



**AQUAMONIX**  
Measure Monitor Master

# Emflux Flowmeters Overview

**66** years  still flowing

March 2026



# AQUAMONIX

## Measure Monitor Master



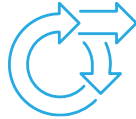
### CARE

We think deeply about what we do and how it affects lives, prioritising the wellbeing of people.



### CUSTOMER FOCUS

We value our customers as partners and approach each opportunity from the customer's perspective.



### AGILITY

We are lean and nimble and recognise that innovation and growth involve empowering people to be imaginative, push boundaries and embrace change.



### SIMPLICITY

We seek clarity and simplicity in everything we say and do, challenging the status quo and continually improving and refining our methods.



### COLLABORATION

We encourage people to participate in open dialogue, give feedback and to inspire each other and foster a culture of collaboration.

## Purpose

Support environmental sustainability for global communities.

## Strategy

Provide hardware & technology platforms that collect data and drive decisions

## Vision

We will save lives, protect ecosystems & enhance community prosperity

## AGRICULTURE

- Secure and accurate water and soil monitoring for agriculture production systems
- Monitoring of on farm water storage, channel conditions, pumps and water supply
- Control of on farm infrastructure including pumps, pivots, channels and gates
- Cloud based data portal to provide data from anywhere, to anyone at anytime

## IRRIGATION

- Water metering solutions for urban and non urban water supply systems
- Flow metering in closed pipes, open channels, flumes and weirs
- Remote, manual or automated control of water delivery and outlet structures.
- SCADA management and control platforms for pumping delivery and on farm
- Integrated water ordering, control and billing systems for network control

## INFRASTRUCTURE & CONSTRUCTION

- Smart engineered solutions to monitor impacts of infrastructure works
- Stormwater, flood detection, structural and geotechnical monitoring
- Data analysis, automated alerting and warning systems

## MINING, ENERGY & RESOURCES

- Remote monitoring and data collection systems for climate, weather and water networks
- Monitoring solutions for Surface water, groundwater bores, tailings dams and process ponds
- Collection, analysis and reporting for environmental licence compliance
- Integration into client communications and control systems

## WATER & ENVIRONMENTAL

- Remote data collection and analysis of water quality and quantity
- Rainfall, water level, pressure, flow and discharge monitoring
- Automated sampling from fixed, floating or mobile stations
- Catchment health monitoring and early flood warning systems.

## MUNICIPAL AUTHORITIES

- Central control software for irrigation, lighting and asset management
- SCADA monitoring and control solutions for irrigation, pumps and filtering systems
- Public alert notification and warning systems to assist safety and compliance
- Automated sirens, cameras and flashing road signs



- **Manufacturer & Supplier:** Aquamonix Pty Ltd (Australian Owned and Operated)
- **Place of Manufacturing:** Australian made flowmeters – **Milperra Sydney, NSW**
- **Reference:** Continuous operations in Australia since **1960** with over **40 000** installed sites across Australia
- **Accuracy:** All Aquamonix EMFLUX Electromagnetic Flowmeters are **+/- 0.5%** or better
- **Standard:** Certificate of Approval NMI 14/3/32 (National Measurement Institute)
- **Drinking Water Approved:** AS/NZS 4020 Testing of products for use in contact with drinking water
  - **EMFLUX 1060** – Hard Ebonite Rubber Liner
  - **EMFLUX 2060** – Rubberflex EPDM Liner
  - **Transmitter M500 and I500**

All units Manufactured to ISO9001, Pattern Approved (Non-Urban) and Wet Flow Calibrated in **Sydney Australia** (NATA Flow Rig 50mm-1500mm to 1000 l/s)



Four flowmeter tube models made in Australia, built to your requirements.

