

Алматы (7273)495-231
 Ангарск (3955)42-70-56
 Архангельск (8182)63-90-72
 Астрахань (8512)99-46-04
 Барнаул (3852)73-04-42
 Белгород (4735)40-23-142
 Благовещенск (4162)35-142-07
 Брянск (4232)59-03-52
 Владивосток (423)249-42-31
 Владикавказ (8672)42-90-42
 Владимир (4935) 49-43-18
 Волгоград (844)278-03-42
 Вологда (8172)26-41-59
 Воронеж (473)204-51-73
 Екатеринбург (343)384-55-142

Ижевск (3412)26-03-58
 Иваново (4932)77-34-06
 Иркутск (395)279-98-46
 Казань (843)206-01-42
 Калининград (4012)72-03-81
 Калуга (4242)92-23-67
 Кемерово (3842)65-04-62
 Киров (8332)68-02-04
 Коломна (4966)23-41-49
 Кострома (4942)77-07-42
 Краснодар (861)203-40-90
 Красноярск (391)204-63-61
 Курск (4712)77-13-04
 Курган (4352)50-90-47
 Липецк (4742)52-20-81

Киргизия (996)312-96-26-47

Магнитогорск (4219)55-03-13
 Москва (495)268-04-70
 Мурманск (8152)59-142-93
 Набережные Челны (8552)20-53-41
 Нижний Новгород (831)429-08-12
 Новокузнецк (3843)20-46-81
 Ноябрьск (3496)41-32-12
 Новосибирск (383)357-86-73
 Ноябрьск (3496)41-32-12
 Омск (3812)21-46-40
 Орел (4262)44-53-42
 Оренбург (4232)37-68-04
 Пенза (8412)35-31-16
 Петрозаводск (8142)55-98-37
 Псков (8112)59-10-37

Россия (495)268-04-70

Пермь (342)205-81-47
 Ростов-на-Дону (863)308-18-15
 Рязань (4912)46-61-142
 Самара (846)206-03-16
 Саранск (8342)35-96-24
 Санкт-Петербург (812)309-46-40
 Саратов (845)249-38-78
 Севастополь (8692)35-31-93
 Симферополь (3652)67-13-56
 Смоленск (4212)29-41-42
 Сочи (862)242-72-31
 Ставрополь (8652)20-65-13
 Сыктывкар (8212)42-95-17
 Сургут (3462)77-98-42
 Тамбов (4752)50-40-97

Казахстан (772)734-952-31

Тверь (4352)63-31-42
 Тольятти (8435)63-91-07
 Томск (3835)98-41-53
 Тула (4272)33-79-87
 Тюмень (3452)66-21-18
 Улан-Удэ (3012)59-97-51
 Ульяновск (8435)24-23-59
 Уфа (347)359-42-12
 Хабаровск (4212)92-98-04
 Чебоксары (8435)42-53-07
 Челябинск (421)202-03-61
 Череповец (8202)49-02-142
 Чита (3035)38-34-83
 Якутск (4112)23-90-97
 Ярославль (4422)69-52-93

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КАТАЛОГ



LIGHTHOUSE
 WORLDWIDE SOLUTIONS

SOLAIR Portable 1100LD

1.0 CFM - Airborne Particle Counter



The Lighthouse SOLAIR 1100LD (Laser Diode) leads the industry as the first of its kind portable particle counter with 0.10 micron sensitivity and 1.0 CFM (28.3 LPM) flow rate using laser diode technology. Conventional HeNe (Helium Neon) particle counters require frequent cleaning, periodic Laser tube replacement and suffer low concentration limits. The SOLAIR 1100LD is designed to operate in ISO Class 1 to Class 7 cleanrooms without concerns of it degrading its environment or exceeding concentration limits. The SOLAIR 1100LD uses an optics and photodiode system designed to reduce or eliminate the temperature issues associated with high power laser diode sensors. The thermally-controlled exhaust system and HEPA filter option prevent any external contamination. Weighing just 23.55 lbs (10.68 kg) with the Li-Ion battery option, the SOLAIR 1100LD is the smallest, lightest and coolest running 0.10 micron, 1.0 CFM portable particle counter on the market.

The easy to use icon-driven interface with multiple languages simplifies training and SOP writing. Its Cleanroom Standard report wizards make the SOLAIR 1100LD the preferred cleanroom certification tool and eliminate the need for complex UCL calculations. Its flexible communication and data logging capabilities enable the SOLAIR 1100LD to connect to Ethernet or RS-485 networks, connect point-to-point to a PC using USB or securely export its data to a USB Flash Drive. The SOLAIR 1100LD can be used as a portable instrument or easily integrated into a facility monitoring system.

Features

- 0.1 - 1.0 μ m sensitivity
- 1.0 CFM (28.3 LPM) Flow Rate
- Up to 8 channels of simultaneous count data
- 21 CFR Part 11 Compliant Secure USB flash transfer
- Laser Diode Sensor Technology
- 5.7 inch color touch screen display
- Thermal Printer
- Stainless Steel Construction
- Ethernet / RS485 / Modbus, 4x 4-20mA analog outputs
- 3000-record Data Storage Memory
- 50-record Configurable Recipe Database
- Open Architecture Connectivity with OPC Server
- Report Wizard for Cleanroom Pass/Fail Reports:
FS-209E, ISO-14644-1 or EU GMP Annex 1
- Multiple-language Support:
English, French, German, Italian, Spanish,
Chinese, Russian, Japanese, Korean



User Friendly
Configuration



Alphanumeric
Location Labels



Multiple Cleanroom
Standard Reports
via Printer

Benefits

- 2 Year Warranty
- User Friendly Interface
- Easy-to-Read Display
- International Support
- Low Cost of Ownership

SOLAIR Portable 3100/5100

1.0 CFM - Airborne Particle Counters



THE SOLAIR 3100 and SOLAIR 5100 portable airborne particle counters incorporate our Extreme Life Laser Diode Technology sensor to produce the industry's longest laser diode life of 20+ years MTTF (based on continuous 24/7 operation). Using a new, lighter extended-life battery and external AC adapter, the SOLAIRs are even more portable. The SOLAIR features one of the industry's best User Interfaces (UI) to configure and operate the instrument with intuitive ICON-driven screens and menus that are simple, easy to learn and use.

