



WP20

WX800 Series

NB-IoT Smart Water Meter

Designed for residential use, WP20 NB-IoT smart meter is the latest offering for water utilities to complement EDM I's electricity and gas metering product lines.

Leveraging EDM I's proven quality processes and combined with industry leading features, the WP20 is built on open standards and delivers substantial long term value to utilities deploying smart water meters.



I Key Features

- **Ultrasonic Metrology** – Non mechanical measurement ensures no loss of revenue over the life of the meter
- **Cumulative Forward and Reverse Totals**
- **Interval Data** – 5m, 15m, 30m, 1h, 4h
- **Cumulative Totals Retention** – Customisable - Default 6 months
- **Alarms** – Customer Leak, Reverse Flow, Cover Tamper, Empty Pipe, Battery. Parameter driven, remotely configurable Burst Pipe, Pressure, Temperature
- **FOTA** – Application Firmware, NB-IoT Firmware, upgradable individually
- **Open Communications Protocol** – LwM2M Allows interoperability with any LwM2M compliant back end system – no lock-in
- **Multi-Band NB-IoT Module**
- **Optical Switch for commissioning** – no special tools needed
- **NFC** for operational support
- **Extended Operating Life** – Replaceable Dual D Batteries - 38 A/H

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I Technology

- Industry leading – Open Standards LwM2M
- Informative, easy to use display
- Battery options – Dual D Batteries enable 20+ years operational life
- Exclusive One Touch Commissioning - Rapid Field Deployments

I Specifications

Standards and Compliance

- NMI R-49
- AS/NZS 2845.1
- AS 3565
- AS 2345
- AS/NZS 4020
- AS 1722.2 Class B
- Telstra certification
- RCM

Nominal Diameter

- DN20
- Optional DN15, DN25, DN32, DN40

Metrology

- Technology: Ultrasonic, optional pressure sensor
- Starting flow (approx): 3 L/h
- Minimum flow Q1: 16 L/h
- Transitional flow Q2: 25 L/h
- Maximum flow Q3: 4 m³/h
- Overload flow Q4: 5 m³/h
- Measuring range Q3/Q1: 250
- Max pressure: MAP16
- Max working pressure: 1 MPa
- Temperature class: T50
- Ambient humidity range: 0 - 100% RH
- Installation: Any position
- Maximum registration LCD: 999999.999m³
- Calibration min reading: 0.0001 Litre

Alarms

- Customer leak detection, reverse flow, cover open, low battery, empty pipe, burst pipe, low/high pressure, low/high temperature. All alarms configurable to send immediate or daily

Battery

- Standard battery: 3.6V Li-SOCI Lithium-Thionyl Chloride
- Internal super capacitor: Transient power for RF
- Optional 2xD battery of 20+ years

Data Memory

- Interval data collection: 5m, 15m, 30m, 1h, 4h
- Cumulative totals retention: Customisable - default is 6 months

Mechanical

- Casings: Thermoplastic polymer or optional PPS
- UV resistance: Comply with AS 3565.1 (Part 3.3)
- Threaded connection: G1B
- Torque resistance of thread: >95 Nm
- Dual check valves: optional Noryl
- Brass ultrasonic tube: DZR

Firmware Upgrading Over the Air

- NB-IoT module
- Application firmware

Communications

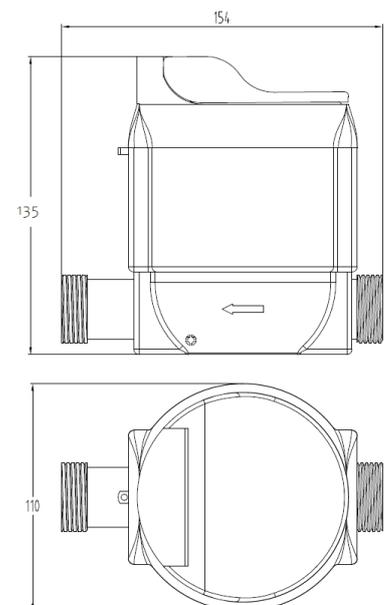
- Integrated NB-IoT Radio: Supports all Australasian Bands, Rel 13 compliant (Rel 14 optional)
- WAN Protocol: LwM2M
- NFC: Production quality and operational support
- Optical Ir Port: Bi-Directional iR communications
- Optical Switch: Commissioning and LCD menu navigation

Dimensions

- L: 154mm
- L1: 240mm (Water meter with connections)
- D: G1B
- d: R1
- H: 135mm
- Weight: 1.2 kg

Environmental

- Specified operating range: -10 °C to +60 °C
- Storage range limit: -10 °C to +70 °C
- Ingress protection: IP68
- Climate and EMC class: (E1,M1)(B/C)



