

# Model 8801B

## Moisture Monitor



- ▶ Easy to Read Large Numerals
- ▶ Remote Power and Readout
- ▶ Isolated 4-20 mA Output Retrasmits Measurement
- ▶ On-Screen Histogram and Trend Graph
- ▶ Optional MODBUS Interface
- ▶ Universal AC Power Input and 12-24 VDC (optional)



# Model 8801B

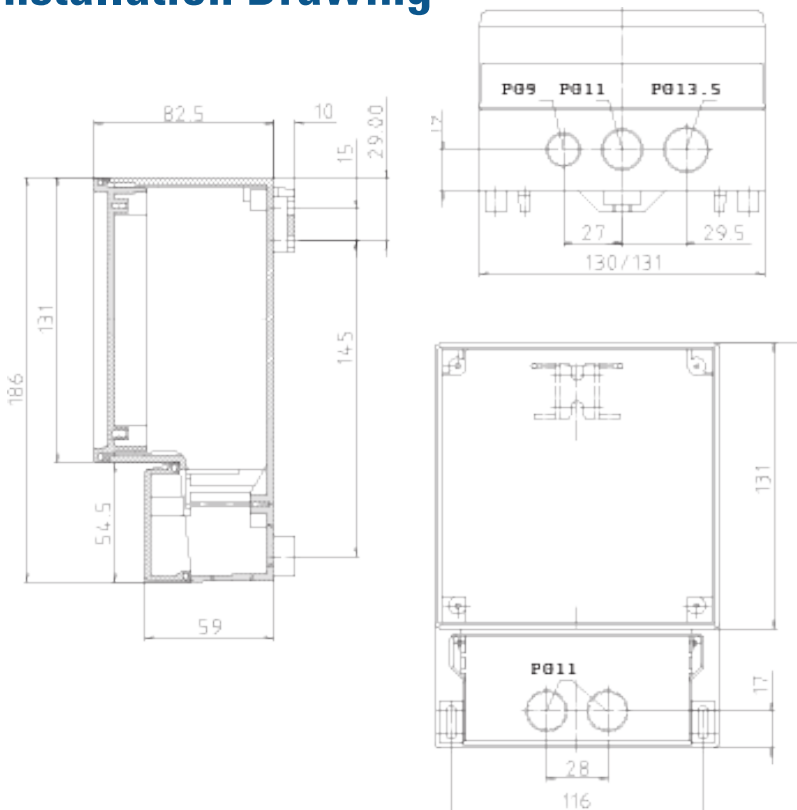
Model 8801B utilizes the state-of-the-art loop powered moisture sensor, combined with an intuitive user interface, protected within a rugged ABS wall mount enclosure. It can measure moisture content in gases in ranges of -100°C to 20°C dewpoint, and provide a 4-20mA output linear to the measurement units chosen. The Model 8801B incorporates an advanced nanopore sensor technology, and measures the amount of water vapor molecules that have entered its pores. This unique sensor design allows quicker equilibrium between the inside and outside of the sensor, resulting in faster response to changes in water vapor content, better stability and repeatability.

## Features

- Provides remote display and power
- State-of-the-art electronics and software
- Advanced user-friendly interface
- Continuous status and diagnostics display
- ABS impact resistant IP65 enclosure
- Wall mount 5.16"W x 7.32"H x 3.25"D
- Separate terminal section pre-punched for cable grips
- Virtual analyzer PC software for training and evaluation
- Units of measure: °C / °F dewpoint, ppmV, ppmW,  $\mu$ B H<sub>2</sub>O vapor pressure, grams of H<sub>2</sub>O/m<sup>3</sup>, Lbs H<sub>2</sub>O/10<sup>6</sup> standard cubic feet in natural gas
- Optional: Alarm relays with programmable hysteresis
- Optional: Built-in self verification and calibration
- Optional: Battery backup for weeks of logging data
- Optional: Shock-mount vibration isolation



