GUARDIAN APARTMENTS 2013 CASE STUDY

The Guardian Trust Building was one of Auckland's first high rise buildings, originally constructed between 1914 & 1918 from Kairuru marble and represents a very early example of Chicago-styled striped classical building. This Category 1 Historic Places Trust building was renovated in 2003 and converted into a 180 apartment unit complex.

The conversion included a centralised hot water system that was proportionally billed to each apartment. Not surprisingly, some occupants were dissatisfied that the billing was not linked to consumption and requested independent water metering be retrofitted.

Being largely steel and concrete construction with limited access it was decided BMeters 'Hydrolink' wireless water meter system was worthy of a trial installation. The trial would test how effective the wireless data collection would be within the long, narrow and winding corridors of the buildings eight floors and the readings would ultimately show the occupants had cause for concern.

Rohan MacMillan, from MacMillan Plumbing and Gas, randomly selected two apartments per floor and installed hot and cold MBUS ready meters with wireless transmitting modules. During the next two months, two readings were taken using the USB wireless receiver and a laptop computer. Data from 11 of the 32 meters was transmitted and received in the lobby of the building, while the remaining 21 meters could be received from the 4th floor lobby and corridor.

The readings taken from the random apartment selection immediately highlighted massive disparities in consumption ranging from 1m3 to 16m3 during the first months usage confirmed with a similar result from the following months reading. It didn't take long for the building management to conclude the trial was an unbridled success and the remaining 164 apartments were given approval for the immediate installation of the BMeters Hydrolink system.

COMPLETED PROJECTS

Charles Street Apartments Papatoetoe - Hereford Street Apartments Freemans Bay - Bayfair Shopping Centre Tauranga - Queens Residences Auckland CBD - Queens Square Apartments Auckland CBD - Park Residences Auckland CBD – Victoria Residences Auckland CBD - Crown Lynn Apartments New Lynn – The Airedale Apartments Auckland CBD – Alba Takapuna – Grafton Hall Residences at The University of Auckland - Westpac Towers Auckland CBD - Manukau Junction - Surrey Crescent Apartments Grey Lynn - Grand Chancellor Apartments Auckland CBD - Federal St Apartments Auckland CBD - Guardian Apartments Auckland CBD - Pounamu Apartments Queenstown - St Benedicts Apartments Eden Terrace - The Orange Eden Terrace - Urba Apartments Freemans Bay - Ocean Point Apartments Orewa - Guardian Apartments Auckland CBD

CURRENT PROJECTS

The Pacifica Apartments Auckland CBD - Long Bay Village North Shore – Stonefields Lunn Ave – Lakewood Plaza Manukau City – SKHY Apartments Eden Terrace - Chelsea Bay Residences North Shore - Summerset Retirement Village Auckland

WATERWARE

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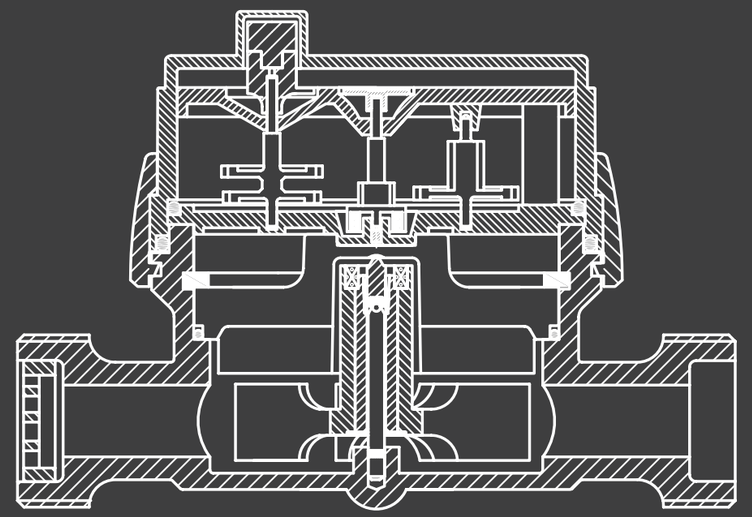
WATERWARE

HYDROLINK



M-Bus

WIRELESS
WATER METER SYSTEM

The HYDROLINK wireless water meter system allows the remote collection and transmission of data recorded by the meter via a wireless network. According to budget a range of transmitting and receiving hardware options are available from simple 'walk by' to fully automated GPRS transmission solutions.

- Significant time and cost saving
- Attempted fraud detection
- Error free data reading and transcription
- Easy to use software

The HYDROLINK system uses the M-BUS wireless transmission protocol and will piggy back 3rd party power and or gas reading equipment on the same system.