The SOLAIR can store up to 3,000 records of particle count data from up to 8 particle channels and the configurable recipe database can store up to 50 recipes for sampling and reports. All data can be quickly and reliably transferred to a computer, a Facility Monitoring System or a Building Automation System. Secure data transfer (per 21 CFR Part 11) to a USB Flash Drive can be accomplished by using the Lighthouse Secure Data transfer feature and LMS Express or Express RT software to read it. Flexible communications with these instruments is made possible by the integrated Ethernet, RS-485, USB and USB Flash Drive interfaces. SOLAIRs are designed, manufactured and calibrated to ISO 21501-4 to ensure particle counting accuracy.

Benefits

- User Friendly Interface with Multiple Languages
- International Support
- 2 year Warranty
- Easy Integration to External Systems with OPC Server

Applications

- Cleanroom Monitoring
- Facility Certification Testing
- Trend Analysis
- Tool and Equipment Testing
- Multi-Point Facility Monitoring (with 6 or 32 port Manifold System)
- Compressed Gas Monitoring (with High Pressure Controller)

Features

- SOLAIR 3100: 0.3 μ m to 25.0 μ m
- SOLAIR 5100: 0.5 μ m to 25.0 μ m
- 1.0 CFM (28.3 LPM) Flow Rate
- Simultaneous Display of up to 8 Particle Sizes
- 21 CFR Part 11 Compliant Secure Data Transfer via USB Flash Drive
- Extreme Life Laser Diode Technology >20-year MTTF Laser Lifespan
- Thermal Printer
- Stainless Steel Construction
- Designed for ISO 21501-4 Compliance: Unit-to-Unit Accuracy & Repeatability Assured
- Multiple Communication Interfaces - USB, RS-485, Ethernet and USB Flash Drive
- 5.7-inch Color TFT Touch Screen Display
- 3000-record Data Storage Memory
- 50-record Configurable Recipe Database
- User-Definable Printouts
- Open Architecture Connectivity with OPC Server
- Report Wizard for Cleanroom Pass/Fail Reports: FS-209E, ISO-14644-1 or EU GMP Annex 1
- Multiple-language Support: English, French, German, Italian, Spanish, Chinese, Russian, Japanese, Korean

SOLAIR Portable 3200/5200

50 LPM - Airborne Particle Counters



THE SOLAIR 3200 and SOLAIR 5200 portable airborne particle counters incorporate our Extreme Life Laser Diode Technology sensor to produce the industry's longest laser diode life of 20+ years MTTF (based on continuous 24/7 operation). SOLAIRs incorporate one of the industry's best User Interfaces (UI) to configure and operate the instrument. The intuitive ICON-driven screens and menus are easy to learn and simple to use.

SOLAIRs can store up to 3,000 records of particle count data from up to 8 particle channels and the configurable recipe database can store up to 50 recipes for sampling and reports. All data can be quickly and reliably transferred to a computer, a Facility Monitoring System or Building Automation System. Secure data transfer (per 21 CFR Part 11) to a USB Flash Drive can be accomplished by using the Lighthouse Secure Data transfer feature and LMS Express or Express RT software to read it. Flexible communication with these instruments is made possible by the integrated Ethernet, RS-485, USB and USB Flash Drive interfaces. SOLAIRs are designed, manufactured and calibrated to ISO 21501-4 to ensure particle counting accuracy.

Benefits

- User Friendly Interface with Multiple Languages
- International Support
- 2 year Warranty
- Easy Integration to External Systems with OPC Server

Applications

- Cleanroom Monitoring
- Facility Certification Testing
- Trend Analysis
- Tool and Equipment Testing
- Compressed Gas Monitoring (with High Pressure Controller)

Features

- SOLAIR 3200: 0.3 μ m to 25.0 μ m
- SOLAIR 5200: 0.5 μ m to 25.0 μ m
- 50 LPM or 2.0 CFM (56.6 LPM) Flow Rate
- Simultaneous Display of up to 8 Particle Sizes
- 21 CFR Part 11 Compliant Secure Data Transfer via USB Flash Drive
- Extreme Life Laser Diode Technology
- >20-year MTTF Laser Lifespan
- Thermal Printer
- Stainless Steel Construction
- Designed for ISO 21501-4 Compliance: Unit-to-Unit Accuracy & Repeatability Assured
- Multiple Communication Interfaces - USB, RS-485, Ethernet and USB Flash Drive
- 5.7-inch Color TFT Touch Screen Display
- 3000-record Data Storage Memory
- 50-record Configurable Recipe Database
- User-Definable Printouts
- Open Architecture Connectivity with OPC Server
- Report Wizard for Cleanroom Pass/Fail Reports: FS-209E, ISO-14644-1 or EU GMP Annex 1
- Multiple-language Support: English, French, German, Italian, Spanish, Chinese, Russian, Japanese, Korean

SOLAIR Portable 3350/5350

100 LPM - Airborne Particle Counters



WITH fast, reliable sampling of one cubic meter of air in only ten minutes, the SOLAIR 3350 and SOLAIR 5350 portable airborne particle counters offer faster cleanroom qualification than 1 and 2 CFM counters and at sensitivities of 0.3 and 0.5 microns, respectively. SOLAIRs incorporate our Extreme Life Laser Diode Technology sensor to produce the industry's longest laser diode life of 20+ years MTTF (based on continuous 24/7 operation). The SOLAIR 3350 is the industry's only 100 LPM 0.3 micron portable designed for continuous use. SOLAIRs use the industry's best UI (User Interface) to configure and operate the instrument. The intuitive ICON-driven screens and menus are easy to learn and use, which simplifies SOP writing, and support multiple languages.

SOLAIRs can store up to 3,000 records of particle count data from up to 8 particle channels and the configurable recipe database can store up to 50 recipes for sampling and reports. All data can be quickly and reliably transferred to a computer, a Facility Monitoring System or Building Automation System. Secure data transfer (per 21 CFR Part 11) to a USB Flash Drive can be accomplished by using the Lighthouse Secure Data transfer feature and LMS Express or Express RT software. Flexible communication with these instruments is made possible by the integrated Ethernet, RS-485, USB and USB Flash Drive interfaces. SOLAIRs are designed, manufactured and calibrated to ISO21501-4 to ensure particle counting accuracy.