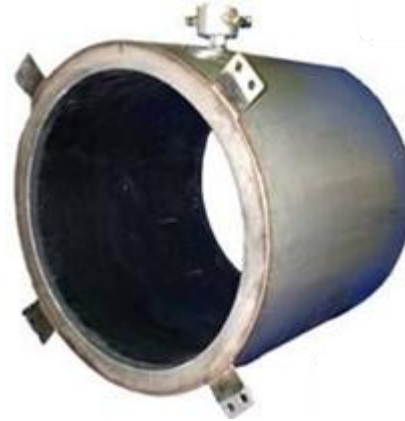
**1060 Series  
Flowtube**



**2020 Series  
Flowtube**



**2030 Series  
Flowtube**



**2060 Series  
Flowtube**



## Steel Electromagnetic Flowmeter

- 50 – 300mm Diameter
- Hard Ebonite Liner
- 316L SS Electrodes
- AS4087 Class 16 Flanges
- ISO Standard Length
- IP68 up to 10 meters
- Pattern approved with 0 Upstream and 0 Downstream Pipe Lengths



Pipe Installation



Pipe Installation



## Customisable ABS Plastic Electromagnetic Flowmeter

- 50 – 450mm Diameter
- 316L SS / Hastelloy C / Tungsten Tipped Electrodes
- Multiple Flange Options (can have different flanges on each end)
  - Spigot end (no flanges)
  - Table D Flange
  - Table E Flange
  - ANSI 150 Flange
- Galvanized or Stainless Steel Backing Rings



## Vertical Tank Flanged Pipe Installation



## Spigot end pipe installation

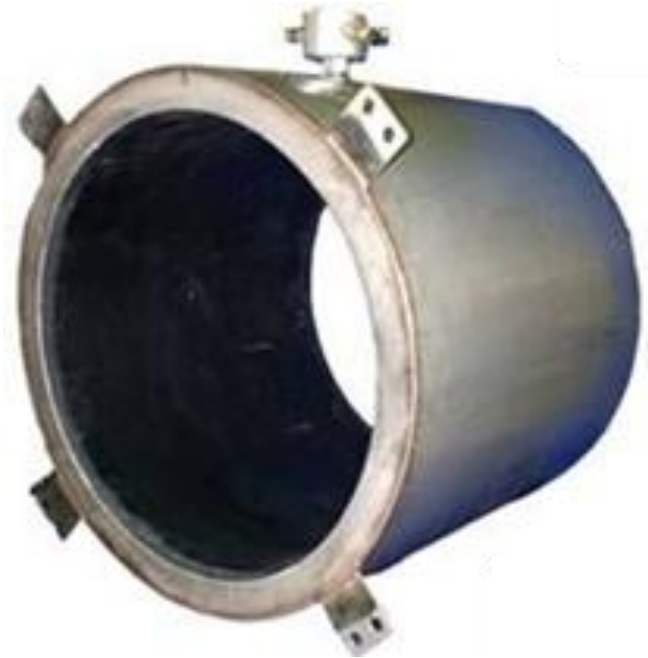


## Flanged Pipe Installation

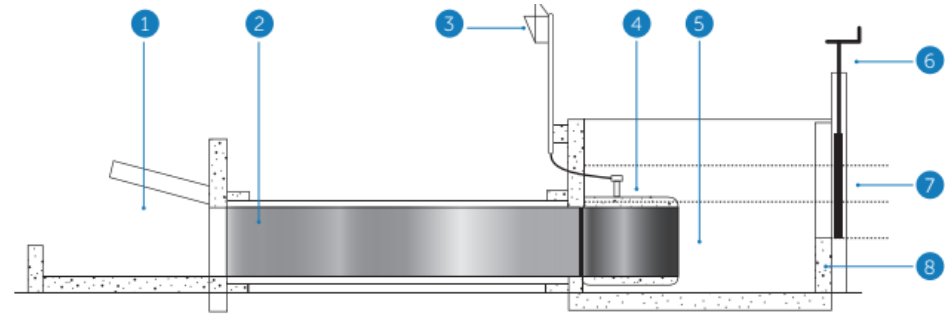


Custom designed to be installed in pits or inserted in pipes

- 150 – 1500mm Diameter
- Rubberflex / Polyurethane / Basalt Liners
- 316L SS / Hastelloy C / Tungsten Tipped Electrodes
- Client specified custom dimensions
  - Tab position
  - Length
  - Tube thickness
  - Terminal head location
  - Tube diameter

