



# Submicron particulate contamination monitoring

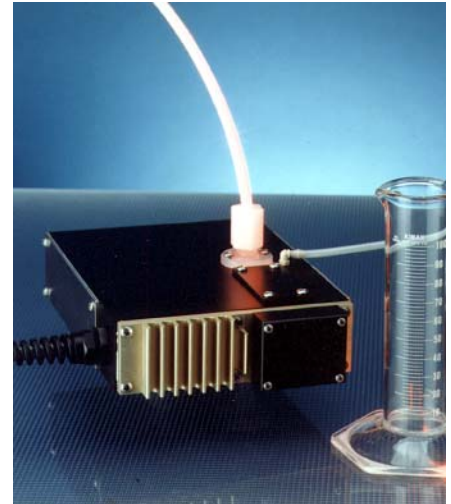
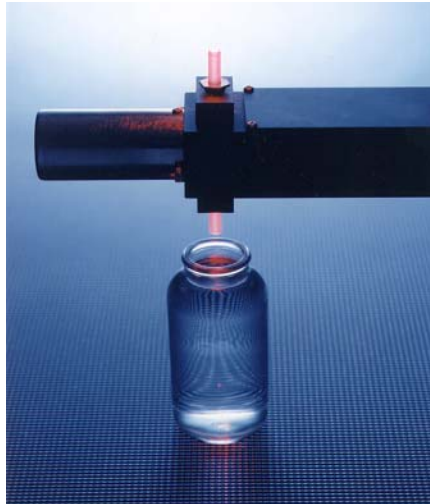
## Light Scattering Liquid Particle Counting Sensors

### FEATURES

- Long life laser diode light source
- Small, lightweight design
- High flow rates, up to 100 ml/min
- Fluid temperature up to 45°C
- Size accuracy traceable to NIST Standard Reference Materials
- Vibration insensitive
- Online and batch operation
- Chemically resistant

### APPLICATIONS

- Precision Cleaning Bath Monitoring and Sampling
- Filter Testing
- Online Process Monitoring
- Liquid *In Situ* Process Monitoring
- Chemical Distribution Monitoring
- DI Water Monitoring



The HIAC MicroCount family comprises of three submicron liquid particle sensors that measure particles as small as 0.1 micron. Like their counterpart HRLD sensors, the MicroCount sensors have been designed to meet the demands of a variety of applications, including wide dynamic ranges, very high sensitivity, and nearly universal chemical compatibility (including HF).

Each HIAC sensor is provided with a calibration curve from which the operator may conveniently determine threshold settings for particle sizes of interest. These calibrations are performed in accordance to ASTM Standard F658-87 using an aqueous suspension of mono-dispersed latex spheres, which are traceable to NIST.

The MicroCount-100 models have particle size sensitivity of 0.1 micron and are approved for use within Division 1, Class 2 environments. The sensors are available with either a quartz or sapphire flow cell, to meet the demands of corrosive environments.

The MicroCount-05 sensor has a sensitivity of 0.5 micron and a dynamic range that extends to 350 microns. This large dynamic range makes it an ideal sensor for applications such as precision cleaning and polishing. The MicroCount-05 is especially versatile in accommodating industry standards as they transition to more sensitive geometry (e.g., from 1.0 to 0.5 micron requirements).

The MicroCount sensors are truly a versatile and are sure to satisfy your submicron particle counting needs.



## Submicron Light Scattering Liquid Particle Sensors

### SPECIFICATIONS

|                               |   |   |
|-------------------------------|---|---|
| Sensitivity ( $\mu\text{m}$ ) | MicroCount-05   | 0.50  |
|                               | MicroCount-100  | 0.10  |
|                               | MicroCount-100S <sup>1</sup>  | 0.10  |
| Particle Size                 | MicroCount-05   | 350.0 $\mu\text{m}$ maximum                           |
|                               | MicroCount-100  | 5.0 $\mu\text{m}$ maximum                             |
|                               | MicroCount-100S <sup>1</sup>  | 5.0 $\mu\text{m}$ maximum                             |
| View Volume                   | MicroCount-05   | 90 $\pm$ 5%   |
|                               | MicroCount-100  | 3%  |
|                               | MicroCount-100S <sup>1</sup>  | 3%  |
| Flow Rate                     | MicroCount-05   | 60 ml/min   |
|                               | MicroCount-100  | 100 ml/min  |
|                               | MicroCount-100S <sup>1</sup>  | 100 ml/min  |
| Max. Sample                   | MicroCount-05   | 45°C  |
|                               | MicroCount-100  | 45°C  |
|                               | MicroCount-100S   | 45°C  |
| Chemical Compatibility        | MicroCount-05   | A, C  |
|                               | MicroCount-100  | A, C  |
|                               | MicroCount-100S   | B, C  |
| Size                          | MicroCount-05   | 9.75" w x 2.25" h x 2.5" d<br>(24.8 x 5.7 x 6.4 cm)   |
|                               | MicroCount-100  | 7.75" w x 2.18" h x 5.75" d<br>(19.7 x 5.6 x 14.6 cm) |
| Weight                        | MicroCount-05   | 2 lbs (0.9 kg)  |
|                               | MicroCount-100  | 5 lbs (2.25 kg)                                       |
| Calibration                   | Standard calibration curves are shipped with each sensor. Customer calibration is required for non-recommended sensor flow rates. |   |

A- Compatibility: All chemicals<sup>2</sup>, except HF acid

B- Compatibility: All chemicals<sup>2</sup>

C- Maximum Pressure: 150 psi (1034 kPa) water, 75 psi (517 kPa) chemical

### ORDERING GUIDE

When ordering, specify:

MicroCount-100

MicroCount-100S

MicroCount-05

<sup>1</sup> Sapphire cell construction

<sup>2</sup> Except for certain sodium compounds, interhalogen compounds, and ionized oxygen or peroxides



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