

NanoCount

Liquid Particle Counters



NanoCount 25/30

Liquid Particle Counter



THE NanoCount 25 and NanoCount 30 are the world's first nanometer liquid particle counters. Based on our new state-of-the-art technology and built by Lighthouse, they are backed by a one year warranty and international support.

The NanoCount 25 and 30 include built-in color displays for viewing real-time data use the industry standard MODBUS communication protocol. Integration into facility monitoring systems or use as a stand-alone device is quick and easy.

By incorporating Solid-State laser particle counting technology and designing for reliability, the NanoCount 25 and 30 are intended for continuous trouble-free operation.



Features

- 25nm Detection Limit: NanoCount 25
- 30nm Detection Limit: NanoCount 30
- Channel Sizes: 25nm, 35nm, 50nm, 100nm: NanoCount 25
- Channel Sizes: 30nm, 50nm, 80nm, 100nm: NanoCount 30
- 20mL per Minute Flow Rate: NanoCount 25
- 80mL per Minute Flow Rate: NanoCount 30

All other features described are shared by both Models.

- Four Channels of Simultaneous Count Data
- 20 mL per Minute Flow Rate
- Built-in Color Touch Screen Display
- <20 counts/Liter Zero Count Rate
- Interfaces with Existing Building Automation and Factory Management Systems
- Stainless Steel Construction
- Ethernet, RS-485/MODBUS and Four 4-20mA Analog Outputs
- Integrated Manual Flow Control
- USB flash Data Download

Benefits

- Greater Statistical Process Control
- Easy System Integration
- International Sales and Service Support
- 25nm Sensitivity - Nano Count 25
- 30nm Sensitivity - Nano Count 30
 - a. identifies water system issues that are otherwise "invisible" to 50nm-only counters
 - b. eliminates noise or cosmic ray interference
 - c. provides the visibility required for today's leading edge processes

Applications

- Deionized Water Monitoring
- Process Qualification and Monitoring
- Filter Efficiency Particle Measurements

NanoCount 50

Liquid Particle Counter



OUR NanoCount 50 is the smallest 50 nanometer liquid particle counter on the market and incorporates a 3 1/2 inch TFT Touch Screen to simplify the user interface. Based on state-of-the-art technology and built by Lighthouse, it is backed by a two-year warranty and international support.

The NanoCount 50 provides industry standard RS-485 MODBUS and 4-20mA communication protocols so integration into facility monitoring systems or use as a stand-alone device is quick and easy.

Using its integrated Ethernet TCP/IP interface allows the NanoCount 50 to connect to standard corporate Ethernet LANs as easily as it connects to Facility Monitoring Systems.

The compact size of the NanoCount 50 allows it to be installed where other liquid particle counters won't fit, including point-of-use process control applications.

Incorporating the latest in laser optical particle counting technology and designed for reliability, the NanoCount 50 is intended for continuous trouble-free operation.

Features

- Channel Sizes - 50nm, 100nm, 150nm, 200nm
- Four Channels of Simultaneous Count Data
- 100 mL per Minute Flow Rate
- Built-in 3 1/2" Color Touch Screen Display
- Interfaces with Existing Building Automation and Factory Management Systems
- 316L Stainless Steel Construction
- Industry Standard RS-485/MODBUS, 4-20mA and Ethernet Interfaces (Sealed Connections)
- NEMA Style Enclosure
- Integrated Manual Flow Control with Digital Readout and Touch Screen Display

Benefits

- 2 Year Warranty
- Cost Effective Price per Point
- Easy System Integration
- International Sales and Service Support
- Low Cost of Ownership

Applications

- Deionized Water Monitoring
- Process Qualification and Monitoring
- Aqueous Parts Cleaning



NanoCount 50C/65C

Liquid Particle Counter



THE NanoCount 50C and NanoCount 65C are two of the smallest 50nm and 65nm liquid particle counters on the market designed to monitor ultrapure process chemicals. Based on state-of-the-art technology and built by Lighthouse, they are backed by a two-year warranty and international support.

The NanoCount 50C and 65C provide industry standard RS-485 MODBUS and 4-20mA communication protocols so integration into facility monitoring systems or use as a stand-alone device is quick and easy.

Using its integrated Ethernet TCP/IP interface allows the NanoCount 50C and 65C to connect to standard corporate Ethernet LANs as easily as it connects to Facility Monitoring Systems.

The compact size of the NanoCount 50C and 65C allow them to be installed where other liquid particle counters won't fit, including point-of-use process control applications.

Incorporating the latest in laser optical particle counting technology and designed for reliability, the NanoCount 50C and 65C are intended for continuous trouble-free operation.

Features

- Channel Sizes: 50nm, 100nm, 150nm, 200nm: NanoCount 50C
- Channel Sizes: 65nm, 100nm, 150nm, 200nm: NanoCount 65C

All other features are shared by both models.

