



PARTICLE COUNTER PC3400

STANDARD FEATURES

- Counts particles in liquid from 2-750 microns
- Sizes particles from 2-125 microns
- Up to 8 user programmable size ranges
- Large display with 8 channel readout & graph
- Reports total counts, cnts/mL, or cnts/100mL
- User friendly, menu driven calibration
- MODBUS RTU communication
- Laser & cell condition readout (0-100%)
- External sensor with sapphire optics

OPTIONAL FEATURES

- TracWare data acquisition software
- Analog Outputs, Inputs, & Alarm Relays
- Multiple communication protocols supported
- Larger sizing capability upon request
- Parts-per-billion (ppb) display for particle concentrations*

BENEFITS

- Provides a reliable and accurate measurement of particles down to low ppt levels
- Advanced firmware and menu functions eliminates need for external software to perform setup and calibration
- User friendly calibration routine makes calibration fast, simple, and lowers maintenance cost
- Large display shows all 8 particle size channels at once, plus graph of last 64 readings and other sensor performance info
- External sensor is easy to clean and water is kept away from electronics

APPLICATIONS

Water Treatment

Wastewater Treatment

Reverse Osmosis Pretreatment

Membrane Filtration

Boiler/Condensate

Parts Washing

Food & Beverage

Pharmaceutical

DESCRIPTION

The PC3400's performance reliability, ease of use, and measurement capability make it an ideal choice for online filter performance monitoring and optimization. This is most clearly demonstrated in the PC3400's ability to detect filter breakthrough often hours in advance of any NTU change. Close to two decades of customer experience with Chemtrac's Particle Counters has proven the effectiveness of this technology to take water quality monitoring to the next level. Chemtrac's PC3400 is the right choice if the optimization demands of your application are not being met by relative and less sensitive measurements of water quality like those provided by turbidimeters or SDI test systems.

Chemtrac has experience with many applications that require the measurement of liquid borne particles. Our team of professionals can help you with just about any application. Contact us or go to www.chemtrac.com for more details.



Particle Detection

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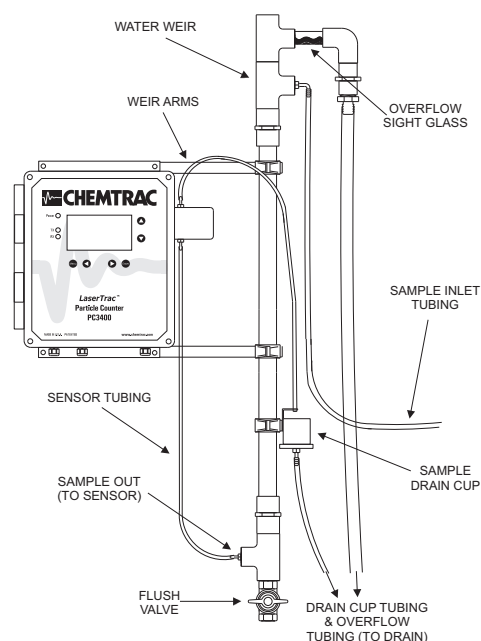
GENERAL SPECIFICATIONS

Laser Type:	Solid-state laser diode (780 nm)
Cell Material:	Nituff coated aluminum PEEK plastic (optional)
Viewing Windows:	Sapphire
Detection Range:	2-750 microns
Sizing Range:	2-125 microns
Flow Rate:	75 mL/min
Sample Temperature:	32° - 120° F (0° - 50° C)
Resolution:	Better than 10% at 10 micron (ASTM-F658)
Coincidence Limit:	20,000 cnts/mL (2 micron)
Signal to Noise Ratio:	Better than 5:1
Size Channels:	8 - user selectable and total counts
Alarms:	Sensor diagnostic, particle count limit
Laser Diode Life:	MTBF 75,000 hours @ 55° C
Measurement Type:	Light obscuration, Volumetric
Local Display:	Graphical, 8 size channels displayed at once, unit info/diagnostic screen, alarm screen, total count screen, graphical trending, user menus
Display Readout:	Size channel, counts, cell condition (0-100%), laser condition (0-100%), unit address, sample period, sample frequency, flow rate, days until data log overwrite ppb volumetric concentration (optional)
Graphical Trending:	Trending of last 64 logged values for any size range, analog input, or sensor status %
Data Storage:	65,000 sample strings User defined logging interval (1 - 254 min.)
Keypad Interface:	All instrument settings may be modified via the keypad interface, including instrument calibration (some settings require password)
Serial Communications:	2 wire RS485 (Network) and RS232
Communication Protocols:	Standard: MODBUS RTU (RS485) Optional: MODBUS TCP (Ethernet), multiple communication protocols supported
Analog Outputs**:	2, 4, 6, or 8 channels, 4-20 mA (optional)
Analog Inputs**:	2, 4, 6, or 8 channels, 4-20 mA 0-5V, 0-10V (optional)
Alarm Relays**:	2, 250V, 1 Amp (optional)
Power Requirements:	100-240 VAC, 200mA, 47 - 63 Hz 12 or 24 VAC (optional)
Operating Temperature:	32° - 120° F (0° - 50° C)
Dimensions:	12" W x 11.5" H x 5.25" D (305 mm W x 292 mm H x 57 mm D)
Weight:	7 lbs (3.2 kg)

*Calculated volumetrically for particles larger than 2 micron & assuming spherical shape

**Can only have up to a maximum of 8 outputs, inputs & relays combined

PC3400 and Weir set-up



PC3400 Display Screens

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STATUS
Unit: 1          Ver: 1.07hx
Sample #: 2070
Memory: 34%     Days: 7
Sample Period: 10
Sample Frequency: 15
Laser: 99%      Cell: 92%
Flow Rate: 75 ml/min
Sampling         Time 15:25
  
```

```

2-5 um    - 1051 /ml
5-10 um   - 232 /ml
10-15 um  - 55 /ml
15-25 um  - 40 /ml
25-50 um  - 7 /ml
50-80 um  - 1 /ml
80-100 um - 0 /ml
> 100 um  - 0 /ml
Time 15:25
  
```

```

Total Counts /ml
1410
Sampling      Time 15:25
  
```