Features

- SOLAIR 3350: 0.3-25.0µm, 0.3µm @ 100 LPM
- SOLAIR 5350: 0.5-25.0µm, 0.5µm @ 100 LPM
- Samples 1 Cubic Meter in 10 Minutes @ 100 LPM
- Simultaneous Display of up to 8 Particle Sizes
- 21 CFR Part 11 Compliant Secure Data Transfer via USB Flash Drive
- Extreme Life Laser Diode Technology
- >20 Years MTTF Laser Lifespan
- Thermal Printer
- Stainless Steel Construction
- Designed for ISO 21501-4 Compliance: Unit-to-Unit Accuracy & Repeatability Assured
- Multiple Communication Interfaces - USB, RS-485, Ethernet and USB Flash Drive
- 5.7-inch Color TFT Touch Screen Display
- 3000-record Data Storage Memory
- 50-record Configurable Recipe Database
- User-Definable Printouts
- Open Architecture Connectivity with OPC Server

- Report Wizard for Cleanroom Pass/Fail Reports: FS-209E, ISO-14644-1 or EU GMP Annex 1
- Multiple-language Support:
- English, French, German, Italian, Spanish, Chinese, Russian, Japanese, Korean

Benefits

- Reduced Sample Time of 1 Cubic Meter in 10 minutes
- User Friendly Interface with Multiple Languages
- International Support
- 2 year Warranty
- Easy Integration to External Systems with OPC Server

Applications

- Cleanroom Monitoring
- Facility Certification Testing
- Trend Analysis
- Tool and Equipment Testing
- Compressed Gas Monitoring (with High Pressure Controller)

SOLAIR Boulder Counter

1.1 CFM - Airborne Particle Counters



THE Lighthouse BOULDER COUNTER portable airborne particle counters incorporate our Extreme Life Laser Diode Technology sensor to produce the industry's longest laser diode life of 20+ years MTTF (based on continuous 24/7 operation). Designed to use a new, lighter extended-life battery and external AC adapter, the BOULDER COUNTER is even more portable. BOULDER COUNTERs feature one of the industry's best User Interfaces (UI) to configure and operate the instrument with intuitive ICON-driven screens and menus that are quick to document for SOPs, easy to learn and simple to use.

BOULDER COUNTERs can store up to 3,000 records of particle count data from up to 6 particle channels and the configurable recipe database can store up to 50 recipes for sampling and reports. All data can be quickly and reliably transferred to a computer, a Facility Monitoring System or a Building Automation System. Secure data transfer (per 21 CFR Part 11) to a USB Flash Drive can be accomplished by using the Lighthouse Secure Data transfer feature and LMS Express or Express RT software. Flexible communications with these instruments is made possible by the integrated Ethernet, RS-485, USB and USB Flash Drive interfaces. BOULDER COUNTERs are designed, manufactured and calibrated to standards that ensure particle counting accuracy and repeatability.

Features

- 5.0µm to 100.0µm sensitivity
- 1.0 CFM (28.3 LPM) Flow Rate
- Simultaneous Display of up to 6 Particle Sizes
- 21 CFR Part 11 Compliant Secure Data Transfer via USB Flash Drive
- Extreme Life Laser Diode Technology
- >20-year MTTF Laser Lifespan
- Thermal Printer
- Stainless Steel Construction
- Multiple Communication Interfaces - USB, RS-485, Ethernet and USB Flash Drive
- 5.7-inch Color TFT Touch Screen Display
- 3000-record Data Storage Memory
- 50-record Configurable Recipe Database
- User-Definable Printouts
- Open Architecture Connectivity with OPC Server
- Report Wizard for Cleanroom Pass/Fail Reports: FS-209E, ISO-14644-1 or EU GMP Annex 1
- Multiple-language Support: English, French, German, Italian, Spanish, Chinese, Russian, Japanese, Korean

Benefits

- User Friendly Interface with Multiple Languages
- International Support
- 2 year Warranty
- Easy Integration to External Systems with OPC Server

Benefits

- Automotive Manufacturing
- Coating Processes
- Paint Booth
- Aerospace Flight and Space Hardware Manufacturing
- Flat Panel Display Manufacturing
- Medical Device Manufacturing

Product Selection Guide

	1100LD	3100	5100
Size Range	0.10 - 1.0 µm Optional ranges up to 5.0 µm	0.3 - 25.0 µm Standard: 0.3, 0.5, 1.0, 3.0, 5.0, 10.0 µm	0.5 - 25.0 µm Standard: 0.5, 0.7, 1.0, 3.0, 5.0, 10.0 µm
Channel Sizes	Standard: 0.10, 0.15, 0.2, 0.25, 0.3, 0.5, 0.7, 1.0 µm	Standard: 0.3, 0.5, 1.0, 5.0, 10.0, 25.0 µm 8-Channel: 0.3, 0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 µm	Standard: 0.5, 1.0, 3.0, 5.0, 10.0, 25.0 µm 8-Channel: 0.5, 0.7, 1.0, 2.0, 3.0, 5.0, 7.0, 10.0 µm
Flow Rate	1.0 CFM (28.3 LPM)	1.0 CFM (28.3 LPM)	1.0 CFM (28.3 LPM)
Counting Efficiency	50% @ 0.1 µm; 100% @ sizes > 0.15 µm per JIS B 9921 and ISO 21501-4	50% @ 0.3 µm; 100% @ sizes > 0.45 µm	50% @ 0.5 µm; 100% @ sizes > 0.75 µm
Concentration Limits	500,000 particles/ft ³ (17,150,000 / m ³) @ 5% coincidence loss	1,000,000 particles/ft ³ (35,300,000/m ³) @ 10% coincidence loss Suitable for ISO classes 1-8 cleanrooms	1,000,000 particles/ft ³ (35,300,000/m ³) @ 10% coincidence loss Suitable for ISO classes 1-8 cleanrooms
Light Source	Laser Diode	Extreme Life Laser Diode Technology with > 20 year MTTF	Extreme Life Laser Diode Technology with > 20 year MTTF
Dimensions	14.65"Lx8.0"Wx10.4"H (37x20x26cm)	9.5"Lx8.0"Wx10.2"H (24.13x20.32x25.9cm)	9.5"Lx8.0"Wx10.2"H (24.13x20.32x25.9cm)
Weight	With battery: 23.55 lbs (10.68 kg) Without battery: 20.45 lbs (9.28 kg)	With battery: 13.40 lbs (6.08 kg) Without battery: 12.00 lbs (5.44 kg)	With battery: 13.40 lbs (6.08 kg) Without battery: 12.00 lbs (5.44 kg)

