LOGGERFLEX
Data acquisition & Monitoring Solutions

USER MANUAL

Cellular Water Meter

Quick-start & Owner's Guide

Part No. **CWMETER** 4G Cellular

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1 Your meter reads itself

The LoggerFlex Cellular Water Meter measures water with ultrasound — there are no gears or paddles to wear out or clog. It sends every reading over the mobile network on its own, using a SIM that is already inside and fully managed by us. There is no Wi-Fi to join, no gateway, and no wiring. Once your plumber fits it, your water use simply appears on your dashboard — you rarely need to touch the meter at all.

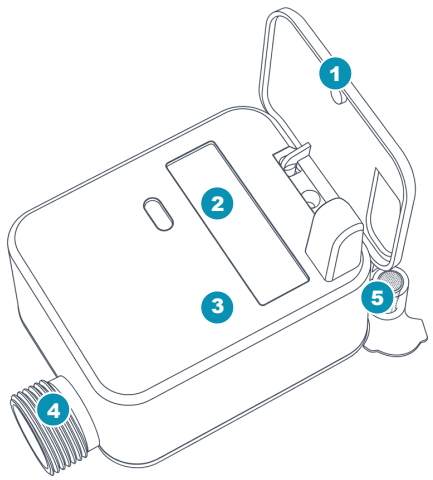
In the box

- ✓ LoggerFlex cellular water meter (with SIM and data plan already inside)
- ✓ Sealing washers for the pipe connections
- ✓ Quick-start card

At a glance

- **Connectivity:** 4G LTE cellular — SIM built in
- **Measurement:** Ultrasonic — no moving parts
- **Accuracy:** Class 2 (ISO 4064 / OIML R49)
- **Battery:** Sealed lithium — rated for more than 6 years
- **Protection:** IP68 — submersible & buried
- **Sizes:** DN20 (3/4 in; 1" NPSM thread) & DN25 (1 in; 1¼" NPSM thread)

