

ECO IN-LINE METER

Designed for installation on exposed pipework

ECO Measurement Capsule + In-Line Base + Radio AMR Module + Mini Dual Check Valve

- Intelligent cartridge system (base remains in place)
- Easy installation with radio, pulse or M-bus
- For cold or hot water
- 360° rotating counter, horizontal / vertical installation
- Alerts for leaks, backflow, tampering and battery status

Approvals

Pattern Approval NMI 14/3/37 WaterMark LN26291 AS3565.1 AS/NZS4020 DR



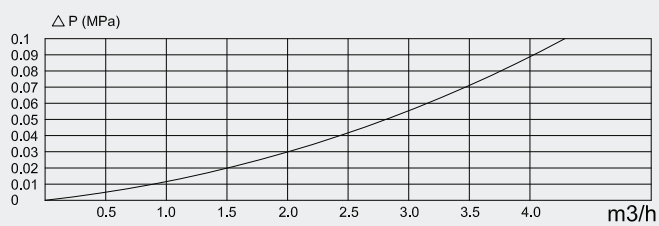
Application

- The In-Line Base with a temporary cap is permanently installed into the pipework.
- No special threads, gaskets, meter bracket or slip-joints are required.
- First fill, flushing, pressure tests and leak checks are carried out without the meter cartridge.
- A capped spacer is included, to ensure enough space when fitting the meter cartridge during final fit-off.

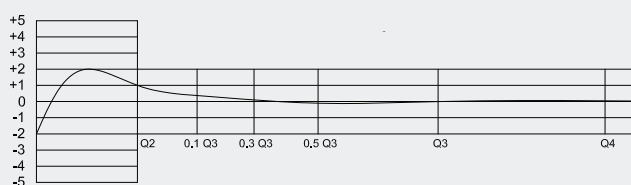
Field of Operation

Highest display value:	99 999 m ³
Lowest display value:	0.0005 m ³
Minimum flow rate, Q ₁ :	0.032 m ³ /h
Transition flow rate, Q ₂ :	0.051 m ³ /h
Continuous flow rate, Q ₃ :	1.6 m ³ /h
Overload flow rate, Q ₄ :	2.0 m ³ /h
Flow rate ratio, Q ₃ /Q ₁ :	50
Maximum admissible temperature (Cold):	50 °C
Maximum admissible temperature (Hot):	90 °C
Maximum admissible pressure:	1400 kPa
Pressure loss class:	Δp 63
Accuracy class:	2
Flow profile sensitivity class:	U0/D0
Orientation:	Horizontal / Vertical
Flow direction:	Forward

Pressure loss curve



Error curve



Radio AMR System

Pulse output:	1 L/pulse
Operating temperature:	0 to 65 °C
Power supply:	Lithium battery
Battery life:	12 years
Protection class:	IP 65 (optional IP 68)
Radio Frequency:	918 MHz (Australian ISM)
Maximum transmitter power:	16mW (range 500 M)
Communication type:	Unidirectional



Data transmitted during radio transmission:

Current date, time and data for the last 12 months with monthly logs for:

- reading, backflow, leak (baseline flow), tampering, overspeed-flow, battery status, signal strength

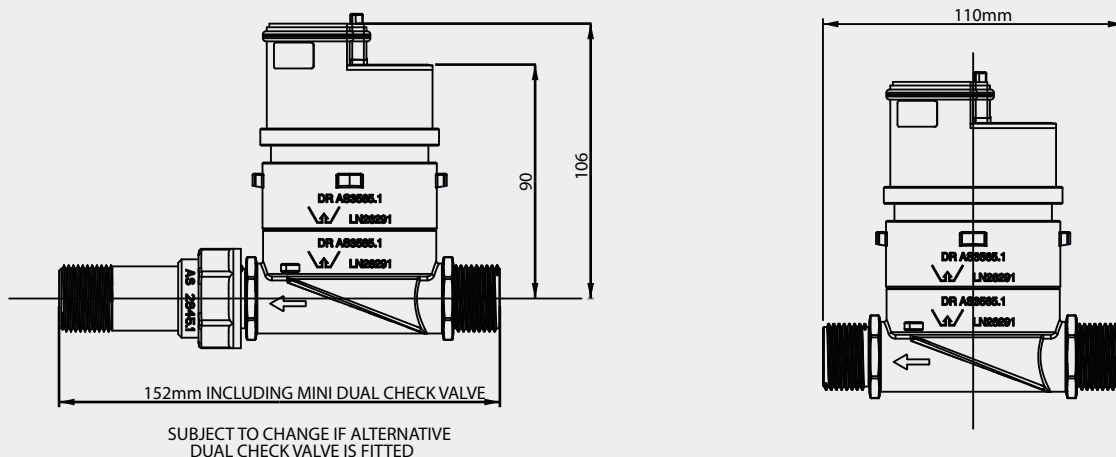
Customer configurable parameters:

- counter state (current reading) leak, backflow and overspeed-flow thresholds
- transmitting time for Summer/Winter time, time zone and interval between data transfers

Alternative Modules

Optical Pulse for 1L, 10L, 100L, and M-Bus modules for wired pulse systems.
(LoRa™ system under test.)

Diagrams



Type	Code	DN	Connection	Length	Weight
Assembly					
ECO Measurement Capsule - Cold	50030	15/20	2"		445g
ECO Measurement Capsule - Hot	50040	20	2"		445g
In-line Base	23902	3/4"	110mm / 152mm incl. DCV		461g
Radio AMR Module	95400				33g

Optional Components

Optical Pulse Module

Pulse K1 (1L per pulse)	95001			2m cable
Pulse K10 (10L per pulse)	95011			2m cable
Pulse K100 (100L per pulse)	95111			2m cable

M-bus Module

M-bus device	95002			2m cable
--------------	-------	--	--	----------

