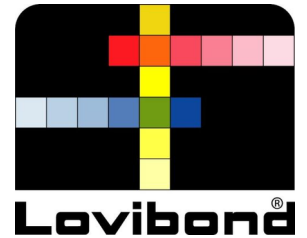# Lovibond® Water Testing

## Tintometer® Group

# PTV2000 Process Turbidimeter with Profibus & Bluetooth®; Red Light Source, EPA

Process Turbidity Simplified



- Online Turbidimeter approved for EPA reporting purposes
- Compatible with AquaLXP mobile app
- Access & analyze data quickly and easily
- Approved by Texas TCEQ as an alternative method for monitoring individual filter effluent from membrane units used for pathogen removal

Part Number: 6145614

## Process Simplified - A New Approach

Details Matter. The development of the PTV Series considered every aspect of process turbidity workflow - from installation and setup; daily measurement and control; routine procedures such as calibration, verification and maintenance; to data collection and management.

## Smart User Interface - Rethink the Controller

We've replaced the need for a traditional controller with the familiar interface of a smart device. By utilizing a mobile device app, the user experience is enhanced by allowing quick and easy data viewing, calculation of statistics and access to operator instructions and useful tips.

## Designed to Save

Save time, money and water by using the PTV system. These instruments are optimized for drinking water applications with unsurpassed low range accuracy (below 1 NTU). It has a variety of features that help users save.

## Regulatory Compliant

The PTV Series has instruments that meet EPA and ISO regulatory requirements.

## Fluidics Manager

The Fluidics Manager is an additional accessory that streamlines sample flowing into and out of the instrument. This eliminates the need to install and maintain separate devices to control sample entering and exiting the sensor.

## Panel Mounting System

A Place for Everything - The Panel Mount is an additional accessory that aids in the installation of key instrument components and accessories.

## Two Ways to Interface

**Touchscreen Interface** - All PTV Series instruments are supplied with an integrated touchscreen. All measurement settings and routine functions such as calibration can be managed directly with the touchscreen without the need for additional devices.

**AquaLXP™ Interface** - The AquaLXP™ app is an enhanced version of the touchscreen. In addition to being able to perform all of the functions as the touchscreen, users have access to animated instructions of all procedures, advanced data analysis and statistics tools, complete maintenance and repair logs as well as the comfort of using a familiar device.

## Wet Standards - for Calibration & Verification

T-CAL Turbidity Standards from Lovibond® Tintometer® are primary standards that are US EPA and ISO compliant.
When you combine our T-CAL Turbidity Standards and our T-CALplus™ packaging, turbidity standards have never been easier to use.

## Industry

Municipalities

## Application

Drinking Water Treatment

## PTV2000 Process Turbidimeter with Profibus & Bluetooth®; Red Light Source, EPA

The PTV2000 Process Turbidimeter utilizes a red LED light source for monitoring filter effluent in a regulatory environment. The red light improves the limit of detection over traditional tungsten light sources, so operators can see changes in turbidity faster. The instruments are designed to consider every aspect of an operators' work flow with an emphasis on simplicity and accuracy.

## Measuring Range

| Test Name | Measuring Range |
|---|---|
| Turbidity | 0.0001 - 100 NTU |

## Technical Data

| | |
|---|---|
| Optics | Red LED |
| Accuracy | ±2 Percent of reading or smaller 0.008 / 8 mNTU |
| Display | Touchscreen |
| Stray Light | smaller 0.008 / 8 mNTU |
| Displayed Resolution | up to 0.0001 NTU (range dependent) or 5 digits displayed |
| Repeatability / Precision | better than 1% at 1 NTU |
| Initial Response | 10 % change: 15 seconds @ max flow |
| Step Response | (T-90), less than 240 seconds at 200 ml/min. at 1 NTU |
| Signal Averaging | User Selectable: 1, 3, 6, 10, 30, 60, and 90 seconds, defaulted to 30 seconds |
| Sample Temperature | 0 - 50 °C (32 to 122 °F) max sample temperature: 70 °C (158 °F) |
| Sample Flow | 30 to 500 ml/min, optimal flow: 50 to 80 ml/min |
| Sample Inlet Connection | 1/4-inch NPT female, 1/4-inch compression fitting tubing (included) |
| Sample Outlet (Drain) Connection | 3/8-inch NPT female, 3/8-inch hose barb tubing (included) |
| Power Requirements | 90 to 264 VAC, 50/60 Hz. Auto Select |
| Sample Inlet Tubing | 1/4-inch OD or 6 mm OD |
| Sample Oulet Tubing | 3/8-inch OD or 9 mm OD |
| Turbidimeter Body Drain | Quick connect with integrated check valve |
| Calibration | One Point Calibration at 5.0 or 20 NTU with any regulatory approved formazin |
| Analog Output: Measurement Module | 1 selectable 0 - 20 mA or 4 - 20 mA; output span programmable over any portion of the measurement range |
| Analog Output: Junction Box | 1 selectable 0 - 20 mA or 4 - 20 mA; output span programmable over any portion of the measurement range |
| Alarms | Three set-point alarms, each equipped with an SPDT relay with unpowered contacts rated 5 A resistive load at 230 V, AC |
| Digital protocol | Profibus DP |
| Enclosure Type: Junction Box | Fiber reinforced polyester |
| Enclosure Rating: Junction Box | IP 66 |
| Safety | Listed by TÜV Rheinland to UL 61010A-1: Certified by TÜV Rheinland to CSAC22.2 No. 1010.1: CE Certified by TÜV Rheinland to EN 61010-1 |
| Immunity | CE certified by TÜV Rheinland to EN 61326 (Industrial Levels) |
| Mounting Hardware | Turbidimeter Sensor - Slotted Mounting Bracket that can be affixed to any vertical surface or panel (Optional). Junction Box - Direct mounting to any vertical surface or panel (Optional) |
| Method of Verification | Wet Standards or dry verification device |
| Limit of Determination | 0.0001 NTU |
| Limit of Detection | 0.001 NTU |
| Flow Indicator | no |
| Portability | Process |
| Environmental Conditions | 5 - 50 °C (41 to 122 °F), rel. humidity 5 - 95 % (Non-condensing) |
| Stock Conditions | -40 - 60 °C (-40 - 140 °F) |
| Compliance | EPA |
| Dimensions | 158.5 x 340.4 x 334.5 mm |

