

ME8020

Remote Tank Level Monitoring System

FEATURES

- Ultrasonic Tank Level Monitoring System
- automates inventory and supply of chemical stock levels on multiple sites.
- remotely verifies site tank levels and status, from an office PC location and in the field via mobile phones.
- CV6000 CellVisor unit monitors up to 10 storage tanks.
- Sends (using your SIM card) tank level information to UTLMS software on your server.
- UTLMS software displays tank level information graphically, and generates reports to assist with preparing Admix delivery schedules.
- immediate unsolicited reporting of alarms (e.g. low tank level), direct to selected personnel e.g. delivery driver, dispenser technician.
- 100-240vac powered. 1.8 A. Output: 24 VDC, 2.5 A.
- Housed in IP66 ABS enclosure with Stainless Steel lock hinges.
- Outer box: 200mm H x 200mm W x 130mm D. Aerial: 200mm long.



The ME8020 Remote Tank Level Monitoring System helps automate inventory and supply of chemical stock levels on multiple sites. The system remotely verifies site tank levels and status, from an office PC location and in the field via mobile phones. Associated software also generates reports to assist with preparing Admix delivery schedules.

The system is based on the new generation CellVisor CV6000 Next G unit, which is supplied in an enclosure, with power supply and antenna.

An ultrasonic tank level sensor is fitted to each monitored tank, and the sensors are daisy chain connected via RS485 cabling back to the site's tank level monitor (wiring is performed by the customer). The site to be monitored must have adequate Telstra Next G signal strength.

In your office, a mini server application resides on one PC. Any other PCs on your network can access the application, to be able to access tank level data for each monitored site.

<u>Order Code</u>	<u>Description</u>
ME8020	<ul style="list-style-type: none">• Ultrasonic Tank Level Monitoring System. Monitors up to 10 storage tanks.• CV6000 CellVisor unit, mounted in a lockable ABS enclosure. ac powered.
ULS-JB	<ul style="list-style-type: none">• Junction connector box (1 per tank) for daisy chaining sensors.
	<u>Ultrasonic level Sensor</u>
CX-ULS-5	<ul style="list-style-type: none">• Ultrasonic level sensor probe, 1-5 metre range, RS485 output (1 per tank). With 2 metres cable.
CX-ULS-8	<ul style="list-style-type: none">• Ultrasonic level sensor probe, 1-8 metre range, RS485 output (1 per tank). With 2 metres cable.
	<u>Sensor options</u>
-MA	With dual mA current output as well as RS485 output.
ULS-C	Extra signal cable length (per metre).
	<u>Sensor fitting tools</u>
DT47	Drilling tool (47mm). Metal cutter hole saw.
TT48	Tapping tool (48mm)
C	Commissioning UTLMS software on your server (in conjunction with your IT department). Sydney metro only.