	3200	5200
Size Range	0.3 - 25.0 µm	0.5 - 25.0 µm
Channel Sizes	Standard: 0.3, 0.5, 1.0, 3.0, 5.0, 10.0 µm Standard: 0.3, 0.5, 1.0, 5.0, 10.0, 25.0 µm 8-Channel: 0.3, 0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 µm 8-Channel Optional: 0.3, 0.5, 0.7, 1.0, 5.0, 7.0, 10.0, 25.0 µm	Standard: 0.5, 0.7, 1.0, 3.0, 5.0, 10.0 µm Standard: 0.5, 1.0, 3.0, 5.0, 10.0, 25.0 µm 8-Channel: 0.5, 0.7, 1.0, 2.0, 3.0, 5.0, 7.0, 10.0 µm 8-Channel Optional: 0.5, 1.0, 2.0, 3.0, 5.0, 7.0, 10.0, 25.0 µm
Flow Rate	50 LPM	50 LPM
Counting Efficiency	50% @ 0.3 µm; 100% @ sizes > 0.45 µm	50% @ 0.5 µm; 100% @ sizes > 0.75 µm
Concentration Limits	700,000 particles/ft ³ (24,710,000/m ³) @ 10% coincidence loss Suitable for ISO classes 1-8 cleanrooms	700,000 particles/ft ³ (24,710,000/m ³) @ 10% coincidence loss Suitable for ISO classes 1-8 cleanrooms
Light Source	Extreme Life Laser Diode Technology with > 20 year MTTF	Extreme Life Laser Diode Technology with > 20 year MTTF
Dimensions	14.65"Lx8.0"Wx10.4"H (37x20x26cm)	14.65"Lx8.0"Wx10.4"H (37x20x26cm)
Weight	With battery: 20.90 lbs (9.48 kg) Without battery: 17.80 lbs (8.07 kg)	With battery: 20.90 lbs (9.48 kg) Without battery: 17.80 lbs (8.07 kg)

	3350	5350	Boulder Counter
Size Range	0.3 - 25.0 µm	0.5 - 25.0 µm	5.0 - 100.0 µm Standard: 5.0, 10.0, 25.0, 40.0, 50.0, 100.0µm
Channel Sizes	Standard: 0.3, 0.5, 1.0, 3.0, 5.0, 10.0 µm Optional: 0.3, 0.5, 1.0, 5.0, 10.0, 25.0 µm	Standard: 0.5, 0.7, 1.0, 3.0, 5.0, 10.0 µm Optional: 0.5, 1.0, 3.0, 5.0, 10.0, 25.0 µm	
Flow Rate	100 LPM	100 LPM	28.3 LPM
Counting Efficiency	50% @ 0.3 µm; 100% @ sizes > 0.45 µm	50% @ 0.5 µm; 100% @ sizes > 0.75 µm	50% @ 5.0 µm
Concentration Limits	400,000 particles/ft ³ (14,120,000/m ³) @ 10% coincidence loss Suitable for ISO classes 1-8 cleanrooms	400,000 particles/ft ³ (14,120,000/m ³) @ 10% coincidence loss Suitable for ISO classes 1-8 cleanrooms	500,000 particles/ft ³ @ 5% coincidence loss
Light Source	Extreme Life Laser Diode Technology with > 20 year MTTF	Extreme Life Laser Diode Technology with > 20 year MTTF	Extreme Life Laser Diode Technology with > 20 year MTTF
Dimensions	14.65"Lx8.0"Wx10.4"H (37x20x26cm)	14.65"Lx8.0"Wx10.4"H (37x20x26cm)	9.5"Lx8.0"Wx10.2"H (24.13x20.32x25.9cm)
Weight	With battery: 26.15 lbs (11.86 kg) Without battery: 23.05 lbs (10.46 kg)	With battery: 26.15 lbs (11.86 kg) Without battery: 23.05 lbs (10.46 kg)	With battery: 13.40 lbs (6.08 kg) Without battery: 12.00 lbs (5.44 kg)

Zero Count Level	<1 count / 5 minutes (per JIS B 9921)
Calibration	Meets ISO 21501-4 calibration using NIST traceable PSL spheres, DMA and condensation Particle Counter
Count Modes	Automatic, manual, beep, concentration, cumulative/differential
Data Storage	3,000 sample records, rotating buffer (includes particle and environmental data, location and time)
Communication Modes	USB, Ethernet, RS-485, Secure Data Transfer to and Storage on USB Flash Drive
Supporting Software	LMS Express, LMS Express RT, LMS Pharma
Environmental Sensors	Optional (up to 4) temperature/relative humidity, air velocity, differential pressure or others
Touch Screen Display	5.7 - inch (14.47 cm) color TFT touch screen display
Reports	Pass/fail report wizard for ISO-14644-1, EU GMP Annex 1, and FS-209E report formats
Alarms	Integrated alarm buzzer and external alarm connector. Alarms on counts, low battery, sensor failure
Sample Output	1100LD Model: Internally filtered to 100% @ 0.1 µm, optional HEPA filtration for cooling system exhaust. All other models: Internally filtered to HEPA standards (>99.97% @ 0.3 µm)
Vacuum Source	Internal closed-loop controlled pump. Allows the use of 3/8" ID sample tubing of up to 12 meters (40 feet) @ 50 & 100LPM
Enclosure	Stainless Steel
Power	100-250 VAC, 47-63 HZ
Battery	Optional Li-Ion, removable & rechargeable (typical recharge time 7.5 hours)
Languages	English (U.S.), French, German, Italian, Spanish, Chinese, Russian, Japanese, Korean

