PLMa-Probe-Ex

PhyMetrix Loop Powered Explosion-Proof Moisture Probe

PhyMetrix®

Leading edge Nanosensor Technology

Approved Explosion-Proof Installations USA, Canada, ATEX

Installation Indoor/Outdoor On-The-Pipe Valve

Can be inserted into pressurized pipeline through 1/2" ball valve

Cost Effective Complete On-Line System

In-situ measurement without exhausting any of the sample gas

Customized insertion lenghts field adjustable

Unique State-of-the-art Features
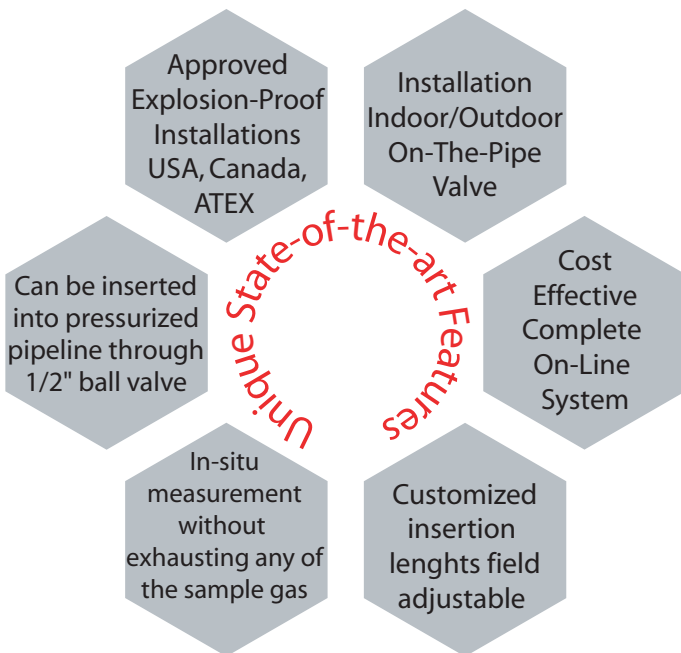
3/8" dia. probe has only 0.11 square inch cross sectional area, thus even at high pipeline pressures the probe can be inserted with minimal force

more FEATURES

- -110˚C to +20˚C dewpoint Sensor
- Fast, Accurate and Repeatable
- Built-in temperature compensation
- 4/20 mA Loop Powered, 5 to 28VDC
- User-friendly HART compliant Interface
- Interfaces to Panel Meters
- Stainless Steel IP68 Explosionproof housing
- State-of-the-art electronics & software
- Units of measure: ˚C & ˚F dewpoint, ppmV, ppmW, µB H2O partial vapor pressure, Lbs/MMSCF in Natural Gas, g/m3
- Optional Built in Pressure Sensor
- 316 Stainless Steel & PTFE wetted parts
- Diverse Selection of Valve adapters

