PPMa PhyMetrix Portable Moisture Analyzer

Leading edge Nanosensor Technology

Unique State-of-the-art Features

- 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
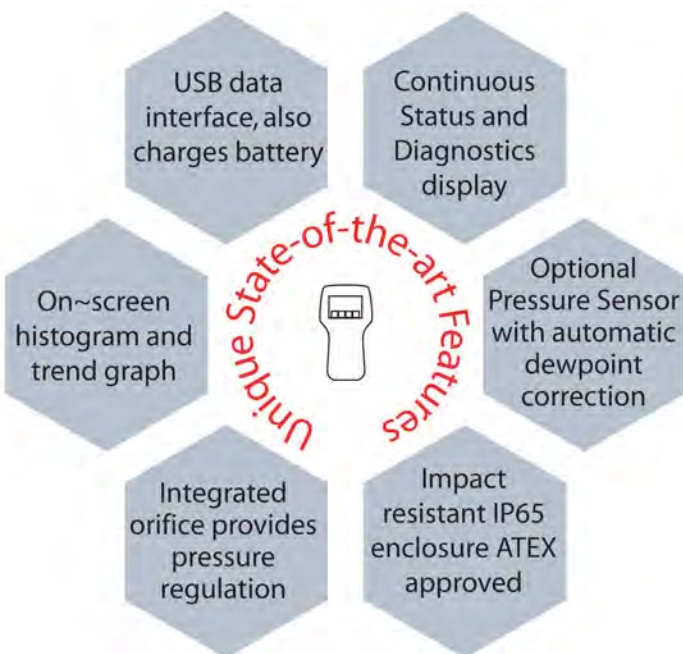
---

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.
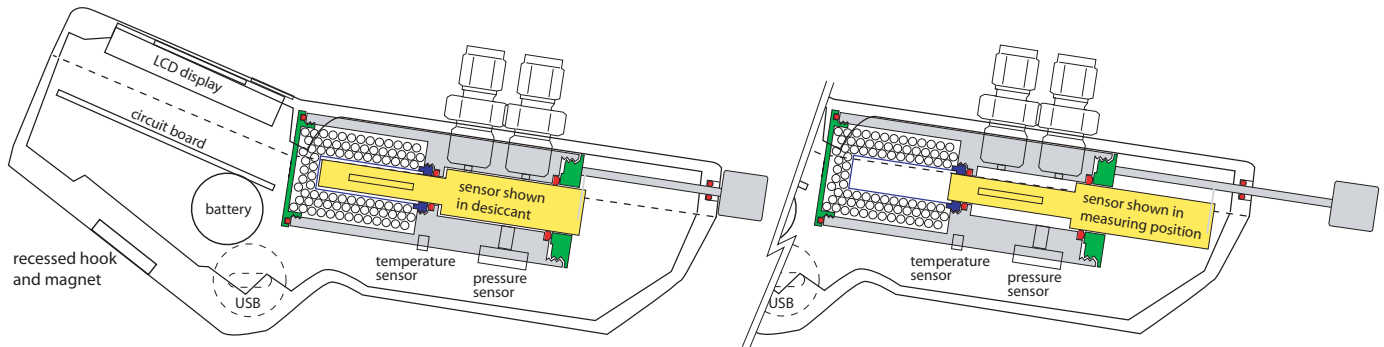Moisture Measurement
Innovation at work

- ◆ Test
- ◆ Measure
- ◆ Calibrate
- ◆ Quick
- ◆ Reproducible
- ◆ NIST Traceable

PPMa   PhyMetrix Portable Moisture Analyzer

PhyMetrix®

Retractable Sensor

LCD display
circuit board
battery
recessed hook and magnet
sensor shown in desiccant
temperature sensor
pressure sensor
USB

temperature sensor
pressure sensor
sensor shown in measuring position
USB

PPMa Technical Specifications

Moisture Sensor	Range: -110˚C to +20˚C dewpoint (-166˚F to +68˚F dewpoint)	
	Accuracy: ±2˚C 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	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)	

Temperature Range	PPMa Analyzer: -20˚C to +60˚C	Electronics: -40˚C to +85˚C
	Moisture Sensor: -20˚C to +60˚C	*Pressure Sensor: -20˚C to +85˚C*
	LCD operating: -20˚C to +70˚C storage: -30˚C to +80˚C	*Enclosure: -40˚C to +60˚C*

Miscellaneous Features	NIST traceable calibrations
	Units of measure: ˚C & ˚F dewpoint, ppmV, ppmW, μB H_2O vapor pressure,
	       grams of H_2O / m^3 and Lbs H_2O /10^6 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	Part Number
PhyMetrix Portable Moisture Analyzer Model: **PPMa**	**PPMa**
Included Accessories: USB cable (mini B male to A male) AC universal power adapter with USB connector two (2) 1/8" tube to SAE/MS 5/16-24 Swagelok® adapters (flow control orifice built into one of the SAE adapters) Exhaust pigtail - Hanging hook and magnet	
Pressure sensor option 0-150 psia w/automatic pressure correction	suffix **-P**
Analog Output 4/20 mA with HART® option	suffix **-A**
Intrinsically Safe ATEX option	suffix **-I**

Represented by:

IMA Ltd,
Parkwell House, Otley Road,
Guiseley, West Yorkshire,
LS20 8BH, England
Tel: +44(0)1943 878877
Email: info@ima.co.uk
Website: www.ima.co.uk

ima

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