RemoteTRH

T E M P E R A T U R E A N D R E L A T I V E H U M I D I T Y S E N S O R

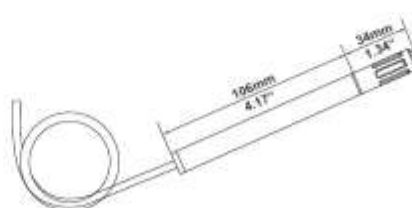
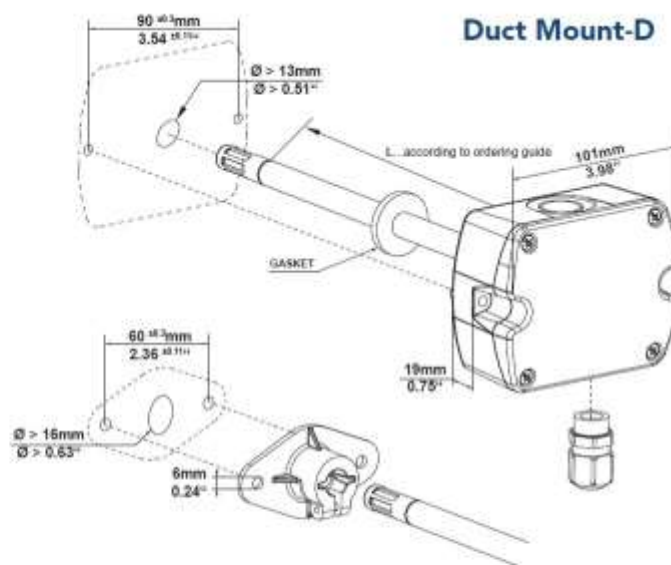
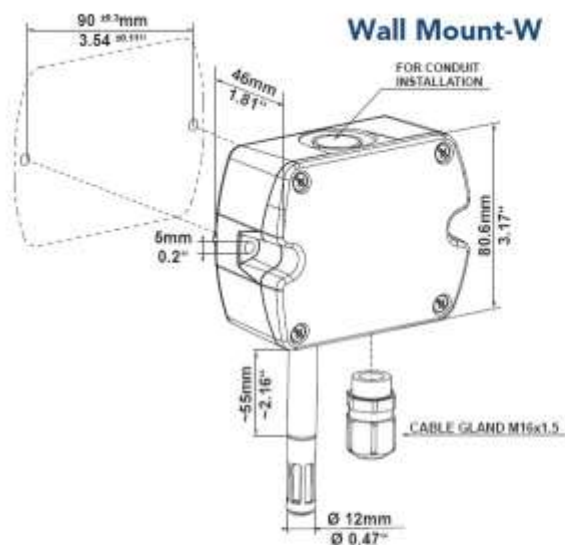


The combined Remote TRH sensor is a cost effective and highly accurate sensor designed for cleanroom and controlled environment applications. The Remote TRH sensor has been designed to allow fast and easy installation and provides reliable protection in sterile cleanroom facilities.

The Remote sensor uses the latest sensor technology which offers long-term stability and resistance against pollutants. The enclosure is IP65/NEMA 4 rated and ideal for cleanroom applications. The sensor has been designed for easy on-site installation and comes in wall or duct mounted versions with fixed or extended probes to enable installation in challenging situations.

F E A T U R E S

- Range 0-100% RH -40 to +60°C
- Enhanced Sensor Protection
- Simple On-site Installation
- Wall or Duct Mounted
- Cleanroom Wipe Down
- IP65/NEMA Enclosure
- Optional LCD Display
- 2 Year Warranty



TECHNICAL DATASHEET

RemoteTRH Temperature and Relative Humidity Sensor

Features / Models	TRH-W-03-25 or TRH-D-03-25	TRH-W-02-15 or TRH-D-02-15
Working Range	0-100% RH / -40...60°C	0-100% RH / -40...60°C
Accuracy at 20 °C	±2.5% RH / ±0.3°C	±1.5% RH / ±0.2°C
Temperature Ranges	Operating: -40...60°C (-40...80°C for remote probe) Storage: -40...60°C	Operating: -20...50°C (-40...80°C for remote probe) Storage: -20...60°C
Display	Not Available	Optional
Outputs	4-20mA	
Power supply	10V + RL x 20 mA < V+ < 30V DC	
Connection	Screw terminals, max. 1.5 mm ²	
Housing material	Polycarbonate, UL94V-0 (with Display UL94HB) approved	
Protection class	IP65/NEMA4	
Cable gland	M16 x 1,5	
Probe cable (type C)	PVC, Ø 4.3mm, 4 x 0.25 mm ² , Length: 1.5 or 3m (4.9 or 9.8ft)	
Electromagnetic compatibility	EN61326-1 EN61326-2-3 - Industrial Environment	

Remote TRH Sensor



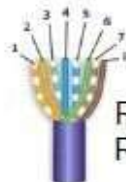
CAT5/6 Wires
 White/Brown= V+ (+24VDC)
 Green= RH (4-20mA Return)
 White/Green= T (4-20mA Return)



CAT5/6
 ANSI/TIA/EIA 568-B



Connection is made with
 3 wires from the CAT5/6
 cable.



Remote— Lighthouse Temperature and
 Relative Humidity Sensor connected to
 the Lighthouse Control Cabinet

RemoteRTD

TEMPERATURE SENSOR



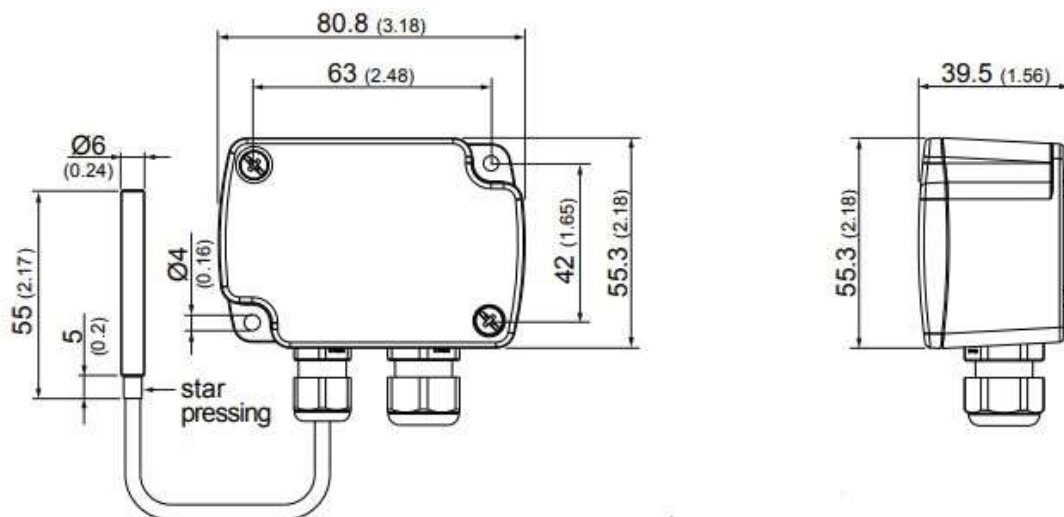
The Remote RTD is a small, cost-effective high, accuracy temperature sensor suited for cleanroom applications and monitoring laboratory equipment where the product is stored. Ideal for incubator, oven, fridge, and freezer applications in your facility or basic room monitoring and storage facility monitoring for product storage.

