

# Pyxis<sup>®</sup>

## 2021 PRODUCT CATALOG

Inline & Handheld Analytical Devices for Water Treatment





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## CATALOG INTRODUCTION

This product catalog offers short descriptions & key features of the Pyxis Lab® product line of water treatment technology. To find pricing, detailed product specifications and support documents scan the product's corresponding QR Code. You can scan a QR code using the camera function of your smart phone. Simply point your phone camera at the QR Code and tap. A link will appear and take you to the desired product page on the Pyxis Lab® e-store. There you can find a detailed description, specifications & product documentation. If the product you are interested in does not have a QR Code, or you want to speak with one of our representatives, please contact us using the information below.



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## HANDHELD DEVICES

*Portable Fluorometers, Multimeters, Dual-Test Meters, Single-Test Meters, and Multi-Parameter Colorimeters. Pyxis Lab® offers handheld devices that measure for ALL of the key water and process parameters for Industrial, Municipal & Environmental marketplaces.*





## Pyxis<sup>®</sup> SP-350 Fluorometer



### DESCRIPTION

The SP-350 is a simple to operate, single-channel handheld device designed for measuring PTSA only. Ideal for water treaters testing traced cooling water.

### PARAMETERS

PTSA

### FEATURES

- 0–300ppb PTSA Range
- Direct Pour Sample Cell
- Compensates for Color & Turbidity
- Integrated Data Logging
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth Ready for Wireless Features



## Pyxis<sup>®</sup> SP-380 Fluorometer



### DESCRIPTION

The SP-380 is a dual-channel handheld meter capable of measuring for PTSA and Fluorescein. Ideal for water treaters testing traced cooling and boiler water.

### PARAMETERS

PTSA + Fluorescein

### FEATURES

- 0–300ppb PTSA Range
- 0–600ppb Fluorescein Range
- Direct Pour Sample Cell
- Compensates for Color & Turbidity
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth Ready for Wireless Features
- Integrated Data Logging



## Pyxis<sup>®</sup> SP-395T Fluorometer



### DESCRIPTION

The SP-395T is a unique single-channel handheld fluorometer that measures Tolytriazole (TTA) as a direct measurement test. This device requires no reagents and utilizes direct read method.

### PARAMETERS

Tolytriazole (TTA)

### FEATURES

- 0–10ppm TTA Range
- Direct Pour Sample Cell
- Compensates for Color & Turbidity
- Integrated Data Logging
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth Ready for Wireless Features



## Pyxis<sup>®</sup> SP-400 Fluorometer



### DESCRIPTION

The SP-400 is a dual-channel handheld meter capable of measuring for PTSA and Conductivity. Ideal for water treaters testing traced cooling water and desiring Conductivity value simultaneously.

### PARAMETERS

PTSA + Conductivity

### FEATURES

- 0–300ppb PTSA Range
- 0–15,000µS/cm Conductivity Range
- Direct Pour Sample Cell
- Compensates for Color & Turbidity
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth Ready for Wireless Features
- Integrated Data Logging

# FLUORESCENT [TAGGED] POLYMER

**COMPETE ON A WORLD-CLASS LEVEL!** Our new line-up of proprietary technology offers cutting edge optical measurement of fluorescent polymer. These easy-to-use handheld devices offer the ability to directly measure for Fluorescent [Tagged] Polymer now available on the market for use in cooling and process water treatment chemistries.



## Pyxis<sup>®</sup> SP-350P Fluorometer



### DESCRIPTION

Our **NEW** SP-350P single channel handheld fluorometer allows users the ability to directly measure for Fluorescent Polymer (aka Tagged Polymer), with no reagents required!

### PARAMETERS

Fluorescent [Tagged] Polymer

### FEATURES

- 0–20ppm Fluorescent Polymer Range
- Direct Pour Sample Cell
- Compensates for Color & Turbidity
- Compensates for PTSA Overlap
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth Ready for Wireless Features
- Integrated Data Logging

## Pyxis<sup>®</sup> SP-380P Fluorometer



### DESCRIPTION

Our **NEW** SP-380P dual channel handheld fluorometer allows users the ability to directly measure for Fluorescent Polymer (aka Tagged Polymer) and PTSA, with no reagents required!

### PARAMETERS

PTSA + Fluorescent [Tagged] Polymer

### FEATURES

- 0–300ppb PTSA Range
- 0–20ppm Fluorescent Polymer Range
- Direct Pour Sample Cell
- Compensates for Color & Turbidity
- Compensates for PTSA Overlap
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth & Data Logging Capability





# Pyxis® SP-600 Water Multimeter



## DESCRIPTION

The Pyxis Lab® SP-600 is a unique handheld multimeter specifically designed to provide added value and ease of use to the Industrial and Municipal water market users.

This military grade device is capable of instantly measuring for key water treatment parameters and also offers colorimetric Free & Total DPD Chlorine.

The simplicity of the one-handed operation is empowered by Pyxis Lab® Inc. proprietary technology that combines electro-chemical and optical measurements in a cuvette-less platform. The SP-600 offers Bluetooth connectivity between the pH/ORP module & base unit making module replacement as simple as pairing your smart phone to your car with NO TOOLS REQUIRED! The SP-600 also allows wireless data upload via the uPyxis® app.

## PARAMETERS

*pH, ORP, Conductivity/Resistivity, Temperature, Free & Total DPD Chlorine (0.02–10ppm). USEPA-180.1 Compliant.*

## POWDER PILLOWS

Use Pyxis Lab® or Industry Standard Powder Pillow Reagents to test for Free/Total Chlorine (DPD Method).



## FEATURES

- Direct Pour Sample Cell
- Wireless pH/ORP Module
- Conductivity or Resistivity Mode
- 0–200,000 $\mu$ S/cm Expanded Range
- Integrated Colorimeter for DPD Chlorine
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth Ready for Wireless Features
- Integrated Data Logging
- Simple pH/ORP Module Swap Out

# Pyxis SP-710 Water Multimeter



## DESCRIPTION

The Pyxis Lab® SP-710 Handheld Multimeter measures 6 Key Water Treatment Parameters. Featuring simple one-handed operation with our proprietary wireless pH/ORP module for simple replacement in the field, requiring NO TOOLS!

The SP-710 displays results in under a minute for all key parameters. The SP-710 offers data logging and wireless transfer via the uPyxis® app. Customize PTSA traced product name & display concentration for your specific water treatment product. The SP-710 incorporates a colorimeter for Free & Total Chlorine measurement. ELIMINATE WASTED SERVICE TIME by measuring all primary cooling traced water treatment parameters with this single device platform!

## PARAMETERS

*pH, ORP, Conductivity, Temperature, PTSA, TMB Free & Total Chlorine.*

## TMB FREE CHLORINE TEST METHOD

The SP-710 offers TMB method for testing Free & Total Chlorine. Free & Total TMB reagent is provided in a 30mL dropper bottle capable of 230 tests each. No Vials Needed!



## FEATURES

- Direct Pour Sample Cell
- Wireless pH/ORP Module
- Compensates for Color & Turbidity
- Customized Chemical Product Display
- PTSA Direct Read
- Free & Total TMB Chlorine Colorimeter
- Large Color Display Screen
- Sample LOCK-IN capability
- Integrated Data Logging
- Simple pH/ORP Module Swap Out

# Pyxis SP-710B Water Multimeter



## DESCRIPTION

The Pyxis Lab® SP-710B handheld water multimeter also measures for 6 key water treatment parameters, but offers Fluorescein for boiler water treatment applications instead of Free & Total Chlorine. The SP-710B features the Pyxis Lab® proprietary wireless pH/ORP module for simple replacement in the field, requiring NO TOOLS!

The SP-710B displays results in under a minute for all key parameters. The SP-710B offers data logging and wireless transfer via the uPyxis® app. Customize PTSA and Fluorescein traced product name & display concentration for your specific water treatment products. ELIMINATE WASTED SERVICE TIME by measuring all primary cooling & boiler traced water treatment parameters with this single device platform!

## PARAMETERS

*pH, ORP, Conductivity, Temperature, PTSA & Fluorescein*

## FLUORESCIN TEST METHOD

In addition to direct read PTSA for traced cooling water products, the SP-710B also offers direct read for Fluorescein traced boiler water treatment products.



## FEATURES

- Direct Pour Sample Cell
- Wireless pH/ORP Module
- Compensates for Color & Turbidity
- Customized Chemical Product Display
- PTSA + Fluorescein Direct Read
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth Ready for Wireless Features
- Integrated Data Logging
- Simple pH/ORP Module Swap Out



## Pyxis® SP-800 Multi-Parameter Colorimeter



### DESCRIPTION

The SP-800 is a multi-wavelength colorimeter specifically designed & suited for Municipal, Environmental, & Industrial water analysis. It arrives pre-calibrated for colorimetric measurements of analyses common in laboratory or field water testing environments. In multiple side-by-side validation and comparison studies, the SP-800 has proven to be statistically more accurate than other devices on the market.

### PARAMETERS

Offers 7 LED Wavelengths & 65+ Built-In Reagent-Based Test Methods, such as Chlorine, Phosphate, Iron, Copper, as well as UNIQUE Pyxis Lab® test methods - Direct Read Bleach Chlorine Concentration (0–16%), Direct Read Chlorine Dioxide Concentration (0–50ppm), Cyanide Free Zinc Method, & Peracetic Acid (PAA).

### FEATURES

- Bluetooth Connectivity for Wireless Capabilities via uPyxis®
- Adding User Defined Methods via uPyxis® PC app
- Wireless Datalog Download, Export, and Share via uPyxis® mobile app
- 7 LED Wavelengths
- 65+ Built-In Reagent-Based Test Methods
- Display a Concentration-Time Profile Curve during Color Development
- Operates with Pyxis Lab® or ANY Industry-Known Liquid/Solid Reagents
- USEPA Compliant Methodology



**3-in-1** — Fluorometer  
Colorimeter  
Turbidimeter

## Pyxis® SP-910 Portable Water Analyzer



### DESCRIPTION

The SP-910 is a multi-parameter & multi-wavelength Fluorometer, Colorimeter, & Turbidimeter specifically designed for Municipal, Environmental, & Industrial water analysis. It arrives pre-calibrated & ideally suited with integrated direct read testing for Fluorescein & PTSA. The SP-910 provides more accurate test results & a military-grade design for harsh field environments.

### PARAMETERS

Offers direct read for Fluorescein & PTSA (Fluorometer), True Turbidity measurement (White Light / IR LED), 7 LED Wavelengths & 65+ Built-In Reagent-Based Methods. As well as UNIQUE Pyxis Lab® Test Methods, including: Bleach Concentration, Nitrite Dioxide, Calcium, Alkalinity, Sulfite & Non-Hazardous Zinc.

