



# ECO VALVE METER

**Designed for installation on a stop tap or concealed valve**

ECO Measurement Capsule + VTZ Manifold + VTZ Connector + Radio AMR Module

- This sub-meter is specially designed for retrofitting on a stop tap or concealed valve
- The isolator is elegantly integrated into the meter manifold
- Intelligent cartridge system - pre-equipped for 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 LN26661 WMTS530 AS/NZS4020 DR AS3565.1



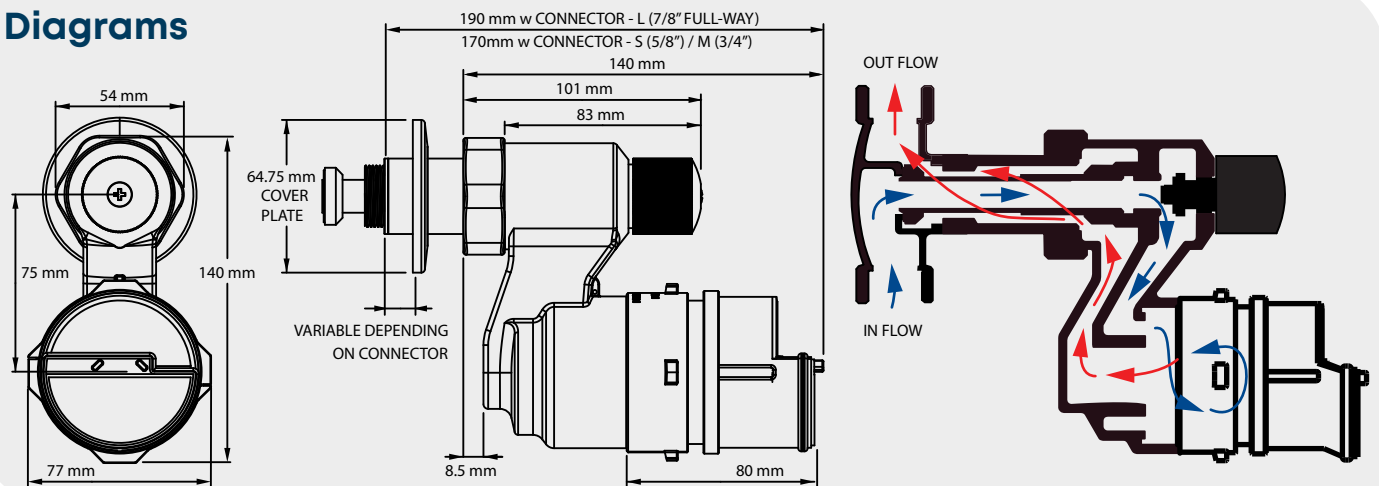
## Application

- This sub-meter is specifically designed for quick, inexpensive retrofitting to concealed valves.
- Different sized VTZ connectors are available to fit various jumper isolator valve bodies so that no re-plumbing, building or repair work is necessary.
- The elegant, disability-friendly design integrates a thumb-wheel isolator into the meter manifold.
- Small and unobtrusive with a high quality gloss chrome finish.

## Field of Operation

Highest display value:	99,999 m <sup>3</sup>
Lowest display value:	0.0005 m <sup>3</sup>
Minimum flow rate, Q <sub>1</sub> :	0.032 m <sup>3</sup> /h
Transition flow rate, Q <sub>2</sub> :	0.051 m <sup>3</sup> /h
Continuous flow rate, Q <sub>3</sub> :	1.6 m <sup>3</sup> /h
Overload flow rate, Q <sub>4</sub> :	2.0 m <sup>3</sup> /h
Flow rate ratio, Q <sub>3</sub> /Q <sub>1</sub> :	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

## Diagrams



## 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.

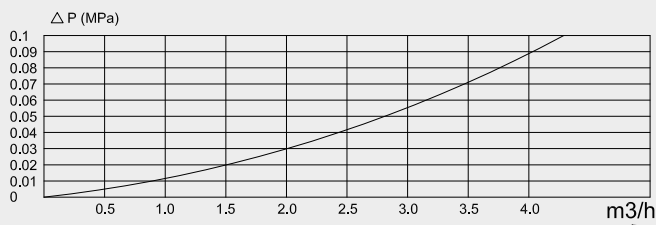
## Configurable parameters:

- 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.)

### Pressure loss curve



### Error curve



## Assembly

Type	Code	DN	Connection	Length	Weight
ECO Measurement Capsule - Cold	50030	15/20	2"		445g
ECO Measurement Capsule - Hot	50040	20	2"		445g
VTZ Manifold	23902		2"		1.11kg
VTZ Connector - S (15mm/20mm isolator)	40925		5/8" Whitworth	40mm	189g
VTZ Connector - M (3/4" isolator)	40902		3/4" Whitworth	40mm	198g
VTZ Connector - L (20mm full-way)	40926		7/8" Whitworth	60mm	222g
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
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