APPLICATIONS

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

PhyMetrix, Inc.
Moisture Measurement
Innovation at work

PhyMetrix®

- ◆ Test
- ◆ Measure
- ◆ Calibrate
- ◆ Quick
- ◆ Reproducible
- ◆ NIST Traceable
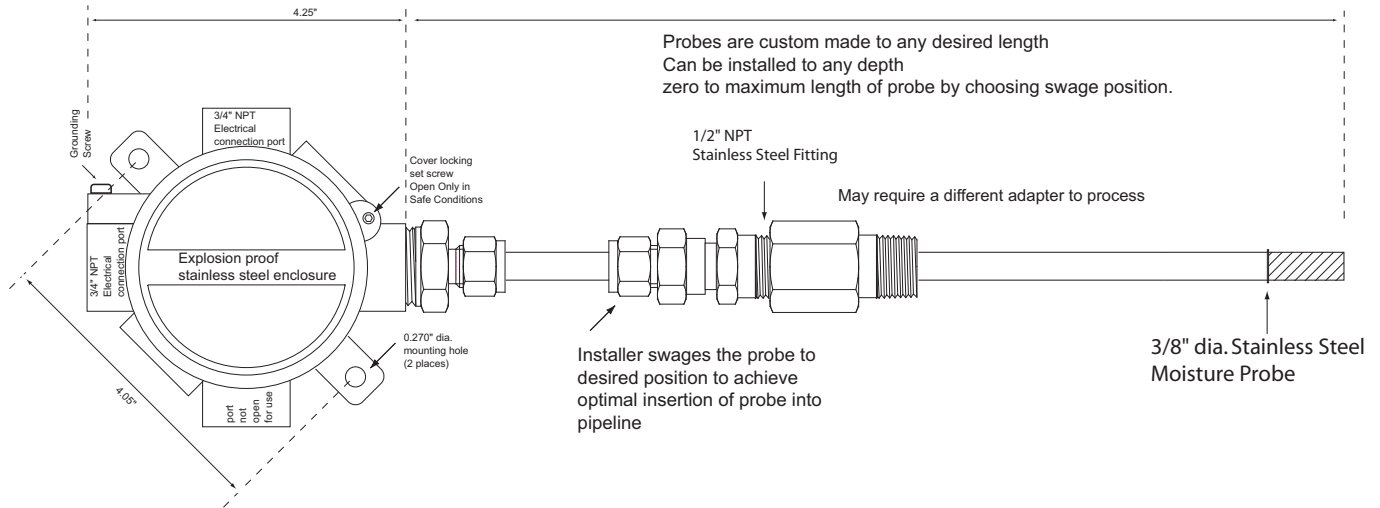
Proudly Designed, Developed and Manufactured in the USA

PLMa-Probe-Ex

PhyMetrix Loop Powered Explosion-Proof Moisture Probe

PhyMetrix®

Mechanical

4.25"

Grounding Screw

3/4" NPT Electrical connection port

Cover locking set screw Open Only in Safe Conditions

3/4" NPT Electrical connection port

Explosion proof stainless steel enclosure

4.05"

0.270" dia. mounting hole (2 places)

port not open for use

Probes are custom made to any desired length
Can be installed to any depth
zero to maximum length of probe by choosing swage position.

1/2" NPT Stainless Steel Fitting

May require a different adapter to process

Installer swages the probe to desired position to achieve optimal insertion of probe into pipeline

3/8" dia. Stainless Steel Moisture Probe

PLMa 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 Sensor	Range: -40˚C to +70˚C Accuracy: ±2˚C
Ergonomics	Easy and quick installation, only standard tools required.
Electrical	5VDC to 28VDC two wire loop operation 4mA to 20mA Housing isolated from 4-20mA Loop Measurement resolution of moisture sensor: 1pF resulting in less than 0.01˚C 3/4"NPT cable entry, internal pluggable screw terminal connector Use with two conductor cable 24AWG min. (for total cable length >1mile 20AWG min.) To meet CE requirements cable must be shielded. Built-in digital I/O for controlling relays
Mechanical	All 316 Stainless Steel and PTFE wetted parts for fast response time. Enclosure all stainless steel construction IP68 protection when installed with appropriate conduit fittings Dimensions: 3.25" (82.6mm) diameter Explosion Proof enclosure 2.5" high Process threads: to be specified by customer Weight Total: 6 oz (0.17 Kg) Pressure: 5000 PSIA (345 Bar)
Temperature Range	PLMa Analyzer: -20˚C to +60˚C *Electronics: -40˚C to +85˚C* *Moisture Sensor: -20˚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: Two Wire 4/20mA loop with HART® Transmitter stores all HART setup

ORDERING INFORMATION	Part Number
PhyMetrix Loop-powered Moisture Analyzer Probe Ex Model: **PLMaPrbEx** Included Accessories: n/a	**PLMaPrbEx**

Represented by:

Doc. Revision 0