### FEATURES

- Direct Read Fluorescein & PTSA
- True Turbidity Measurement - White Light / IR LED
- 7 LED Wavelengths
- 65+ Built-In Reagent-Based Methods
- Add User Defined Methods via uPyxis® app
- Bluetooth Enabled for Wireless Data Transfer & Firmware Updates via uPyxis®
- Display a Concentration-Time Profile Curve during Color Development
- Uses Pyxis Lab® & Industry Standard Reagents
- USEPA Compliant Methodology



## Pyxis EM-400 Handheld Algae Meter

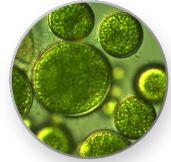


### DESCRIPTION

Measure in-vivo Chlorophyll-A (ppb) Concentration in water!

### PARAMETERS

Chlorophyll-A



### FEATURES

- 0.3–100ppb Chlorophyll-A Range
- Direct Pour Sample Cell
- Instant Reagentless Results
- Compensates for Color & Turbidity
- CHLORO-20 Synthetic Calibration Standard
- Large Color Display Screen
- Sample LOCK-IN capability
- Bluetooth & Data Logging Capable

## Pyxis HM-900 Portable OIW Analyzer



### DESCRIPTION

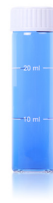
The HM-900 is a handheld portable fluorometer that measures concentrations of oil in water, utilizing multiple LED sources and wavelengths. This handheld offers 24mm vial direct-read oil-in-water measurement for Aromatic Hydrocarbons as well as Hexane Extraction and proprietary Pyxis Lab® NON-TOXIC/FLAMMABLE SOLVENT 16mm vial method. The HM-900 contains preprogrammed curves for Marine Oil, Diesel/Kerosene & Heavy Fuel Oil.



16mm Non-Flammable Solvent



16mm Insert Adapter



24mm Vial Method

### FEATURES

- 0.1–1,000 ppm Range
- Wireless Data Upload & Calibration
- Hexane & Pyxis® Extraction Methods
- Pre-Loaded & Customizable Curves
- Large Color Display Screen
- Uses both 24mm & 16mm Vials
- 365/470nm & 470/650nm Wavelengths
- Integrated Data Logging



# OXIPOCKET™



## Introducing the **SP-200 OXIPOCKET™**



### DESCRIPTION

A unique all-in-one Pocket Colorimeter specifically designed for the measurement of all primary oxidizing biocides & disinfectants commonly used in the Municipal, Domestic & Industrial marketplaces. The SP-200 OXIPOCKET™ offers colorimetric testing of oxidizing biocides & disinfectants using both Pyxis Lab® & conventional reagents. This handheld replaces the need for independent analyte pocket colorimeters or expensive multi-component colorimeters.

### PARAMETERS

DPD - Free Chlorine, Total Chlorine, Bromine, Hydrogen Peroxide, Ozone, Monochloramine, Peroxyacetic Acid (PAA), Chlorine Dioxide Wet Chemistry Methods. Proprietary Pyxis Lab® Inc. direct read methods for Bleach Concentration & Chlorine Dioxide.

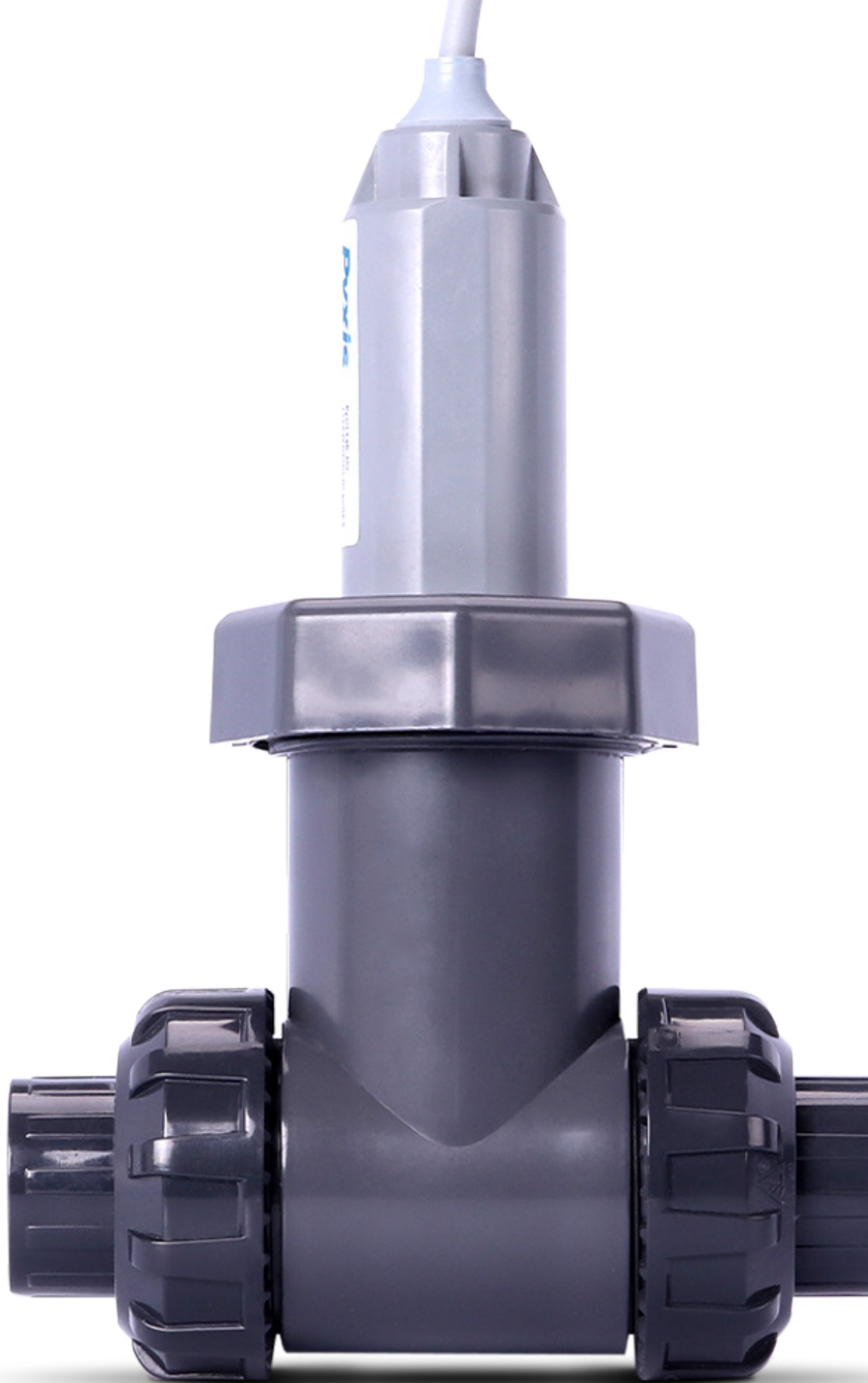
### FEATURES

- Colorimetric Testing of all Conventional Oxidizing Biocides + Disinfectants
- 3 Unique Pyxis Lab® Test Methods
- Fully Integrated Test Timers with Live Graphical Display of Residual
- Uses both Pyxis Lab® or Conventional Powder Pillow available on the market (Hach® & others)
- Meets EPA 334.0 - DPD Testing Guidelines for Drinking Water
- DPD Secondary Verification Liquid Standards available for EPA regulated applications

## INLINE SENSORS

*Choose from a variety of Inline Fluorometers, Turbidimeters, Industrial & Precision Sensors that offer fully integrated analog (4–20mA) and digital (RS-485 Modbus) outputs. Every Pyxis Lab® smart sensor contains sophisticated process control technology with integrated diagnostics. Ensure superior sensor calibration & eliminate wasted time in the field by using our wireless Bluetooth® connectivity to every Pyxis Lab® product with the uPyxis® Mobile or Desktop app.*





## Pyxis ST-710 Inline pH Sensor



### PARAMETERS

pH

### FEATURES

- 0–14 pH Unit Range /  $\pm 0.01$  pH Unit Precision
- Automatic Compensation for Temperature
- Wireless Calibration via uPyxis® app
- Utilize 4–20mA or RS-485 Modbus Formats
- Long Sensor Life with 4x KCl Gel Content
- Minimal Maintenance with Enlarged Salt Bridge



## Pyxis ST-711 Inline ORP Sensor



### PARAMETERS

ORP

### FEATURES

- $\pm 1,500$  mV Range with  $\pm 1.0$ mV Precision
- Wireless Calibration via uPyxis®
- Utilize 4–20mA or RS-485 Modbus Formats
- Long Sensor Life
- Minimal Maintenance with Enlarged Platinum Disk



## Pyxis ST-712 Inline pH + ORP Sensor



### PARAMETERS

pH + ORP

### FEATURES

- 0–14 pH Unit Range /  $\pm 0.01$  pH Unit Precision
- $\pm 1,500$  mV Range with  $\pm 1.0$ mV Precision
- Automatic Compensation for Temperature
- Utilize Dual 4–20mA or RS-485 Modbus Formats
- Long Sensor Life with 4x KCl Gel Content
- Minimal Maintenance with Enlarged Salt Bridge & ORP Disk



## Pyxis ST-720 Inline Conductivity Sensor



### PARAMETERS

Conductivity + Temperature

### FEATURES

- Large/Dynamic Range 1–100,000  $\mu\text{S}/\text{cm}$ ,  $\pm 10 \mu\text{S}/\text{cm}$  or 1.5%
- Automatic Temperature Compensation at Nominal Value = 25°C
- Wireless Diagnostics & Calibration via uPyxis® app
- Cell Constant - K Factor = 0.3
- Dual 4–20mA or RS-485 Modbus Formats
- 4 Graphite Flat Surface Electrode Design



## Pyxis ST-726 Inline Conductivity Sensor

### PARAMETERS

Conductivity + Temperature

### FEATURES

- Large/Dynamic Range 1–300,000  $\mu\text{S}/\text{cm}$ ,  $\pm 10 \mu\text{S}/\text{cm}$  or 1.5%
- Automatic Temperature Compensation at Nominal Value = 25°C
- Wireless Diagnostics & Calibration via uPyxis® app
- Cell Constant - K Factor = 0.3
- Dual 4–20mA or RS-485 Modbus Formats
- 4 Graphite Flat Surface Electrode Design



## Pyxis ST-723 High Temperature Conductivity

### DESCRIPTION

The Pyxis Lab® ST-723 is a uniquely designed high temperature conductivity + temperature sensor is ideal for Boiler & Process water applications. The sensor electrode is constructed of Hastelloy & PEEK with integrated cooling fins in the sensor body composed of 316L Stainless Steel. Dual 4–20mA & RS-485 output. Wireless diagnostics and calibration via uPyxis®.

### FEATURES

- 0–40,000  $\mu\text{S}/\text{cm}$  Conductivity Range
- 5–200°C Temperature Range



# Ultra-Low Conductivity Sensors

The Pyxis Lab® ST-725 & ST-728 are industrial grade inline ultra-low conductivity & temperature sensors specially designed for pure and ultra-pure water applications. They can be used for ultra-low conductivity and temperature measurement of pure water, ultra-pure water and deionized water including Boiler Feedwater and Condensate, RO and EDI/EDR Process Water, Ion Exchange, Distillation, Semi-Conductor Cleaning, De-Gasifier Effluent Conductivity and other process applications.

