

Residential

Cashpower Customer Interface Unit

Pilot Wire Communications

Technical Specification



The Customer Interface Unit is a compact unit with user-friendly display and keypad that can be installed in any convenient location inside the consumer's premises. The unit is used with Landis+Gyr's [pilot wire] split prepayment meters and communicates with the meters by means of a pair of communications wires. The customer interface unit is mounted in the house while the split prepayment meter is typically installed outside the household in a pole top or street kiosk. The method of installation helps to prevent fraud and tampering and enhances the utility's revenue protection capability.

Version: 0.0

Date: 15th June 2012

Issued by Product Management: Dave Tarr

Overview

The Customer Interface Unit is a compact unit with user-friendly display and keypad that can be installed in any convenient location inside the consumer's premises. The unit is used with Landis+Gyr's [pilot wire] split prepayment meter range and communicates with the meters by means of a pair of communications wires. The customer interface unit is mounted in the house while the split prepayment meter is typically installed outside the household in a pole top or street kiosk. The method of installation helps to prevent fraud and tampering and enhances the utility's revenue protection capability.

Features

- Small compact design
- Quick and easy to install
- Large LCD with language independent icons
- Provides valuable information to help consumers effectively manage their electricity consumption
- Galvanically isolated communication link to customer interface unit for consumer safety
- Plug-in communications connector to the meter for easier utility access and maintenance
- Alert indication LED to provide consumer with visual warning of low credit levels
- Audible indication to warn consumer of low credit levels – can be silenced with key press

Functionality

The Cashpower split prepayment meter consists of two parts: the Customer Interface Unit and the meter.

The Customer Interface Unit is a compact unit with user-friendly display and keypad that can be installed in any convenient location inside the consumer's premises. Connection to the meter is via a pair of communications wires. The connection of these wires at the meter is achieved by means of a plug-in connector, facilitating easy installation and maintenance.

The meter contains all critical metering, number decryption and load control functionality. It operates independently of the customer interface unit and is immune to any form of tampering on the customer interface.

The meter is usually installed in a secure, locked enclosure - typically a pavement kiosk or pole-mounted equivalent. It is outside the consumer's premises to facilitate easy inspection by the utility at any time, thus reducing the possibility of tampering.

User-friendly Customer Interface

User interaction with the meter and access to meter information e.g. rate of energy consumption, low credit warning and load switch status is available using the customer Interface's keypad and large LCD. The customer Interface Unit makes use of clear, language-independent icons.

The user interface is further enhanced by the use of audible tones. These are sounded under different conditions e.g. Low Credit Alarm and Token Accept.

Installation Features

The Customer Interface Unit has a detachable rear closure for ease of installation and once the rear closure is fixed to the wall and the communications cables have been securely connected, the Customer Interface Unit can simply be clipped into place.

The communication wires for the customer interface are non-polarised and safety-isolated. This simplifies the installation process and also ensures safety within the consumer's premises.

The communication wires can be included as separate cores in a concentric reticulation cable and provide a very robust communications interface between the meter and the customer interface over a distance of at least 130 metres.

Cashpower Power-Rail Customer Interface Unit

Electrical

Type

Isolated, non-polarised, 2-wire, half-duplex, 12Vdc from meter

Operating Range (Communication)

Up to 130 metres, with a maximum total loop resistance of 40Ω

Operating Environment

Operating Temperature Range

-10°C (+14°F) to +55°C (+131°F)

Storage Temperature Range

-25°C (+12°F) to +70°C (+158°F)

Relative Humidity (IEC 6 1036)

Maximum ≤ 95%; Annual mean 75%

Enclosure

Type

Slim line, wall mounted

Rating

IP 51

Material

ABS

Dimensions

77.5mm(H) x 132mm(W) x 29mm(D)

Weight

Approximately 100 g

Terminals

Type

Two-way screw terminal

Maximum cable size

2.5mm²

Sealing

Enclosure

Factory sealed, no user serviceable parts

Man-Machine Interface

Type

Language-independent

Components

Pictographic/Numeric LCD display, keypad, LED rate of consumption indicator, audio feedback

Liquid Crystal Display (LCD)

Size

9cm² (45mm (W) x 20mm (H)),
8 digits + 11 icons
Digit size: 9.3 mm

Icon information

Happy face, Sad face, Alert, Breaker status, Info, kWh, 4-segment credit wedge

Numeric information

Display of various meter information such as credit levels, number entry, etc.