ManuFlo®™

Flow Measurement Products

Web: www.manuelectronics.com.au

ABN: 47-002-946-303

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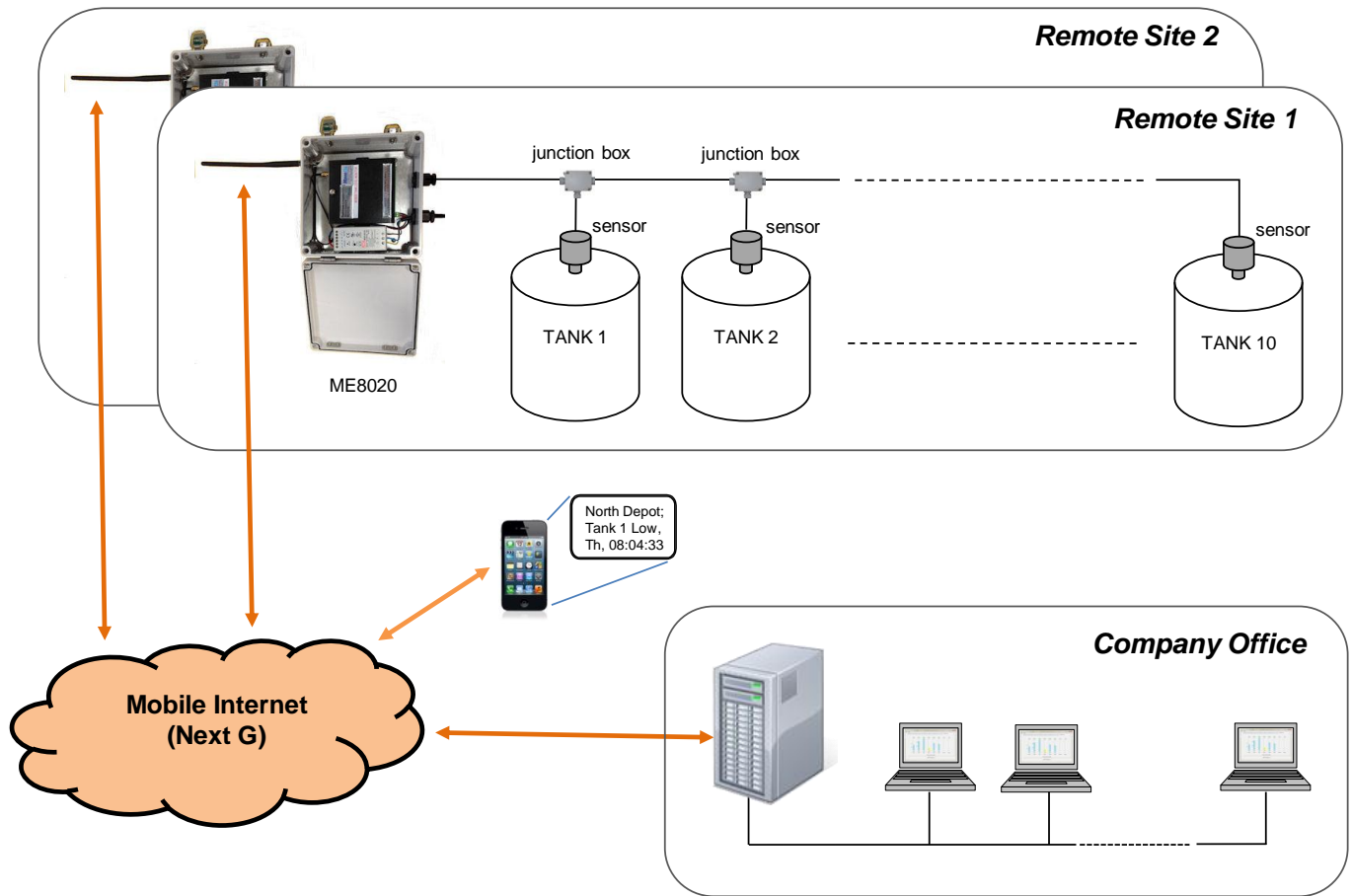
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ME8020

ME8020 units at remote sites:

- are connected to easily mounted ultrasonic sensors to monitor and store information on each tank level, and to issue alarms if necessary.
- have a mobile modem (you supply your own SIM card) and antenna and do not require a wired telephone connection.
- use SMS text messaging to issue alarms to nominated recipients.
- have on-board non-volatile memory. Tank levels are recorded at (user defined) regular intervals.

Ultrasonic sensors

The ultrasonic sensors are daisy chain wired via junction boxes to an RS485 cable. A single, 4-core multi-drop cable connects data and power to all sensors for ease of installation. Up to 10 level sensors may share a common cable. Sensors are available with ranges of 5 metres or 8 metres.

Software

In the office, a mini server application is supplied to reside on one PC. (The software has a very small system load. Any standard current PC spec is adequate).

Any other PCs on your network can be assigned to access the application to examine tank levels.

Tank Level data is automatically transmitted from each site to the server on a user-settable periodic basis e.g. every 2 hours (or immediate, in the case of an alarm). After an alarm occurs, data is sent automatically each time the tank level changes by a user-settable percentage.