These are 'smart sensors' with a built-in transmitter supporting digital (RS-485 Modbus) and analog (4–20mA) signal outputs and are designed to simplify field installation, calibration and operation. Both sensors have built-in RTD for the automatic compensation of sample temperature.

## Pyxis® ST-725 Ultra-Low Conductivity Sensor

### RANGE

0.02–200.0  $\mu\text{S}/\text{cm}$   
0–100°C

### FEATURES

- 4–20mA & RS-485 Outputs for Conductivity & Temperature
- Calibration & Diagnostics via uPyxis® (with MA-CR)
- Rugged Stainless Steel & Hastelloy Construction
- Ultra-Low Conductivity Detection (Resistivity=50M $\Omega$ –0.005M $\Omega$ )
- 3/4-inch NPT Threaded Installation into Standard NPT Tee



## Pyxis® ST-728 Ultra-Low Conductivity

### RANGE

0.02–10.0  $\mu\text{S}/\text{cm}$   
0–100°C

### FEATURES

- 4–20mA & RS-485 Outputs for Conductivity & Temperature
- Calibration & Diagnostics via uPyxis® (with MA-CR)
- Rugged Stainless Steel & Hastelloy Construction
- Ultra-Low Conductivity Detection (Resistivity=50M $\Omega$ –0.1M $\Omega$ )
- 3/4-inch NPT Threaded Installation into Standard NPT Tee





## **Pyxis** ST-730 Inline Turbidimeter



### **RANGE, ACCURACY, RESOLUTION**

0–100 NTU,  $\pm 2\%$ , 0.1 NTU

## **Pyxis** ST-730B Inline Turbidimeter



### **RANGE, ACCURACY, RESOLUTION**

0–1,000 NTU,  $\pm 2\%$ , 1 NTU

## **Pyxis** ST-731 Inline Turbidimeter



### **RANGE, ACCURACY, RESOLUTION**

0–10 NTU,  $\pm 2\%$ , 0.05 NTU

## **Pyxis** ST-735 Inline Turbidimeter



### **RANGE, ACCURACY, RESOLUTION**

0–10,000 NTU,  $\pm 2\%$ , 10 NTU

### **FEATURES**

- Dual Wavelength: 90° Scattering with White Light LED & IR LED (860nm)
- Achieve reliable & accurate readings in Complex Flow Systems
- Compact Design for Small Footprint with an Industrial Probe Design
- Inline ST-001 Tee Assembly Included (3/4-inch NPT)
- Isolated 4–20mA Output Embedded with Integrated Transmitter
- Isolated RS-485 Output Embedded for RTU Connection
- Interfaces with Pyxis Lab® MA-WB Bluetooth® Adapter for Wireless Access via uPyxis® app
- Sensor Diagnostics and Calibration via uPyxis® app
- Beaker Calibrated in Ambient Light using Formazin Turbidity Calibration Standards

# LT-73X Warm White LED Ultra-Low Turbidity Sensors



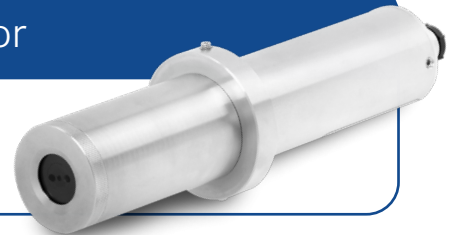
## GENERAL DESCRIPTION

The LT-73X Series of Ultra-Low Turbidity Sensors meet EPA 180.1 Compliance Guidelines by utilizing Warm White Light (LED) with a flat surface distal end in a quartz glass plate, allowing for extended cleanliness, easy maintenance and prevention of air bubble interference. The LT-73X Series offers a resolution (repeatability) of 0.001 NTU & accuracy of  $\pm 0.005$  NTU, when used with the FR-100 (Flow Reservoir Assembly) for Drinking Water Applications. For small foot print installations, the LT-73X Series may be installed using the FT-100 (Inline Flow Tee Assembly). These sensors are wirelessly calibrated with the uPyxis® app using either Formazin Liquid or Pyxis Lab® T-CAL Solid State Calibration Kits.

### Pyxis® LT-736 Ultra-Low Turbidity Sensor

#### RANGE / RESOLUTION

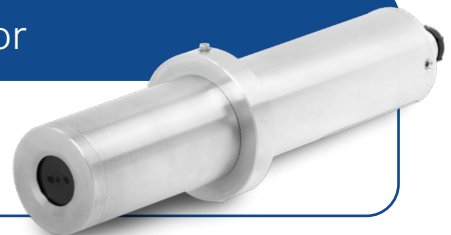
0.002–1,000 NTU / 0.001 NTU



### Pyxis® LT-737 Ultra-Low Turbidity Sensor

#### RANGE / RESOLUTION

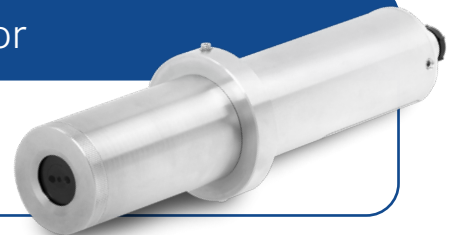
0.001–5.0 NTU / 0.001 NTU



### Pyxis® LT-739 Ultra-Low Turbidity Sensor

#### RANGE / RESOLUTION

0.001–40.00 NTU / 0.001 NTU



# LT-73XB InfraRed 860nm LED Ultra-Low Turbidity Sensors



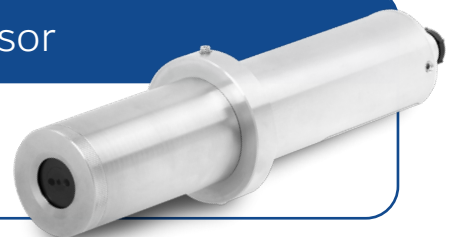
## GENERAL DESCRIPTION

The LT-73XB Series of Ultra-Low Turbidity Sensors meet ISO-7027 Compliance Guidelines by utilizing InfraRed LED (860nm) with a flat surface distal end in a quartz glass plate, allowing for extended cleanliness, easy maintenance and prevention of air bubble interference. The LT-73XB Series offers a resolution (repeatability) of 0.001 NTU & accuracy of  $\pm 0.005$  NTU, when used with the **FR-100** (Flow Reservoir Assembly) for Drinking Water Applications. For small foot print installations, the LT-73X Series may be installed using the **FT-100** (Inline Flow Tee Assembly). These sensors are wirelessly calibrated with the uPyxis® app using either Formazin Liquid or Pyxis Lab® **T-CAL** Solid State Calibration Kits.

## Pyxis LT-736B Ultra-Low Turbidity Sensor

### RANGE

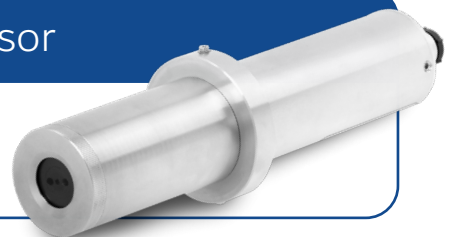
0.001–1,000 NTU



## Pyxis LT-737B Ultra-Low Turbidity Sensor

### RANGE

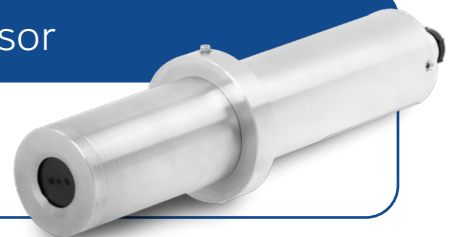
0.001–5.0 NTU



## Pyxis LT-739B Ultra-Low Turbidity Sensor

### RANGE

0.001–40.00 NTU



## Pyxis<sup>®</sup> ST-500 Inline PTSA Sensor



### DESCRIPTION

A proprietary Pyxis Lab<sup>®</sup> design, the ST-500 directly measures for the concentration of PTSA Fluorescent Tracer (0–300ppb) in Cooling Water applications, automatically compensating for sample Color (10ppm as Iron) & Turbidity (<150NTU). The ST-500 offers integrated 4–20mA & RS-485 outputs and may be wirelessly diagnosed for cleanliness & calibrated via the uPyxis<sup>®</sup> app when using the MA-WB Bluetooth<sup>®</sup> Adapter.

### PARAMETERS

PTSA (0–300ppb) for Cooling & Process Water



## Pyxis<sup>®</sup> ST-500RO Inline PTSA Sensor



### DESCRIPTION

The ST-500RO directly measures for the concentration of PTSA Fluorescent Tracer (0–40ppb) in Reverse Osmosis anti-scalant applications. ST-500RO automatically compensates for sample Color (10ppm as Iron) & Turbidity (<150NTU). The ST-500RO offers integrated 4–20mA & RS-485 outputs and may be wirelessly diagnosed for cleanliness & calibrated via the uPyxis<sup>®</sup> app when using the MA-WB Bluetooth<sup>®</sup> Adapter.

### PARAMETERS

PTSA (0–40ppb) for RO Feedwater



## Pyxis<sup>®</sup> ST-525 Inline Fluorescein Sensor

### DESCRIPTION

The ST-525 offers a proprietary design for the direct measurement of Fluorescein (Fluorescein Sodium Salt/Uranine, CAS# 508-47-8) utilizing LED light sources for use in industrial water & process treatment applications. The ST-525 offers integrated 4–20mA & RS-485 outputs and may be wirelessly diagnosed & calibrated via the uPyxis<sup>®</sup> app when using the MA-WB Bluetooth<sup>®</sup> Adapter.

### PARAMETERS

Fluorescein (0–60ppb) for Traced Industrial Water & Process Applications





## Pyxis<sup>®</sup> HM-500 Series Inline Oil-In-Water Sensors

### DESCRIPTION

The HM-500 Series are inline fluorometers that measure the concentration of dispersed or emulsified aromatic oil in water in ppm concentration as 4–20mA & RS-485 outputs. These sensors can be used for a wide variety of Hydrocarbon measurement in a direct read format, utilizing an LED sourced UV-Fluorescence methodology. The HM-500 series automatically compensates for color & turbidity and offers cleanliness diagnostics via the uPyxis<sup>®</sup> app.

### CONTACT PYXIS LAB<sup>®</sup> FOR DETAILS & PRICING

Oil Content in Water 0–10ppm / 0–100ppm / 0–1,000ppm



## Pyxis<sup>®</sup> ST-565 Inline Halogen Stable Triazole Sensor



### DESCRIPTION

The patent-pending ST-565 is a UV Excited Fluorescence Inline Sensor for measuring the direct read concentration of Halogen Stable Triazole (HST) in cooling & process water applications with a range of 0–7.5ppm. This product offers moderate compensation for color & turbidity and provides an instantaneous, reagentless azole reading. This technology is ideal for applications where yellow metal corrosion inhibitor residual monitoring is critical.