- Four Channels of Simultaneous Count Data
- 100 mL per Minute Flow Rate
- Ultra-pure Process Chemicals Compatibility
- Easily Integrates with Existing Building Automation and Factory Management Systems
- Industry Standard RS-485/MODBUS, 4-20mA and Ethernet interfaces (Sealed Connections)
- NEMA Style Enclosure
- Integrated Manual Flow Control

Benefits

- 2 Year Warranty
- Cost Effective Price per Point
- Easy System Integration
- International Sales and Service Support
- Low Cost of Ownership

Applications

- Ultrapure Process Chemicals Monitoring
- Process Qualification and Monitoring

Chemicals that CAN BE used with the NanoCount 50C and 65C.

CHEMICAL	SYMBOL	CHEMICAL	SYMBOL
Water	H ₂ O	Hydrofluoric Acid 50%	HF 50%
Deionized Water	H ₂ O, DI H ₂ O	Hydrofluoric Acid 50%	HF 5%
Nitric Acid 70%	HNO ₃ 70%	Hydrofluoric Acid 0.5%	HF 0.5%
Sulphuric Acid 96%	H ₂ SO ₄	Tetramethylammonium Hydroxide	TMAH
Hydrochloric Acid 37%	HCL	Potassium Hydroxide	KOH
Ammonium	NH ₄ OH	N-methyl Perryiodine	NMP
Hydrogen Peroxide 30%	H ₂ O ₂	Acetone	C ₂ H ₂ O
Phosphoric Acid 86%	H ₃ PO ₄	Isopropyl Alcohol	IPA

Chemicals that CAN NOT be used.

CHEMICAL	SYMBOL
Nitric Acid	HNO ₃
Ammonium Fluoride	NH ₄ F
Buffered Hydrofluoric Acid	BHF
Buffered Oxide Etch	BOE

Product Selection Guide

	UPW	UPW	UPW
Product	NanoCount 25	NanoCount 30	NanoCount 50
FEATURES			
Detection Limit	25 nm	30 nm	50 nm
Largest Channel Size Range	100 nm	100nm	200nm
Chemical Compatibility	Selected*	Selected*	Selected*
Channels	4	4	4
Flow Rate (ml/min)	30	80	100
Sample Volume (ml/min)	0.5	0.5	5
Local Display	Yes	Yes	Yes
Flow Meter	Integrated: User-calibratable for use with any liquid		
ACCURACY			
False Count Rate: 1st channel (p/L)	33	33	7
False Count Rate at 50nm (p/L)	0	0	7
Count Correction Error	0.0%	0.0%	0.0%
Sensitivity Multiple (vs. 50nm)	8.0x	4.6x	1.0x
Concentration Limit (Counts/ml)	1,000,000 @5% Coincidence Error	1,000,000 @5% Coincidence Error	200,000 @5% Coincidence Error
RELIABILITY			
Warranty	1 Year	1 Year	2 Year
Laser Life	10,000 Hours	10,000 Hours	10,000 Hours
PHYSICAL			
Flow Cell Material	Quartz	Quartz	Quartz
Enclosure	304L SS	304L SS	304L SS
Sample Temperature	50° C	50°C	50°C
Sample Pressure (PSI)	75	75	75
Size	15"x12"x26"	15"x12"x26"	9"x8"x11"
Weight	81 lbs.(37 kg)	71 lbs.(32.2 kg)	11.8 lbs.(32.2kg)

	CHEMICAL	CHEMICAL
Product	NanoCount 50C	NanoCount 65C
FEATURES		
Detection Limit	50nm	65 nm
Largest Channel Size Range	200nm	200nm
Chemical Compatibility	Very High	Very High
Channels	4	4
Flow Rate (ml/min)	100	100
Sample Volume (ml/min)	5	5
Local Display	Yes	Yes
Flow Meter	Integrated: User-calibratable for use with any liquid	
ACCURACY		
False Count Rate: 1st channel (p/L)	7	7
False Count Rate at 50nm (p/L)	7	N/A
Count Correction Error	0.0%	0.0%
Sensitivity Multiple (vs. 50nm)	1.0x	0.46x
Concentration Limit (Counts/ml)	200,000 @5% Coincidence Error	200,000 @5% Coincidence Error
RELIABILITY		
Warranty	2 Years	2 Years
Laser Life	10,000 Hours	10,000 Hours
PHYSICAL		
Flow Cell Material	Sapphire	Sapphire
Enclosure	Chemical Resistant Polypropylene	Chemical Resistant Polypropylene
Sample Temperature	50°C	50°C
Sample Pressure (PSI)	60	60
Size	9"x8"x11"	9"x8"x11"
Weight	11.8 lbs.(5.4 kg)	11.8 lbs.(5.4 kg)

NanoCount

Liquid Particle Counters

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