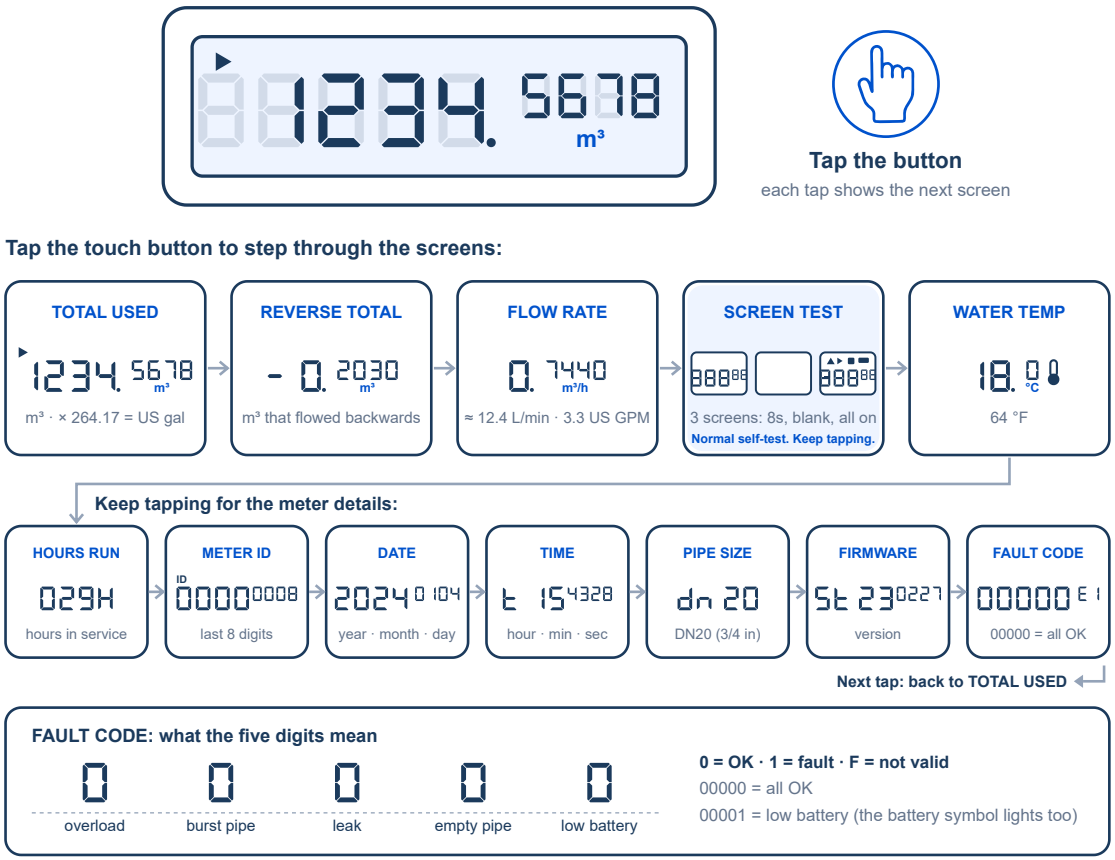
2 Meet your meter



1. **Protective flip-lid** — lifts up to reveal the display; keep it closed in normal use.
2. **LCD display** — shows your total water used and other readings.
3. **Touch button** — the finger-touch icon — tap to wake the screen and cycle readings.
4. **Threaded connection** — inlet & outlet screw into your pipe; the arrow on the body shows flow direction.
5. **Tamper seal** — shows the meter has not been opened.

> **Built-in cellular:**
> the SIM and antenna are inside — no Wi-Fi, gateway or wiring.

3 Reading the display



After 30 seconds without a tap, the screen goes back to your total. No reading is ever lost.

1. The screen normally shows your total water used (or a screen saver). Tap the finger-touch button to show the next screen.
2. Each tap moves on: total used → reverse total → flow rate → screen test → water temperature → hours running → meter ID → date → time → pipe size → firmware → fault code, then back to total used.
3. TOTAL USED is the number you normally want: cubic metres (m³) with 4 decimals. Multiply by 264.17 for US gallons. FLOW RATE is shown in m³/h.
4. The screen test is three screens in a row: all 8s, a blank screen, then every symbol lit. It is a normal self-test, not a fault. Keep tapping.
5. On the fault code screen, 00000 means all is well. The five digits, left to right, are overload, burst pipe, leak, empty pipe and low battery: 0 = OK, 1 = fault, F = not valid. Low battery also lights the battery symbol.
6. After 30 seconds without a tap, the screen goes back to your total. No reading is ever lost.

Metric & imperial

The meter reads in metric. To convert:

- 1 m³ = 1,000 litres = 264 US gallons = 35.3 cubic feet
- 1 m³/h = 16.7 L/min ≈ 4.4 US gallons per minute (gpm)
- °F = (°C × 1.8) + 32

4 How your meter reports to you

Your meter sends its readings automatically over the same mobile network your phone uses. Anywhere there is cellular signal, it comes online and

reports straight into LoggerFlex — no Wi-Fi, no gateway, no wiring, nothing to configure. You watch everything from the app and dashboard.

Cellular, built in
A managed 4G SIM is already inside. It connects on its own wherever there is signal.

See it anywhere
Consumption, leaks and alerts sync to the LoggerFlex app and to app.loggerflex.com.

Data plan included
Free for the first 5 years, then CA$12 a year per meter (about $1 a month), billed annually. No separate SIM to buy.

5 Getting started — see your first reading

There is nothing to pair or set up on the meter itself. You reach your data through the LoggerFlex platform:

1. Claim the meter to your own LoggerFlex account at app.loggerflex.com with its serial number and DUID (or its QR code). Support can help if you run into trouble.

2. Sign in at app.loggerflex.com or open the LoggerFlex app on your phone.

3. Your meter appears on the dashboard and reports once a day on its own — usage and alerts show up automatically.

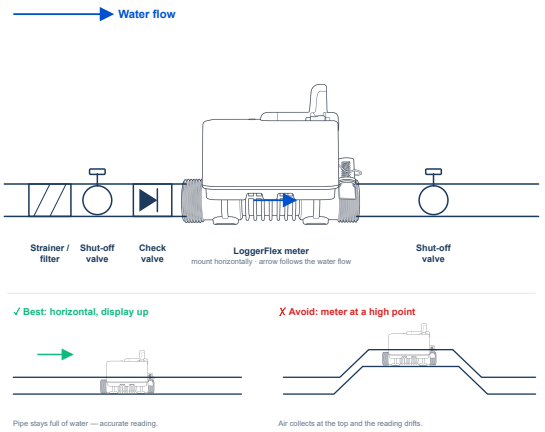
6 Alerts & what they mean

Your meter watches for problems and raises an alert in the LoggerFlex app, each with a code (E1–E8). This table tells you what each one means in plain terms. On the meter itself, tap through to the fault code screen: 00000 means all is well.