### PARAMETERS

Halogen Stable Triazole (HST) | 0–7.5ppm



## Pyxis<sup>®</sup> ST-565T Inline Tolytriazole Sensor



### DESCRIPTION

The patent-pending ST-565T is a UV Excited Fluorescence Inline Sensor for measuring the direct read concentration of Tolytriazole (TTA) in cooling & process water applications with a range of 0–10ppm. This product offers moderate compensation for color & turbidity and provides an instantaneous, reagentless azole reading. This technology is ideal for applications where yellow metal corrosion inhibitor residual monitoring is critical.

### PARAMETERS

Tolytriazole (TTA) | 0–10ppm



# FLUORESCENT [TAGGED] POLYMER

**COMPETE ON A WORLD-CLASS LEVEL.** Our new line-up of proprietary technology offers cutting edge optical measurement of fluorescent polymer. These easy-to-use inline sensors offer the ability to directly measure for Fluorescent [Tagged] Polymer now available on the market for use in cooling and process water treatment chemistries.

**INTERFERENCE RESISTANT TECHNOLOGY.** These Fluorescent [Tagged] Polymer sensors compensate for color, turbidity & PTSA overlap interference while providing sensor cleanliness diagnostics through sophisticated internal algorithms proprietary to Pyxis Lab®. This sensor technology enables water treatment companies the ability to monitor available polymer residuals for application stress indication, allowing you to compete WORLD-CLASS level.

## Pyxis® ST-588 Inline PTSA + Tagged Polymer Sensor



### DESCRIPTION

The ST-588 is an inline combination sensor capable of measuring PTSA in a range of 0–200ppb (0–500ppb capable) and Fluorescent [Tagged] Polymer on a scale of 0–20ppm, offering dual 4–20mA & RS-485 outputs may be wirelessly diagnosed for cleanliness & calibrated via the uPyxis® app.

### PARAMETERS

PTSA (0–200ppb) + Fluorescent [Tagged] Polymer (0–20ppm)



## Pyxis® ST-590 Inline Tagged Polymer Sensor



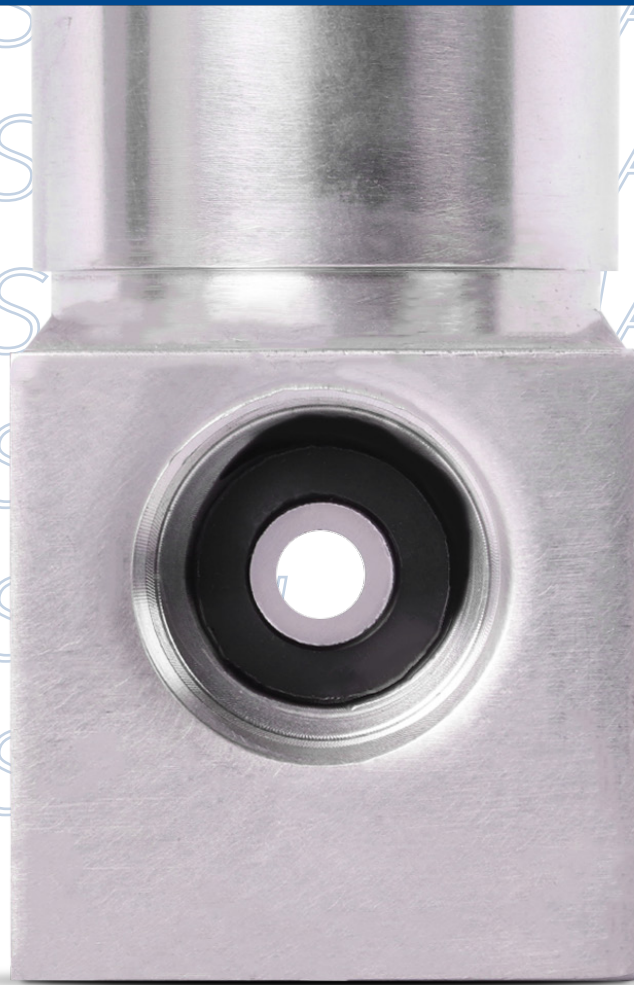
### DESCRIPTION

The ST-590 is an inline sensor capable of measuring Fluorescent [Tagged] Polymer on a scale of 0–20ppm, offering 4–20mA & RS-485 outputs may be wirelessly diagnosed for cleanliness & calibrated via the uPyxis® app.

### PARAMETERS

Fluorescent [Tagged] Polymer (0–20ppm)





## Stainless Steel Variants

### STAINLESS STEEL VARIANTS AVAILABLE:

- **ST-500SS** - PTSA for Cooling & Process Water
- **ST-500ROSS** - PTSA for RO Feedwater
- **ST-525SS** - Fluorescein for Boiler & Feedwater
- **ST-565SS** - Azole
- **ST-588SS** - PTSA + Tagged Polymer
- **ST-590SS** - Tagged Polymer
- **ST-710SS** - pH
- **ST-711SS** - ORP
- **ST-712SS** - pH + ORP
- **ST-730SS** - Turbidity
- **HM-500SS Series** - Oil-In-Water



Contact Pyxis Lab® for Pricing & Details

### FEATURES

- 304 Stainless Steel Construction
- Upper Temperature Limit - 120°F/49°C
- Upper Pressure Limit - 290psi (20Bar)
- Integrated Transmitter
- 4–20mA & RS-485 Output
- Quick Connect 7 or 8 Pin Formats
- Bluetooth® Ready with MA-WB/CR
- Wireless Diagnostics via uPyxis®
- Wireless Calibration via uPyxis®
- Easy Inline Cleaning & Calibration
- Ideal for Harsh Environments
- 3/4-inch FNPT Installation

## INLINE DISINFECTANT + TEMPERATURE SENSORS

The Pyxis Lab® ST-600 Series of Inline Sensors measure the real-time mass/mass concentration of Chlorine Content in Sodium Hypochlorite (Bleach) and Chlorine Dioxide ( $\text{ClO}_2$ ) in solution. Unlike amperometric sensors used for point of application measurement (ppm), the ST-600 series directly measure the optical density of the source solution of Bleach or Chlorine Dioxide. This is measured as percent (%) for concentration determination of the produced oxidizer solution or precursor being used in the oxidizer generation process. The ST-600 Series offers integrated dual 4–20mA & RS-485 outputs and may be wirelessly diagnosed for cleanliness & calibrated via the uPyxis® app when using the MA-WB Bluetooth® Adapter. These sensors are ideal for use in determining real-time concentration of chemical precursors or generated oxidizer solutions in a wide variety of applications and industries, optimizing efficiency and reducing chemical costs.

### TYPICAL APPLICATIONS

- Hypochlorite Generation (Electrolysis & Chemical)
- Chlorine Dioxide Generation (All Forms)
- Monochloramine Generation (Bleach Precursor Measurement)
- Swimming / Spa / Decorative Water
- Primary / Secondary Disinfection
- Commercial / Institutional

### Pyxis® ST-600 Inline Bleach Sensor

#### DESCRIPTION

The ST-600 is an inline sensor that measures the % concentration of Chlorine in Bleach (Sodium Hypochlorite). The sensor may be installed in two formats (inline tee or teflon tubing) depending on volume of bleach flow measured. Temperature compensated bleach concentration is provided in dual 4–20mA & RS-485 outputs with wireless diagnostics & calibration via uPyxis®.

#### PARAMETERS

% Concentration of Chlorine in Bleach (0–16%)



### Pyxis® ST-601 Inline $\text{ClO}_2$ Sensor

#### DESCRIPTION

The ST-601 is an inline sensor that measures the % concentration of Chlorine Dioxide ( $\text{ClO}_2$ ) solution. The sensor may be installed in two formats (inline tee or teflon tubing) depending on volume of solution being measured. Temperature compensated  $\text{ClO}_2$  concentration is provided in dual 4–20mA & RS-485 outputs with wireless diagnostics & calibration via uPyxis®.

#### PARAMETERS

% Concentration of  $\text{ClO}_2$  in Solution (0–0.35%)





## Introducing the **ST-765SS**

Inline pH + Free Chlorine / Chlorine Dioxide Sensor

### DESCRIPTION

The Pyxis Lab® ST-765SS Series are stainless steel multi-parameter membrane-less sensors based on unique electrochemical principles to determine free chlorine or chlorine dioxide & pH content in water. These sensors incorporate advanced technology in the field of bare-gold electrochemical detection. The **ST-765SS-FCL** Sensor offers compensated Free Chlorine, plus pH & temperature. The **ST-765SS-CLO** integrates Chlorine Dioxide, plus pH & temperature measurement. This unique platform offers fully integrated pH compensation in the sensor itself, eliminating the need for a separate pH sensor and controller. Dual 4–20mA & RS-485 outputs with wireless diagnostics and calibration via uPyxis®.

### PARAMETERS

**ST-765SS-FCL** = pH + Free Chlorine (0–5ppm)

**ST-765SS-CLO** = pH + Chlorine Dioxide (0–5ppm)

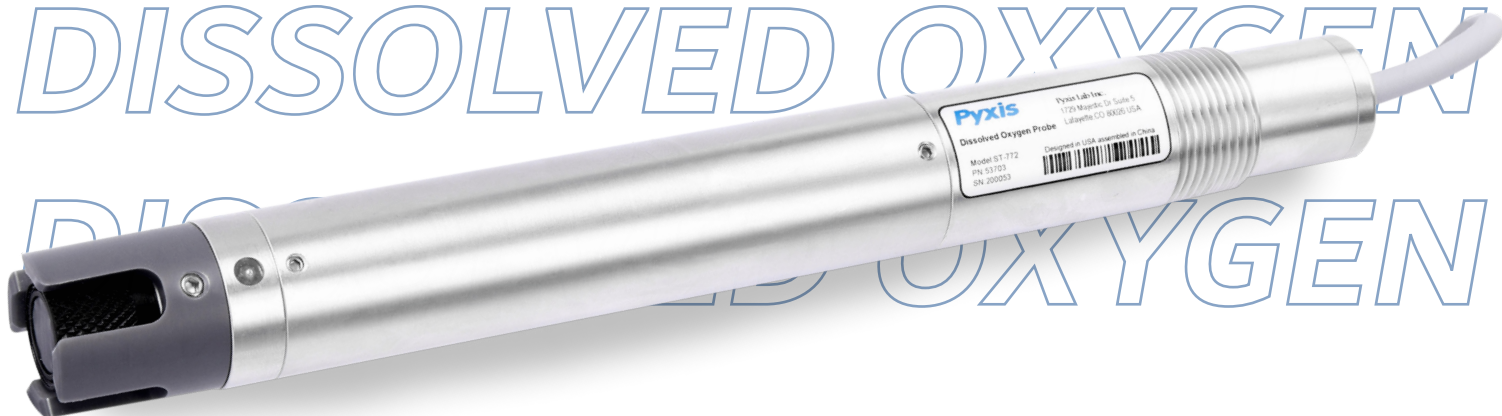
### FEATURES

- Real Time pH + Temperature Detection
- pH Compensated Free Chlorine Value
- pH Compensated ClO<sub>2</sub> Value
- Dual 4–20mA & RS-485 Outputs
- Bluetooth Ready with MA-CR
- Wireless Diagnostics via uPyxis®
- Wireless Calibration via uPyxis®
- Integrated RTD & pH Compensation to pH 9.0 of the Oxidizer Value
- Replaceable Reference Electrode
- Bare Gold Membrane-Less Design
- USEPA-334.0 Compliant
- Unique Flow Cell Design (Included)
- Reduced Polarization Time on Start-Up
- Flat Distal End / Easy to Clean

# DISSOLVED OXYGEN

# DISSOLVED OXYGEN

# DISSOLVED OXYGEN



## Introducing the **ST-772 Series**

Luminescent Dissolved Oxygen Sensors

### DESCRIPTION

The ST-772 Series Optical Luminescent Dissolved Oxygen (DO) Sensor is based on the principle of 'Fluorescence Quenching' to determine the dissolved oxygen content in water. It incorporates Pyxis Lab® advanced technology in the field of fluorescence detection and uses dual Blue/Red light detection technology with excitation and reference light sources, offering a wide range and very low detection limit. The sensors also integrate temperature & pressure detection for compensation the final DO value. The ST-772 Series offers an easily replaceable front loading DO membrane cap that has been independently developed by Pyxis Lab®, with a typical service life of up to two years. Both submersed and inline design versions in 316L stainless steel and CPVC are available depending on your application needs. Integrated dual 4–20mA & RS-485 outputs with wireless diagnostics & calibration via uPyxis®. This sensor platform may be connected to any controller, PLC or DCS network.

