

# LASER PARTICLE COUNTER SYSTEM

FILTER / WATER QUALITY MONITORING



## SYSTEMS AVAILABLE

### PC2400D - 2 micron sensor

- 2-900 micron detection range
- 2-100 micron programable size range

## OPTIONAL FEATURES

- TracWare Software
- Analog I/O Board
  - › 4 Analog Inputs
  - › 4 Analog Outputs
- Cell Condition Analog Output Module
- Modbus ASCII/ RTU
- ETHERNET (Modbus/ TCP)
- Profibus DP
- TracServer DDE Server
- TracServer OPC Server

## BENEFITS

- Optimize Particulate Removal
- Sizes & Counts Particles On-Line
- Immediate Response To Process Changes
- Maintain High Quality Finished Water
- Optimize Filter Backwash
- Improve Filter Performance
- External Sensor Simplifies Sensor Maintenance
- Built in Communication protocols, no more "Black Box".

## STANDARD FEATURES

- Patented Sensor Design
- 2-900 micron Detection Range
- External Sensor
- Volumetric Measurement
- Backlit Liquid Crystal Display
- Large Flow Cell Minimizes Sensor Fouling
- Corrosion-Free Nema 4x Enclosure
- 2 Wire RS485 Serial Computer Interface
- TracCom Software for Instrument Setup
- Eight Channels of Particle Counts
- Cell Condition Readout (0 to 100%)

## MEASUREMENT PRINCIPLE

The Chemtrac Systems, Inc. Laser Particle Counter model PC2400D combines simplicity of operation with powerful performance to set the standard for on-line particle counting. The external sensor contains the laser diode light source, flow cell, and detector circuit. The sample is passed through the flow cell, and pulses corresponding to each particle are output from the detector circuit. The amplitude and quantity of these pulses is then translated into particle size and concentration information. This high level of sensitivity makes the Particle Counter ideal for both monitoring and optimizing filter operations.

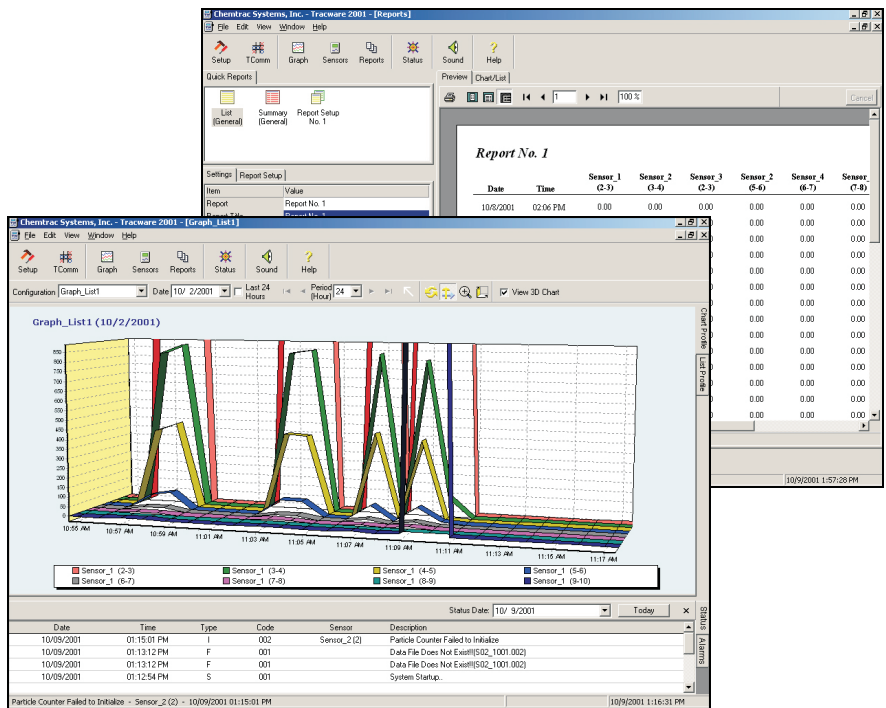
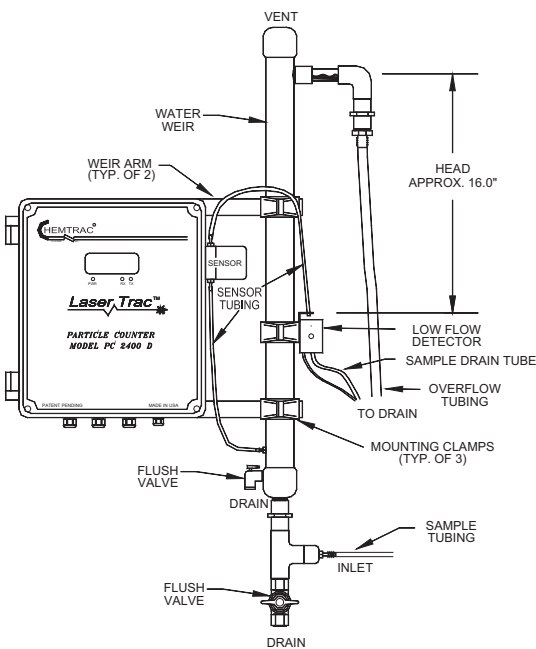
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## GENERAL SPECIFICATIONS

Laser Type:	Solid-state Laser Diode
Flow Cell:	1mm x 1mm
Cell Material:	Nituff™ Coated Aluminum
Viewing Windows:	Sapphire
Dynamic Range:	2-900 microns
Flow Rate:	60 mL/min (1 micron) or 100 mL/min (2 micron)
Resolution:	Greater than 10% at 10 Micron per ASTM-F658
Coincidence:	<10% at 15,000 cnts/mL
Size Channels:	8, User-selectable
Laser Diode Life:	MTBF 75,000 hours @ 55°C
Measurement Type:	Volumetric, counts/mL
Local Display:	4 x 20 Backlight LCD, address, counts/channel, sensor Cleanliness, and communications LED
Serial Communications:	2 wire RS485 (Network) and RS232 (Local)
Communication Protocols:	<i>Standard</i> ; Optomux & Modbus ASCII <i>Optional</i> ; Modbus RTU, Modbus/TCP (ETHERNET) & Profibus DP
Analog Inputs:	4 Channels: 0-5 VDC or 4-20 mA
Analog Outputs:	4 Channels: 4-20 mA Representing First Four Size Ranges 1 Analog output: 4-20 mA Representing Cell Condition
Power:	100-240 VAC
Temperature:	35° - 130° Fahrenheit (2° - 55° Celsius)
Module Size:	14.25"W, 12.75"H, 5.5"D
Weight:	12 lbs.



Chemtrac Systems, Inc.  
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