



Aquiba A210 Digital Water Meter

The smart water device for Australia's water future

Fully static mag-flow technology

- Remnant magnetic field generation technology
- No moving parts means no wear or jamming even in poor water quality
- Maintains measurement accuracy at all flow rates for the service life of meter
- Suitable for low pressure networks
- Reduces non-revenue water

Platform for next generation radio solutions

- Future proof field upgradeable firmware
- Advanced 32-bit processor and generous memory
- Long battery lifetime

Robust IP68 enclosure

- Compact and easy to install
- Integrated electrical bonding strap
- Optional dual check valve
- Low environmental impact

Product overview

Aquiba's A210 DN20 digital water meter offers world beating metrology and excellent product durability, with no wear or jamming. It is a flexible and future-proof platform for digital metering and intelligent water networks.

The A210 consists of a highly accurate mag-flow sensor, powerful processor and data logging. Remnant magnetic field generation ensures accurate metrological performance and extended battery lifetime. The processor stores time-stamped readings in the log and can run additional applications in real time to convert large volumes of data into discrete items of high value information.

Data can be read via the local optical port and the A210 provides an ideal platform for next generation low power wireless communications solutions.

The A210 is fully compliant with NMI R49.1 Class 2 and AS/NZS 4020:2005 and is approved for use in Australia.

Optical interface

The A210's secure optical port allows connection of an optical reader programmer (ORP for easy data retrieval and firmware upgrades where over-the-air functionality is not supported by the network. The ORP simply clips onto the top of the meter and data is transferred via a USB cable to a PC running Aquiba Meter Explorer software.

LPWAN/IoT

Aquiba is openly communications agnostic. We are a water meter maker and we want the value of our water meter to be realised regardless of your network preference. The A210 has been designed and built with the objective of exploiting available network bandwidth and maximising battery lifetime regardless of which LPWAN/IoT technology is used. Our firmware architecture allows on-board applications to evolve as the latent benefits of intelligent water networks emerge.

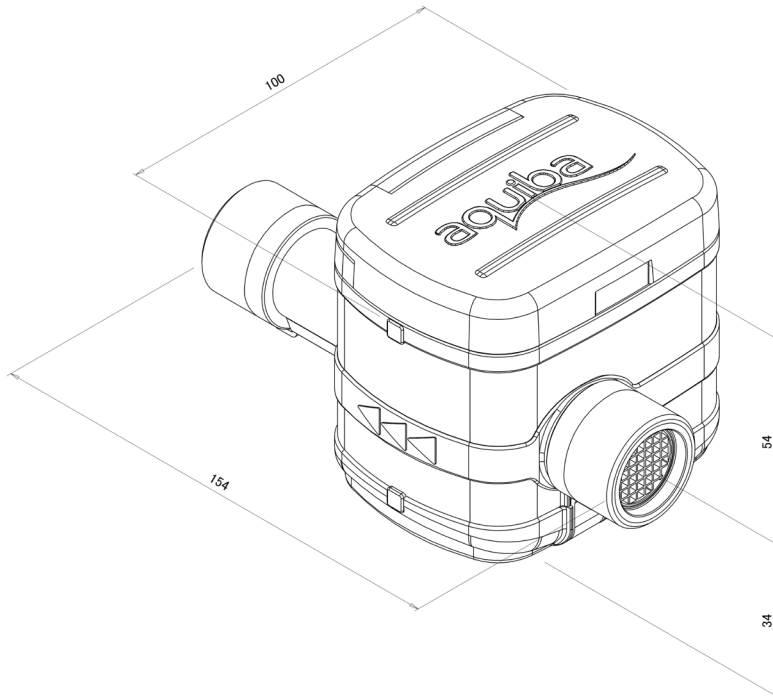
Metrology and R49 compliance			
Item	Unit	Value	Notes
Measurement technology		Electromagnetic	With remnant magnetic field generation
Starting flow rate (approx)	m ³ /h	0.0035	
Leakage detection (approx)	m ³ /h	0.0035	
Minimum flow rate Q1	m ³ /h	0.016	
Transitional flow rate Q2	m ³ /h	0.026	
Maximum flow rate Q3	m ³ /h	4	
Overload flow rate Q4		5	
Measuring range (R) Q3/Q1		250	
Max working pressure	MPa	1.4	
Pressure loss @Q3	MPa	0.025	
Ambient temperature	°C	0 to 60	Water temperature >0.1°C
Meter temperature class		T50	
Ambient humidity range	%RH	0 to 100	
Installation positioning		any	
UV exposure resistant			Exceeds AS3565.1 (pt3.3)
Minimum registration (LCD)	litre	0.05	
Minimum registration (internal)	litre	0.01	
Maximum registration	m ³	99999.99995	

Battery			
Item	Unit	Value	Notes
Battery life	Years	15	Depending on configuration
Battery life indication		Dynamic	Based on actual usage history

Communications			
Item	Unit	Value	
Radio options		No radio (A210), NBloT and/or CatM1 (A210-LTE), SigFox (A210- SFX), Taggle (A210T)	
Radio functionality		Uplink: Registration/intervals/alarms Downlink: time-sync/configuration/ upgrade	

Integrated Data logger			
Item	Unit	Value	Notes
Memory size	Mbyte	1.2	Approx 1 million samples with included data compression algorithms
Data sources		Billing register value (resolution 0.01 litre) Internal temperature (resolution 1°C)	
Minimum data interval period	seconds	10	
Time-stamped alerts		Reverse flow, leak detect, frost, magnetic tamper, battery tamper, empty pipe and low battery	

Mechanics			
Item	Unit	Value	Notes
Housing construction		Engineering polymer, with electrical bonding strap	
Water and dust protection		IP68	
Frost resistant		Yes	
Threaded connection		G1B or to local standard	
Torque resistance of thread	Nm	>95	
Weight (approx.)	g	585	
Inlet strainer		Optional	
Dual check valve		Optional in outlet	Meets performance requirements of AS/NZS 2845.1



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Compliance with AS3565.1:2010

The A210 has been designed for compliance with the following requirements of AS3565.1:2010:

- Ultraviolet exposure
- Material durability tests (Cyclic Temperature and Pressure)
- Torque resistance
- Watertightness

Contact us

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Aquiba is a Takahata Precision Business