A Dew Point Transmitter
From PhyMetrix

NEW!

PLMa

/// Key Features

■ -110 °C to +20 °C dew point range

■ 4 to 20 mA loop powered

■ Digital I/O for controlling relays

/// Leading Edge Nanosensor Technology

The new loop powered transmitter from PhyMetrix provides accurate, fast and reliable dew point measurements, and can be configured to report trace level moisture measurements in a variety of humidity scales.

The nano technology used in the sensor has been developed with many years' experience in dew point measurement.
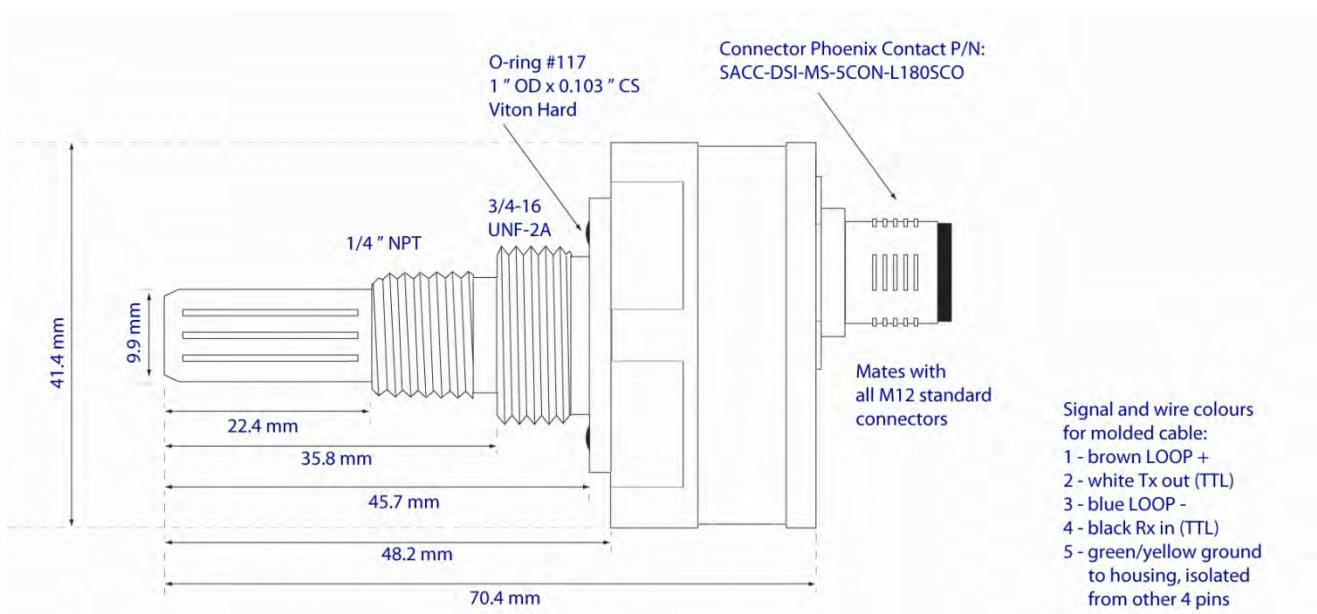
Although small, the transmitter includes a digital output that can be connected to external relays, eliminating the need for additional threshold alarm systems.

/// More Features

- 5 VDC to 28 VDC loop voltage
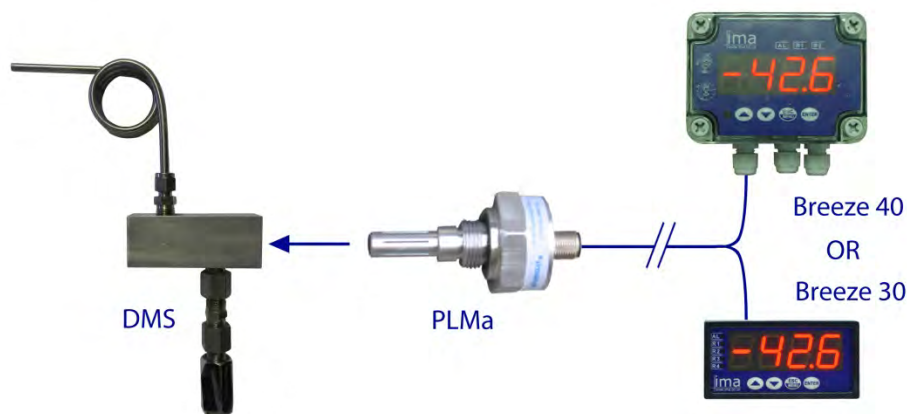- Light and compact (0.17 Kg)
- HART® Compliant