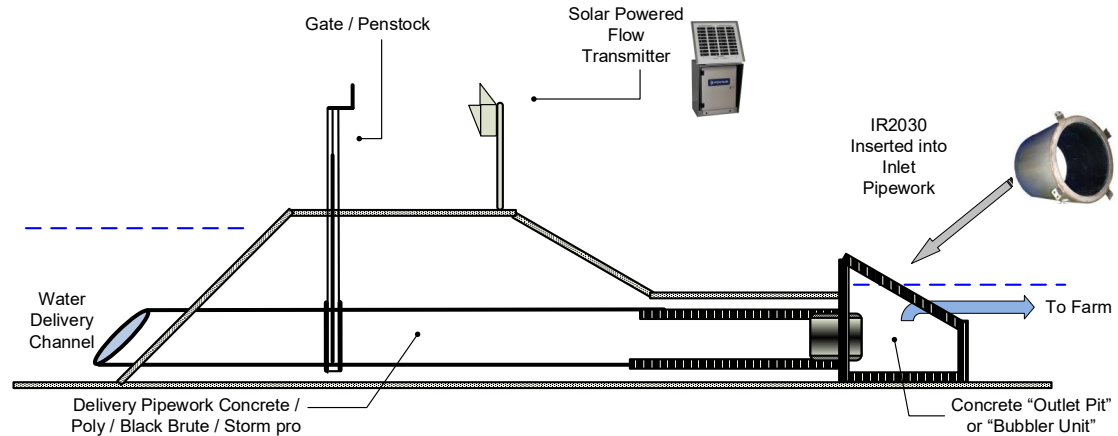


Pit Mount Installation  
(outside pipe)

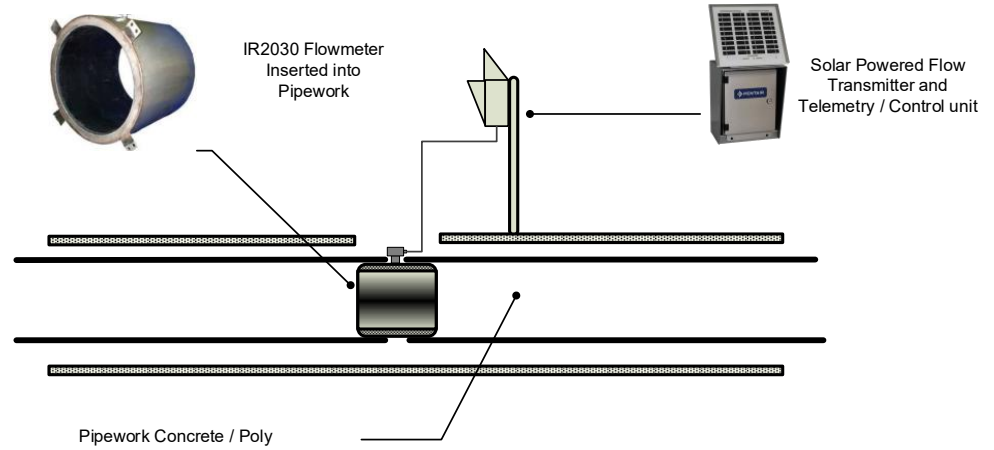


- 1 Upstream entry Pit
- 2 Connecting Pipe - RCP
- 3 Irriflow Solar Powered Transmitter
- 4 Mag Flowmeter Model 2030
- 5 Downstream exit Pit
- 6 Flow Control Gate or Penstock
- 7 Operating Head Loss
- 8 Downstream Sill

