LANDELL & BIOGAS ANALYSIS

For optimizing production, performance, and reporting

- Industry compatible rugged design for harsh industrial use
- Sampling from low suction up to high pressure gas
- Direct and continuous / discontinuous measurement
- No dilution of the sample gas
- Easy installation & start-up

Up to 10 sites monitoring via Time Sharing
THE COMPLETE SOLUTION...

Measuring CH₄, CO₂, O₂, H₂S (high & low ranges), H₂ and calculated caloric values

- Continuous or Semi-continuous operation
- Efficient gas prep provides fast and reliable measurements
- Sampling from low suction to high pressure
- Up to 10 sites monitoring via Time Sharing
- Fresh air auto zero
- Multiple inputs / outputs of (4) 4 to 20mA, (2) alarm relays, RS485 Modbus, Ethernet even Profibus
- Safety: Monitored ventilation fan, gas flow restrictor, optional %LEL detector and flame arrester
- Fast & easy installation: Connect and go with no need for compressed air for dilution
- Optional Auto Calibration
THE IDEAL SOLUTION FOR ...

- Landfill sites
- Anaerobic digesters
- CHP / WTE cogeneration engines
- Municipal or industrial waste water treatment plants
- Flare inlet / outlets
- CPG production
- Food or animal waste process plants
- Coal bed methane sites
## TECHNICAL SPECIFICATIONS

### Measurement components

<table>
<thead>
<tr>
<th>Component</th>
<th>Measuring range</th>
<th>Measuring method</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH4</td>
<td>Methane</td>
<td>0 – 100 %</td>
</tr>
<tr>
<td>CO2</td>
<td>Carbon dioxide</td>
<td>0 – 100 %</td>
</tr>
<tr>
<td>O2</td>
<td>Oxygen</td>
<td>0 – 25 %</td>
</tr>
<tr>
<td>H2S</td>
<td>Hydrogen sulfide (LOW)</td>
<td>0 - 200 ppm / 1,000 ppm</td>
</tr>
<tr>
<td>H2S</td>
<td>Hydrogen sulfide (STANDARD)</td>
<td>0 - 2,000ppm / 4,000ppm</td>
</tr>
<tr>
<td>H2S</td>
<td>Hydrogen sulfide (HIGH)</td>
<td>0 - 10,000ppm / 50,000ppm</td>
</tr>
<tr>
<td>H2</td>
<td>Hydrogen</td>
<td>0 - 1,000ppm</td>
</tr>
</tbody>
</table>

### Calculated component
- Calorific value: 0 – 50 MJ/m³; MJ/kg

### HMI human machine interface
- 3.5” TFT color display
- Backlit keyboard, password protected operation
- 4x analog output 4-20 mA, floating, max. load 500R
- 2 alarm relays, potential free contacts 24 Vdc/5 A
- RS485 digital interface (Modbus RTU)
- DIN-rail RS485 / Profibus converter

### System safety components
- Monitored cabinet ventilation fan
- Stainless steel flow restrictor orifice
- Sample gas shut-down solenoid valve
- LEL (CH4) monitoring inside cabinet

### Sample preparation
- Stainless steel gas fittings with 1/8” ID threads
- Electric gas cooler
- Teflon particulate filter, internal Viton hosing
- Monitored and regulated sample flow 40...60 l/h
- Sample inlet pressure: -40 inH2O to +120 inH2O (-100 mbar to +300 mbar)
  - Sample venting: atmosphere pressure

### Cabinet dimensions
- Aluminum with anti-corrosive structural painting
- 27.55” x 23.61” x 8.26” (700 x 600 x 210 mm) (H x W x D) for wall or rack mounting

### Weight / Protection
- 55lbs (25kg) / IP54

### Ambient temperature
- 41°F ... 113°F (+5°C...+45°C) or -4°F ... 113°F (-20°C...+45°C) with cabinet heater

### Installation site
- Indoor or outdoor (rain and sun shade is mandatory user scope of supply)

### Cabinet conditioning
- Continuous, monitored fan ventilation
- Cabinet heater 200 W (option)

### Power supply
- Universal 90 - 240 Vac / 47 - 63 Hz / 90 W (300 W with cabinet heater)

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Data subject to change without notice

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