### PARAMETERS

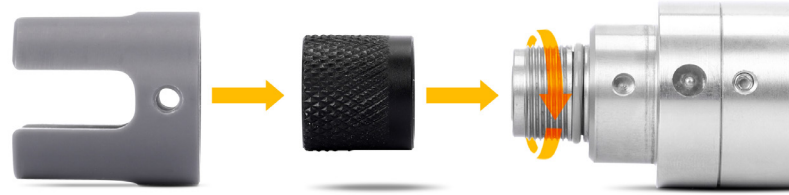
DO in Water (0.004–20ppm)  
Temperature (0–50°C)

### FEATURES

- 0.004–20mg/L (ppm) Range
- 0.01mg/L Resolution
- 0.4ppm LDL (Lower Detection Limit)
- 0–200% Saturation or 0–500 mBarO<sub>2</sub>
- Temperature Output 0–50°C
- No Membranes or Electrolyte
- Simple DO Cartridge Replacement
- RTD & Pressure Compensated Output
- Integrated Transmitter
- Dual 4–20mA & RS-485 Output
- Response Time <60 Seconds
- Ultra-Low Drift
- Slope Calibrated with Room Air
- Up to 2 Year Cartridge Life
- Floating or Fixed Submersion Install
- Inline Pressurized Tee Install
- 145psi (10Bar) Working Pressure
- 0–45°C Operational Temperature
- EPA 40CFR Part 136.3 Compliant
- 316L Stainless Steel or CPVC Body
- Bluetooth Ready with MA-CR Adapter
- Diagnostics & Calibration via uPyxis®

# SIMPLE MAINTENANCE

The ST-772 Series of sensors offer easily replaceable, front loading DO cartridge (DCC-01) that has been independently developed by Pyxis Lab®, with a typical service life of up to two years. This unique DO cartridge design incorporates a black microporous PTFE membrane material designed to provide extreme scratch resistance, extended life span and simple replacement.



## Pyxis ST-772 Dissolved Oxygen Sensor



### FEATURES

- 316L Stainless Steel
- Submersible Installation
- 30ft (10m) Bulkhead Cable Attached



## Pyxis ST-772P CPVC Dissolved Oxygen Sensor



### FEATURES

- CPVC
- Submersible Installation
- 30ft (10m) Bulkhead Cable Attached

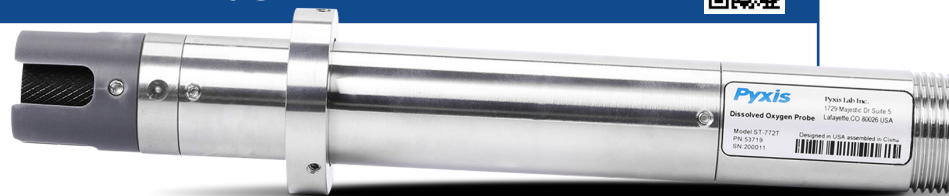


## Pyxis ST-772T Inline Dissolved Oxygen Sensor



### FEATURES

- Stainless Steel
- Inline or Bypass Flow Installations
- ST-001 Tee Assembly Provided



## Pyxis ST-772TP Inline Dissolved Oxygen Sensor



### FEATURES

- CPVC Body
- Inline or Bypass Flow Installations
- ST-001 Tee Assembly Provided



ULTRA-LOW DISSOLVED OXYGEN SENSOR



## Introducing the **ST-774**

Ultra-Low Luminescent Dissolved Oxygen Sensor



### DESCRIPTION

Measure for Ultra-Low Residuals of Dissolved Oxygen with the ST-774 Luminescent Dissolved Oxygen Sensor. Our latest DO Sensor offers a range of 0–2,000ppb with an unmatched Lower Detection Limit (LDL) of 0.4ppb. This sensor is based on the principle of Fluorescence Quenching to determine the partial pressure of Dissolved Oxygen in water. The ST-774 offers real-time compensation via integrated temperature & pressure sensors with an easily replaceable front loading DO cartridge (DCC-02). The ST-774 arrives factory-calibrated and can be immediately deployed with no need to calibrate for up to one year. Wirelessly diagnose & zero calibrate via uPyxis® & the MA-CR adapter using pure nitrogen gas (DCC-03) or 5% Catalyzed Sodium Sulfite. The ST-774 offers fully integrated 4–20mA & RS-485 outputs for direct connection to any controller, PLC or DCS network.

### PARAMETERS

Ultra-Low Dissolved Oxygen Residuals (0–2,000ppb)

### FEATURES

- 0.–2,000ppb Range
- 0.1ppb Resolution
- 0.1ppb LDL (Lower Detection Limit)
- No Membranes or Electrolyte
- Simple DO Cartridge Replacement
- RTD & Pressure Compensated Output
- Integrated Transmitter
- 4–20mA & RS-485 Output
- Response Time <30 Seconds
- Ultra-Low Drift
- Zero Calibrated with N Gas or Sulfite
- Up to 2 Year Cartridge Life
- Unique 316L Swagelok Flow Cell
- 145psi (10Bar) Working Pressure
- 0–50°C Operational Temperature
- 316L Stainless Steel Body
- Bluetooth Ready with MA-CR Adapter
- Diagnostics & Calibration via uPyxis®

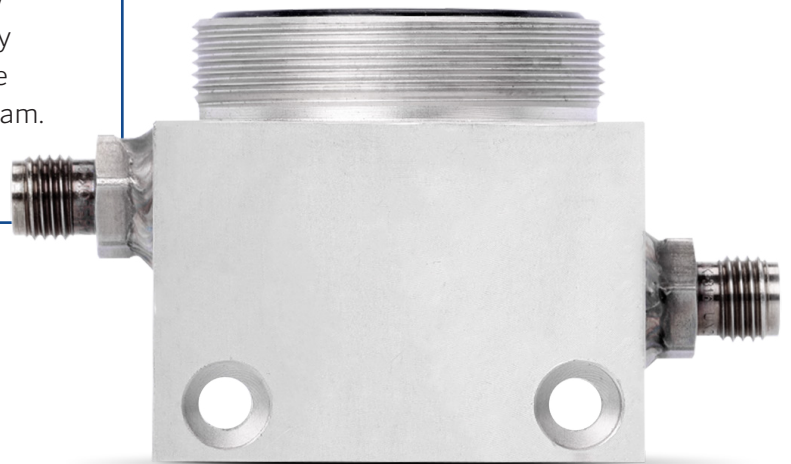




## ST-774 Dissolved Oxygen Flow Cell

### DESCRIPTION

The ST-774 is provided with a Pyxis Lab® Proprietary Stainless Steel Flow Cell with an integrated 1/4" Swagelok Inlet & Outlet and seal. This airtight flow cell allows for simple installation and when properly installed on stainless steel compression sample line mitigates oxygen contamination in the sample stream.



# PRISM RT-100

Inline Refractive Index / % Glycol / % BRIX

## DESCRIPTION

The Pyxis Lab® RT-100 PRISM™ is an inline digital refractometer that measures the refractive index of a liquid sample and provides a direct reading of highly accurate concentration values for a wide variety of water and process related applications.

The PRISM™ a stand alone device capable of self-sustained operation, live data display and data logging. The RT-100 PRISM™ also offers fully integrated 4–20mA and RS-485 Modbus output signals for connectivity to any microprocessor-based controller, display, PLC or DCS network. The RT-100 PRISM™ has built-in temperature dependent equations to convert the measured sample temperature and refractive index to the percentage concentration of Mono Ethylene Glycol (MEG), Mono Propylene Glycol (MPG), Sugar Content (BRIX) and Advanced Low Viscosity Fluid (ALV). Additional concentration curves may be added in the future by Pyxis Lab® as the market demands.

The RT-100 PRISM™ is a very robust, digital sensor and is capable of operating in contaminated fluid samples. It is important to note that users should take precautions to mitigate and filter suspended solids from the sample stream prior to the sensor to avoid tenacious deposit build-up on the sensor eye. In highly fouled applications, Pyxis Lab® recommends users conduct sensor eye cleaning on a regular basis per the manual guidelines. Pyxis Lab® is also developing & will be launching an automated sensor cleaning accessory for installation into the Tri-Clamp Flow Cell assembly as an optional accessory in the near future.

## FEATURES

- 4–20mA Output of Sample Temperature & the Unit of Display Selected via the Screen Interface
- RS-485 RTU Output for Temperature, Refractive Index & other Diagnosis Parameters
- Built-In Temperature Dependent Equations %BRIX, %MPG, %MEG and %ALV
- Future Addition of Product Concentration Curves by Pyxis Lab® as Market Requests
- Local Display & Push-Button Interface
- Optional 110VAC - 24VDC Wall Outlet Powered for Independent Operation without Controller
- Built-In Historical Data Log up to 56 Days of Storage at 1 Reading Per Minute via uPyxis®
- Bluetooth® Enabled when used with the MA-CR Bluetooth® Adapter
- Sturdy 316L Stainless Steel Construction & Suitable for Harsh Application Environments
- Convenient Stainless Steel Tri-Clamp Flow Cell Assembly with 3/4-inch NPT Flange
- Easy Installation & Removal for Cleaning & Maintenance - No Tools Needed.

