Lovibond® Water Testing

Tintometer® Group

PTV 1000 with Modbus

Next Generation of On-line Turbidity Measurement



- Smart Interface - Rethink the Controller
- Simplified and Streamlined Processes
- Innovative, Low Maintenance Design
- Unsurpassed Accuracy for low-level effluent measurement

Part Number: 6135693

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 optimised 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

Chemical Industry | Food and Beverage Industry | Industries Others | Municipalities | Pharmaceutical Industry | Pool Public | Power and Energy

Application

Drinking Water Treatment

PTV 1000 with Modbus

Turbidity is the key measurement parameter for determining drinking water quality.

To develop this instrument, Lovibond® Tintometer® assembled a team of globally recognized turbidity experts. We tasked them with creating a new process instrument that addresses all of the issues customers struggle with while using their current turbidity systems. These advancements, along with the addition of state-of-the-art communications and user interface make the PTV 1000 and PTV 2000 the next generation of process turbidimeters.

Measuring Range

Test Name	Measuring Range
Turbidity	0.0001 - 100 NTU

Technical Data

Optics	White LED
Accuracy	±2 Percent of reading or smaller 0.015 / 15 mNTU
Stray Light	smaller 0.015 / 15 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 max sample temperature: 70 °C
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	Modbus RS485/RS232
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)
Emissions	Class A: EN 61326, CISPR 11, FCC Part 15, Canadian Interference-Causing Equipment Regulation ICES-003
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	0.0005 NTU
Limit of Detection	0.005 NTU
Flow Indicator	no
Portability	Process
Environmental Conditions	5 - 50 °C, rel. humidity 5 - 95 % (Non-condensing)
Protection Class	IP 65
Compliance	EPA
Dimensions	158.5 x 340.4 x 334.5 mm
Weight	5 kg

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 1000 IR	19806-700
Measurement Module, PTV 1000 IR, with Bluetooth®	19806-701
Pad, Application, Microfiber, w/pocket	19806-803

Title	Part Number
Rinse bottle, 500 ml	420056
T-CAL*plus*® -Standard, 0.30 NTU, Standard for Verification	48010035
T-CAL*plus*® -Standard, 1.00 NTU, Standard for Verification	48010135
T-CAL*plus*® -Standard, 5.00 NTU, Standard for Calibration	48010235
T-CAL*plus*® -Standard, 20 NTU, Standard for Calibration	48010335
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

Tintometer GmbH
Lovibond® Water Testing
Schleefstraße 8-12
44287 Dortmund
Tel.: +49 (0)231/94510-0
sales@lovibond.com
www.lovibond.com
Germany

The Tintometer Limited
Lovibond House
Sun Rise Way
Amesbury, SP4 7GR
Tel.: +44 (0)1980 664800
Fax: +44 (0)1980 625412
sales@lovibond.uk
www.lovibond.com
UK

Tintometer China
9F, SOHO II C.
No.9 Guanghualu,
Chaoyang District,
Beijing, 100020
Customer Care China Tel.: 4009021628
Tel.: +86 10 85251111 Ext. 330
Fax: +86 10 85251001
chinaoffice@tintometer.com
www.lovibond.com
China

Tintometer South East Asia
Unit B-3-12, BBT One Boulevard,
Lebuh Nilam 2, Bandar Bukit Tinggi,
Klang, 41200, Selangor D.E
Tel.: +60 (0)3 3325 2285/6
Fax: +60 (0)3 3325 2287
lovibond.asia@tintometer.com
www.lovibond.com
Malaysia

Tintometer Brazil
Caixa Postal: 271
CEP: 13201-970
Jundiaí – SP
Tel.: +55 (11) 3230-6410
sales@lovibond.us
www.lovibond.com.br
Brazil

Tintometer Inc.
6456 Parkland Drive
Sarasota, FL 34243
Tel: 941.756.6410
Fax: 941.727.9654
sales@lovibond.us
www.lovibond.us
USA

Tintometer India Pvt. Ltd.
Door No: 7-2-C-14, 2nd, 3rd & 4th Floor
Sanathnagar Industrial Estate,
Hyderabad, 500018
Telangana
Tel: +91 (0) 40 23883300
Toll Free: 1 800 599 3891/ 3892
indiaoffice@lovibond.in
www.lovibondwater.in
India

Tintometer Spain
Postbox: 24047
08080 Barcelona
Tel.: +34 661 606 770
sales@tintometer.es
www.lovibond.com
Spain

Technical changes without notice
Printed in Germany
Lovibond® and Tintometer® are Trademarks of the Tintometer Group of Companies