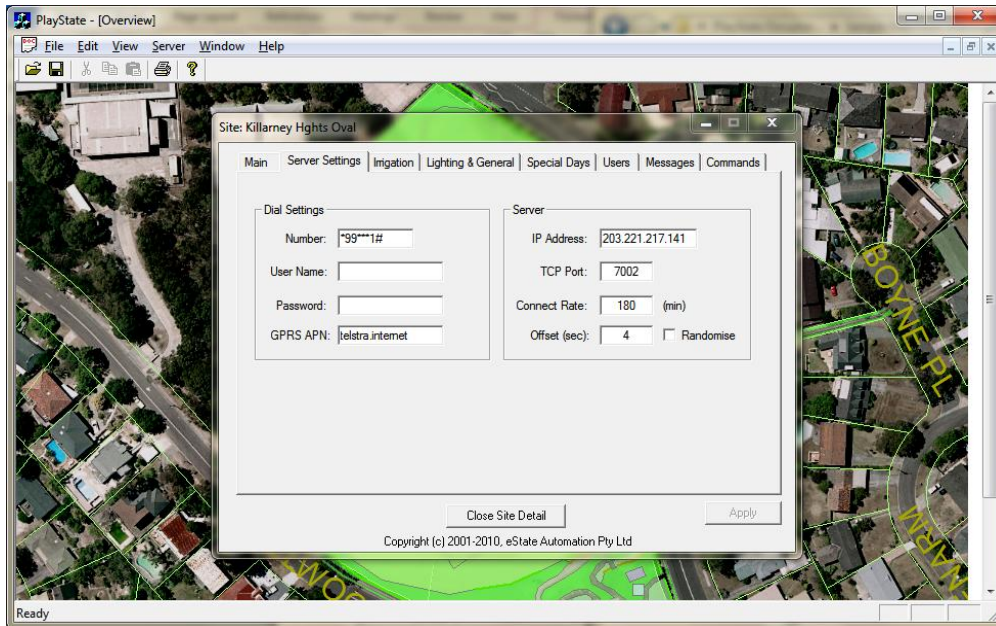
Typical Overview Screen

- One button per site.
- colours show site alarms and any communication faults.



Detail Page (Per site)

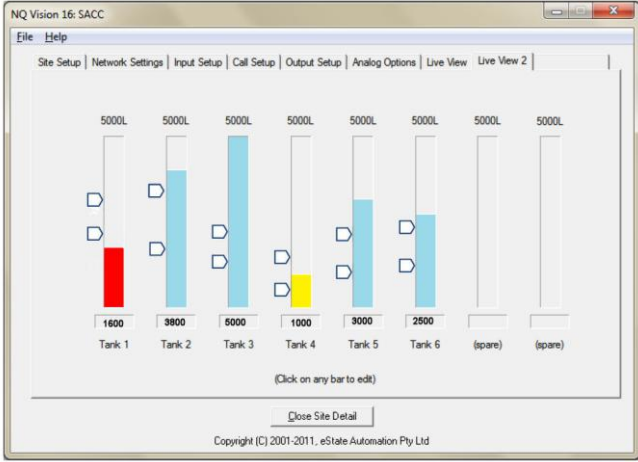
- Pressing on any site button on the overview screen displays the site detail.
- An image of the site is loaded in the background. This could be, for example, a location detail map of the specific site.



