Domestic Smart Gas Meter
Key Features

- High tech, state of the art design with high quality components
- Proven and reliable diaphragm gas meter with high accuracy multipoint calibration throughout the flow range
- For use with fuel gases of the 1st, 2nd & 3rd families according to EN 437:1993
- MID approval in accordance with EN 1359
- Volume conversion to base condition in accordance with EN 12405
- Design in accordance with SMETS 2 and GBCS with the versatility to adapt to emerging smart metering markets across Europe
- ATEX (EN 60079) approval (Zone 2 3G Ex ic IIA T3 Gc)
- IP65 ingress protection rating (IEC 60529)
- Very low pressure drop using ball valve technology
- Available with either front viewing (FVI) or top viewing (TVI) index configuration (for semi-concealed installations)
- Interoperability with smart electricity meters and in-home display units (IHD’s)
- Optical port located on front of index (IEC 1107 and IEC 62056-21 compliant)
- Low power, solid state GWi Hall Effect sensor (patent pending)
- Calculated 15 year battery life (dependent on profile)
- MBus 868MHz and ZigBee 2.4GHz communications modules available
- FOTA upgradeable (Firmware Over The Air upgradeable)
- Real time clock accuracy: ±0.5s/day
- Electrical safety (EN 61010), RED approval (EN 300) and SIL2 reliability & functional safety (IEC 61508)

Technical Data

<table>
<thead>
<tr>
<th>Meter Variant</th>
<th>UG G4</th>
<th>2UG G4</th>
<th>2UG G6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclic Volume (dm³)</td>
<td>1.2</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Flow Range (m³/h)</td>
<td>Qmax</td>
<td>6.0</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Qmin</td>
<td>0.04</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Qnorm</td>
<td>4.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Max working pressure (mbar)</td>
<td>75*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting flow rate (dm³/h)</td>
<td>Qstart</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Connection Centres</td>
<td>6” (152.4 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Connections (BS 746)</td>
<td>1”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>3.4 kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (H x W x D) (mm)</td>
<td>262 x 235 x 176</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max Index Reading (m³)</td>
<td>999999.999</td>
<td></td>
<td></td>
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<tr>
<td>Operating Temperature (°C)</td>
<td>-25 to +55</td>
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*up to 500mbar on request
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Smart features

- Approved firmware platforms for use in Europe & the United Kingdom
- Register and calculation of the following: Volume at measuring condition [m³], Corrected volume [m³], Volume at base condition [m³], Energy [kWh], Instantaneous flow rate [m³/h], Maximum demand (peak flow)
- 2 channel profile recorder with independently configurable data capture
  - Configurable intervals & capacity
  - Channel 1 designed for general energy measurement
  - Channel 2 designed for billing profile
- Configurable time-of-use tariffs
- Configurable automatic and manual scroll sequence windows
- Optional prepayment (PPMID) feature
- Data logger with five independent FIFO buffers (up to 50 events), including: General, Fault Conditions/Tampers, Security, Communications

Communications Modules

- ZigBee 2.4 Ghz SMETS 2
- Wireless MBUS 868 Mhz OMS (Mode 5 encryption)
- Wireless MBUS 868 Mhz SMR 5.0 (Mode 9 encryption)
- Additional modules available on request

Additional Features

- Single removable front cover with separate battery and communication compartments
- Five layer security system comprising both physical and electronic tamper detection of compartment cover removal, MID seal removal, index removal, external magnetic fields
- Integral ball valve to remotely connect/disconnect flow
  - Disconnection by remote command, configurable tamper or battery failure
  - Safe re-connection with manual local confirmation
- 2 button user interface
- Universal comms module interface allowing interchangeability & in-service replacement
- Primary Battery: 3.6V Lithium Thionyl-Chloride (can be replaced in-service)
- HLC Backup Battery: 30 days capacity to support critical functions such as measurement logging and clock maintenance during battery change
- Wide viewing angle negative polarity LCD display with backlight illumination
- Powdercoated casework (RAL 7035 - light grey) with stainless steel band
- Measurements displayed to 1 litre resolution (0.001 m³) (configurable)
- Resistant to high ambient temperatures (650 ºC) as per EN 1359
- Certified for use with additional H3 marking to indicate use in an outdoor environment