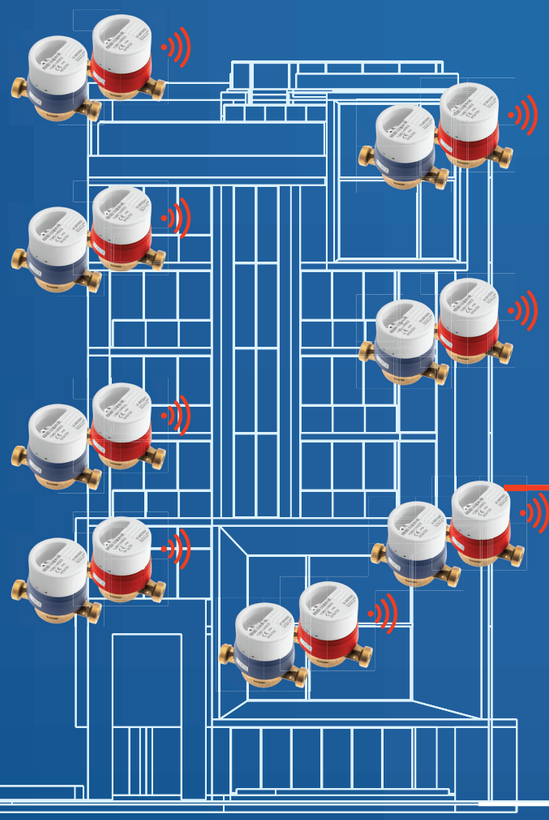
waterware.co.nz

WALKBY WIRELESS METERING

15 - 50mm
MBUS METER WIRELESS

Meters located at each apartment which wirelessly communicate back to the central data collector.

Meters have individually assigned I.D's.



RX2 USB receiver for on site data collection

RX2 USB Receiving Module

WMBUSUSB

Range
Up to 300 meters in ideal conditions
Connection & power supply
USB
Data transmission frequency
867.45 MHz
Transmission protocol
Wireless MBUS EN13757:4
Antenna
1/4

Dimensions
65mm x 22mm x 15mm
Protection
IP50

(Remote reading method shown is indicative only)

TX1 Wireless Transmitting Module

Range
Up to 150m in ideal conditions
Power supply
Lithium battery (sealed)
Battery life
10 years + 1 year of data storage (in normal working conditions)
Optimal working temperatures
0°C to +40 °C
Limit temperatures
-10°C to +55 °C
Anti-fraud shield
Magnetic/optical
Minimum reading
1 liter gsd-RFM-TX1
Sensor reading
Infrared

Shielding rate
IP65 (IP68 upon request)
Power transmission
<10mW
Working frequency
867.45 MHz
Data transmission frequency
Programmable
Data transmission encryption
Optional
Type of reading
Mono-directional
Operational mode
Wireless MBUS T1 mode
Setup mode
Wireless MBUS T2 mode

Bmeters 15mm Cold MBUS ready

WMBUS15SC

15mm MBUS ready, single jet, dry dial, direct reading
Cold water up to 30° C
Qmax 3m3/h, Qnominal 1.5m3/h, Qmin 30L/h
Minimum reading 0.05L
Max pressure 16bar

Bmeters 15mm Hot MBUS ready

WMBUS15SH

15mm MBUS ready, single jet, dry dial, direct reading
Hot water up to 90° C
Qmax 3m3/h, Qnominal 1.5m3/h, Qmin 30L/h
Minimum reading 0.05L
Max pressure 16bar

Conditional guarantee:
5 YEARS parts and labour

Bmeters Signal Repeater

WMBUSRPT

A signal repeater receives data from multiple wireless MBUS meters and re-bounces the signal up to 500m (in ideal conditions)

Extend the range of the wireless meter module in order to reduce or eliminate the need for mobile data collection

Connect geographically spread transmitters to a common receiver whether it be a USB receiver or GPRS transmitter

Power supply: Lithium Battery 2 x 3.6V D size and pre-prepared for mains supply via DC3.6V 50mA adaptor

Battery Life: 5 Years (depending on frequency of trnasmissions)

Transmission frequency / power: 867.45MHz /25mW

Dimensions HxWxT(mm)= 160 x 90 x 60mm

Protection class: IP65

Configuration: wireless

Conditional guarantee: 5 YEARS parts and labour

GPRS Receiving & Transmitting Module

WMBUSGPRS

Power supply
Lithium battery 3.6V, replaceable
Battery life
5 years
(1 read & send of data/month)
Radio interface
Wireless Mbus EN 13757-4
867MHz. GSM\GPRS
Interface
QuadBand 850/900/1800/1900 MHz
Antennas
GSM e 867.45 MHz Integrated
Radio receiving sensitivity
-90 dBm (867 MHz)

Dimensions
230mm x 200mm x 50mm
Configuration
By user-friendly software
Configuration modes
Local (RS232),
Remote (GPRS, SMS)
Mounting mode
Wall mounting
Operating temperature range
-20°C to +60°C
Enclosure protection
IP68

Option for gas meters and existing pulse systems