



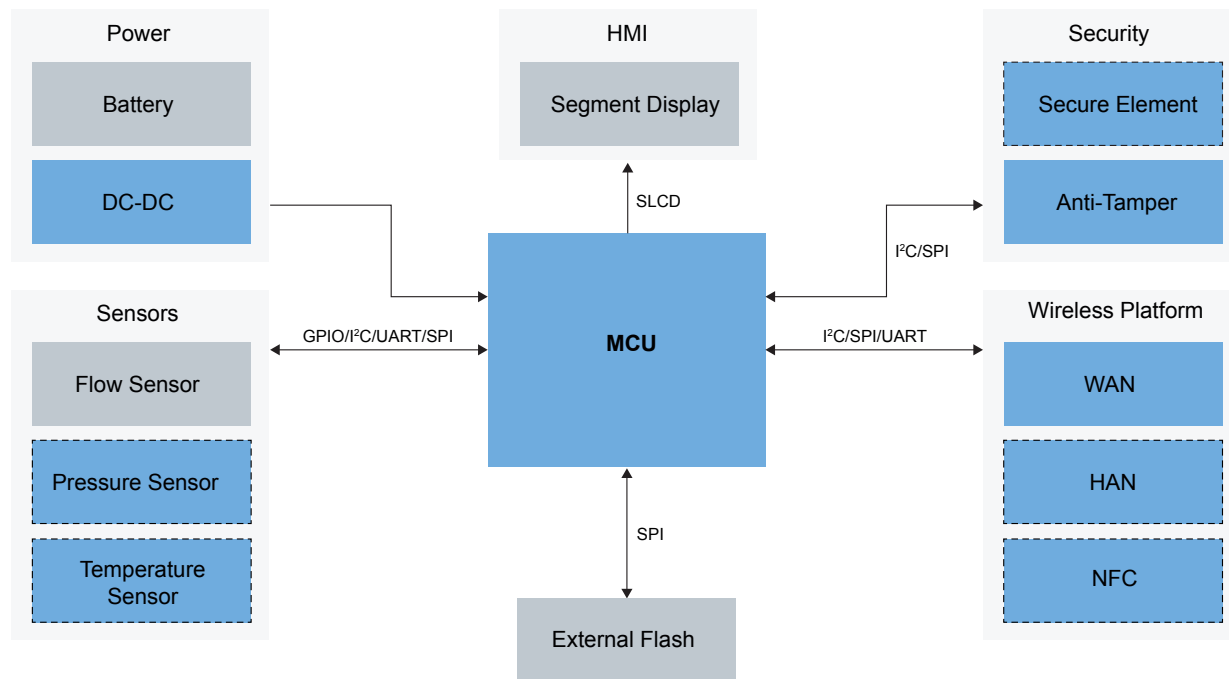
Flow Metering

Last Updated: Feb 26, 2025

Flow meters precisely measure the flow rate or thermal energy consumption of liquids and gases, with enhanced accuracy and connectivity. Smart flow meters contain increased digital capabilities to enable real-time data and analytics for enhanced monitoring, remote access, and process automation. It must optimize energy consumption to extend the battery life for longer than ten years.

Flow meters play a crucial role in optimizing efficiency, enhancing safety, and ensuring compliance across diverse industries from home and buildings, to processing plants and healthcare applications. NXP's advanced technologies enable the development of flow metering solutions with accurate sensing, secure communication, anti-temper mechanisms and long battery life. NXP metering solutions enable faster development time with less complexity and reduced cost.

Flow meter (water, gas, heat) Block Diagram



■ NXP technology ■ 3rd party components □ Optional technology

Recommended Products for Flow meter (water, gas, heat)

DC-DC	<ul style="list-style-type: none"> • PCA9420-PCA9421: PMIC for Low Power Applications
Pressure sensor	<ul style="list-style-type: none"> • MPXx5010: Differential and Gauge, Integrated Pressure Sensor (0 to 10 kPa)
Temperature Sensor	<ul style="list-style-type: none"> • P3T2030xUK: I3C, I²C-Bus, 2.0 °C Accuracy, Digital Temperature Sensor • P3T1035xUK: I3C, I²C-Bus, ±0.5 °C Accuracy, Digital Temperature Sensor
MCU	<ul style="list-style-type: none"> • MCX-L14X-L25X: MCX L14x and L25x Ultra-Low-Power MCUs with Dedicated Sense Domain and Adaptive Dynamic Voltage Control

Secure Element	<ul style="list-style-type: none"> • SE052F: EdgeLock® SE052F: Secure Element with FIPS 140-3 Level 3 Certification • SE051: EdgeLock® SE051: Proven, Easy-to-Use IoT Security Solution with Support for Updatability and Custom Applets
Anti-tamper	<ul style="list-style-type: none"> • NMH1000: NMH1000 Ultra-Low Power and Low-Voltage Magnetic Switch • FXLS8974CF: ±2g/±4g/±8g/±16g, Low-Power 12-Bit Digital IoT Accelerometer
WAN	<ul style="list-style-type: none"> • UBX100: UBX100 Sub-GHz Wireless M-Bus Solution
HAN	<ul style="list-style-type: none"> • IW612: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.4 + 802.15.4 Tri-Radio Solution • IW610: 2.4/5GHz Dual-Band 1x1 Wi-Fi® 6 + Bluetooth Low Energy 5.4 + 802.15.4 Tri-Radio Solution
NFC	<ul style="list-style-type: none"> • NTAG5-LINK: NTAG® 5 Link: NFC Forum-Compliant I²C Bridge for IoT on Demand

View our complete solution for [Flow Metering](#).

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