Itron Centian

Revolutionary currency based prepayment meter

The Itron Centian meter is the latest edition to Itron's prepayment family. Using Near Field Communications (NFC) and the option to use currency instead of kWh, Itron Centian is the choice for two way debt and payment management.

OVERVIEW

The Itron Centian series comes in either single phase or three phase with integrated prepayment and optional keypad and Near Field Communication (NFC) facilities. The defining feature of this meter is its ability to measure and display energy in a commodity that is widely understood, - cash. It offers the following benefits:

» Keypad, NFC, or combined keypad and NFC transfer options

» Two way communications using pedestrian telemetry (sneaker net)

» Credit transfer in either kilowatt hours or currency

» Storage of 18 sets of meter readings

» Magnetic and cover opening detection for fraud prevention

» Up to 3 time of use (ToU) rates

  • Up to 6 switching times per day

  • Switching times resolve to 30 minutes

» Emergency credit option

» Social non-disconnect option

» Standing charge collection

» Debt collection

CURRENCY TRANSFER

Currency is a format which has universal understanding and enables consumers to fully engage with their energy consumption and make concerted efforts in order to reduce spend and help conserve resources.

The Standard Transfer Specification (STS) as detailed in the IEC 62055 suite of documents allows for the transfer of currency and the Itron Centian is the first meter to facilitate this. The 20 digit STS code will now include the following:

» Amount of credit in local currency (whole units only)

» Currency scaling

» Exponent and mantissa for determining how currency will be managed by the meter.

» This allows the meter to operate in meter units, thus being able to manage widely separated currency ranges i.e. $1 = £1 but $1= 10,000 Indonesian Rupiah

EMERGENCY CREDIT AND SOCIAL NON-DISCONNECT

Emergency credit (EMC) removes the need to vend at inconvenient times and the amount granted to the consumer is configurable by the utility.

Social non disconnect is used to ensure that consumers are not disconnected during the night or over holiday periods with the utility being able to specify day, week, and season profiles.

NFC AND / OR KEYPAD OPTIONS

The meter is truly flexible allowing for either NFC technology or a key pad to be used depending on the utility and the consumer's preference. NFC removes the need to enter a 20 digit code, simplifying operations for consumers. In situations where NFC isn't available at the vending point, the keypad can be used for manual token entry. Both transfer methods offer secure and reliable vending services and the NFC option allows for two way communications from the meter to the utility. This enables the utility to keep track of consumer's spend and help balance supply and demand of energy whilst also providing feedback to the consumer about vending channels and other services.

REMOTE CONFIGURATION

Using the two way communication gives the utility the option to remotely configure the meter and amend certain criteria such as debt repayment, tariffs, and amount of emergency credit. This reduces the pressure on the utility to have agents in the field and also provides added security to consumers as there is no need for engineers to enter the property.

knowledge to **shape your future**

Technical Specifications	Single phase	Three phase
Rated Voltage	120V - 230V	3 x 220V - 480V
Frequency	50-60Hz (+/-10%)	
Basic and max current	5 -100A	5 - 100A per phase
Connection type three phase	DIN direct connection	
Connection type single phase	DIN or BS connection	
Wiring type three phase	Three phase three wire or three phase four wire	
Accuracy class	Class 1 - i.a.w. EN 50470-3	
International Standards	IEC 62055-31, IEC 62052-21, EMC Directive 2004/108/EC, MID Directive 2004/22/EC	
IP rating	IP54	
Power consumption	TBA	<2W, 4VA @ 230VAC
Operating temperature range	-40°C to +70°C	
Contactor type	Single contactor	3 gang normally closed
Contactor current (max)	100A (rated at 120A)	
Serial data communications	Baud rate (default) - 300 Baud rate (maximum) - 9600	
Infrared communications	i.a.w. IEC 62056-21	
Near field communications	Short range wireless - contactless	
Push buttons	2 (A & B)	
Keypad	12 unique keys (3 x 4 matrix)	
Buzzer	Audible tones on key press confirmation, alarm and error conditions	
Display type	Liquid crystal with optional backlight	
Viewable display area	68.5 x 22.5 mm	
Number of digits	8	
Number of indicator icons	19	
Backlight duration if no push button activity	1 - 15 minutes	
Standard token transfer specifications (STS)	IEC 62055-41 IEC 62055-51 / IEC 62055-52	
Currency transfer specification	STS202-1 document	
Back-up battery	Lithium cell	
Tariff options	Single and multi-rate block and TOU	
Battery back-up life	Minimum 10 years assuming 12 power outages per year each lasting 20 mins	

Dimensions

Single Phase
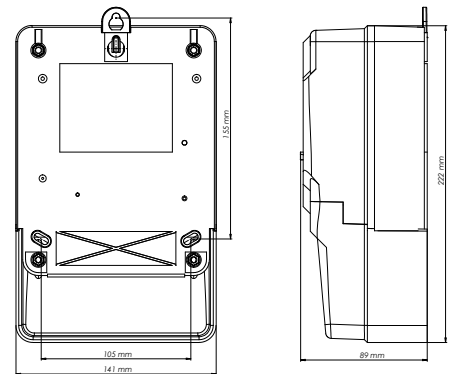
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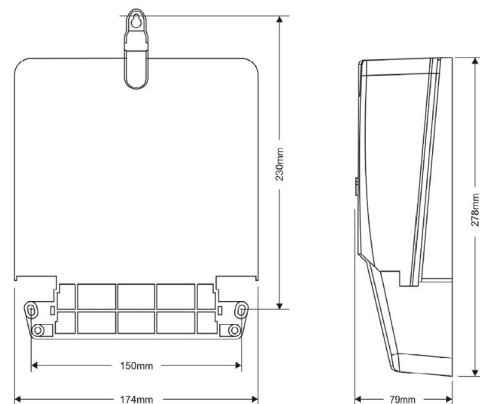
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