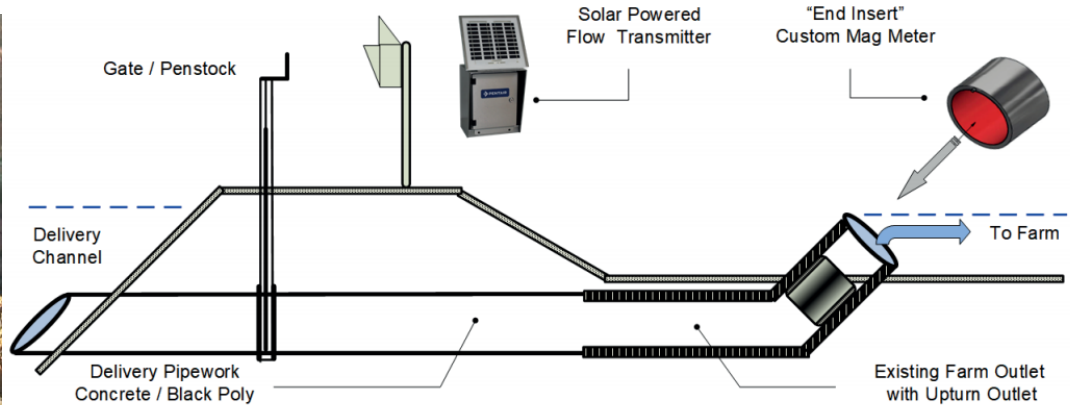
Pit Mounted Insertion Installation



Pipe Insertion  
Installation



Pipe Insertion  
Installation



## Flowmeter Custom Built to Client Specifications

- 50 – 1200mm Diameter
- Rubberflex (3mm / 6mm / 12mm) / Polyurethane / Basalt Liners
- 316L SS / Hastelloy C / Tungsten Tipped Electrodes
- Multiple Flange Options
  - AS2129 - Table D Flanges
  - AS2129 - Table E Flanges
  - AS4087 - PN16 Flange
  - AS4087 - PN21 Flange
  - AS4087 - PN35 Flange
  - BS4504/DIN PN10 Flange
  - BS4504/DIN PN16 Flange
  - BS4504/DIN PN25 Flange
  - ANSI 150 Flange
  - ANSI 300 Flange
- IP68 to 10 meters
- Special thick wall high-pressure units for mining/dredging



## Mainline Pipe Installation



## Tailings Dam Pipe Installation



## RUBBERFLEX



**3mm:** Lining for potable water, low pressure <10 bar applications

**6mm:** Industrial strength water liner

**12mm:** for Harsh Slurry, Sand, Tailings

Other custom thickness available ie 24mm

## POLYURETHANE



Better for higher temperature applications ie. high temperature ground water.

Has wider chemical compatibility range than rubber.

Ideal for chemical / mineral process water

## BASALT



Strongest Liner for very harsh materials.

Used regularly for harsh slurries.

## 316L STAINLESS STEEL



For standard water  
ie.lakes, dams, channels, bore, irrigation  
or potable water.

## HASTELLOY C



Great for high saline or acidic applications,  
very corrosion resistant

## TUNGSTEN TIPPED



Counter sunk / flush mount electrode, ideal  
for Slurries or other places where the  
electrode could be damaged.

Two transmitter options

Converts the raw signals from the flowmeter tube into standard engineering units for analysis, data logging and output to control or telemetry systems

## i500 Transmitter



## M500 Transmitter



**Table 6: I500 Specifications**

Performance	
Flow Velocity Range	0.01-10m/sec
Accuracy	< ±0.5% of indicated flow rate, or ±1mm/sec
Full Scale Flow Rate	Programmable range: 0.01-10m/sec
Low Flow Cut off	Programmable down to 0.01m/sec
Measurement Type	Flow velocity, flow rate, mass flow
Totaliser Units	Litres, kilolitres, megalitres, gigalitres and others
Flow Time Units	Seconds, hours, days
Flow Simulation Mode	Simulated DC current out, simulated flow rate.
Temperature	-20°C to 55°C
Outputs	
Frequency	Up to 1000Hz
Types of Outputs Available	<ul style="list-style-type: none"> <li>Digital pulse – 2 standard (up to 4 with optional expansion card) 100mA maximum each</li> <li>Analogue – Up to 2 outputs, 4-20mA, internally or externally powered</li> <li>RS232, RS485 and RS422 Modbus</li> </ul>
Inputs	
Type	1 x digital input for controls (with optional expansion card)
Maximum Current	100mA
Power supply	12 - 24VDC with solar charging.
Data Logging	
Parameters Logged	Diagnostic, flow, alarm
Logging Interval	Configurable, 1 to 720 minutes
Comms Connection	Mini USB (standard) RS232, RS485, RS422 (with optional expansion card)
File Format	CSV
Capacity	2 Gigabyte
Power Supply	
Power Supply	12V DC with solar charging.
Maximum Cable Length	30m
Enclosure Specifications	
Construction	Grade 304 stainless steel, double skinned
Rating	IP67
Dimensions	H: 300mm W: 240mm D: 200mm
Weight	7.0 kg without battery and solar panel
Display	128 x 64 pixel configurable monochrome graphic with LED backlighting
Data Entry	Four button capacitive touch keypad with additional connectivity via USB
Cable Entries	4 x M18 (solar, flow detector signal, flow detector coil), 1 x M8 (serial or antenna)



