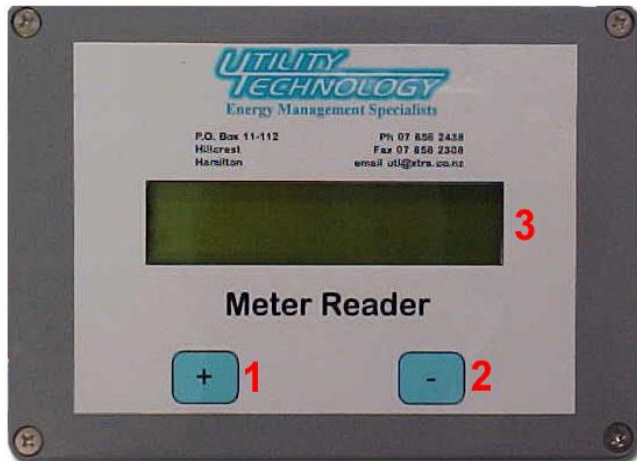


Meter Reader Display MR3

The MR3 is the on site user interface for the UTL data logging AMR system that includes 16 and 32 input dataloggers.

It displays the real time reading of the remote meters and can be used as the interface to visually access the readings on site, connect a laptop and download the readings through the USB port, or the transmit the readings to a remote server via Ethernet or 3/4/5G cellular.

The RS485 communication protocol used by the UTL system allows the display reader to be positioned away from the data loggers so the meter reading personel are kept safe



Panel number (data logger address) / Data logger input number

Meter Reading

↓ ↓
001/01
APT0101

↖ ↗
0000167
SAMPLE08

↖
Unit/apartment number

↖
Meter serial number

During normal operation the displayed meter reading will match the reading on the dial of the water meter.

The UTL meter reader display MR3 is a simple to use push button display for council or building Manager meter reading staff to extract the data from the UTL dataloggers within the building complex

The meter readings can be obtained manually scrolling through the display and recording the displayed value on to a hardcopy sheet or to a tablet.

The readings can also be obtained by plugging into the USB port on the front of the display

16 Channel Logger (MR5)

Key Features:

- 16 Inputs for any meter with a pulsed output (Chilled Water, Potable Water, Hot Water, Gas, Electricity)
- 12vDC Power Supply from network
- Internal 3.3v battery to hold stored data & clock (life expectancy 10yrs – only battery would need replaced)
- USB Port for reading and setup
- Addressing Switch 0 to 127 (allows 2048 meters for the network)
- RS485 connection for connecting to the local network
- Logger stores half hour data
- Provision for radio communication to more loggers
- Push input terminals for ease of connection
- Power, tamper alarm and RS485 connectors are removable for ease of connection

MR5



Dimensions: L: 160mm H: 160mm D: 60mm

Data Storage

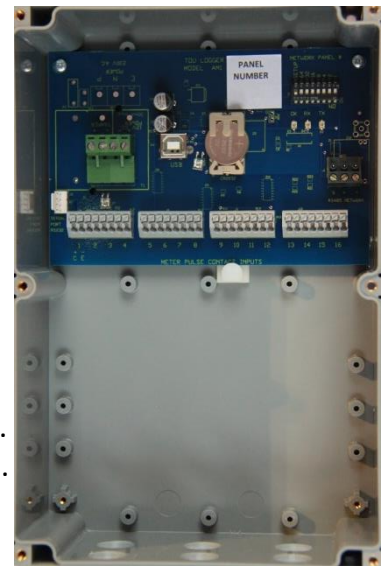
Data is stored in two ways, the first is as a total pulse collection that is retrieved from the logger as a date and time stamped text file. The text or CSV file is generally used for monthly 'Total' usage invoicing at a fixed rate.

The data is also stored in a compressed format and stores around 3 months of 1/2 hour ToU data, usually used in electricity invoicing for ToU where different time period charges are applied to the usage during that period, or the data can be charted or displayed in various formats for load profile analysis.

Data Retrieval

The data can be extracted from the logger using UTL Netread software. The data is formatted as 'Meter Reading Totals' or 'Time Of Use (TOU)'. The 'Total' reading matches the dials of the meter, in real time.

MR5a



Dimensions: L: 160mm H: 240mm D: 90mm

Application

16 Input Loggers are best suited to buildings that have 16 units or less in the complex or on one level.

A reader display can be sited away from the loggers on the same network to allow meter readers to obtain readings from the street with to stay at street level to meters on one floor. Or in a new building where it is economic to cable

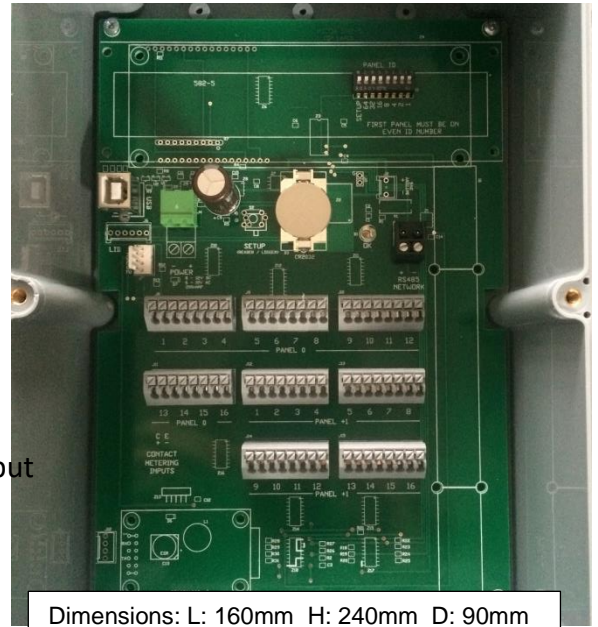
The MR5a enclosure size is larger to accommodate cable terminations.

