

TRUEPEAK H₂O PROCESS LASER TRACE MOISTURE ANALYZER



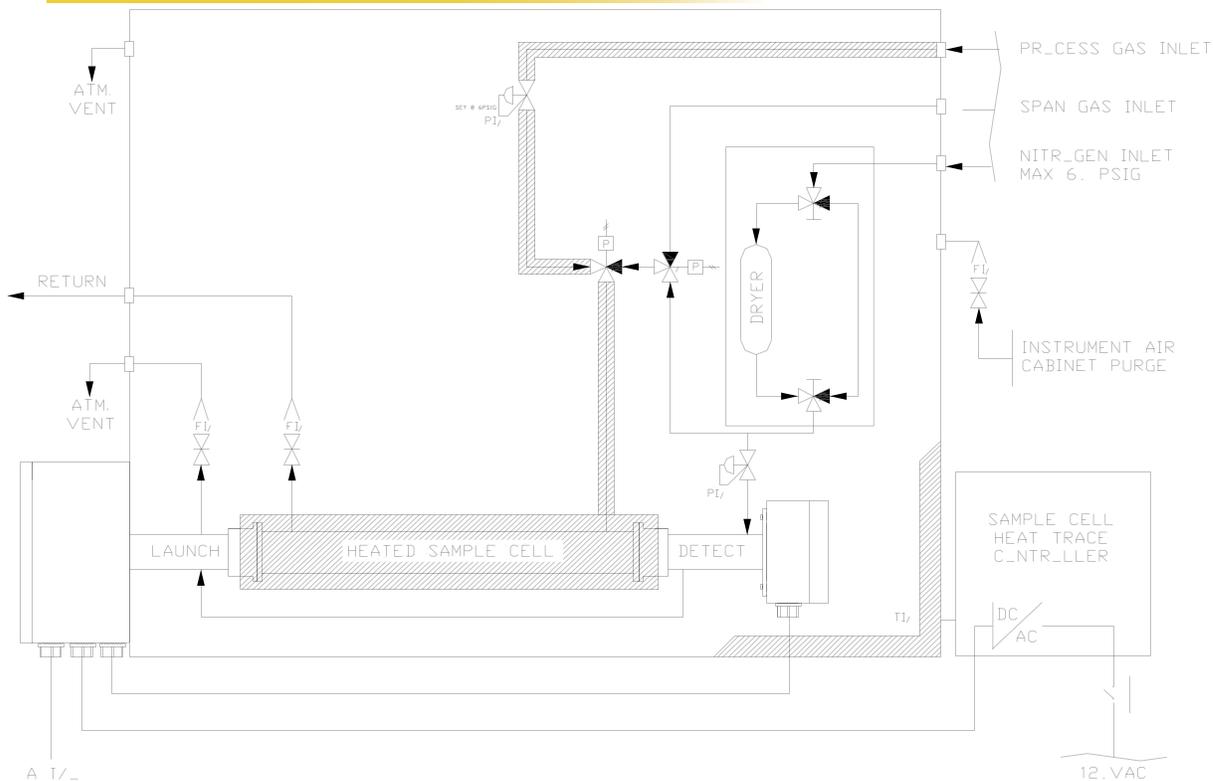
The Trace Moisture Solution

- ▶ Non-contacting sensor
- ▶ PPM measurement
- ▶ Rapid response and recovery... even at low ppm H₂O
- ▶ Automatic validation
- ▶ Interference free
- ▶ TruePeak measurement
- ▶ In-situ or close coupled (no sample conditioning errors)
- ▶ Flexible installation options
- ▶ Aggressive applications - high particulate, corrosives, and more

Providing True Analytical Solutions



CLOSE COUPLED VERSION



Two versions available:

Close coupled extractive (shown above) allows for automated zero and span checks since the analyzer can be isolated from the process. A typical turn-key package is shown which contains heated sample cell, plant nitrogen drying system (for zero validation gas + analyzer purge), validation gas control and routing.

The first tunable diode laser analyzer designed

ACCURATE

Most trace moisture analyzers require sample transport and extensive conditioning. Moisture can adhere to surfaces in the tubing and sample system components, significantly affecting the amount of moisture that reaches the sensor.

The TruePeak Laser analyzer can handle aggressive and corrosive samples with in-situ or close coupled measurements, ensuring the sample is representative of the process.

RELIABLE

With no sensor contacting the process, reliability is increased. This means you can make measurements in the most demanding applications (corrosive, aggressive).

Elimination of complex sample conditioning further improves uptime and reliability. No moving parts and long MTBF ensures low long term cost of ownership.