- Grade 304 Stainless Steel Double Walled Enclosure
- 12-24 VDC Power
- Default power option is Solar.
- IP67
- Max cable length 100m
- Accuracy +/- 0.5%

**Table 5: M500 Specifications**

Performance	
Flow Velocity Range	0.01-10m/sec
Accuracy	< ±0.5% of indicated flow rate, or ±1mm/sec
Full Scale Flow Rate	Programmable range: 0.01-10m/sec
Low Flow Cut off	Programmable down to 0.01m/sec
Measurement Type	Flow velocity, flow rate, mass flow
Totaliser Units	Litres, kilolitres, megalitres, gigalitres and others
Flow Time Units	Seconds, hours, days
Flow Simulation Mode	Simulated DC current out, simulated flow rate.
Temperature	-20°C to 55°C
Outputs	
Frequency	Up to 1000Hz
Types of Outputs Available	<ul style="list-style-type: none"> <li>Digital pulse – 2 standard (up to 4 with optional expansion card) 100mA maximum each</li> <li>Analogue – Up to 2 outputs, 4-20mA, internally or externally powered</li> <li>RS232, RS485 and RS422 Modbus</li> </ul>
Inputs	
Type	1 x digital input for controls (with optional expansion card)
Maximum Current	100mA
Power supply	240V AC, 12-24V DC
Data Logging	
Parameters Logged	Diagnostic, flow, alarm
Logging Interval	Configurable, 1 to 720 minutes
Comms Connection	Mini USB (standard) RS232, RS485, RS422 (with optional expansion card)
File Format	CSV
Capacity	2 Gigabyte
Power Supply	
Power Supply	240V AC or 12-24V DC options
Maximum Cable Length	100m
Enclosure Specifications	
Construction	Aluminium, polyurethane coated
Rating	IP68
Dimensions	H: 282mm W: 182mm D: 115mm
Weight	3.0 kg
Display	128 x 64 pixel configurable monochrome graphic with LED backlighting
Data Entry	Four button capacitive touch keypad with additional connectivity via USB
Cable Entries	1 x M25 (conduit entry), 1 x M20 (flow detector coil), 3 x M16 (power, flow detector signal)



- Aluminium Polyurethane coated
- 240 VAC / 12-24 VDC
- IP68 Enclosure
- Max cable length 100m
- Accuracy +/- 0.5%

4-20mA CARD



Part Number: G625054  
2 x variants  
1. 9-18V (12VDC)  
2. 18-36VD (24VDC)  
\*240V transmitters use the 12VDC card

Switch for Source of Sink of power for current loop

AQUALID



Part Number: AquaLID  
Telemetry Card  
Logs transmitter data and connects to a MQTT broker

MODBUS CARD



Part Number: G625056  
Historically known as Modem Card  
RS232 / RS485 Communications Options

HART/ETHERNET




Part Number: 500EXP-H-E  
4-20mA HART expansion card  
MODBUS over Ethernet

INPUT CARD



Part Number: G625057  
Transmitter uses input from this card to signal when a pump is on / gate is open. Flow reading is disabled when output is off. I.e. Don't record flow when pump is off.

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**Emflux Flowmeter System Flow Test Certificate**
**Customer Name:** GMW Connections Program

**Customer Order No:** WEP Project #1

**Sales Order No:** 82932

**FLOWMETER OPERATIONAL RANGES**

Aquamonix flowmeters are designed to provide accurate metering over a wide range of applications from low flow gravity fed systems to high velocity pumped applications. The low flow and high flow limits will meet all likely flow conditions in irrigation projects. The units are fitted with a user configurable "Low Flow" cut off which is factory configured to set a minimum flow rate where the meter provides accurate flow readings within +/-5% in field.

