



## Automatic Meter Reading

### Worldwide coverage

Leveraging off the wide spread deployment of modern Cellular Mobile Telephone Networks, and low cost mobile cell phone components CYPLEX has developed a scalable AMR solution with unmatched performance, convenience and reliability.

### Seamless integration...

between gas, water and electricity meter reading and general monitoring applications. CYPLEX Networked Telemetry solution for AMR delivers instant billing data and site status information to a user's cell phone and to a utility's host computer almost anywhere in the world.

### Fits to existing meters

Designed with an integrated 3 phase power supply with 10kV surge protection, Packetiser connects directly to the power meter supply terminals and mounts on the front of the meter's terminal cover making it ideal for retrofitting.

### 2-way communications

The Packetiser meter interface unit provides reliable two-way communications using the now familiar packet data technology – SMS and GPRS – provided by cellular networks.

### Program remotely

Packetiser is easily installed by non-technical personnel and then configured and managed from a utility's IT centre or an authorised engineer's laptop.

### Low operating costs

Using proven data compression techniques developed by CYPLEX data transmission and air-time charges are reduced by 95% making Packetiser the most cost effective AMR device in the world.

### Reliable in the toughest of environments

Packetiser for electricity works reliably in very low signal reception areas such as basements and within metal control panels without the need for an external antenna.



#### CYPLEX Communications

sales@cyplex.com.au  
www.cyplex.com.au  
Tel +61 2 9482 4269  
Fax +61 2 9482 4222

#### CORPORATE OFFICES

**SYDNEY - AUSTRALIA**  
38 Leighton Place  
HORNSBY | NSW | 2077

**SELANGOR - MALAYSIA**  
Suite W3/69, Wisma Widuri  
JALAN KOSAS UTAMA,  
68000 AMPANG  
SELANGOR D.E

● Electricity

● Gas

● Water

## Key Features

- On-line 24 hours per day
- Reprogrammable over the network
- 100% non-volatile memory storage for over 65 days of quarter hourly logged data
- Additional analogue / digital inputs and outputs for value added services
- Automatic time synchronisation to better than five seconds of real time
- Password protection to four levels of security
- Integrated tamper detection
- Data compression of up to 95% to minimise communication packets transmitted
- Automatic resetting of locked modems
- User-programmable alarm description text for SMS status messages
- User-programmable alarm recipient list of GSM phone numbers
- User-programmable alarm acknowledgment routines
- No need to replace back-up batteries (memory / real time clock)
- Automatic detection of a faulty input pulse stream – “broken wire”
- Mounts directly on to the meter terminal cover
- Integrated 3 phase power supply - Works on any or all phases
- Compact size and internal antenna for reduced installation time and cost
- Supports GSM SMS / GPRS, CDMA and Globalstar LEO networks
- Additional I/O and serial ports are available for other applications
- Used for telemetry applications to monitor distribution network and assets
- Interfaces to any billing system
- Very high surge protection 10KV 1.2 Microseconds
- Load Control - Comprehensive Logic Functions
- Calender/ Holiday Logic Functions inbuilt
- Network Tracking
- Retrofit Design with Zero Footprint

## Specifications

### Inputs - Digital

**2 x Digital Inputs** - event, watchdog or pulse logging function - user configurable

**1 x Digital Input** - event, watchdog function - user configurable

- Fully isolated to 5.3kV, max volts 32 Vdc.
- Turn on voltage 2.9volts @ 0.66ma @25°C. Turn on time 3.0us
- Turn off voltage 2.5volt. Turn off time = 2.3us
- Can use NPN, PNP or voltage free contact.
- Internal +5Vdc supply is provided to drive the digital inputs.

### Inputs - Analog

**2 x Analog Inputs** - user configurable as logging inputs and with four setpoint alarms

**1 x Analog Input** - user configurable with four setpoint alarms

- 0-4 VDC 0.1% Acc 4000 Graduations
- Compatible with 4-20mA, 1-5V and 0-10V sensors
- Convertible to Digital Inputs

### Inputs - Internal

**1 x Tamper alarm**

**1 x Back up battery voltage** - user configurable setpoint alarm

**1 x AC Supply Failure**

### Outputs

**2 x Digital outputs** - for load control or other user applications.

- Non-isolated,
- Max voltage 60vdc
- Max continuous drain current 500ma
- Max power dissipation 300mW
- Surge current 800ma

Optional 30 Amp disconnect mono-stable relay available for load control of hot water systems.

### Power Supply

Integrated AC Power Supply

Packetisers designed for AC mains three phase power supply are fitted with flying power leads pre-soldered to the PCB

The Packetiser will work even if two out of the three phases have failed and the remaining phase has "browned out" to a low voltage of not less than 90 VAC

Special surge protection to 10kV for 1.2 microseconds

Connect any phase (1, 2 or 3) to a voltage of 90 - 280 VAC with respect to the Neutral



## Serial Interface

1 X RS232 port used for local programming and connection to "smart" meters or other intelligent devices such as home automation and security systems.

## Antenna

Internally integrated - standard (no fitting required)

External covert antenna, 2 metre lead - optional

External high gain antenna, 2 metre lead - optional

## Mechanical

Enclosure dependent on application but generally IP56 or optional IP 68 rating

140 x 110 x 35 mm ready for mounting onto meter terminal cover

## Installation

Packetisers can be supplied mounted onto popular power meter terminal covers with flying leads ready for direct connection to the AC power and pulse output terminals of the meter. On powering up, the unit will automatically register with the Cyplex Gateway host located at the Utility's office and synchronise to real time.

The installer can perform all testing and synchronise the Packetiser's internal count register with that of the meter's by sending preprogrammed SMS messages from their mobile phone.

## Network Compatability

- GSM SMS Cellular
- GSM GPRS Cellular
- CDMA Cellular
- GlobalStar LEOS (Low Earth Orbit Satellite)