

Micropilot: for simple and efficient compliance



Micropilot FMR10B, FMR20B and FMR30B devices offer quick and easy commissioning with the use of Endress+Hauser's SmartBlue app, which includes an integrated commissioning wizard.

Commissioning, particularly for water and wastewater treatment, can often be complex and time-consuming. However, the Micropilot FMR10B, FMR20B and FMR30B can streamline these activities with guided wizards, thus allowing quick and easy commissioning, even for advanced applications. The Micropilot FMR10B, 20B and 30B are compact level and flow sensors for continuous measurement, with a wide range of applications.

Sewer management

Effective sewer management involves monitoring flow and level values to ensure that a system operates efficiently and prevents overflows. Sewer management in South Africa faces many challenges. The Green Drop report, which assesses the performance of wastewater plants, highlights that at least 39% of wastewater plants in South Africa are deemed to be in poor or critical condition. Some of the challenges faced by water treatment plants include having narrow spaces for the mounting of devices and the risk of flooding. An Ex-zone is also applicable in this application.

The Micropilot FMR20B is ideal where space is limited, with the compact sensor being easy to mount and commission using Endress+Hauser's SmartBlue app. A variety of accessories complement these devices and include various mounting brackets, flood protection tubes and weather protection covers, ensuring consistent reliable measurement.

Open channel flow

Open channel flow in water and wastewater plants involves the movement of water through various channels that are exposed to the atmosphere. This type of flow is generally present in wastewater treatment plants for the movement of influent and effluent; however, these types of applications face the challenge of volatile weather conditions and the risk of flooding. The Micropilot FMR10B, 20B and 30B are independent of environ-

mental influences through their integrated flow calculation. The Micropilot units also come with an optional flood protection tube and a weather protection cover, thus protecting the device from damage due to flooding.

Pump and lift stations

Pump stations and lift stations are essential for moving water and wastewater through treatment processes. Pump stations often move water over long distances and with challenging conditions. Lift stations move water between different elevations. Due to this movement, turbulent surfaces and the formation of foam can pose problems. These stations present narrow points of installation for mounting devices: typically Ex zoned. The Micropilot FMR20B and FMR30B are equipped with 80 GHz technology, which enables the device to measure accurately irrespective of installation and application conditions. Hazardous area applications are supported with a variety of certification to meet and comply to onsite requirements.

Intermediate bulk containers (IBC) and storage tanks are essential for the storage and handling of various treatment substances of different media types and with varying chemical resistance. These tanks can also be present in Ex zones. The Micropilot FMR10 (ATEX version) can be installed directly on the inner side of these tanks, while external non-intrusive measurement can be performed on plastic tanks, eliminating potential influences from different media types.

Key advantages of these Endress+Hauser instruments include:

- Quick and easy commissioning with the use of Endress+Hauser's SmartBlue

app. Integrated commissioning wizards guide the installer through the setup, while a copy and paste facility enables key parameters to be copied from one device to another.

- Easy operation: Bluetooth operation of the device can be done using the SmartBlue app or the colour display (available on the FMR30B). The 'It's me' function enables users to easily identify which device they are connected to via the SmartBlue application, with a flashing status LED on the FMR10B and 20B and the display on the FMR30B.
- Straightforward device selection: The device can be utilised for both liquid and solid applications.
- Reliability and reduced downtime: Heartbeat verification and heartbeat diagnostics are available. Continuous self-checking of the device is performed via heartbeat diagnostics. Endress+Hauser patented Heartbeat technology radar accuracy index (RAI) technology is used to assess the reference accuracy of these Micropilot devices, without having to interruption to the process. This technology is certified, traceable, and compliant with ISO 9001 standards.
- Reduced installation effort: one-to-one replacement of existing devices.

While ideal for use in the water and wastewater sectors, Endress+Hauser's new 80 GHz Micropilot radar sensors meet the needs and requirements of users in a wide range of sectors and industries – including the mining, minerals and metals sectors, making plants easier to manage and run in every respect.

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The range includes, from left to right, the FMR10B, a basic free space radar level sensing device; the ultra-compact Micropilot FMR20; and the FMR30B for continuous level measurement and point level detection in liquids and bulk solids.