## TYPICAL APPLICATIONS

- Refractive Index Direct Read Process Applications
- Mono-Ethylene Glycol Closed Loop System Monitoring
- Mono-Propylene Glycol Closed Loop System Monitoring
- BRIX/Sugar Concentration Process Applications
- Advanced Low Viscosity Fluid Heat Transfer Fluid
- Specific Gravity Determination via Refractive Index





**Pyxis**

MEG 19.6°C  
**32.5%**

**PRISM RT-100**

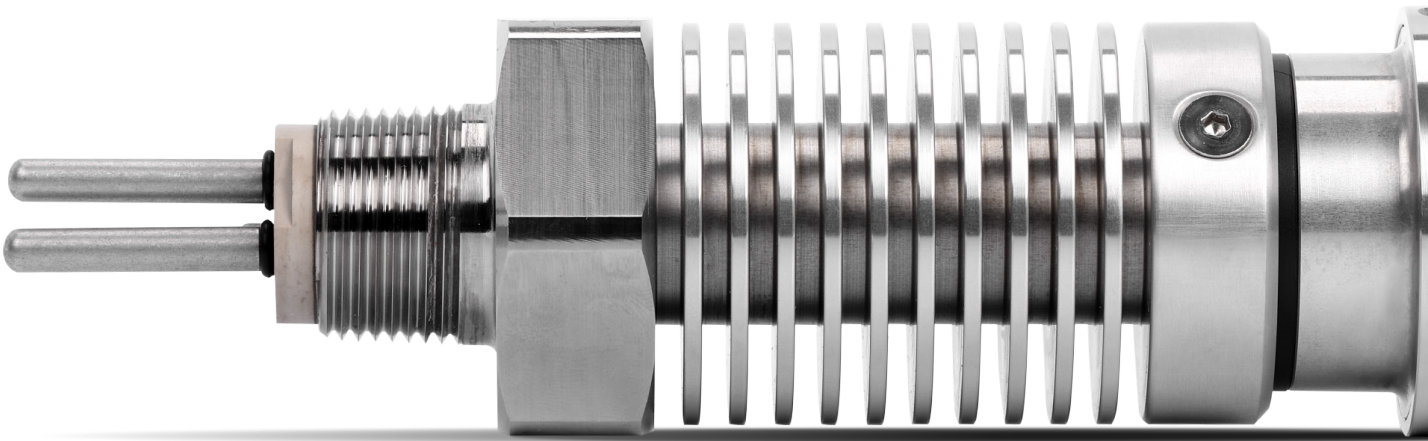
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**IN-LINE REFRACTOMETER**

Pyxis, Inc.  
1711 Magnolia Dr Suite 5  
Cincinnati, OH 45216 USA  
www.pyxis.com

## CORROSION SENSORS

*Ideal for Cooling and Process water treatment, the Pyxis Lab® CR-Series of Corrosion Rate Sensors utilize Linear Polarization Resistance (LPR) technology to provide real-time general corrosion (MPY) & Localized Corrosion Index. Instantaneous corrosion rate monitoring and data acquisition can be achieved for a wide variety of preprogrammed globally recognized metallurgies or customized metallurgies through wireless configuration via the uPyxis® app.*



## Pyxis<sup>®</sup> CR-200 Bluetooth LPR Corrosion Sensor



### DESCRIPTION

The CR-200 is a lithium battery-powered & Bluetooth enabled Corrosion Sensor for portable use, internal data logging & wireless data transfer. The CR-200 makes it possible to monitor corrosion at multiple test points, avoiding the complications of running power and signal output wires from the sensor to a controller and/or display unit. The CR-200 Sensor can store up to 6-months of corrosion data wirelessly transferable via uPyxis<sup>®</sup> as an emailed CSV file.

### PARAMETERS

LPR General & Localized Corrosion Rate

### FEATURES

- Anti-Electromagnetic Interference (Anti-EM) Design
- Battery Life up to 1 Year through using Ultra-Low Power Design
- Bluetooth Ready for Wireless Features on uPyxis<sup>®</sup>
- Accurately Measure for Generalized & Localized Corrosion Rate
- Conductivity Compensated up to 10,000 $\mu$ S/cm
- Ultra-Low Corrosion Detection of 0.001 MPY
- 20+ Preprogrammed Metallurgy Options on uPyxis<sup>®</sup>

## Pyxis<sup>®</sup> CR-300 Wired LPR Corrosion Sensor



### DESCRIPTION

The CR-300 is a 24VDC powered LPR Corrosion Sensor for wired connectivity to a controller, PLC or DCS network. The CR-300 offers integrated dual 4–20mA & RS-485 outputs and wireless connectivity when used with the MA-CR Bluetooth<sup>®</sup> adapter for configuration with uPyxis<sup>®</sup>. The CR-300 provides instantaneous General & Localized Corrosion output signals to the receiving device.

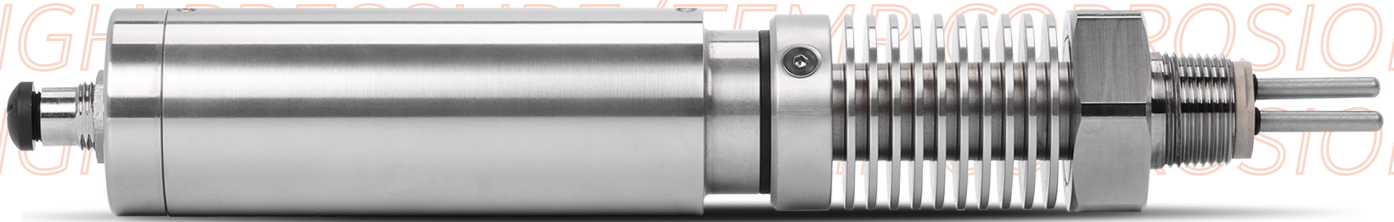
### PARAMETERS

LPR General & Localized Corrosion Rate

### FEATURES

- Anti-Electromagnetic Interference (Anti-EM) Design
- Dual 4–20mA & RS-485 Outputs
- Bluetooth Ready for Wireless Features on uPyxis<sup>®</sup> with MA-CR
- Accurately Measure for Generalized & Localized Corrosion Rate
- Conductivity Compensated up to 10,000 $\mu$ S/cm
- Ultra-Low Corrosion Detection of 0.001 MPY
- 20+ Preprogrammed Metallurgy Options on uPyxis<sup>®</sup>

HIGH PRESSURE/TEMP CORROSION  
HIGH PRESSURE/TEMP CORROSION  
HIGH PRESSURE/TEMP CORROSION  
HIGH PRESSURE/TEMP CORROSION



## Introducing the **CR-301**

High Pressure & High Temperature LPR Corrosion Sensor



### DESCRIPTION

Developed specifically for use in High Temperature & High Pressure applications, the CR-301 LPR Corrosion Rate Sensor is ideal for harsh conditions in process application monitoring where robustness & affordability are essential. The sensor utilizes Linear Polarization Resistance (LPR) technology to provide instantaneous general & localized corrosion rate. The CR-301 offers integrated dual 4–20mA & RS-485 outputs and wireless connectivity when used with the MA-CR Bluetooth® adapter for configuration with uPyxis®. The CR-301 measures sample water conductivity directly and compensates for the conductivity impact on the LPR measurement.

### PARAMETERS

LPR General & Localized Corrosion Rate

### FEATURES

- -10–240°C (14–460°F) Operational Temp
- <500psi (34.5Bar) Operational Pressure
- Titanium & PEEK Liquid End
- 316L Stainless Steel Body
- Anti-Electromagnetic Interference
- Dual 4–20mA & RS-485 Outputs
- Bluetooth Enabled with MA-CR Adapter
- Conductivity Compensated up to 50,000µS/cm
- Ultra-Low Detection of 0.001 MPY
- 20+ Preprogrammed Metallurgy Options on uPyxis®

## LEVEL SENSORS

*Pyxis Lab® offers a wide variety of Ultrasonic & Pressure Transducer Level Sensors for precise measurement of liquid volume & liquid column height. The Pyxis Lab® level sensor platform integrates 4–20mA and RS-485 Modbus output as well as Bluetooth® connectivity for wireless configuration and data acquisition via the uPyxis® app.*







## Pyxis® LS-200 Ultrasonic Level Sensor



### DESCRIPTION

The LS-200 is a general purpose and innovative liquid level sensor that provides continuous level measurement up to 106 inches (2.7m) with integrated 4–20 mA signal & RS-485 outputs. The LS-200 also offers integrated Bluetooth® 5.0 and can be wirelessly configured using the uPyxis® app. This capability enables the user to rapidly install, configure and deploy the LS-200 Level Sensor with no external equipment or minimum liquid level necessary. The LS-200 Level Sensor is powered by a 24VDC (2W) external power source and comes equipped with a 3m (10ft) waterproof 7-pin quick adapter/flying leads output cable. Extension cables are available for long distance installations. This noncontact ultrasonic liquid level sensor is ideally suited for corrosive liquids, chemical or process tank applications.

### FEATURES

- 1-inch MNPT Threaded Installation
- Integrated Electromagnetic Interference Compensation
- Embedded 4–20mA & RS-485 Transmitter
- Bluetooth® 5.0 for Rapid/Wireless uPyxis® Configuration
- 24VDC Powered with Smart Switch Capability
- PVDF Transducer/6P Polycarbonate Enclosure
- Waterproof Adapter Cable
- IP-67
- CE/RoHS Certified



## Pyxis<sup>®</sup> LS-202 Ultrasonic Level Sensor



### DESCRIPTION

The LS-202 is a general purpose, **AA-Standard Battery** or 24VDC powered liquid level sensor with local display that provides continuous level measurement up to 106 inches (2.7m) with integrated 4–20 mA signal & RS-485 outputs. The LS-202 also offers integrated Bluetooth<sup>®</sup> 5.0 and can be wirelessly configured using the uPyxis<sup>®</sup> app. This capability enables the user to rapidly install, configure, store and wirelessly transfer liquid level data as a .CSV file via email. The LS-202 Level Sensor comes equipped with a 3m (10ft) waterproof 7-pin quick adapter/flying leads output cable. Extension cables are available for long distance wired installations. This noncontact ultrasonic liquid level sensor offers the user flexibility of stand-alone installation when operated in Battery Mode, eliminating the costs associated with conventionally powered level sensors. Explosion-Proof version is available (LS-202EX).

### FEATURES

- 1.3-inch Local Display + 4 Navigation Buttons for Measurement Results & Configuration
- (2) Power Supplies: (4) AA Alkaline Batteries or 24VDC External Power & Smart Switch Capability
- Battery Life up to 9 Months using our Ultra-Low Power Design & Smart Power Management
- Stores up to 6 Months of Inventory Data when used in Battery Mode
- Bluetooth<sup>®</sup> 5.0 for Wireless Configuration & Inventory Data Storage/Transfer via uPyxis<sup>®</sup> App
- 1-inch MNPT Threaded Installation
- Integrated Electromagnetic Interference Compensation
- Embedded 4–20mA & RS-485 Transmitter
- PVDF Transducer/6P Polycarbonate Enclosure
- Waterproof Adapter Cable
- IP-67



## LSP-X01 Submersible Level Sensors

### GENERAL DESCRIPTION

The Pyxis Lab® LSP-X01 Series are Pressure Transducer Submersible Level Sensors offered in 316L (LSP-101), PVC (LSP-201) and PVDF (LSP-301) formats for a variety of liquid level applications in a range of 0–10m (32.8ft) as H<sub>2</sub>O.