Tank Levels (per system)

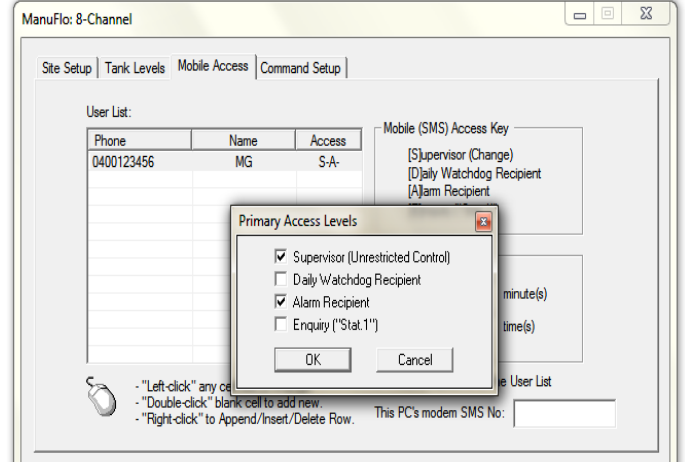
For each Remote Tank Level Monitoring System at each site, tank levels and alarm setpoints can be graphically displayed and supervisors can change setpoints.

Each tank has two setpoints: a warning level (will need refill soon) and an alarm for low level (must refill).



SMS Alarms

can be configured so that specific mobiles receive tank alarms.



Software Reports

The software also generates reports to assist with preparing Admix delivery schedules.

A complete report shows level, alarm status and last delivery information for each tank at each site e.g.

		Report Date: Fri 20/07/13, 3:15 PM														
Site name	Site IMEI	Suburb	city	state	region	Site Id	Tank #	Name	Capacity (L)	Level (L)	Low SP (L)	xLow SP (L)	Last delivery	has low alarm	has xlow alarm	Comms
Site1	nnnnnnnnnnnnnnnnnn	Ryde	Sydney	NSW	Metro	MET086	1	Admix a	1000	350	400	300	17/07/2012 04:10 pm	yes		
Site1	nnnnnnnnnnnnnnnnnn	Ryde	Sydney	NSW	Metro	MET086	2	Admix b	300	25	100	50	03/07/2012 09:25 am		yes	
Site1	nnnnnnnnnnnnnnnnnn	Ryde	Sydney	NSW	Metro	MET086	3	Admix c	500	430?	300	200	16/07/2012 11:15 am			

A site usage report provides a log of tank levels for each tank at a specific site:

Site: BBBB.BB12345, Ryde, Sydney, NSW, Metro

Date	Time	1:Admix-1	2:Admix-2	3:Admix-3	4:Admix-4	5:not used	6:not used	7:not used	8:not used	9:not used	10:not used	11:not used	12: not used
2013-01-20	10:00:00	10000	10000	5000	5000								
2013-01-20	10:05:00	9974	9970	4975	4993								
2013-01-20	10:10:00	9955	9939	4972	4989								
2013-01-20	10:15:00	9898	9939	4966	4987								
2013-01-20	10:20:00	9867	9900	4965	4982								
2013-01-20	10:25:00	9857	9887	4964	4980								
2013-01-20	10:30:00	9848	9840	4953	4977								
2013-01-20	10:35:00	9794	9813	4924	4973								
2013-01-20	12:10:00	9376	9368	4705	4887								
2013-01-20	12:15:00	9376	9340	4692	4887								
2013-01-20	12:20:00	9369	9297	4685	4887								
2013-01-20	12:25:00	9363	9257	4665	4886								
2013-01-20	12:30:00	9333	9218	4654	4882								
2013-01-20	12:35:00	9282	9176	4638	4879								
2013-01-20	12:40:00	9228	9159	4627	4874								
2013-01-20	12:45:00	9204	9134	4601	4874								
2013-01-20	12:50:00	9201	9115	4595	4867								
2013-01-20	12:55:00	9162	9100	4565	4860								
2013-01-20	13:00:00	9118	9051	4545	4852								
2013-01-20	13:05:00	9089	9020	4529	4845								
2013-01-20	13:10:00	9034	8986	4526	9176								
2013-01-20	13:15:00	9025	8940	4521	9159								
2013-01-20	13:20:00	9011	8910	4518	9134								
2013-01-20	13:25:00	8979	8871	4506	9115								

← refills are shown in bold

Site Usage Report

From: 06 Jan 2013 to 05 Feb 2013

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Due to continuous product improvement, specifications and design may change without notice.



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