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## POINTS OF INTEREST:

- Hot Water meters
- Irrigation meters
- Nutrient Dispensing

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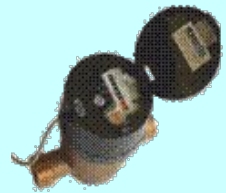
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## Gold Coast Water - water study

South East Queensland is experiencing the worst drought on record. Level 5 water restrictions apply from 10 April 2007.

Queensland's Gold Coast Water is conducting a study on domestic water usage to determine how much water is used in the average home and where (e.g. in the garden, bathroom, kitchen etc).

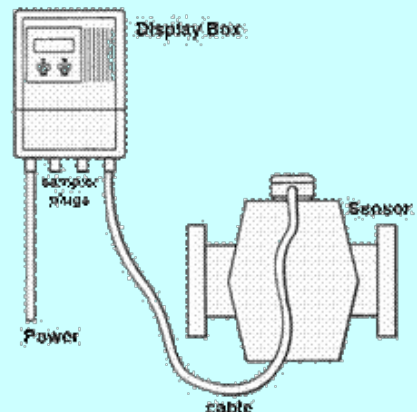
The study is possible because ManuFlo can add high pulse output capability (72.5 pulses/Litre) to domestic water flowmeters for precision data collection and logging (model CT5-S, pictured). *(continued page 3)*



## ABB appoints ManuFlo for Tradewaste

ABB has announced that ManuFlo will be exclusive agents for ABB Electromagnetic Flowmeters for Sydney Water Tradewaste applications.

ManuFlo has unmatched expertise in customising and programming the ABB components to Sydney Water's requirements, creating a flowmeter configuration comprising a flow sensor wired to a remote Display which is fitted with MIL-spec sampler plugs to provide pulse and 4-20mA output.



ManuFlo's MFS Magmaster range of Electromagnetic Flowmeters for Tradewaste are virtually maintenance free, with no moving parts and an obstructionless bore. *(continued page 3)*

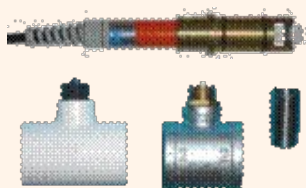
## Hot Water Flowmeters

ManuFlo has enhanced its Hot Water flowmeter product range, introducing the SW-H type turbine flowmeters that operate to 130°C, are available in sizes from 50-200mm, and also have optional pulse output.

*(continued page 2)*



## Hot Water Flowmeters



- **RPFS-H**, paddlewheel flow sensor.
- **to 120 °C**; Accuracy  $\pm 2.5\%$ .
- transistor pulse output.
- 5-30 VDC powered.
- with 2-metre lead, and lockcap.
- with various pipe adapters for different sizes and type of pipe.



- **SW-H**, sizes 50-200mm. Acc:  $\pm 2\%$ .
- **to 130 °C** (without pulse output).
- running (non-resetable) totaliser.
- with optional pulse output:
  - **to 110 °C**
  - sizes 50- 80 mm: 1 pulse/ 10L
  - sizes 100-200 mm: 1 pulse/ 100L

(from page 1)

On Hot Water flowmeters, the optional pulse output is useful for batching applications as well as remote or resetable totalising.

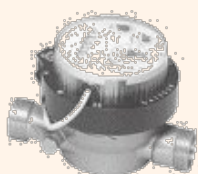
Usually, the pulse output option is ordered at the time the meter is purchased, but with the SW-H flowmeter (shown immediately at left), pulse output capability can easily be retrofitted to existing units.



- **ETDA**, sizes 20 - 40mm.
- **to 120 °C**; Accuracy  $\pm 2\%$ .
- running (non-resetable) totaliser.
- with optional pulse output:
  - 20mm size: 1 pulse/ 1L
  - 25mm size: 1 pulse/ 10L



- **KMM**, sizes 25 - 40mm.
- **to 90 °C**; Accuracy  $\pm 2\%$ .
- running (non-resetable) totaliser.
- with optional pulse output: 1 pulse/ 10L

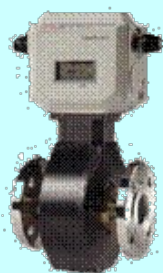


- **KSS**, sizes 15 & 20mm.
- **to 90 °C**; Accuracy  $\pm 2\%$ .
- running (non-resetable) totaliser.
- with optional pulse output: 1 pulse/Litre.

## Irrigation Flowmeters

### AQM flowmeter

- Electromagnetic type.
- Flowrate and Total display.
- handles very dirty liquids; unblockable.
- virtually maintenance free.
- in sizes 40-200 mm.
- $\pm 2\%$  accuracy.
- internal battery powered (approximately 3 year battery life).
- ideal for remote locations



### MRPU5 resetable flowmeter

- paddlewheel type; for water batching.
- LCD shows total Litres; closing lid resets count.
- in sizes 20-150 mm.
- $\pm 2.5\%$  accuracy.
- internal Lithium battery (5-10 year life).