Typical meter performance will remain well inside the NMI ± 2.5% accuracy error from a low flow velocity of approximately 80m/s (Q1) up to the maximum recommended flow velocity of 10m/s (Q4). All Aquamonix flow meters are wet flow calibrated in NATA traceable flow rig to provide better than 2.5% accuracy between Q1 and Q4.

**Aquamonix Flowmeter Performance Data**

Nominal Size	Q1		Q3		Q4	
	0.08 m/s		5.00 m/s		10.00 m/s	
	L/s	ML/day	L/s	ML/day	L/s	ML/day
50mm	0.2	0.0	10.0	0.9	20.0	1.7
80mm	0.4	0.0	25.0	2.2	50.0	4.3
100mm	0.6	0.1	40.0	3.5	80.0	6.9
150mm	1.4	0.1	88.0	7.6	176.0	15.2
200mm	2.5	0.2	157.0	13.6	314.0	27.1
250mm	3.9	0.3	245.0	21.2	490.0	42.3
300mm	5.7	0.5	353.0	21.9	706.0	61.0
350mm	7.7	0.7	481.0	41.6	962.0	83.1
375mm	8.8	0.8	552.0	47.7	1104.0	95.4
400mm	10.0	0.9	628.0	54.3	1256.0	108.5
450mm	12.7	1.1	795.0	68.7	1590.0	137.4
500mm	15.7	1.4	982.0	84.8	1964.0	169.7
600mm	22.6	2.0	1414.0	122.2	2828.0	244.3
700mm	30.8	2.7	1923.0	166.1	3846.5	323.3
800mm	40.2	3.5	2512.0	217.0	5024.0	434.1
900mm	50.9	4.4	3178.0	274.7	6358.5	549.4
1000mm	62.8	5.4	3925.0	339.1	7850.0	678.2
1100mm	76	6.5	4750	408	9500	812
1200mm	90	7.8	5625	487	11250	974
1300mm	106	9.1	6625	568	13250	1137
1400mm	123	10.6	7687	682	15374	1325
1500mm	141	12.2	8812	782	17624	1525

Note: - The Meter performance figures above are the manufacturers recommendations based on available internal and independent hydraulic flow testing results and estimated performance where flow test facilities were not available. Pattern approval data may differ due to testing limitations and customers should make themselves aware of any pattern or industry certification approvals that may apply to their specific metering application.

- Q1 = Minimum flow rate at which meter achieves accuracy error of 2.5%
- Q3 = Nominal maximum continuous flow at which meter achieves better than 2.5%
- Q4 = Maximum flow rate at which meter achieves accuracy error of better than 2.5%
- V = Flow velocity in m/s

PRIMARY ELEMENT DATA			
Detector Head Model No:	IR2060-S70ADCSSFR	Serial No:	48392
Nominal Bore:	570 mm	ADC Reference:	Auto mV
Flow Tube Zero:	-3	Flow Tube Factor:	5730
Field Coil Resistance:	101.5 Ohms	Field Coil Current:	100 mA
SECONDARY DATA			
Flow Transmitter Model No:	I500-X2MXX-B	Serial No:	48392
Supply Voltage:	12 Vdc	Supply Frequency:	N/A
Flow Test Results			
ACTUAL VOLUME	INDICATED VOLUME	NOMINAL FLOW RATE	% ERROR
Litres	Litres	L/S	
95109.00	95184.00	960.700	0.0800
64423.00	64439.00	650.740	0.0200
35056.00	35005.00	354.100	-0.1500

**Tested By:** Van      **Master Meter:** B500R      **Date:** 17-Jun-2021

This Product has been manufactured under a quality system certified as complying with ISO9001:2000.



## Group by numbers



1 500

Pivot Irrigators



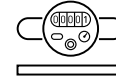
5 000

Water Controllers



10 000

Remote Monitoring Sites



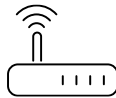
40 000

Flow Meters



15 000

Pumping Solutions



250 000

Data Connectivity  
Sites



3 000

Cloud Connected  
Data Stations



150

Global Partners



240

Employees



**AQUAMONIX**  
Measure Monitor Master

## Emflux Flowmeters Overview



**66** years  still flowing

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