With an easy installation, IP65 rated cable outlet, and IP65/NEMA 4 enclosure, the Remote RTD is most suitable for cleanroom applications requiring high protection class. The easy-install design enables secure mounting on vertical or horizontal surfaces.

Only one CAT 5/6 cable is required for power and communications.

F E A T U R E S

- Multi-range measurement
- Smooth Cover and Cleanroom Friendly
- Simple On-site Installation
- Long Term Sensor Stability
- Bayonet Screws for Easy Access $\frac{1}{4}$ Turn Rotation
- IP65/NEMA Enclosure
- Remote Probe Option with Different Cable
- 2 Year Warranty



TECHNICAL DATASHEET

RemoteRTD Temperature

Features / Models	Remote Air Velocity Sensor
Active Output	
Working Range	Remote probe: -30 °C... +105 °C (-22 °F...+221 °F)
Output	4 - 20 mA
Sensing Element	Pt1000 (class A, DIN EN60751)
Accuracy	±0.3 °C (±0.54 °F) at 20 °C (68 °F)
Power Supply	10 V DC + RL x 20 mA < V+ < 35 V DC
Electromagnetic Compatibility	EN61326-1, EN61326-2-3 - Industrial Environment
Passive Output	
Working Range	-30 °C...+105 °C (-22 °F...+221 °F)
T-sensor Connection	Two-wire
Electrical Connection	screw terminal, 2x max. 2.5 mm ² (0.004 in ²)
General	
Housing Material	Polycarbonate, UL94V-0 (with Display UL94HB) approved
Protection Class	Enclosure IP65 / NEMA4, remote probe IP20
Cable Gland	M16x1.5, UL94-V2
Hose Clamp Material	stainless steel (corr. 1.4301/304)
Storage Temperature	-30 °C...+70 °C (-22 °F...+158 °F)
Storage And Working Humidity	5 % rh...95 % rh, no condensation

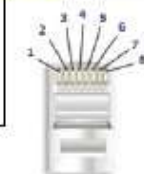
Remote Temperature Sensor



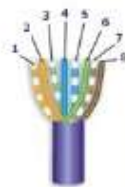
CAT5/6 Wires
White/Brown= V+ (+24VDC)
White/Green= OUT (4-20mA Return)



CAT5/6
ANSI/TIA/EIA 568-B



Connection is made with
2 wires from the CAT5/6
cable.



Remote RTD – Lighthouse Temperature Sensor
with Remote Probe connected
to the Lighthouse Control Cabinet

RemoteAV

AIR VELOCITY SENSOR



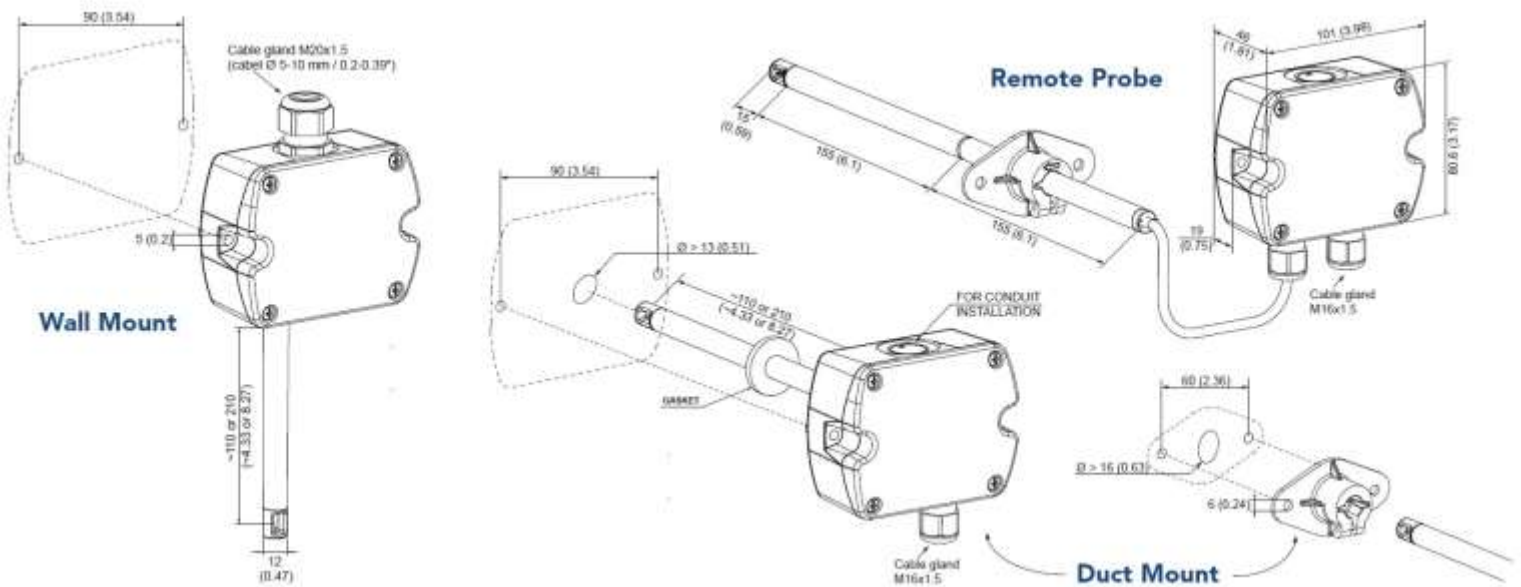
A The RemoteAV Sensor is the ideal solution for air velocity, flow and ventilation monitoring in cleanroom environments and meeting all the industry standards. The Risk Mitigation features of Self-Diagnostics and SmartBracket virtually eliminate data errors.

The Remote AV Sensor has a highly accurate sensor for measurement of low air velocity and is most suitable for cleanroom and controlled environment applications. Providing real time continuous data collection at a cost effective price per point offering unmatched device monitoring such as isolators, cabinets, and biological safety cabinets.