/// Dimensions

O-ring #117
1 " OD x 0.103 " CS
Viton Hard

Connector Phoenix Contact P/N:
SACC-DSI-MS-5CON-L180SCO

3/4-16
UNF-2A

1/4 " NPT

41.4 mm

9.9 mm

22.4 mm

35.8 mm

45.7 mm

48.2 mm

70.4 mm

Mates with
all M12 standard
connectors

Signal and wire colours
for molded cable:
1 - brown LOOP +
2 - white Tx out (TTL)
3 - blue LOOP -
4 - black Rx in (TTL)
5 - green/yellow ground
to housing, isolated
from other 4 pins

/// Specifications

Moisture sensor	Range: -110 °C to +20 °C dew point (- 166 °F to +68 °F dew point) Accuracy: ± 2 °C temperature corrected Response time: 95 % of step change in 3 min. Repeatability: 0.8 °C Sample flow: >1 lpm
Temperature sensor	Range: -40 °C to +70 °C Accuracy: ± 2 °C
Ergonomics	Easy and quick installation, no tools required
Electrical	5 VDC to 28 VDC two wire loop operation 4 mA to 20 mA Housing isolated from 4 to 20 mA loop Measurement resolution of moisture sensor: 1 pF resulting in less than 0.01 °C 5 pin M12 industrial connector IP68 when mating connector fully engaged Two conductor cable min. 24 AWG (for total cable length > 1 mile min. 20 AWG) To meet CE requirements cable must be shielded. Built-in digital I/O for control relays
Mechanical	All 316 stainless steel and PTFE wetted parts for fast response time Enclosure all stainless steel construction IP67 protection when installed Dimensions (overall) including connector – L: 82.6 mm Diam: 41.3 mm Process threads ¾ "-16 UNF 2A, ¼ " NPT can be installed with either threads Weight Total: 0.17 Kg Pressure: 5000 PSIA (345 Bar)
Temperature range	PLMa Analyser: -20 to +60 °C Electronics: -40 to +85 °C Moisture sensor: -20 to +60 °C
Miscellaneous features	NIST traceable calibrations Units of measure: °C & °F dew point, ppm_V, ppm_W, µB H_2O vapour 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 4/20 mA loop with HART® Transmitter stores all HART® setup

ORDERING INFORMATION	
	Part Number
PhyMetrix Loop-powered Moisture Analyser Model : **PLMa** Included accessories: M12 mating Connector with molded 10 feet (3 meter) cable	**PLMa**

/// Accessories

DMS   PLMa

Breeze 40
OR
Breeze 30

/// DMS

An easy and cost effective method of installing dew point transmitters, the DMS offers the choice of either line pressure or atmospheric pressure dew point measurements.

- Line pressure or atmospheric pressure dew point
- Integral filter
- Isolation valve

ORDERING INFORMATION				
PH				Probe holder only (see DMS datasheet)
DMS				Direct mount system for dew point and humidity sensors
	1			Inlet orifice for atmospheric dew point measurements
	2			Outlet orifice for pressure dew point measurements
		1		Thread sealant - PTFE tape
		2		Thread sealant - liquid thread sealant

/// Displays

Breeze 30

A panel mounting digital display provides a cost effective solution for dryer change over control when connected to the PLMa dew point transmitter. Measurement ranges and alarm set points are user-programmable, allowing easy control of dryer change-over functions. An optional remote control enables the device to be adjusted without opening the enclosure.

- Panel mounting
- Up to 4 volt free threshold relays
- Provides power for 4 to 20 mA loop

Breeze 40

This wall mounting digital display is an easily programmable and cost effective solution for any loop powered transmitter. Measurement ranges and alarm set points are user-programmable, allowing dryer change-over functions to be easily controlled. An optional remote control enables the device to be adjusted without opening the enclosure.

- IP65
- Wall mounting
- Volt free alarm relays
- Provides power for 4 to 20 mA loop

ORDERING INFORMATION
Please see Breeze 30 or Breeze 40 datasheet

/// Electrical Adapter

Retro fitting the PLMa is much easier with this electrical adapter. This adapter converts from the PLMa to the connector on existing cable runs, making installation quick and easy when converting from another dew point transmitter.

ORDERING INFORMATION	
EA1	Converts PLMa to Xentaur LPDT cable
EA9	Converts PLMa to other (please specify)