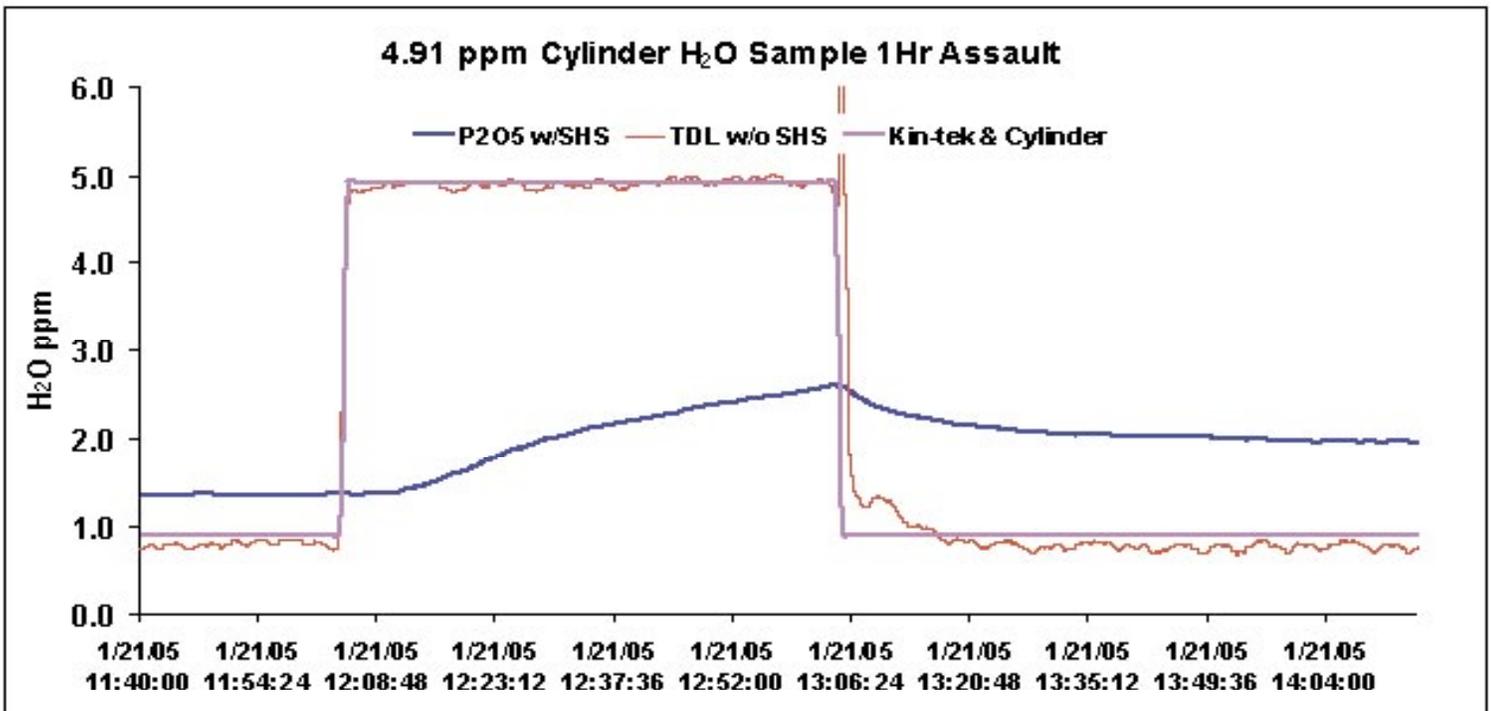
Critical to operations reliability is the ability to rapidly validate analyzer measurements. TruePeak H2O has built in automatic validation, on or offline.

RESPONSE / RECOVERY SPEED

Other moisture analyzers require extensive sample transport and conditioning. Any materials in contact with the process gas will adsorb and desorb moisture (even in electropolished or passivated). This is particularly true of high surface area components such as filters. The TruePeak TDL can be installed in-situ or close coupled to minimize sample handling and improve response and recovery time.

Shown is a comparison of response and recovery time for a commercially available P2O5 moisture analyzer and the TruePeak TDL. Both systems were stabilized at ~ 1ppm moisture before the test. During the test they were exposed to 4.9ppm moisture for one hour and then returned to the 1ppm sample.

As can be seen the TruePeak system responded and recovered very quickly. The P2O5 system only reached 50% response within the hour and had not recovered one hour after exposure.



specifically for trace moisture in aggressive service

PROCESS HARDENED

Other laser analyzers were designed for open path or stack only applications. The TruePeak analyzer has been designed for demanding high pressure, high temperature, aggressive process applications. Turn-key systems with automatic validation and purge gas drying are available.

ADVANCED

Built in diagnostics and storage, spectra capture, automatic validation and multiple communications options make the ASI TruePeak the most advanced oxygen analyzer available.

PURPOSE BUILT

The TruePeak analyzer has been specifically designed for trace moisture in aggressive services. This includes design of process sealing and wetted parts for corrosive service, as well as electropolished surfaces for minimal adsorption of moisture.



TECHNICAL SPECIFICATIONS

Path Length 1-2 meters

Response Time 1-20 seconds

Accuracy 2% FSD

Linearity R2=0.9999

Ambient Temperature -10 to 50C

Detection Limit 0.1ppm H2O

Analog I/O **Outputs:** Concentration/Transmission (3@0/4-20mA isolated) Sub 4mA for warnings/faults
Inputs: Pressure/Temperature Feed for Compensation (2@4-20mA isolated)

Digital I/O **Outputs:**

- Warning/Fault/Concentration Limit Relays (3 Form C Relay SPDT rated 1A@24VDC)
- Valve Control (3@24VDC, Max 10W per valve), zero/span/dynamic spiking

Inputs:

- Remote Validation (3 voltage free floating contacts) for zero/span/dynamic spiking

Area Classification Zone/Div 1/2 with purge

Communications Ethernet, IEEE 802.3, 10/100 Mbps, RJ45. WiFi 802.11 (optional). Automatic USB data transfer (upload/download settings and data)

Calibration Recommended Calibration Check Interval 3-6 Months

Please consult your representative for specific application performance

* consult factory for ranges, other gas measurements possible
All detection limits for 1 meter path, 25C, 1 bara
Consult representative for detection limits at other conditions

Technical specification are subject to change without notice. Please contact your local representative or visit www.analyzer.com for the most current specifications.

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