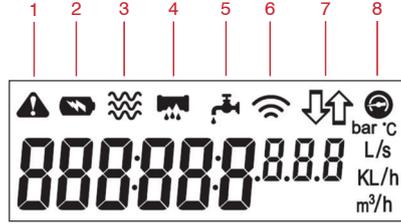
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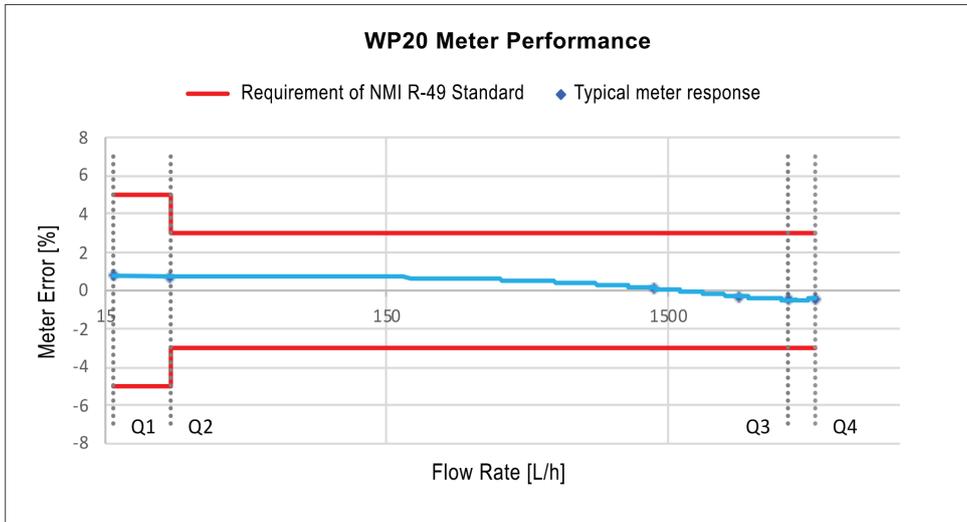
NB-IoT Smart Water Meter

LCD Display

- | | |
|-----------------|------------------------|
| 1 General Alarm | 5 Leak Alarm |
| 2 Low Battery | 6 Signal Strength |
| 3 Water in Pipe | 7 Water Flow Direction |
| 4 Burst Pipe | 8 Water Pressure Alarm |

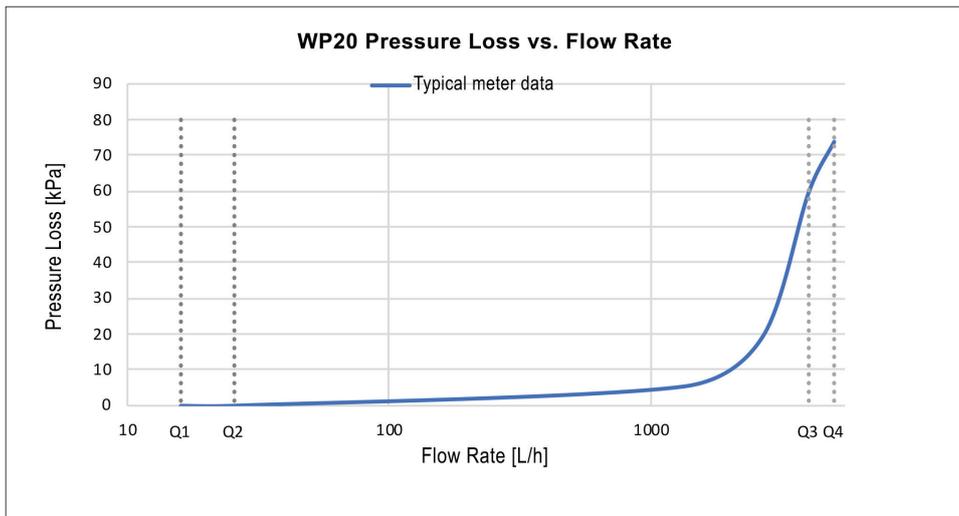


Maximum Permissible Error



From Q1 up to and including Q2 is $\pm 5\%$ • From Q2 up to and including Q4 is $\pm 3\%$ for T50 • $Q3/Q1 = R250$

Pressure Loss



WP20	Q1 Min. Flow	Q2 Transition Flow	Q3 Nom. Flow	Q4 Max. Flow
Flow Rate [L/h]	16	25.6	4000	5000
Pressure Loss [kPa]	0	0.01	60	74

8.3
million+

Manufacturing capacity
per annum

27 million+

Smart meters deployed worldwide

GLOBAL
ENERGY
SOLUTION
LEADER

44
years'
experience

Established in 1978

Since 1978, EDM I has been delivering the best breed of smart metering solutions with smart electricity and gas meters across transmission, commercial and industrial, residential and sub-metering markets.

EDMI prides itself on its dedication to quality, compliance and customer service. We are international leaders in smart metering innovation and recognise our obligation to combine the best of cutting-edge technologies with a strong commitment to quality and reliability.



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