



# ParticleSense Portable

## Portable Particle Counter

The Portable Particle Counter (ParticleSense Portable) combines simplicity of operation, advanced electronics, and powerful performance to set the standard for particle counting in liquids. This highly portable unit has the capability to operate as both a grab sample particle counter (lab or field use) and an online particle counter, which makes it ideal for particle size and concentration analysis in a variety of municipal and industrial applications.

- **Water Treatment**
- **Wastewater Treatment**
- **Reverse Osmosis Pretreatment**
- **Membrane Filtration**
- **Boiler/Condensate**
- **Parts Washing**
- **Food & Beverage**
- **Pharmaceutical**



The ParticleSense Portable can size particles from 2 to 125 microns and count particles from 2 to 750 microns. With the ability to detect particles at low parts-per-trillion (ppt) concentrations, the ParticleSense Portable offers superior analytical performance at an economical price compared to most other laboratory particle counters.

### Standard Features

- **Online and grab sample operation**
- **Built-in sample pump**
- **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**
- **Volumetric parts-per-billion (ppb) readout**
- **Data download to PC via USB**
- **User friendly, menu driven calibration**
- **Modbus RTU communication**
- **Laser & cell condition readout (0-100%)**
- **External sensor with sapphire optics**

### Optional Features

- **Flow control weir**
- **TracWare online data acquisition software**
- **Analogue Outputs, Inputs, & Alarm Relays**
- **Modbus TCP (Ethernet)**
- **Larger sizing capability upon request**
- **Battery power**

*The Particle Portable Counter is just one of a range of Particle Counters available from Process Instruments, including:*

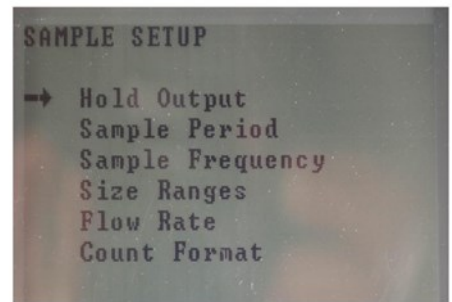
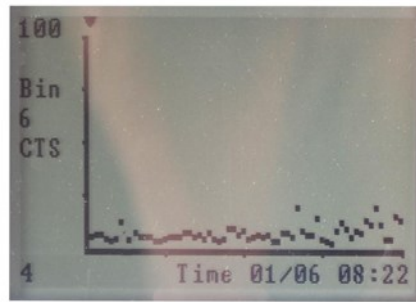
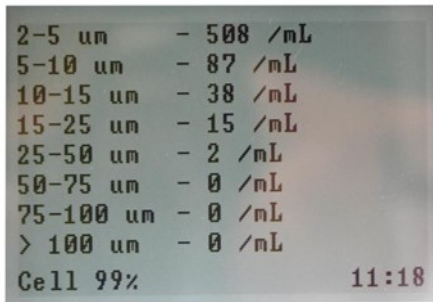
- **ParticleSense**
- **CounterSense**
- **FilterSense**

*You can find more information on our particle counters at [www.processinstruments.co.uk/products/particle-counter](http://www.processinstruments.co.uk/products/particle-counter)*



## Benefits:

- Quick and easy testing of grab samples
- Can function as laboratory or online analyser
- 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



## Specification\*

<b>Laser Type:</b>	Solid-state laser diode (780nm)
<b>Flow Cell Dimensions:</b>	750 µm x 750 µm
<b>Cell Material:</b>	Nituff™ coated aluminium PEEK plastic (optional)
<b>Viewing Windows:</b>	Sapphire
<b>Detection Range:</b>	2-750 microns
<b>Sizing Range:</b>	2-125 microns
<b>Flow Rate:</b>	75ml/min
<b>Sample Temp:</b>	0°-50°C (32°-120°F)
<b>Size Channels:</b>	8 - user selectable
<b>Count Format:</b>	User selectable: Counts per ml, Counts per 100 ml, or Raw Counts
<b>Volumetric Readout:</b>	Parts-per-billion (ppb)
<b>Laser Diode Life:</b>	MTBF > 75,000 hours at 55°C (131°F)
<b>Laser Diode Life:</b>	MTBF > 75,000 hours @ 55° C
<b>Local Display:</b>	Graphical, 8 size channels displayed at once, unit info/diagnostic screen
<b>Display Readout:</b>	Size channel, counts, cell condition (0 - 100%), laser condition (0 - 100%), unit address, # of stored data records, sample period, sample frequency, flow rate
<b>Graphical Trending:</b>	Last 64 recorded readings, User selectable value trending (e.g. Total Counts, Bin 1, Cell Condition, Analog Input, etc). Online mode only.
<b>Data Storage:</b>	>30,000 sample strings, User defined logging interval (1 - 254 min.) in Online mode. Up to 200 samples with 99 runs per sample in Grab mode.
<b>Keypad Interface:</b>	All instrument settings may be modified via the keypad interface, including instrument calibration (some settings require password)
<b>Serial Comms:</b>	2 wire RS485 (Network) and USB (Local)
<b>Comms Protocols:</b>	Standard: Modbus RTU (RS485) Optional: Modbus TCP (Ethernet)
<b>Analog Outputs:**</b>	2, 4, or 6 channels, 4-20 mA (optional). Online mode only.
<b>Analog Inputs:**</b>	2, 4, or 6 channels, 0-5V, 0-10V, 0-20 mA, 4-20 mA (optional). Online mode only.
<b>Alarm Relays:</b>	1 Dry Contact Relay, 250V, 5A (optional). Online mode only.
<b>Power Requirements:</b>	100 or 240 VAC, 50 - 60 Hz, 1A 12 or 24 VDC (optional)
<b>Operating Temp:</b>	32° - 120° F (0° - 50° C)
<b>Dimensions:</b>	12" W x 11.5" H x 5.25" D (305 mm W x 292 mm H x 57 mm D)
<b>Weight:</b>	7 lbs (3.2 kg)

\*All subject to change without notice

\*\*Subject to a maximum of 6 outputs & inputs