### SIM flowmeter

- proportional type.
- running (non-resetable) mechanical total.
- ideal for untreated water containing particles e.g bore/river water.
- in sizes 65-150 mm.
- $\pm 5\%$  accuracy.
- power not required.



See more information on Irrigation Flowmeters at <http://www.manuelectronics.com.au/pdfs/Irrigation.pdf>

## Gold Coast Water - water study *(continued from page 1)*

At the Gold Coast, 150 Flowmeters and Dataloggers are being installed in Pimpama and Coomera households. The area was chosen because Pimpama Coomera is the growth area and the Pimpama Coomera Master Plan incorporates class A+ recycled water for toilet flushing and outdoor use, and a rainwater tank for laundry and drinking water.

Class A+ recycled water is wastewater that has been highly treated through two different treatment plants and multiple process steps to meet stringent environmental and health guidelines, resulting in the highest quality class of recycled water as defined by the Queensland Water Recycling Guidelines.

The Flowmeters and Loggers will be situated in the standard meter box, and data collection will be ongoing over the 4-year trial.

Data is being monitored weekly at the moment, but this will change to monthly. There will be reports every six months. The first six months will give an initial overview, but the program has been set for four years to allow definitive results.

**ManuFlo high output pulse flowmeters are ideal for use in precision water measurement applications including residential water usage studies, data logging and flowrate calculation.**



### **CT5-S (a TD8 meter with pulse output)**

- 20mm flowmeter.
- shows total M<sup>3</sup> (non-resettable).
- 72.5 pulses/Litre Reed Switch pulse o/p.
- Flowrange @ ±2% accuracy: 0.5 - 80 Litres/min.
- Rotary piston measurement principle.
- available with dual check valve.
- Gasket Seat ¾" BSP (male) couplings or Ball Seat ¾" BSP (female) couplings.

See more information on Water Flowmeters at <http://www.manuelectronics.com.au/pdfs/Watermeters.pdf>

## Automatic Meter Reading (AMR)

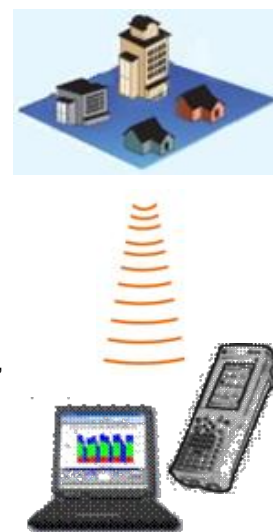
Automatic Meter Reading, or AMR, is the technology of automatically collecting data from metering devices (e.g. flowmeters), and transferring that data to a central database for analysis and/or billing.

ManuFlo will soon offer AMR solutions via Radio Frequency (RF) technology. There will be RF modules that can be retrofitting to existing flowmeters, and also flowmeters complete with in-built RF Communication modules, that will communicate with meter reading devices.

RF-based meter reading usually eliminates the need for the flowmeter reader to enter a property, or to locate the meter. The utility saves money by increased speed of reading, has lower liability from entering private property, and has less chance of missing reads because of inability to access meters.

AMR systems thereby help to better determine consumption over time, identify usage peaks, compare sites and (where water restrictions apply) correlate excessive consumption with offending installations.

The many flowmetering/totalising applications for this technology include water usage measurement, including sub-metering within a building, retail or industrial facility; water conservation projects; and remote irrigation sites.



## Nutrient Dispensing System

NORPRIM is a Queensland company with leading technology in dispensing nutrients into water lines for livestock, viticulture, horticulture and other applications.

According to a Northern Territory trial for livestock, a \$1 investment in a water medicator provides a \$9 return, with higher pregnancy rates, weight gains and fat scores.

ManuFlo manufacture the dosing controller for NORPRIM's Nutrient Dispensing System, which is available exclusively from NORPRIM:

Phone : +61 7 4623 1141, E-mail: [info@norprim.com.au](mailto:info@norprim.com.au), Web: [www.norprim.com.au](http://www.norprim.com.au)



<http://www.norprim.com.au/>



## Visit to China



ManuFlo's latest visit overseas was to China, visiting clients including our major Admixture customers Sika (Beijing), Grace (Shanghai), and BASF and W.R. Grace in Hong Kong.

These visits are an important opportunity for us to better understand our clients' operations and needs. We usually give basic training on equipment operation, answer any questions on operational issues, provide suggestions to solve application needs, and demonstrate new products for Admixture measurement applications covering Admix production, delivery, final usage and dispensing in Premix plants.



**ManuFlo** ®TM

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**Go with the Flo**



MESLCD5DP-F flowmeters  
(LCD Flowrate display)



ME995-7  
Batch Controller



ME5-T  
resetable Totaliser Indicator



SM500-F Field Mountable  
Videographic Recorder



Remote Tank Level  
Monitoring System

Flowmeters,  
Resetable Flowmeters,  
Batch Controllers,  
Flowrate/Total  
Indicators,  
Monitoring Systems,  
and more ...