32 Channel Logger (MR11)

The Utility Technology Ltd 32 Channel Data Logger is in fact two 16 Channel Data Loggers that have a common clock.

Key Features:

- Cost Saving
- 32 Inputs for any meter with a pulsed output (pottable water, Chilled Water, Hot Water, Gas ,
-
- Internal 3.3v battery to hold stored data & clock (life expectancy 10yrs – only battery would need replaced)
- USB Port for reading and setup
- Allows over 2000 meters to be connected to a single network
- Test switch to programme or remove from the Communication bus.
- RS485 connection for connecting to the local network
- Logger stores around 3 months of half hour data per input
- Provision for radio communication to more loggers
- Push input terminals for ease of connection
- Power, tamper alarm and RS485 connectors are removable for ease of connection



Reading Data

The data can be extracted from the logger using UTL Prority software 'Netread'. The data is formatted as meter reading 'Totals' or 'Time Of Use (TOU)'. The 'Total' reading matches the dials of the meter, in real time.

Data

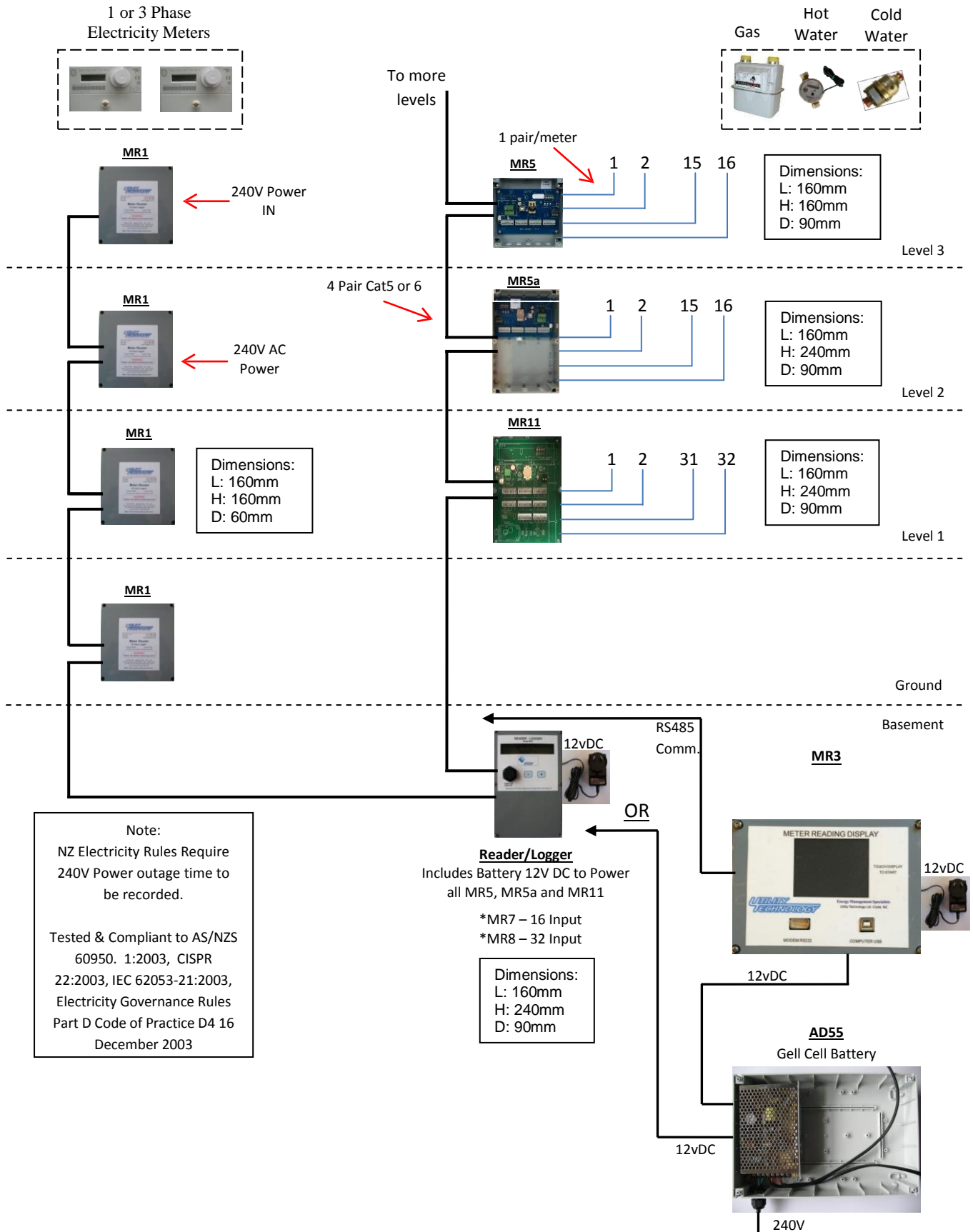
It is important that the logger's clock is set to the correct time as the logger stores half hour data for each of the 32 channels. This allows time of use billing or data analysis.

Application

32 Input Loggers are best suited to buildings that have more than 16 meters on one floor. Or in a new building where it is economic to cable from meters on a floor above or below the logger.

UTL AMR System for Sub Metered Applications - Cabled

Generic high rise applications - concept layout



**For Buildings with say 20+ loggers