## Accessories

| Title | Part Number |
|---|---|
| Assembly, Float | 19806-054 |
| Assembly, Fluidics Manifold | 19806-056 |
| Constant Head Height Regulator | 19806-058 |
| Kit, Fittings & Tubing | 19806-059 |
| T-CALplus Calibration Tube Assembly (Blue Tube)- | 19806-062 |
| Cleaning Tube Assembly (Black Tube) | 19806-072 |
| Kit, Bubble trap cover Replacement (comes with O-ring) | 19806-077 |
| Kit, Beam dump Replacement (comes with O-ring), for PTV 1000, PTV 2000 | 19806-078 |
| Kit, Knob for bubble trap | 19806-079 |
| Kit, Drain fitting | 19806-080 |
| Kit, Drain cover | 19806-081 |
| Mounting Cleat, for PTV 1000, PTV 2000 | 19806-082 |
| Kit, Flow body assembly, with Flow Meter | 19806-083 |
| Kit, Flow body assembly, without Flow Meter | 19806-084 |
| Kit, Illuminator Lens Sub Assembly | 19806-085 |
| Kit, Installation Connectors | 19806-086 |
| Rotometer, 25 to 100 mL/min | 19806-087 |
| Panel, Instrument and Sample Management | 19806-088 |
| Brass mounting cup assembly | 19806-106 |
| Dry Verification STD, High Range ( > 10 NTU) | 19806-110 |
| Dry Verification STD, Low Range ( < 10 NTU) | 19806-111 |
| Fuse, 1.6A, 250VAC | 19806-206 |
| Illuminator O-ring | 19806-407 |
| O-ring, for Beam Dump | 19806-416 |
| Tubing, 1/4" OD, black, Polyethylene | 19806-429 |
| O-ring, Rear Drain cover | 19806-434 |
| Fitting, Quick Connect, Male | 19806-436 |
| Lanyard Strap | 19806-448 |
| Fitting, Quick Connect, Female | 19806-449 |
| Plug for Conduit holes | 19806-487 |
| Valve; 1/4" Tubing Quick Connect | 19806-494 |
| Tablet Wall Mount | 19806-521 |
| Strain Relief, 3/8" NPT | 19806-527 |
| Tubing, 3/8" ID x 1/2" OD x 1/16" Wall, Clear PVC | 19806-531 |
| Seal, Bubble trap cover, -241 - | 19806-554 |
| Insert, Measurement Module Holder, Instrument Panel | 19806-570 |
| Measurement Module, PTV 2000 RL | 19806-704 |
| Measurement Module, PTV 2000 RL, with Bluetooth® | 19806-705 |
| Pad, Application, Microfiber, w/pocket | 19806-803 |
| Rinse bottle, 500 ml | 420056 |
| T-CALplus® -Standard, 0.30 NTU, Standard for Verification | 48010035 |
| T-CALplus® -Standard, 1.00 NTU, Standard for Verification | 48010135 |
| T-CALplus® -Standard, 5.00 NTU, Standard for Calibration | 48010235 |
| T-CALplus® -Standard, 20 NTU, Standard for Calibration | 48010335 |

| Title | Part Number |
|---|---|
| T-CAL®-Standard, 0,30 NTU, 500 ml | 48011050 |
| T-CAL®-Standard, 1,00 NTU, 500 ml | 48011150 |
| T-CAL®-Standard, 5,00 NTU, 500 ml | 48012250 |
| T-CAL®-Standard, 20,00 NTU, 500 ml | 48012350 |
| Cleaning Solution | 54010435 |
| Detergent Solution | 54011010 |
| Scale Remover | 54013003 |