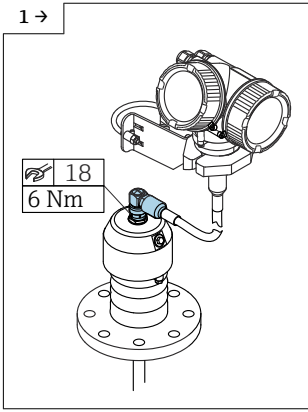
5.1.1 Reassembling the housing with sensor



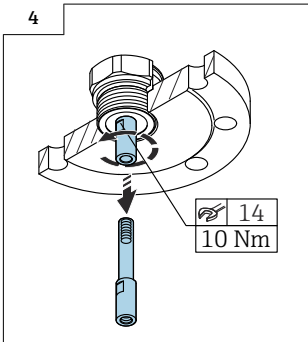
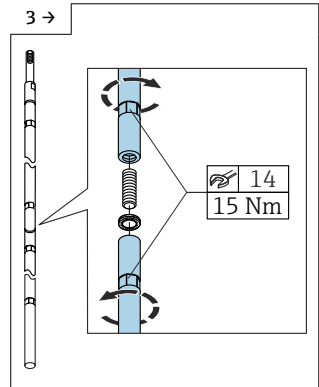
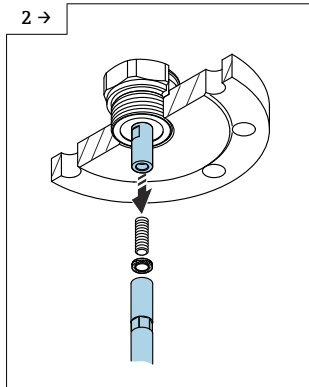
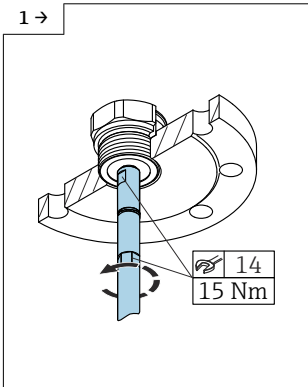
Reassembly is carried out in reverse order.

See Section 5.1: step 5, 4, 3, 2, 1

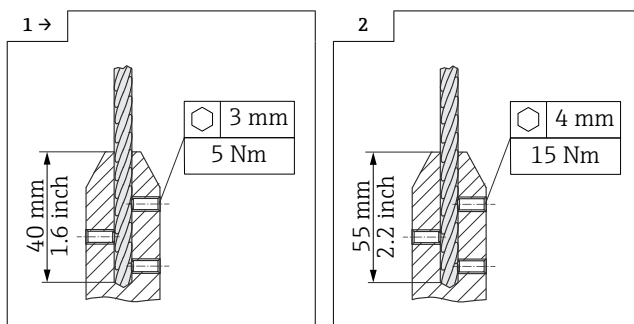
5.2 Removing the probe - remote sensor



5.3 Removal - divisible probe rod



6 Shortening rope probes



- ▶ Rope 4 mm (0.16 in), 316
- ▶ Rope 4 mm (0.16 in), PFA > 316
- ▶ Rope 4 mm (0.16 in), Alloy C
- ▶ Rope 6 mm (0.24 in), PA > steel
- ▶ Rope 6 mm (0.24 in), 316
- ▶ Rope 8 mm (0.31 in), PA > steel

1. Loosen the 3 setscrews on the rope weight; this requires increased torque.
2. Pull the loosened rope from the probe weight.
3. Measure off the new rope length.
4. Wrap adhesive tape around the rope at the point to be shortened to prevent it from fraying.
5. Saw off the rope at a right angle or cut it using bolt cutters.
6. Strip the PA-sheathed rope:
 - ↳ - Rope 4 mm (0.16 in): 40 mm (1.6 in)
 - ↳ - Rope 6 mm (0.24 in): 55 mm (2.2 in)
7. Insert the rope completely into the new weight.
8. Screw in and tighten the setscrews.

7 Shortening rod probes

Probe rods can be shortened by sawing them off.

8 Readjusting the device

Re-install the device in the vessel.

Probe adjustment is not necessary if the probe length corresponds to the original length before the probe weight was replaced.

If the probe length is different, a new level calibration must be carried out in accordance with the Operating Instructions. In addition, a new type plate must be ordered and attached to the device.

9 Installation

9.1 General installation instructions

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

9.2 Special installation instructions

9.2.1 Cover lock

In the case of devices with a cover lock, the securing screw must not protrude over the lower edge of the cover. Note the position of the securing screw before and while screwing the cover on.

10 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 the manufacturer for disposal under the applicable conditions.



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