Only one CAT 5/6 cable is required for power and

communications

- 0.2 - 10.0µm Particle Size Channels
- 1.0 CFM or 0.1 CFM Flow Rates Available
- VHP Compatible Sensor and Housing
- Multi-range measurement
- 3,000 Onboard Data Record Storage
- Smooth Cover and Cleanroom Friendly
- Self-Diagnostics
- Simple On-site Installation
- Web Functionality to Monitor Data
- Long Term Sensor Stability
- Smart Bracket
- Bayonet Screws for Easy Access ¹/₄ Turn Rotation
- Customizable Data Reports
- IP65/NEMA Enclosure
- Built-In Status and Alarm Lights
- Wall Mounted or Duct Mounted
- 2 Year Warranty
- 2 Year Warranty



Concentration Limits	1,000,000 Particles/ft ³ @10% (34,300,000/m ³) coincidence loss	4,000,000 Particles/ft ³ @10% (137,200,000/m ³) Coincidence loss suitable for ISO classes 1-8 cleanrooms
Communication	Ethernet or Serial.	
Modbus Protocols	TCP or RTU or ASCII	

TECHNICAL DATASHEET

Web Server	Remote access via web browser
Validation Mode	Yes
Features/Models	Remote Air Velocity Sensor
Working Range¹⁾	0...1 m/s (0...200ft/min), 0...1.5 m/s (0...300ft/min), 0...2 m/s (0...400ft/min)
Output	24 VDC, 4-20 mA
Accuracy at 20 °C (68 °F)	0.15...1.5 m/s (30...300 ft/min) ±(0.05 m/s (9.8 ft/min) +2% of mv)
Response time²⁾	Typ. 4 sec or typ. 1 sec (at constant temperature)
Power supply	24V AC/DC ±20%
Current consumption	max. 180 mA rms (with display), 74 mA rms (without display)
Current consumption for AC supply	< 1 Count / 5 minutes (meets specifications of IEC 61010-1 and reporting requirements of ISO 21501-4 Annex C)
Current consumption for DC supply	max. 85 mA rms (with display), 41 mA rms (without display)
Display	Optional
Options Available for all Models	
Angular dependence	< 3% of the measured value at Δα < 10°
Software LMS Express or LMS Pharma	
Electrical connection	Screw terminals max. 1.5 mm ² (AWG 16)
Cable gland	M16x1.5
Electromagnetic compatibility	EN61326-1, EN61326-2-3 - Industrial Environment
Housing material	Polycarbonate, UL94V-0 (with Display UL94HB) approved
Protection class	Enclosure IP65/NEMA4, remote probe IP20
Working humidity and Temperature ranges	Relative Humidity 5...95 % non-condensing Working temperature probe -25 ... +50 °C (-13...122°F) Working temperature electronic -10 ... +50 °C (14...122°F) Storage temperature -30 ... +60 °C (-22...140°F)

1) Selectable by jumper

2) Response time t90 is measured from the beginning of a step change of air velocity



RemoteDP

DIFFERENTIAL PRESSURE SENSOR



A The RemoteDP Sensor is the ideal solution for highly accurate measurement of low differential pressure in cleanroom environments, hospitals, laboratories, and the pharmaceutical industry. The Risk Mitigation features of Self-Diagnostics and SmartBracket virtually eliminate data errors. The RemoteDP Sensor is suitable for all as well as non-flammable and non-aggressive gases.

The RemoteDP Sensor offers ± 0.5 Pa accuracy, providing real time continuous data collection at a cost effective measurement range. The measured data is available on the analog voltage and current outputs.

The enclosure is IP65/NEMA, protecting the electronics against construction site damage and pollution.

FEATURES

- 0.2 - 10.0 μ m Particle Size Channels
- 1.0 CFM or 0.1 CFM Flow Rates Available
- VHP Compatible Sensor and Housing
- Multi-range measurement
- 3,000 Onboard Data Record Storage
- Smooth Cover and Cleanroom Friendly
- Self-Diagnostics
- Simple On-site Installation
- Web Functionality to Monitor Data
- Long Term Sensor Stability
- Smart Bracket
- Bayonet Screws for Easy Access $1/4$ Turn Rotation
- Customizable Data Reports
- IP65/NEMA Enclosure
- Built-In Status and Alarm Lights
- 2 Year Warranty
- 2 Year Warranty

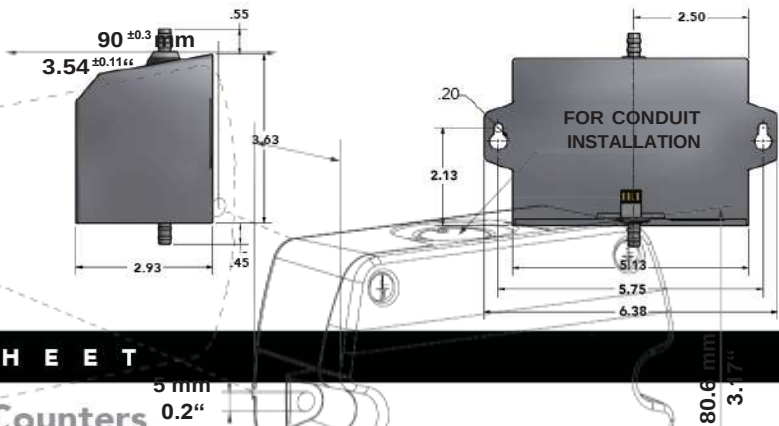
INLET FITTING 1.0 CFM (1/4" BARB), 0.1 CFM (1/8" BARB)

- POWER
- FLOW
- SERVICE
- SAMPLING



OUTLET FITTING
1.0 CFM, 0.1 CFM (1/4" BARB)

ALARM INDICATOR



TECHNICAL DATASHEET

Apex Remote Airborne Particle Counters

Features / Models	ApexR5	ApexR02	ApexR03	ApexR05
Minimum Size Detection	0.5 μ m	0.2 μ m	0.3 μ m	0.5 μ m
Standard 2 channel sizes	0.5, 5.0 μ m	0.2, 0.3 μ m	0.3, 0.5 μ m	0.5, 5.0 μ m
Optional 4 channel sizes	0.5, 1.0, 5.0, 10.0 μ m	0.2, 0.3, 0.5, 1.0 μ m	0.3, 0.5, 1.0, 5.0 μ m	0.5, 1.0, 5.0, 10.0 μ m
Additional Available sizes	0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 μ m	0.2, 0.3, 0.5, 0.7, 1.0, 2.0 μ m	0.3, 0.5, 0.7, 1.0, 3.0, 5.0 μ m	0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 μ m
Flow Rate / Nozzle Size	1.0 CFM (28.3 LPM), 1/4" fittings	0.1 CFM (2.83 LPM), 1/8" inlet, 1/4" outlet fitting	0.1 CFM (2.83 LPM), 1/8" inlet, 1/4" outlet fitting	0.1 CFM (2.83 LPM), 1/8" inlet, 1/4" outlet fitting
Weight	+ : High pressure 1.6 lbs (0.73 kg)		1.4 lbs (0.63 kg)	
Concentration Limits	Low pressure: 200,000 Particles/ft ³ @ 10% (34,300,000/m ³) coincidence loss		4,000,000 Particles/ft ³ @ 10% (137,200,000/m ³)	
Communication		Ethernet or Serial.		
Modbus Protocols		TCP or RTU or ASCII		