The LSP-X01 Series of Pressure Transducer Level Sensors require 24VDC (2W) power supply and incorporate a fully-embedded 4–20mA transmitter for wired connection to any controller, PLC or DCS network. This platform offers offers integrated Bluetooth® 5.0 and can be wirelessly configured using the uPyxis® app by easily entering the measured liquid specific gravity and known tank volume. The LSP-X01 Series are provided with an attached PTFE transducer cable for drop-in installation. The sensor enclosure offers a 1-inch MNPT threaded installation and includes a 3m (10ft) waterproof 7-pin quick adapter/flying leads output cable. Extension cables are available for long distance installations.

Contact Pyxis Lab® for Customized Versions

### Pyxis® LSP-101 Pressure Transducer Level Sensor

#### MATERIAL / SUBMERSION DEPTH

316L Stainless Steel / 10m (32ft)



### Pyxis® LSP-201 Pressure Transducer Level Sensor

#### MATERIAL / SUBMERSION DEPTH

PVC / 10m (32ft)



### Pyxis® LSP-301 Pressure Transducer Level Sensor

#### MATERIAL / SUBMERSION DEPTH

PVDF / 10m (32ft)





## LSP-X00 Submersible Level Sensors

### GENERAL DESCRIPTION

The Pyxis Lab® LSP-X00 Series are Pressure Transducer Submersible Level Sensors offered in 316L (LSP-100), PVC (LSP-200) and PVDF (LSP-300) formats for a variety of liquid level applications. This platform offers a level measurement range of 0–10m (32.8ft) as H<sub>2</sub>O with a 1.3-inch OLED local display and integrated 4–20mA & RS-485 outputs. The LSP-X00 Series can be powered by (4) AA Li/SOCI<sub>2</sub> batteries or 24VDC external power supply. This feature enables the LSP-X00 Series to be operated in a stand-alone, self-powered or conventional 24VDC wire-powered modes depending on user preference. When used in Battery Mode the LSP-X00 Series can log and store up to 6 months of inventory data. The LSP-X00 Series offers integrated Bluetooth® 5.0 and can be wirelessly configured using the uPyxis® app. This capability enables the user to rapidly install, configure, store and wirelessly transfer liquid level data as a .CSV file via email. The LSP-X00 Series come equipped with a 3m (10ft) waterproof 7-pin quick adapter/flying leads output cable. Extension Cables are available for Long Distance Wired Installations. The LSP-Series Wall Mounting Bracket is available for easy display access & visibility.

### Pyxis® LSP-100 Pressure Transducer Level Sensor

#### MATERIAL / SUBMERSION DEPTH

316L Stainless Steel / 10m (32ft)



### Pyxis® LSP-200 Pressure Transducer Level Sensor

#### MATERIAL / SUBMERSION DEPTH

PVC / 10m (32ft)



### Pyxis® LSP-300 Pressure Transducer Level Sensor

#### MATERIAL / SUBMERSION DEPTH

PVDF / 10m (32ft)



## PANEL-MOUNTED SOLUTIONS

*Pyxis Lab® offers a variety of preassembled, panel-mounted sensor, display and data logging terminal solutions. These platforms are designed to offer the user a rapidly deployed sensor solution that provides live data display, sensor calibration interface, data logging and sensor signal passthrough to any receiving controller, PLC or DCS network.*





## Introducing the **PortaPanel™**

Portable Ultra-Low Fluorescent Dissolved Oxygen Analyzer



### DESCRIPTION

The ST-774 PortaPanel™ is a prefabricated panel ideally suited for those desiring to use the ST-774 Ultra-Low DO Sensor with local display and data acquisition in a portable fashion for oxygen measurement (ie. deaerator performance studies). The PortaPanel™ is pre-mounted on an easy-carry, self-standing 316L Stainless Steel Panel with the ST-774 Sensor, Flow-Cell and appropriate water sample/calibration gas flow hardware. The panel comes equipped with an integrated UC-50 Display & Data Logging Terminal which is connected to the ST-774 via RS-485 Modbus, offering live data display, calibration interface and data logging of the sensor. The UC-50 offers (1) contact relay output and has RS-485 Modbus and 1x 4–20mA outputs for passing the sensor value onto another device. The UC-50 also offers Bluetooth® 5.0 capabilities for uPyxis® interface and provides a USB input for rapid data download as a .CSV file.

### FEATURES

- Ideal for Dissolved Oxygen Studies
- Portable Free-Standing Panel - 316L SS
- Fully Integrated Plumbing + Flow Cell
- 1/4-inch OD Stainless Steel Swagelok
- Premounted ST-774 DO Sensor
- 0–2,000 (ppb) Measurement Range
- 0.1 (ppb) Lower Detection Limit (LDL)
- Built-In Temperature & Pressure Sensors
- Premounted UC-50 Display/Data Logger
- RS-485 Connection from ST-774
- (1) 4–20mA Output
- (1) Contact Relay
- Fully Integrated Calibration Interface
- Affordable Purchase Price
- Lightweight 7257g (16lb)
- Compact Design (300mm W x 378mm H)



## DW-2100P Drinking Water Panel

### DESCRIPTION

The DW-2100P series are multi-parameter inline water analyzers designed as a 'Turn-Key' monitoring solution for clean water applications, including drinking water networks, secondary water supply & decorative/swimming water applications. The DW-2100P series offers accurate, real-time measurement, display & data-logging of Ultra-Low Turbidity, Free Chlorine, pH & Temperature utilizing our proprietary smart sensor technology, coupled with a touch screen display & data logging terminal. The DW2100P series is offered in a convenient and easy to integrate panel mounted format for rapid installation & simple maintenance and meets USEPA-180.1 & 334.0 and ISO-7027 compliance.

The DW-2100P series analyzer integrates two Pyxis Lab® smart sensors. The ST-765SS-FCL measures Free Chlorine, pH & temperature of the sample water. This sensor is membrane-free & based on unique principles & incorporate advanced technology in the field of bare-gold electrochemical detection. The ST-765SS-FLC sensor integrates Free Chlorine, plus pH measurement & can perform temperature & pH compensation for the measurement of free chlorine based on conditions present in the application of use. This unique internal compensation results in a highly accurate oxidizer measurement consistent with DPD wet chemistry methodology as high as pH 9.0.

[Contact Pyxis Lab® for Details & Pricing](#)



## IK-765SS Monitoring Panel

### DESCRIPTION

The IK-765SS Series is a pre-assembled Free Chlorine or Chlorine Dioxide + pH + Temperature monitoring panel consisting of the ST-765SS-FCL (free chlorine) sensor or ST-765SS-CLO (chlorine dioxide sensor) with mounted FR-50 flow reservoir and the UC-50 Display + Data Logging Terminal. This platform offers real-time display, data logging and signal output capability of sample water free chlorine or chlorine dioxide, pH and temperature. The UC-50 is a microprocessor display/data-logging terminal that has been preconfigured to connect to Pyxis Lab® inline sensors with fully integrated calibration interface and signal passthrough. When any Pyxis Lab® sensor is connected to the UC-50 in RS-485 Modbus, the UC-50 automatically recognizes the sensor and configuration for immediate data display, logging and communication. The user may also configure and calibrate the output signal and contact relay through the UC-50 interface. The IK-765SS analyzer can be applied to a potable water piping network, secondary water supply and water quality monitoring of domestic and clean industrial applications. The IK-765SS meets USEPA-334.0 and ISO-7027 compliance.

[Contact Pyxis Lab® for Details & Pricing](#)





## DW-739 Drinking Water Turbidity Panel

### DESCRIPTION

The DW-739 series are single parameter inline turbidity analyzers specifically designed as a 'Turn-Key' monitoring solution for clean water applications including drinking water networks and secondary water supply networks. The DW-739 series offers highly accurate, real-time measurement, display and data-logging of Ultra-Low Turbidity utilizing proprietary Pyxis Lab smart sensor technology, coupled with the Pyxis touch screen display and data logging terminal. The DW-739 series is offered in a convenient and easy to integrate panel mounted format for rapid installation and simple maintenance.

The DW-739 series analyzer integrates the LT-739 ultra-low turbidity sensor installed in the FR-100 flow reservoir. The LT-739 sensor offers a unique flat surface distal end in a quartz glass plate, allowing for extended cleanliness, easy maintenance and prevention of air bubble interference. With a detection range of up to 40 NTU and an industry low resolution of 0.001 NTU, the LT-739 sensor is designed for optimal accuracy and performance with a wide range of turbidity water samples from raw influent to treated effluent. The LT-739 uses 90° surface scatter configuration and Warm White Light (LED) or InfraRed (LED) and is EPA-180.1 and ISO-7027 compliant respectively.

Contact Pyxis Lab for Details & Pricing at [order@pyxis-lab.com](mailto:order@pyxis-lab.com)

## PANEL INQUIRIES

To learn more about the complete offering of Pyxis Lab® panel-mounted solutions, please contact us using the information below.



1729 Majestic Drive (Suite 5) Lafayette, Colorado 80026



[order@pyxis-lab.com](mailto:order@pyxis-lab.com)



+1 (866) 203-8397

## PRODUCT ACCESSORIES

*Pyxis Lab® manufactures all necessary Calibration Standard Solutions, Powder Pillow Reagents and Electronic/Hardware accessories required for the use of, on-going maintenance/calibration and precision accuracy of the Pyxis Lab® inline sensor and handled product line.*





## ALL Necessary Calibration Standard Solutions

Liquid standards & solid state calibration kits are manufactured & prepared to the highest degree of quality & precision supporting the maintenance of all Pyxis Lab® inline & handheld devices. Certificate of analysis & SDS, as well as a full calibration standard line offering are available at [www.pyxis-lab.com](http://www.pyxis-lab.com) or by email request at [sales@pyxis-lab.com](mailto:sales@pyxis-lab.com).

### Popular Pyxis Lab® Calibration Standard Solutions

- **PTSA** - 30, 50, 100, 200, or 300ppb
- **PTSA-1010 Combined Standard** - 100ppb PTSA + 1,000 $\mu$ S/cm Conductivity
- **PTSA 100 + 50 FL Combined Standard** - 100ppb PTSA + 50ppb Fluorescein
- **PTAG-1010 Combined Standard** - 100ppb PTSA + 10ppm Tagged Polymer
- **TAG** - 10 & 20ppm Tagged Polymer
- **Fluorescein** - 10, 50, 250, 500ppb
- **Conductivity** - 1000 $\mu$ S, 50,000 $\mu$ S
- **pH** - 4.0, 7.0, 10.0 (Combination Package Available)
- **ORP** - 200mV
- **Turbidity** - 2, 10, 15, 50, 100, 200, 500, 1000 NTU (Combination Packages Available)
- **HST** - 1, 2ppm
- **TTA** - 1, 2ppm
- **DPD Chlorine** - 1, 2ppm Secondary Standard
- **Chlorophyll-A** - 20ppb
- **OIW-100LR** - Low Range Oil-in-Water Synthetic Secondary Standard
- **OIW-500HR** - Low Range Oil-in-Water Synthetic Secondary Standard
- **OIW-1000HR** - High Range Oil-in-Water Synthetic Secondary Standard



## A NEW POWDER PILLOW PROVIDER

Are you spending too much on Powder Pillow Reagents for your colorimeter? Pyxis Lab® has entered the market as a manufacturer of key parameter powder pillow reagents fully capable of use with industry-leading colorimeter devices at a reduced cost to you. For your convenience, Pyxis Lab® reagents can be used on both Industry-Standard & Pyxis Lab® colorimeter devices. See the list below to find out what reagents we are currently offering with more to come!