Code	Alert	What it means	What to do
E1	**Low battery**	The sealed battery is near the end of its life.	Contact support: the battery is sealed inside the meter. It can be replaced, but that means breaking the factory seal.
E2	**Reverse flow**	Water moved backward through the meter.	Have the flow direction checked — the meter may be fitted the wrong way.
E3	**Flow too high**	Flow is above the meter’s maximum — it may be undersized for the pipe.	Contact LoggerFlex to confirm the right size.
E4	**Possible leak / water running**	The meter sees water flowing non-stop, even overnight.	Check for a running toilet, dripping tap, or hidden leak.
E5	**Burst pipe**	A sudden very high flow that can signal a burst pipe.	Shut off the water and inspect the line.
E6	**Water temperature out of range**	The water is outside the meter’s rated range — near-freezing (below about 0 °C / 32 °F) or hotter than 50 °C (122 °F).	Check the supply; fit a meter rated for the temperature.
E7	**Sensor fault**	The meter reported an internal fault.	Contact LoggerFlex or your distributor for service.
E8	**Empty pipe**	There is no water in the pipe (supply is off, or air is trapped).	Normal after a shut-off; it clears on its own when water returns.

7 Installation (for your plumber)

We recommend a licensed plumber fit the meter. It takes minutes and needs no power or configuration — the cellular link starts on its own.



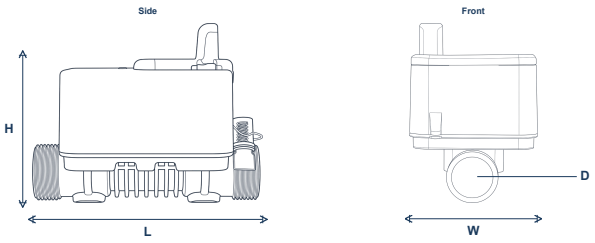
Do

- Point the flow-direction arrow the same way the water flows.
- Fit a strainer/filter, a shut-off (ball) valve, and a check valve before the meter — and a shut-off valve after it.
- Mount it horizontally with the display facing up (vertical with upward flow is also fine). Keep it at a low point so the pipe stays full.
- Leave a short straight run of pipe before and after the meter where you can.
- Flush the pipe before fitting — grit and debris can damage the sensor.
- Pressure-test and check for leaks once everything is connected.
- Outdoors or in a pit, use a lockable meter box. The IP68 body tolerates flooding.
- Before you close a pit or meter box, check that the meter reaches the network: tap through to the date screen, long-press it to open the service menu, then long-press the t254 screen to send a reading now, and confirm it arrives in the app. A metal lid or a deep buried vault can block the cellular signal — keep the meter near grade.

Don’t

- Do not use hemp / plumber’s rope as thread sealant — strands break off and clog the meter. Use PTFE tape or approved paste.
- Do not over-tighten the connections — hand-tighten, then a turn with a wrench.
- Do not pull or lift the meter by its cap or pipe — it is a precision instrument.
- Do not open the housing yourself. The battery is sealed inside the meter; it can be replaced, but that means breaking the factory seal, so contact support first.

Sizes & connections



L overall length · H height · W width · D connection thread — see the table for DN20 / DN25 values

Specification	DN20 (3/4")	DN25 (1")
Connection thread	1" NPSM male	1¼" NPSM male
Nominal flow (Q3)	4.0 m³/h · 17.6 gpm	6.3 m³/h · 27.7 gpm
Max flow (Q4)	5.0 m³/h · 22.0 gpm	7.875 m³/h · 34.7 gpm

Specification	DN20 (3/4")	DN25 (1")
Start flow	2.5 L/h · 0.66 gal/h	4 L/h · 1.06 gal/h
Overall length	130 mm · 5.1 in	160 mm · 6.3 in
Height	99 mm · 3.9 in	105 mm · 4.1 in

DN15 (1/2 in; G¾" thread) is available on request. All sizes share the same cellular electronics, managed SIM, IP68 rating and sealed battery rated for more than 6 years.

