Cashpower Prepayment Metering

**Gem Lite**
A single phase, 80 Amp, STS keypad prepayment meter in a compact British Standard (BS) housing suitable for new installation as well as retrofitting of existing electromechanical or electronic watt-hours meters. For new installations the meter can be installed inside the home making it accessible for the consumer to enter in a credit token. The meter boasts an easy to read language-independent Liquid Crystal Display (LCD). It has a wide range of information registers which can be accessed by pressing the information button on the keypad and then entering the number of the register.

**Gemini PLC**
An 80 Amp split prepayment meter that uses Power Line Carrier (PLC) technology. It is ideal for replacing conventional meters in existing apartment blocks and established dwellings, where installing a dedicated communications cable is not practical. The use of standard household wiring for communication between the meter and customer interface unit makes this an extremely attractive and cost-effective technology. The customer interface unit plugs into the standard electrical outlet in the house and once commissioned, automatically communicates with the meter outside. Using a PLC remote access terminal, the meter (as with all Cashpower PLC prepayment meters) can be accessed remotely, thereby combining reliable STS keypad technology with two-way communications for improved revenue protection. The Gemini PLC meter can also switch to credit metering mode.

**Gemini HMI**
A single phase, stand-alone or split prepayment meter in a BS housing. When used in the stand-alone configuration, the meter is typically installed inside the household, but can easily be converted into a split meter by simply connecting the customer interface unit, moving the meter outside the household and installing it in a secure locked enclosure. The Gemini HMI is easy to install and ideal for new reticulation as well as retrofitting of credit meters. It supports prepayment, credit metering and energy limiting mode and has tamper detection features, including Significant Reverse Energy (SRE) detection.

**Power-Rail (pilot wire)**
A single phase 60 Amp (80 Amp optional) split meter in a DIN rail-mount housing. Ideal for new reticulation where housing is informal with meters mounted in pole-top enclosures with respective customer interface units conveniently mounted in the dwellings below. The small size and DIN rail housing enables multiple Power-Rail meters to be mounted in a small enclosure making installation cost-effective. The meter has a convenient plug-in communications connector for easier utility access and maintenance. The customer interface unit has a galvanically isolated communication link to the meter - a feature vital for consumer safety. Power-Rail supports prepayment and credit modes. The Power-Rail shroud provides a terminal sealing with a tamper detection capability for the Power-Rail prepayment meter family. A special variant of the Power-Rail shroud also provides compliance with Eskom’s DSP34-1635 communications interface requirements.

**Power-Rail PLC**
A single phase 80 Amp split prepayment meter in a DIN rail-mount housing, using PLC communication between the meter and customer interface unit. The standard PLC customer interface unit is utilised which is common to the Cashpower Gemini PLC and Three Phase PLC meters. The Power-Rail PLC meter is typically installed in a pole-top enclosure or secure street kiosk and the small size of the product means that a smaller street kiosk can be used. With PLC technology, the installation is cost-effective with no need to install dedicated communications wires. The meter can be accessed remotely using Landis+Gyr’s remote access terminal. It can also operate in credit metering mode. The Power-Rail PLC may also be fitted with the shroud for improved sealing and revenue protection.

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Common Base Split Metering Solution
An innovative solution that enables the cost-effective conversion of existing Common Base (non-split) installations into split meter installations, without removing the existing passive base and “ready board” assembly in the household. Utilities have the choice of a PLC or wired customer interface unit. The Common Base (wired) customer interface unit which requires dedicated communication wires to communicate with the meter, is used in conjunction with an existing Cashpower wired split meter and provides an interface for the consumer. The Common Base PLC customer interface unit used in conjunction with a special variant Cashpower PLC meter, simply plugs into the passive base inside the home replacing the existing common base electricity dispenser. The PLC meter is installed outside the home and communicates with the customer interface unit via PLC communications, without the need for any additional communications wires or batteries.

Topacio
Topacio was specially developed for utilities requiring a split prepayment solution in a 100 Amp single phase, two or three wire electrical configuration. Fitted with a keypad and LCD, it provides the option of non-split or split metering. Topacio is easy to install and ideal for new installations or retrofitting of existing electromechanical or electronic watt-hour meters. It operates in prepayment, credit or energy limiting modes.

Sabre and ECU Common Base
The common base prepayment meter family comprises the Sabre and ECU single phase common base meters. Using the standard common base, the meters are directly and easily interchangeable with meters from other manufacturers. The Sabre’s optional tamper facility enables the meter to detect when it is being drawn out of the base. The ECU has an integrated electronic earth leakage and 20 Amp circuit breaker with overload protection. It is suited to new reticulation for low cost housing with overall installation costs being significantly less. The ECU’s circuit breaker which breaks both live and neutral poles, trips if the specified load is exceeded and protects the house against over-current and short-circuit current.

Three Phase (pilot wire)
A three phase, four wire 100 Amp per phase, split meter in a BS housing. Suitable for residential and commercial environments, the meter has a host of standard Cashpower software features, including the ability to operate in credit metering mode. The meter can be used as a stand-alone meter or converted into a split prepayment meter by simply fitting the customer interface unit with a dedicated two-core communications wire. The meter features a dedicated diagnostics indicator which shows the status of communications to the remote customer interface unit.

Three Phase PLC
A three phase, four wire 100 Amp per phase split PLC prepayment meter in a compact BS housing. The meter has a display and communicates with the customer interface unit by means of PLC technology. It is suitable for residential and commercial environments where PLC communications is most appreciated due to ease of installation and not having to install dedicated communications wires for the split prepayment functionality. Standard Cashpower software features apply, including credit metering mode.

Remote Access Solution
Comprising a three phase PLC Remote Access Terminal supported by Landis+Gyr’s SupTalk communications controller, this solution enables remote monitoring, fraud detection and two-way communications with the PLC2 split meter range. The terminal has a modular and replaceable communications facility, catering for both GPRS and Ethernet communications modules, thereby providing flexibility and ease of use for the utility. It monitors the PLC communications messages between the prepayment meters and their customer interface units, storing this meter data for communication back to the system controller at the utility back-office. There are substantial benefits to the utility, such as meter tamper and fraud detection, two-way communications and the ability to audit meters remotely, thereby reducing the operation costs and enhancing the utility’s revenue protection capability.