PPMa PhyMetrix Portable Moisture Analyzer

Leading edge Nanosensor Technology

USB data interface, also charges battery
Continuous Status and Diagnostics display
On-screen histogram and trend graph
Optional Pressure Sensor with automatic dewpoint correction
Integrated orifice provides pressure regulation
Impact resistant IP65 enclosure ATEX approved

more FEATURES

- -110°C to +20°C dewpoint Sensor
- Fast, Accurate and Repeatable
- Built-in temperature compensation
- Small & Lightweight
- State-of-the-art electronics & software
- Advanced User-friendly Graphical Interface
- Programmable data logging
- Battery backed clock calendar
- Built-in Sensor desiccant store for rapid results
- 316 Stainless Steel & PTFE wetted parts
- 1/8" Swagelok® compression fittings
- NIST calibrations
- optional 4/20 mA output
- Virtual Analyzer PC training & demo software

APPLICATIONS

- Petrochemical
- Industrial Gases
- Natural Gas
- Power Generation
- Furnace Gas / Heat Treating
- Air Dryers
- Pharmaceutical
- Aerospace
- Medical

PhyMetrix, Inc.
Moisture Measurement
Innovation at work

Proudly Designed, Developed and Manufactured in the USA

(ES) Equipements Scientifiques SA - Département Bio-tests & Industries - 127 rue de Buzenval BP 26 - 92380 Garches
Tél. 01 47 95 99 90 - Fax. 01 47 01 16 22 - e-mail: bio@es-france.com - Site Web: www.es-france.com
### Moisture Sensor
- **Range:** -110°C to +20°C dewpoint (-166°F to +68°F dewpoint)
- **Accuracy:** ±2°C temperature corrected
- **Temperature corrected Repeatability:** 0.8°C
- **Response time:** 95% of step change in 3 min.
- **Sample flow:** >1 LPM

### Temperature Sensors
- **Range:** -40°C to +70°C
- **Accuracy:** ±2°C

### Pressure Sensor
- **Range:** 0 to 150 PSIA ±1%, 316L stainless steel wetted parts; higher pressures can be ordered optionally

### Ergonomics
- Comfortable to hold in hand, contoured body design, lightweight 1.75 Lbs
- Hook and magnet for easy temporary field securing / mounting
- Easy to read graphic LCD display with user controlled backlight brightness (LCD is readable without the backlight)
- Snap dome tactile membrane switches with dynamically assigned legends
- Audible feedback upon button press as well as for warnings and alarms
- Auto scaling graph / histogram on moisture measurement display for stability verification
- Easy to use with verbose built-in context sensitive Help screens
- Battery Saver, with user selectable Auto-power-down times, can also be disabled
- Built-in pressure measurement and pressure corrected moisture readings, simultaneously displayed with the uncorrected reading for greater ease of understanding
- Verbose Status bar with indications, warnings and audible errors
- User selectable locking with or without a password.
- Built-in battery backed clock calendar

### Electrical
- **External AC Universal Power adapter (100-240VAC 50-60Hz) with USB connector**
- Rechargeable Li-Ion battery, recharges through the USB connector from the PC or from the supplied universal power adapter
- Sampling system and sensor are isolated from electrical interface and supply grounds
- Measurement resolution of moisture sensor: 1pF resulting in less than 0.01°C
- External power and I/O: USB mini B female connector - IP67 / IP68 with Sealing Cap

### Mechanical
- 1/8" Swagelok® Inlet and Outlet fitting adapters for the SAE/MS 5/16-24 ports. Inlet adapter has a built-in flow control orifice, eliminating pressure regulators while maintaining sufficient but not excessive flows.
- All 316 Stainless Steel and PTFE wetted parts, small surface area stainless steel sampling chamber for fast response time.
- Integral Sensor retraction into desiccant storage chamber for fast response-time when measuring low moisture
- Enclosure
  - Impact resistant (>7 Nm to EN 50014) Polyamide 12, IP65/EN 60529 ATEX hazardous area use (Ex II 2 G) approved (PTB 02 ATEX 1076U), Flammability: UL 94 HB
  - Abrasion resistant Polycarbonate display lens
  - Dimensions: L: 7.36” (187mm) W: 4.17” (106mm) H: 1.97” (50mm)
  - Weight Total: 1.75 Lbs (0.8 Kg)
  - Pressure: 150 PSIA (10.3 Bar)
  - **NIST traceable calibrations**
    - Units of measure: °C & °F dewpoint, ppmV, ppmW, µB H₂O vapor pressure, grams of H₂O / m³ and Lbs H₂O / 10⁶ standard cubic feet in Natural Gas. (All units autoscaled)
  - Digital & Analog I/O: USB, 4/20mA with HART®
  - Data logging - single point, multipoint, time stamping, each sample records: dewpoint, temperature and pressure, (memory > 4,000 samples)
  - Virtual Analyzer PC software for training and evaluation, allows the user to experience the exact interface on their own PC with voice explanations

### Ordering Information

<table>
<thead>
<tr>
<th>PhyMetrix Portable Moisture Analyzer</th>
<th>Model: PPMa</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AC universal power adapter with USB connector</strong></td>
<td>PPMa</td>
</tr>
<tr>
<td>Two 2) 1/8&quot; tube to SAE/MS 5/16-24 Swagelok® adapters (flow control orifice built into one of the SAE adapters)</td>
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<tr>
<td>Exhaust pigtail - Hanging hook and magnet</td>
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<tr>
<td>Pressure sensor option 0-150 psia w/automatic pressure correction</td>
<td>suffix -P</td>
</tr>
<tr>
<td>Analog Output 4/20mA with HART® option</td>
<td>suffix -A</td>
</tr>
<tr>
<td>Intrinsically Safe ATEX option</td>
<td>suffix -I</td>
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</table>

**Ordering example:** part number for the Analyzer with a Pressure Sensor and 4/20mA would be: **PPMa-P-A**