Keypad

12-key, international standard layout including "Information" and "Backspace" keys

Buzzer

Audio feedback on key press, encrypted number Accept and Reject melodies, Low-credit alarms as a factory-programmable option

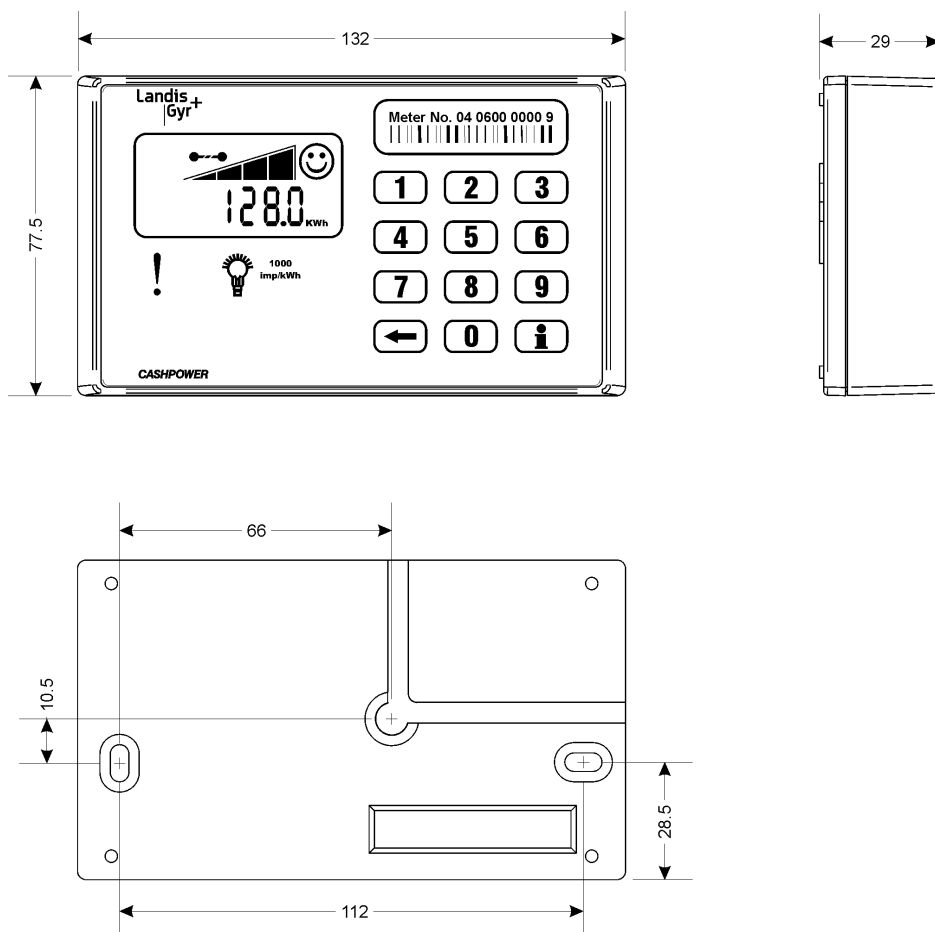
Light Emitting Diode (LED)

Rate of consumption indicator (pulse rate proportional to current rate of consumption)

Diagnostic Information

Additional meter parameters accessible via the "Information" key

Cashpower Customer Interface Unit: Dimensions



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