



# HIAC 8011+

LIQUID PARTICLE COUNTING SYSTEM



**CHARACTERIZED**  
*by ingenuity.*

 **BECKMAN  
COULTER**  
*Life Sciences*

# HIAC 8011+

## LIQUID PARTICLE COUNTING SYSTEM

...designed for the real world.

Intelligent on-screen prompts guide users through common sampling activity.

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- Advanced instrument diagnostics with recommended actions for users
- User alerts for particle settling and run-to-run variances
- HRLD Smart Sensor alerts for service and calibration due

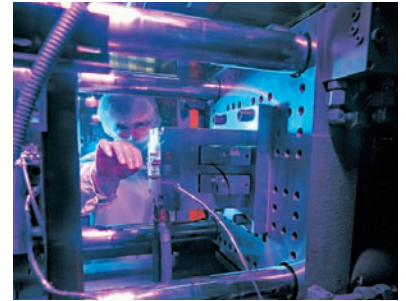


Petrochemical Industry

Sample management system ensures consistent, accurate data.

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- Pressurized sample delivery reduces the impact of bubbles
- Integrated Vacuum/Degas function streamlines sample handling for increased accuracy.
- Automated sample flow for precision data



Injection Molding Plants

Fewer steps...increase throughput.

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- One button sampling - results under 60 secs
- Quickly load up to 20 custom test recipes
- Set up your own sampling recipe in less than 5 steps



Marine Industry

Stop wasting time diluting samples and cleaning the instrument.

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- No dilution required for high viscosity fluids (<425cSt)
- Automated cleaning and flushing routines.
- Sensor contamination alarm informs you in advance to ensure you clean prior to wasting sample and getting bad data



Aerospace Industry

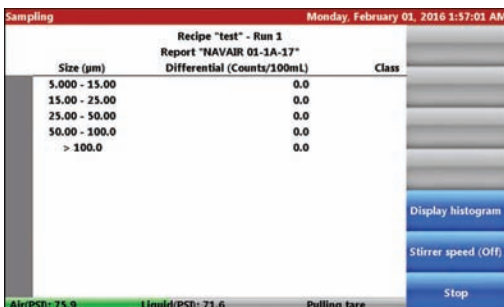
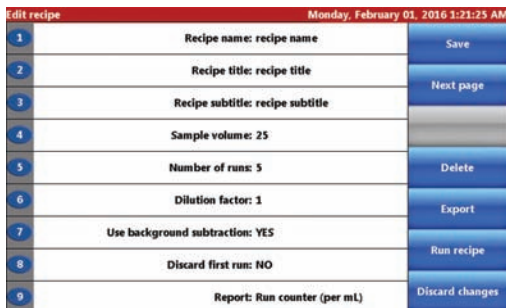
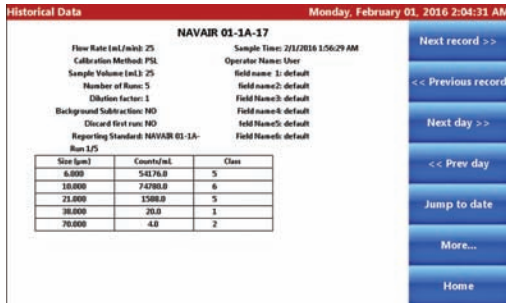
# Immediate particle concentration data

Eliminate printing and go paperless. Get the data immediately in a PDF or Excel® file.

- Create application specific reports in PDF or Excel® format
- Embedded web browser for online report review and approval
- Export reports via USB memory stick or Ethernet

On-site HIAC expertise.  
Call us, speak with a HIAC expert.

- On-site service and calibration
- Notification with a phone call when your unit is in need of routine service
- Free technical support for the life of your instrument
- 1-800-866-7889



# Specifications

<b>Weight (without sensor)</b>	58.2 lbs, (26.4 kg)
<b>Sample Flow Rate</b>	(mL/min) 10 to 100 (sensor dependent)
<b>Sample Volume</b>	(ml) 5 to 100
<b>Tare Volume</b>	(ml) 0.1 to 100 ml in 0.1 ml steps, not to exceed 1056 ml minus total sample volume
<b>Flow Accuracy</b>	+/- 2.5%
<b>Viscosity Range</b>	1-425cSt
<b>Operating Pressure Range</b>	maximum = 90psi
<b>Operating Temperature Range</b>	10 to 40°C
<b>Storage Temperature Range</b>	-35 to -65°C
<b>Relative Humidity</b>	10% to 80%, non-condensing
<b>Max Altitude</b>	6,500 ft.
<b>Communication, Host I/O</b>	Ethernet and 2 USB ports
<b>Safety Feature</b>	Waste container full alarm with optional float switch
<b>Instrument Power</b>	100 - 240VAC, 50/60 Hz, 0.5 A
<b>Air Source</b>	Shop or pump
<b>Optional Pump Power</b>	<ul style="list-style-type: none"><li>• 110 to 120 VAC, 60 Hz, 4.5 A</li><li>• 100 VAC, 50 Hz, 4.5 A</li><li>• 220 to 240 VAC, 60 Hz, 1.9 A</li></ul>
<b>Liquid Agitation Method</b>	Electromagnetic stirrer
<b>Fluid Degas Method</b>	Vacuum (requires optional pump)
<b>Fluid Compatibility</b>	Fluids compatible with stainless steel, glass and Teflon including: <ul style="list-style-type: none"><li>• MIL-H-5606, MIL-H-83282, Shell Tellis™, Monsanto Skydrol™ version</li><li>• Akso Fyrquel™, Mobile Zerol™ 150, Marston Bentley HW 540</li><li>• Monsanto Coolanol™, Stoddard Solvent, Jet Fuel (JP4, JP5)</li><li>• Kerosene, Diesel Fuel, Mineral Oil, Ethers, Alcohols, Aldehydes</li><li>• Ketones, Esters, Aromatics, Water</li></ul>
<b>Sensor Cleaning Methods</b>	Back flush, clean to count, and clean to volume
<b>Particle Size Range</b>	0.5 µm to 600 µm (sensor dependant)
<b>Number of Size Channels</b>	18
<b>Reporting Standards</b>	ISO, NAS, SAE, GOST, DOD and ASTM, User defined, Raw counts
<b>Calibrations</b>	<ul style="list-style-type: none"><li>• Polystyrene spheres in DI water and glycol</li><li>• ACFTD in 5606</li><li>• ISO-MTD in 5606 (except HRLD-400)</li><li>• ISO11171 in 5606 (except HRLD-400 &amp; MC-05)</li><li>• ISO-MTD &amp; ACFTD in 5606 (HRLD-100 &amp; 150 only)</li></ul>
<b>Data Output</b>	<ul style="list-style-type: none"><li>• pdf, tsv, import and export recipes over USB</li><li>• Web browser interface over Ethernet</li></ul>
<b>Languages</b>	English, French, German, Chinese, Italian, Spanish
<b>IP Rating</b>	IP30 per IEC 60529
<b>User Serviceable Items</b>	Desiccant, pneumatic and hydraulic filters
<b>Calibration Interval</b>	Recommend annual calibration
<b>Display</b>	7" color, non-touch screen
<b>Data Buffer</b>	3,000 records
<b>Printer</b>	Optional USB thermal printer
<b>Compliance Declarations</b>	CE, cETLus, KCc, C-Tic
<b>Smart Sensor Interface</b>	Smart Sensor Ready (allows for reading calibration information from sensors with onboard memory)



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PART-2436SB03.17