[Contact Pyxis Lab® for Details & Pricing](#)

### Popular Pyxis Lab® Powder Pillow Reagents

- **BrT** - Total Bromine 10mL Method
- **CL-F** - Free Chlorine DPD 10mL Method
- **CLFH** - Free Chlorine 25mL Method
- **CLFUH** - Free Chlorine Ultra-High Range 10mL Method
- **CLO2** - Chlorine Dioxide 10mL Method
- **CLTH** - Total Chlorine High Range 25mL Method
- **H2O2** - Hydrogen Peroxide 10mL Method
- **FE** - Iron
- **NH2C** - Mono-Chloramine Low Range 10mL Method
- **O3** - Ozone 10mL Method
- **PAA** - Peroxyacetic Acid 10mL Method
- **CL-T** - Total Chlorine DPD 10mL Method
- **CU** - Copper
- **Zinc XO Combination** - Pyxis Lab® Non-Toxic/Hazardous Zinc Method



## Pyxis Lab® 16mm COD & Oil-In-Water Extraction Vial Kits

### DESCRIPTION

Pyxis Lab® has developed 16mm reagent vial kits specifically for testing of Low Range COD, High Range COD and the proprietary Pyxis Lab® Non-Toxic/Flammable Solvent for extraction testing of Oil-In-Water. These prepackaged vial kits are offered in 12 or 50 pack bundles and are specifically designed for use in the Pyxis Lab® SP-800, SP-910 & HM-900 handheld multi-parameter analyzers.

Pyxis Lab® offers uniquely designed 24mm to 16mm insertion adapters enabling easy testing of COD and Extraction Oil-In-Water with the SP-800, SP-910 & HM-900 platforms. (1) Vial Adapter is included with the purchase of each Multi-Parameter Analyzer.





## Pyxis Lab® TMB Free & Total Chlorine Dropper Kits

### DESCRIPTION

The Pyxis Lab® SP-710 offers both Free & Total Chlorine methods based on the USEPA accepted tetramethylbenzidine (TMB) chemistry. Although less known for its use, the TMB method of Free and Total Chlorine measurement is highly regarded as superior to the DPD method for its rapid result development and superior stability. These unique liquid dropper bottles contain the TMB reagent for Free or Total Chlorine, a pH buffer and a polymeric binder.

When three drops of liquid reagent are administered into the sample cup of SP-710, the TMB reagent chemically & rapidly reacts with Free or Total Chlorine present to develop a stable yellow colored solution. The SP-710 measures the absorbance value of the resulted yellow solution to directly determine the Free or Total Chlorine concentration in the sample as high as 10.0ppm for each method. Each kit is provided in a 30mL easy to use dropper bottle which is sufficient inventory for up to 230 individual tests offering a far lower cost per test than conventional DPD powder pillows.

- **Single Liquid Dropper Bottle provides Easier Use, Safety & 230 Tests**
- **TMB Acidic Reaction pH eliminates  $\text{CaCO}_3$  and  $\text{CaPO}_4$  precipitation common in DPD method**
- **USEPA Approved for Domestic Water Applications**
- **Provides Rapid Reaction Results & Superior Stability versus DPD**



## Pyxis® Cleaning Kits Inline Sensors & Handhelds

### INLINE SENSORS & HANDHELD CLEANING KITS DESCRIPTION

Our handheld & inline sensors cleaning solution helps ensure the accuracy of your Pyxis Lab® handheld or inline sensor readings. Pyxis Lab® recommends a minimum cleaning frequency of once per month. High stress applications with excessive suspended solids, LSI and corrosion/scale by-product can result in the need to increase the frequency of cleaning your handheld or inline sensor. The Pyxis Lab® custom inline & handheld field cleaning kits have been specifically designed to target a wide variety of inorganic deposits and foulants commonly seen in cooling, boiler and process water applications.

### INLINE SENSORS & HANDHELD CLEANING KITS DESCRIPTION

- Custom Blend of Organic Acid/Reducing Agents & Surfactant
- Targets Inorganic Fouling & Deposition within your Handheld or Inline Sensor
- 500mL Bottles (Larger Volumes Available)
- Cleaning Procedures Provided on the Bottle
- Q-Tips & Pipe Cleaners Included (10 each) to Conduct the Cleaning Procedure
- Sufficient Volume for 12+ Cleanings



## **Pyxis** ST-001 Pyxis Lab® Inline Sensor Tee Assembly

### **DESCRIPTION**

Quick to assemble & easily replaceable, the ST-001 inline tee assembly comes INCLUDED with every standard Pyxis Lab® inline sensor. This uniquely designed tee assembly is specifically made to ensure proper alignment & fits all CPVC ST-Series inline sensors. The tee offers a 3/4-inch FNPT Sch. 80 UPVC design that is capable of up to 100psig (120°F / 49°C) and arrives with socket & thread adapters with unions. For sensor removal without by-pass flow shutdown, Pyxis Lab® offers the ST-002 Tee Plug as seen below. This plug can be inserted in place of the sensor to allow flow to be maintained through the ST-001 tee assembly after the sensor has been

### **FEATURES**

- 3/4" NPT Sch. 80 UPVC
- Socket & Thread Adapters Provided
- Quick Union Inlet/Outlet
- Unique Pyxis Lab® Inline Sensor Alignment Design
- 100psig Capable (120°F / 49°C)
- Fits all ST-Series of Pyxis Lab® Inline Sensors
- (1) ST-001 Tee Included with each Pyxis Lab® Sensor
- ST-002 Plug Available for Probe Removal





## Introducing the **PowerPACK™ Series Bluetooth® Auxiliary Adapters**

The Pyxis Lab® PowerPACK™ series Bluetooth® auxiliary adapters are uniquely designed to provide additional power budget and wireless communication to power Pyxis Lab® inline sensors to a receiving microprocessor controller, PLC or DCS with limited or no power supply capability. Offered in a single-channel, dual-channel and four-channel format, this auxiliary adapter has a built-in 24VDC power supply with 20-Watt capacity. Each PowerPACK™ is also integrated with built-in Bluetooth® 5.0 interface, allowing users to wirelessly pair to all sensors connected with the uPyxis® app for real-time diagnosis, calibration, maintenance and configuration.

PowerPACK™ auxiliary adapters can be utilized in 100VAC to 240VAC power input and provide 24VDC power supply in a direct plug-in format to Pyxis Lab® inline sensors. **PowerPACK™1** offers a single-channel input and output quick adapter cable, containing 4–20mA interface, while **PowerPACK™2** and **PowerPACK™4** extends this capability to two or four individual input and output connection adapters. Additionally, PowerPACK™2 offers RS-485 signal passthrough. Each input is specifically designed for direct connection to standard (7-Pin) Pyxis Lab® inline sensors and output is designed to connect to the Pyxis Lab® standard flying lead cable provided with the PowerPACK™ unit, then terminated to the receiving controller or device. The sensor input glands (bottom of box) and 4–20mA / RS-485 signal output glands (right side of box) are mapped one-to-one by numbered labels. Conversion adapters for Pyxis Lab® 5-Pin and 8-Pin sensors are also available allowing PowerPACK™ to be used with all Pyxis Lab® sensor wiring formats.

# Introducing the **NEW MA-Series Bluetooth® Adapters**

We have redesigned our MA-Series of Bluetooth® Inline Adapters! These updated models offer the same Bluetooth® functionality as their predecessors with **NEW** features including a **Live Local Display**, a **Calibration & Diagnostics Hub**, & **Datalog Capabilities** of the sensor connected. As with the original design, the MA-Series Inline Bluetooth® Adapters are 24VDC powered by the connected controller or device.

## PRODUCT DESCRIPTION

The Pyxis Lab® MA-Series of inline adapters are uniquely designed accessories which enable Pyxis Lab® inline sensors to be accessed, viewed, configured and calibrated via the uPyxis® app for mobile or desktop devices. The MA-Series of adapters are offered in a Bluetooth® 5.0 wireless platform in 7-Pin, and 8-Pin formats enabling connectivity to all Pyxis Lab® inline sensors.

## RAPID INSTALLATION, CONNECTION & REMOVAL

These adapters are designed to be installed easily and without the need for tools. Each format is rapidly connected with “quick-adapters” designed for its sensor conductor pin format (7, & 8). When installed, the MA-Series inline adapters utilize the power provided (24VDC) from the controller it is connected to, passing the power supply through to the connected inline sensor. Additionally, each MA-Series inline adapter offers 4–20mA and/or RS-485 Modbus connectivity from the sensor to the receiving controller, PLC or DCS network. The MA-Series Adapters may be left inline permanently or installed and removed as a portable accessory device as needed.



### **Pyxis** MA-CR 8-PIN Bluetooth® Adapter

Enables rapid Bluetooth® 5.0 connectivity for any 8-Pin Pyxis Lab® inline sensor for mobile monitoring, calibration, configuration, diagnostics & more.

- Live Local Display
- Calibration & Diagnostics Hub
- uPyxis® Datalog Capabilities



### **Pyxis** MA-WB 7-PIN Bluetooth® Adapter

Enables rapid Bluetooth® 5.0 connectivity for any 7-Pin Pyxis Lab® inline sensor for mobile monitoring, calibration, configuration, diagnostics & more.

- Live Local Display
- Calibration & Diagnostics Hub
- uPyxis® Datalog Capabilities



# uPyxis® Mobile & Desktop App

The universal application for all your Pyxis Lab® products! Customize, calibrate, monitor and share data from your smart phone or desktop. Our Bluetooth® capable & Bluetooth® enabled - via the MA-Series or PowerPACK™ Series of adapters - analytical water tools make life easier, water treatment simple and work more efficient.

## Wireless Monitoring

Monitor your sensors with live reading displays right on your phone or computer. Get within range of your Pyxis Lab® device and quickly monitor the live readings. Live data charts and readings will display under the 'Reading Tab' of the uPyxis® app.

## Configure Your Device to Fit Your System

Change internal settings like Device Name, Screen Shut-Off Time, Excitation Wavelengths, Product Factor & more to help match your specific application and ensure accurate readings.

## Wireless Sensor Diagnostics

Keep up on the quality of your inline sensor by running the Pyxis Lab® Cleanliness Check directly on your uPyxis® app. Simply select the 'Cleanliness Check' option and the uPyxis® app will immediately notify whether or not your sensor is 'Clean' or 'Dirty'.

## Simple Calibration

Calibrate your Pyxis Lab® device in minutes. Simple Zero and Slope calibration options are available on the uPyxis® app to make your life simpler.





## CONTACT **PYXIS LAB**<sup>®</sup>

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