Hexing Prepaid Keypad Meter

Equipped with proven keypad technology, Hexing Prepaid Keypad Meter contains all critical metering, token decryption, relay disconnection and reverse energy detection functionality. Together with the modern look and feel, it can be used in a wide range of application for all consumer types.

<table>
<thead>
<tr>
<th>MCU</th>
<th>UIU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating independently of the UIU, it contains all critical metering, token decryption and load control functionality.</td>
<td>It is installed in the consumer’s home and is connected to the MCU thru M-BUS communication.</td>
</tr>
<tr>
<td>It is outside the consumer’s home to facilitate easy inspection by the utility at any time and to reduce the opportunity of fraud by tampering. The MCU can be installed in a secure, locked enclosure to prevent unauthentic access. The MCU is with DIN rail installation, which is easier to be installed</td>
<td>It is a compact unit with a user-friendly keypad and LCD display management function.</td>
</tr>
</tbody>
</table>

**Standards**
- IEC62053-21
- IEC62053-31

**Protocol**
- IEC62056-21
- IEC62055-41
Easy and Secure Data Transfer

Data transfer from a Point of Sale is made via a numeric token, which is generated using the Standard Transfer Specification (STS) encryption techniques and protocol. The token is entered into the meter via the keypad.

The transaction includes:
1. Transfer of credit to meter
2. Transfer of management Token to meter

Low-credit Alarming

Thru software, 3 levels of low credit thresholds can be defined and the meter can give visible (LED indicator) or audible (buzzer) alarming when the credit threshold is reached.

Emergency Credit

Emergency credit is available to the great benefit of customer.

Meter can be easily re-connected to mains supply by keying in specified code via keypad.

Power Control Management

Built-in Relay will be disconnected automatically when:
1. The credit is exhausted.
2. Overload occurs (the threshold is configurable)
3. The meter is disconnected under STS test mode
4. Power failure

Communication

As a standard feature, the meter offers an IEC 62056-21 compliant optical communications port. This allows the utility to access a variety of information stored inside the meter and to upload it to a hand-held unit.

The communication between UIU and MCU is thru M-BUS. The maximum communication distance between MCU and UIU is 150 meters.

Credit/Prepayment mode

Easy switch between Credit mode and Prepayment mode, it can be operated though token generated by system, another option is using PC software to switch the metering mode.
# Single phase split keypad meter: TYPE HXE12

## Technical specification

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meter description</strong></td>
<td>Single phase split keypad prepayment meter</td>
</tr>
<tr>
<td><strong>Standards Comply</strong></td>
<td>IEC62053-21, IEC62053-31</td>
</tr>
<tr>
<td><strong>Rated voltage</strong></td>
<td>230V</td>
</tr>
<tr>
<td><strong>Rated Frequency</strong></td>
<td>50Hz</td>
</tr>
<tr>
<td><strong>Accuracy class</strong></td>
<td>CL1.0</td>
</tr>
<tr>
<td><strong>Basic current (Ib)</strong></td>
<td>5A</td>
</tr>
<tr>
<td><strong>Maximum current (Imax)</strong></td>
<td>80A</td>
</tr>
<tr>
<td><strong>Starting current</strong></td>
<td>0.4% Ib</td>
</tr>
<tr>
<td><strong>Power consumption per phase</strong></td>
<td>&lt; 2W/10VA per phase</td>
</tr>
<tr>
<td><strong>Voltage Circuit</strong></td>
<td></td>
</tr>
<tr>
<td><strong>User interface</strong></td>
<td>LCD display on UIU</td>
</tr>
<tr>
<td><strong>Low credit alarming</strong></td>
<td>LED, buzzer</td>
</tr>
<tr>
<td><strong>Rate indicator LED</strong></td>
<td>1000 pulses/kWh</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Optical Port with IEC62056-21 M-BUS</td>
</tr>
<tr>
<td><strong>Operating temperature range</strong></td>
<td>-25°C to + 55°C</td>
</tr>
<tr>
<td><strong>Storage temperature</strong></td>
<td>-40°C to + 80°C</td>
</tr>
<tr>
<td><strong>Humidity operating range</strong></td>
<td>95% RH</td>
</tr>
<tr>
<td><strong>Degree of protection</strong></td>
<td>IP54</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>0.55kg (MCU) 0.35kg (UIU)</td>
</tr>
<tr>
<td><strong>Over voltage</strong></td>
<td>48 hours under 420V</td>
</tr>
<tr>
<td><strong>Meter case material</strong></td>
<td>UV stable/Reinforced polycarbonate</td>
</tr>
<tr>
<td><strong>Meter terminal material</strong></td>
<td>UV stable/Radiation resistant polycarbonate</td>
</tr>
<tr>
<td><strong>Contactor</strong></td>
<td>Internal latch relay</td>
</tr>
<tr>
<td><strong>Data transfer</strong></td>
<td>STS compliant, Numeric token</td>
</tr>
<tr>
<td><strong>Data retention</strong></td>
<td>&gt;15 years</td>
</tr>
<tr>
<td><strong>Dimensions (L x W x H)</strong></td>
<td>46mm×100mm×159mm for MCU 158mmx110mmx55mm for UIU</td>
</tr>
</tbody>
</table>
Dimension:

![Dimension Diagram]

- **MCU**
- **UIU**