SMART WATER METER
CLAMP-ON ULTRASONIC
LoRaWAN MODEL100-RF-WAN

bluebot®

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Ultimate connectivity

Greatest pipe size & type capability

Get Your Water Data from Anywhere
Ultimate Connectivity Range and Best Reliability

Ideal for homes, businesses, commercial, light industrial, and agricultural applications. Now, you can cost-effectively establish a reliable flow metering network across your entire property or facility without the need for Wi-Fi or repeaters at each meter installation point. By leveraging proven Long-Range (LoRa) technology, the LoRa Radio Frequency-enabled Bluebot can auto-connect at a distance of 300 meters or more from your internet access point. You can continue to enjoy the signature Bluebot non-invasive flow meter installation, which supports the broadest range of pipe sizes and types.

The Wide Area Network (WAN) solution (Model:100-RF-WAN + LoRaWAN gateway) leverages a high performance LoRaWAN Gateway that is plugged into your router. Clamp-on and power up multiple Bluebot flow meters within the effective range of the gateway, and each unit automatically connects to the Bluebot Smart Flow Cloud ensuring reliable data flow to the app.

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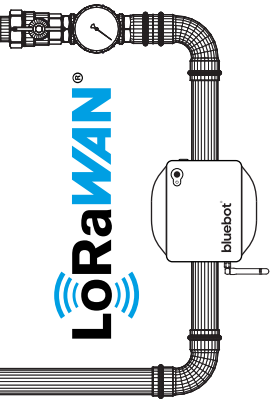
Available on the App Store



LoRaWAN, short for Long Range Wide Area Network, is a wireless technology tailored for long-distance, low-power communication among IoT devices.

In contrast to Wi-Fi, it excels in providing extended range and energy-efficient connectivity, making it an ideal choice for applications in smart homes, smart buildings, smart cities, agriculture, and industrial monitoring.

Flow Meter Dimensions

Length:	10.8cm | 4.25"
Width:	12cm | 4.75"
Weight (Loose):	0.36kg | 0.8lbs
Height:	5.7cm | 2.25"
Clamps open:	13.3cm | 5.25"
Clamps closed:	5.7cm | 2.25"

Installation

Installation time:	Up to 10 minutes
Installation method:	Clamp-on, surface mount, no pipe cutting required
Install orientation:	Any angle, horizontal, vertical
3-step installation:	1. Survey 2. Connect to network 3. Clamp on pipe

General

Measured fluid:	Water, grey water
Operating temperatures:	0° C to 50° C | 32° F to 122° F
Enclosure ratings:	IP67, NEMA 6
Flow technology:	Transit-time ultrasonic
Patents:	US 105510231

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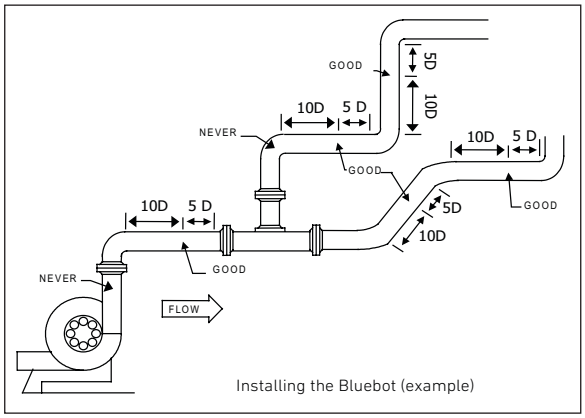

Installing the Bluebot (example)