8 Battery & care

Battery & care

- The lithium battery is rated for more than 6 years and sealed inside the meter. There is nothing to charge and no mains power.
- The battery is sealed inside the meter. It can be replaced, but that means breaking the factory seal, so we recommend contacting support first.
- No routine maintenance: with no moving parts there is nothing to wear, jam or clog.

Where it can go

- IP68 rated — it can be buried or sit in a pit that floods.
- Works in ambient −25 to +55 °C (−13 to +131 °F). Protect the pipe from freezing where water could freeze.
- Keep away from strong vibration, chemicals and continuous direct heat.
- Store dry, off the ground, away from heaters, at −25 to +55 °C (−13 to +131 °F).

9 Specifications

Parameter	Value
Measurement	Ultrasonic transit-time — zero moving parts
Accuracy	Class 2 (±5% low zone, ±2% high zone)
Metrological range	R250 standard (R400 available)
Resolution	0.0001 m³ (0.1 L · 0.026 gal)
Metering	Two-way, with reverse-flow detection
Water temperature	0.1–50 °C (32–122 °F), class T30/T50
Max pressure	MAP16 — 16 bar (232 psi)
Operating ambient	−25 to +55 °C (−13 to +131 °F)
Ingress protection	IP68 — submersible / buried
Connectivity	4G LTE cellular · FCC ID XMREG800QNAD
Battery	Sealed 3.6 V lithium, >6-year life
Body	Lead-free composite, potable-water safe

10 Activate your online account

Register your meter to unlock the full LoggerFlex dashboard — live data, consumption reports, charts, alarms and smart anomaly detection, from your phone or any web browser. It takes about a minute.

Register in three steps

1. Go to app.loggerflex.com and create a free account — or sign in if you already have one.

2. Choose “Add meter” and enter the Serial number and DUID printed on the sticker on the side of your meter.

3. That’s it — the system recognises your meter and guides you through the rest automatically. Your readings appear within minutes.

Where to find them:
both the Serial number and DUID are printed on the label on the side of your meter. Have it handy before you start.

What you unlock online

Live data & history
Your current reading and full consumption history, updated automatically.

Consumption reports
Daily, weekly, monthly and yearly reports you can view, export or share.

Charts
Clear graphs of how your water use changes over time.

Consumption alarms
Get notified the moment usage passes a limit you set.

Smart anomaly detection
The system learns your normal pattern and flags unusual use — like a hidden leak.

Device & error alerts
No-upload and error-code (E1–E8) alerts reach you by app, email or text.

Setting up a consumption alarm

Open the alarm page for your meter, choose “Add Alarm Rule”, and set:

1. Period — Daily, Weekly, Monthly or Yearly, a rolling window (Last 7 / 30 / 365 days), up to a specific time, or over a certain amount.
2. Consumption/Value — the threshold in cubic metres (m³). You’re alerted as soon as use in that period goes over it, so leaks and overuse never slip by.
3. Save. Add as many rules as you like — each appears in your Alarm Rules list and can be edited or removed anytime.

No-Upload Alarm
Tells you if the meter stops reporting.

Warning Alarm (error code)
Choose which device error codes should notify you.

Smart anomaly detection
Let the system watch for unusual patterns automatically — no threshold to set.

11 Warranty & support

Your meter carries a 2-year limited warranty against manufacturing defects from the date of purchase (invoice date). In the USA and Canada, contact LoggerFlex directly (support@loggerflex.com, +1-888-365-8880); elsewhere, contact the supplier or distributor you bought it from.

Not covered

- A broken or removed tamper seal.
- Damage from debris in un-flushed pipes.
- Misuse, or installation against these instructions.
- Freezing, lightning, chemical attack or other harsh-environment damage.
- Faults outside the meter, or events beyond our control.

Regulatory
Contains FCC ID: XMREG800QNAD. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Need help? Contact your LoggerFlex distributor, visit app.loggerflex.com, or www.loggerflex.com.