## Installation Drawing



## Applications

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

## Specifications

<b>Moisture Sensor</b>	Range: -100° to 20°C
	Accuracy: ± 2°C temperature corrected
	Repeatability: 0.8°C
	Response Time: 95% of step change in 3 minutes
	Sample Flow: > 1 LPM
<b>Temperature Sensor</b>	-40° to 70°C ± 2°C
<b>Electrical</b>	<p>Two automatic detection - self configuring power modes</p> <p>1) 90-260 VAC, 47-440 Hz</p> <p>2) 12-24 VDC, 10VA (optional)</p> <p>with the following I/O</p> <p>Isolated RS-422/485 (optional)</p> <p>Isolated 4-20 mA sink or source</p> <p>Alarm relays - 3A, 250VAC/30 VDC contacts</p> <p>Insulation Resistance: &gt; 100 MΩ at 500 VDC</p> <p>Optional Rechargeable Batteries*</p>
<b>Mechanical</b>	<p>ABS wall mount enclosure dimensions - 5.16"W x 7.32"H x 3.25"D</p> <p>Weight: 1.5 Lbs (0.7 kg)</p> <p>A rear suspension unit, ensures a concealed fit on wall</p> <p>IP65 protection</p> <p>Optional shock-mount vibration isolation</p>
<b>Temperature Range</b>	<p>Electronics: -40° to 85°C</p> <p>Operating: -20° to 70°C</p> <p>Storage: -30° to 80°C</p>
<b>Miscellaneous Features</b>	<p>NIST traceable calibrations</p> <p>Virtual analyzer PC software for training and evaluation - allows user to experience exact interface on own PC w/ voice explanations</p> <p>Units of measure: °C / °F dewpoint, ppmV, ppmW, μB H<sub>2</sub>O vapor pressure, grams of H<sub>2</sub>O/m<sup>3</sup>, Lbs H<sub>2</sub>O/10<sup>6</sup> standard cubic feet in natural gas</p> <p>MODBUS: ASCII and RTU (optional)</p>

\* 30 hours of continuous operation. While logging, needs to be ON for approximately 1 min per sample. Thus can take 1,800 samples on battery power. If taking samples once every 5 minutes, batteries will last over 6 days of logging data.

<b>Configurator - 8801B.A.B</b> (example: 8801B.0.0)			
Option	Description	Option	Description
8801B	8801B Moisture Monitor		
<i>A - Display Options</i>		<i>B - Sensor Options</i>	
0	Wall mount display with A.O. and Relays	0	Standard dp moisture sensor with Sintered SS shield
L	12-24 VDC	S	Solid sensor shield
D	RS485/422 digital output with Modbus protocol	02	O2 Cleaned Sensor

\* The analyzer also includes an 8801T - Moisture sensor with M12 Mating connector and 10 feet (3 meter) cable, sensor body with 100uM sintered SS shield. If solid sensor shield is required, contact factory for a quote



Founded in 1946 as Research Instrument Corporation, a division of Applied Physics, the company was renamed Analytic Systems when acquired by United Electro Dynamics in 1957. In 1964, Teledyne, Inc. acquired United Electro Dynamics, and Analytic Systems group became Teledyne Analytical Instruments (TAI).

Since then, TAI experienced an merger in 1993 with an aerospace technology leader, Teledyne Brown Engineering out of Huntsville, Alabama, and was briefly known as Teledyne Brown Engineering Analytical Instruments. Early in 1996, the company became a business unit of Teledyne Electronic Technologies, changing the company name to its present designation of Teledyne Analytical Instruments.



Teledyne Analytical Instruments (TAI) is a world leader in the design and manufacturing of high quality gas and liquid analyzers with product lines that include: electrochemical sensors, analyzers and custom systems which combine expertise in electronics, chemistry and engineering. Our products and services cover many industries including: air separation/bulk industrial gas manufacturing, chemical and petrochemical processing, cement, metals and metal processing, oil and gas, medical/pharmaceutical, nuclear, power generation, pulp and paper, safety, semiconductor/electronics, and steel.

With over 50 years of experience, TAI's mission is to meet the industry's varied requirements for gas and liquid analysis. In addition, detailed attention to our customers' needs and dedication to the highest standards of performance and quality are just some of our top priorities. These standards are enhanced by our ISO 9001:2015 certification.



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