Liquid-Borne Particle Counter
KL-30A

Monitors 0.05 μm particle contamination in pure water
Integrated unit combines sensor, controller, flow meter, and data storage

- Lowest measurable particle size 0.05 μm and 20 times larger effective flow rate than former model
- Built-in leakage sensor triggers alarm output when internal leak detected
- High pressure up to 500 kPa (gauge pressure) applicable
- Equipped with D/A converter (4 - 20 mA) and alarm output contacts (standard)
- Printer built-in, CompactFlash card available (option)
Specifications [KL-30A]

**Optical system**
Light-scattering method

**Light source**
Diode pumped solid state laser (wavelength 532 nm, rated output 500 mW)

**Laser product class**
Class I, IEC 60825-1

**Light detector**
Silicon photodiode

**Measurable sample types**
Pure water (for purging, other fluids which do not corrode the fluid contact materials may be introduced)

**Calibration**
Polystyrene latex (PSL) particles (refractive index 1.6) in pure water

**Size range**
- 1 channel (factory default): ≥0.05 µm, ≥0.1 µm, ≥0.15 µm, ≥0.25 µm
- User selectable channels: 2 to 10 channels
- Setting range: 0.05 µm to 0.25 µm

**Sampling flow rate**
Flow rate 20 mL/min and purge flow rate 0.1 to 1 L/min combined (Purge flow rate will differ depending on sample fluid pressure)

**Sample inlet/outlet**
4 x 6 (dia.), or 3.96 x 6.35 (dia.), flared joint for tube

**Sample pressure range**
100 to 500 kPa (gauge pressure)

**Sample temperature range**
15 °C to 35 °C (no condensation in flow system)

**Materials of parts exposed**
Synthetic quartz, fluorocarbon rubber, fluoroplastic, PVC, Pyrex glass, SUS304/316, POM

**Counting efficiency**
10 % ±3 %

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Effective flow rate</td>
<td>2 ±0.6 mL/min</td>
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<tr>
<td>Size resolution</td>
<td>10 % or less (PSL particles in 0.15 µm range)</td>
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<tr>
<td>Maximum particle number concentration</td>
<td>16 000 particles/mL (coincidence loss 10 %)</td>
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<tr>
<td>False count rate</td>
<td>Less than 0.01 particles/mL average</td>
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<tr>
<td>Purge air port</td>
<td>Rc 1/8 (1/8 PT female)</td>
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<tr>
<td>Environmental conditions</td>
<td>15 °C to 35 °C, less than 80 % RH (no condensation)</td>
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<tr>
<td>Power</td>
<td>130 VA, 100 to 240 V AC, 50/60 Hz</td>
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<tr>
<td>Dimensions and weight</td>
<td>230 (H) x 385 (W) x 570 (D) mm (excluding protruding parts), approx. 24.8 kg</td>
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<tr>
<td>Accessories</td>
<td>Power cord (2.5 m) x 1, Thermal paper TP-08 x 2 rolls, CF Dummy card x 1</td>
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<td>Options</td>
<td>Communication cable CC-61A, Thermal paper TP-08, Clean thermal paper TP-10, Sampling tube 5 m (4 x 6 dia., both ends flared) KL-30-S16, Sampling tube 10 m (4 x 6 dia., both ends flared) KL-30-S15, CompactFlash card MC-25CF1 (256 MB)</td>
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**Internal Printer**
- Measurement value
- Measurement time
- Status information
- Touch pen
- Print sample of internal printer

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