## Solutions for the Water and Wastewater industry Simple and efficient level measurements in open channels

## Advantages for the customer:

- Compact design, individual accessories and remote commissioning allow installation even in challenging spots.
- Safe operation regardless of environmental influences, and no signal interruption due to flood-protection tube and weather protection cover.
- The integrated flow rate measurement means savings in both effort and costs for additional devices.
- Heartbeat Technology enables verification and diagnostics during operation without removing the device. Certified, verifiable and documented in accordance with ISO 9001.
- Guided setup sequences (called "wizards") simplify commissioning, proof tests and verification.
- Intuitive remote operation via app and on-device with the color touch display of the FMR30B for fast use and control.





Integrated flow rate measurement

Remote commissioning via tablet or smartphone

Reliable level measurements in open channels must be efficient and independent. Supported by simple and fast operation and replacement.

**The challenge** The diverse requirements of an open channel flow application demand a reliable measurement that succeeds in changing weather conditions. Sun, wind, rain or even snow can lead to condensation on the materials and pose challenges to a measuring device's accuracy, reflection and signal. Depending on weather conditions, flooding may also occur. In addition, the installation positions in open channels are hard to access – for example, you find measuring points in tight channels.

**Our solution** The simpler, the better: Endress+Hauser's answer to these challenges is the new product

family Micropilot FMR10B, FRM20B, FMR30B. The compact 80 GHz free space radar sensors offer highly accurate and reliable measurements independent of installation conditions and external influences. The new radar sensors come along with specialized accessories for the particular conditions of open channels – for example, a flood protection tube and a weather protection cover shield the measuring devices from the external influences caused by the weather changes and thereby reduces downtimes to the minimum. In addition, an integrated flow calculation offers the calculation of the flow rate directly in the device - making it even more independent from any impacts.





The new product family Micropilot FMR10B, FMR20B, FMR30B

**Details of the solution** The Micropilot FMR10B, FMR20B, FMR30B cover almost every individual requirement and every installation situation, no matter how confined the space. For example, adaptable mounting brackets or cantilevers help install the devices if no infrastructure is available. The option of a flooding protection tube and a weather protection cover ensures that the measuring devices are protected from frequently changing external environmental conditions to which they are often permanently exposed.

Thanks to the integrated flow rate calculation, additional calculation tools are no longer necessary. Both flow and level measurements can be easily operated via Bluetooth<sup>®</sup> thanks to remote access, using any mobile device, such as smartphone or tablet. Additionally, the Micropilot FMR30B scores with its unique color touch display, that offers comfortable on-device access. When connecting via Bluetooth, the integrated "It's me-function" allows each device to be quickly and clearly identified through a flashing LED (Micropilot FMR10B, FMR20B) or display (Micropilot FMR30B).

Heartbeat Verification with Radar Accuracy Index (RAI) enables verification in accordance with ISO 9001 at the touch of a button. This can then be made available to the auditors at any time without further effort, and it is always easy to prove that every device is working correctly and measuring accurately.

**Customer benefit** Our compact 80 GHz radar sensors have been specially designed for customers who need reliable and individual level measurement in their Water and Wastewater applications regardless of installation and weather conditions.

The Micropilot FMR10B, FMR20B and FMR30B ensure that operation is considerably easy thanks to remote and on-device access. The devices support users with setup sequences (called "wizards") that guide them safely through commissioning, repeatability testing and verifications. Furthermore, Bluetooth connectivity enables the seamless transfer of all relevant parameters, ensuring accuracy and reliability. Parameters can be copied and pasted easily and without error, for example, when replacing a device. All these benefits add up to both improved productivity and reduced complexity.

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