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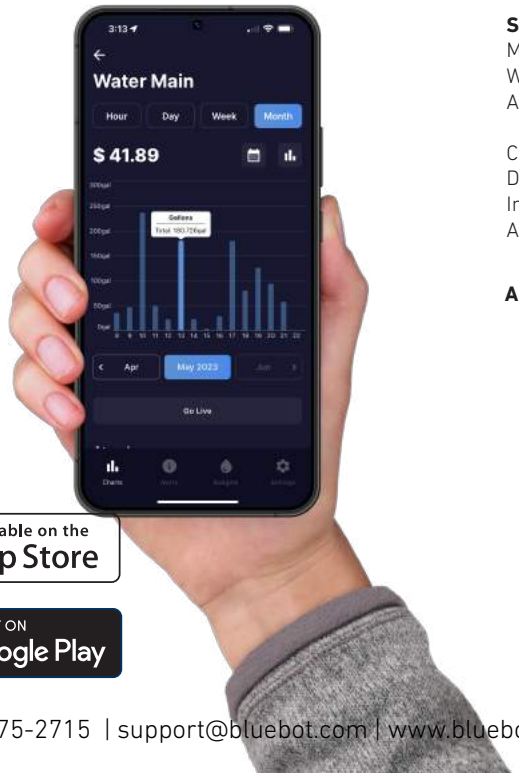

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Indoor & outdoor use:	Suitable for indoor and outdoor use. Rated IP67: water, splash, dust and UV-resistant with conformal coated waterproof electronics as a best practice.
Material composition:	The device is an injection molded plastic shell with CNC acrylic case housing the piezoelectric sensor train and software-driven servo DC motor. Additional components include gel pads made from silicon, electronics made from fiberglass, copper, brass, steel and crystal.

Power parameters

Power operation:	Dedicated plug-in 120V power source, no batteries.
Plug type:	Standard USA plug
Cable length:	3 meters | 10 feet
Cable color:	Black
Plug into unit:	USB-C
Input voltage:	5V, 1A

Networking

Connectivity:	LoRaWAN
Networking applications:	iOS, Android
Urban connectivity range:	Up to 2km | 1.2 miles
Clear line of sight range:	Up to 15km | 10 miles

Compatibility

Pipe size range	0.75", 1", 1.25", 1.5", 2"
Pipe materials:	Copper L, Copper M, PVC SCH40, PVC SCH80, CPVC, galvanized, stainless steel, PEX, PE, solid-wall ABS

Data

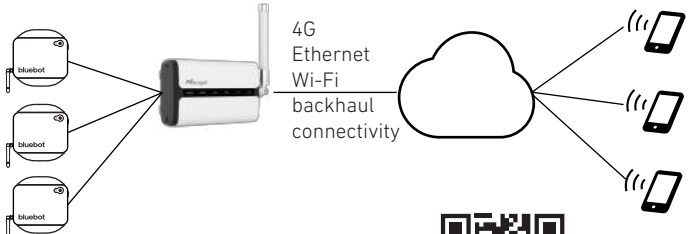
Accuracy:	+/- 1-2% of flow reading, dependent on pipe size
Repeatability:	+/- 0.2% of flow reading
High flow capability:	Unlimited: maximum flow for pipe size
Low flow capability:	0.2GPM to 0.5GPM, dependent on pipe size
Resolution:	.000000 six decimal points
Factory calibration:	Each device is calibrated on a certified primary flow standard over its entire range with a four-point flow test in a flow metrology laboratory.
Calibration certificate:	Available upon request
K-factor calibration:	Software calibration tool available in app. Adjust expected vs. actual water flow usage
Zero point calibration:	Software calibration tool available in app. Remove ultrasonic noise if present at point of installation.

Software

Mobile OS supported:	iOS, Android
Water saving tools:	Usage alerts, budgets, bill input, Dollarize™
Alerting:	Time-based alerting, volume-based alerting, scenario-based alerting, flow start, flow stop.
Cost allocation:	Visibility and data availability for multiple meters
Data access sharing:	Unlimited data sharing and access sharing
Inclusive design:	Color-blind data color pallet, large buttons
API data availability:	Open API for data access available upon request

Application architecture

Bluebot smart water meters | LoRaWAN Gateway | Smart Flow Cloud Servers | Client Apps



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+1 (831) 275-2715 | support@bluebot.com | www.bluebot.com |