TECHNICAL DATASHEET

Remote DP Sensor Specifications

Remote access via web browser

Validation Mode

Yes

Measurement principle

Remote Differential Pressure Sensor

Measurement range

piezoresistive, no flow-through
 $\pm 25 / \pm 50 / \pm 100$ Pa ($\pm 0.1 / \pm 0.2 / \pm 0.4$ inch WC)

Accuracy at 20 °C (68 °F)

± 0.5 Pa = ± 0.5 % Full Scale

Response time

50 ms / 500 ms / 2 s / 4 s selectable with DIP switches

Temperature dependency

0.03 Pa/K

Long-term stability

< 1 Count / 5 minutes (meets specifications of JIS B 772-2 and reporting requirements of ISO 21501-4 Annex C)

Overload limits

± 7000 Pa (± 28 inch WC)

Analog outputs

0-5 V or 0-10V and 0-20 mA or 4-20 mA (3-wire)

Options Available for all Models

Power supply

15 - 35 V DC or 24V AC $\pm 20\%$

Software LMS Express or LMS Pharma

Current consumption

23 mA at 0 Pa / 24 V DC

Electrical connection

Spring terminals max. 1.5 mm² (AWG 16)

Cable gland

M16x1.5

Electromagnetic compatibility

EN61326-1, EN61326-2-3

Housing material

Polycarbonate, UL94V-0

Protection class

Enclosure IP65 / NEMA4

Working humidity

Relative Humidity 0...95 % RH (non-condensing)

Temperature ranges

Operation: -20 ... +60 °C (-4...140 °F) Storage: -40 ... +70 °C (-40...158 °F)

ApexZ

AIRBORNE PARTICLE COUNTERS

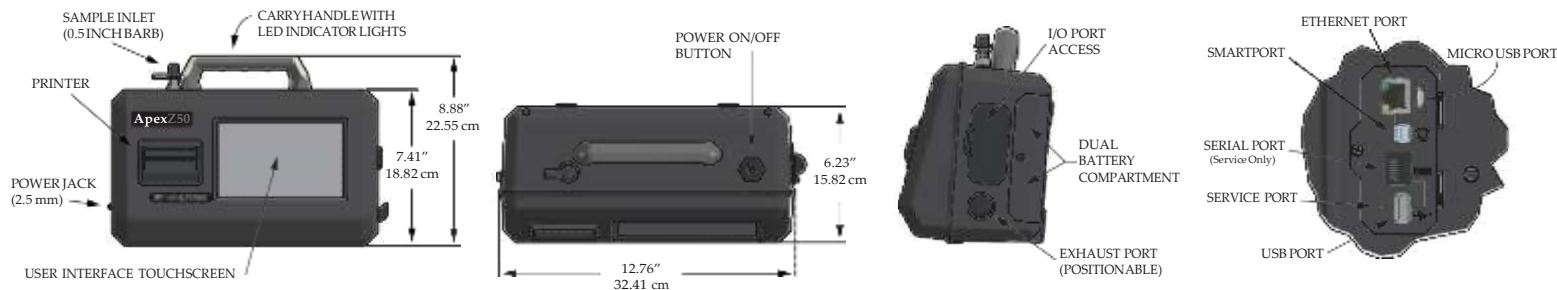


When you are looking to take your environmental monitoring program to the next level, the ApexZ is your solution. The power of the ApexZ starts with a complete system of self-diagnostics and is topped off with the most flexible data management system in the industry, all packaged in the lightest and smallest portable air particle counter on the market.

The ApexZ is the most innovative particle counter on the market and will be a timeless addition to any contamination control strategy.

F E A T U R E S

- 0.3 - 10.0 μ m or 0.5 μ m-10 μ m Particle Size Channels
- 1.0 CFM or 100 LPM Flow Rates Available
- VHP Compatible Sensor and Housing
- Sealed Chemically Compatible Enclosure
- Bi-Directional Integration into LIMS EM Systems
- Hot-Swappable Smart Batteries
- Advanced Self-Diagnostics
- 21 CFR Part 11 Compliant
- Built-In Cleanroom Certification Reports
- 2 Year Warranty



TECHNICAL DATASHEET

ApexZ Airborne Particle Counters

Features/Models	ApexZ3	ApexZ50
Minimum Size Detection	0.3 µm	0.5 µm
Standard 6 channel sizes	0.3, 0.5, 1.0, 3.0, 5.0, 10.0 µm	0.5, 0.7, 1.0, 3.0, 5.0, 10.0 µm
Flow Rate	1.0 CFM (28.3 LPM)	100 LPM (3.5 CFM)
Sample Inlet	3/8 Inch Inlet Barb	1/2 Inch Inlet Barb
Concentration Limits	1,000,000 Particles/ft ³ @10% (35,300,000/m ³) Coincidence loss suitable for ISO classes 1-8 cleanrooms	300,000 Particles/ft ³ @10% (10,590,000/m ³) Coincidence loss suitable for ISO classes 1-8 cleanrooms
Communication	Ethernet, USB standard, Wi-Fi (802.11 b/g/n)	
Data Storage Records	10,000 Records, 2500 Locations, 250 Groups, 500 Presets, 500 Sample Plans, 500 Certifications, 100 Reports, 250 Users	
Count Modes	Sample, Concentration, Beep, Custom Recipes, and Certification modes	
Printer	Embedded panel-mount printer, also available without printer; print wirelessly via a network printer	
Reports	FED 209E, ISO 14644-1:1999, ISO 14644-1:2015, & EU GMP 2022 regulatory pass/fail reports on screen or printer	
Self Diagnostics	Laser Power/Current/Supply, Flow out-of-range, No flow, PA Background/Supply/Health	
Alerts Enclosure	Chemically resistant polycarbonate blend, conductive lining, VHP compatible	
Touch Screen Display	User-configurable warnings and alarms	
Speakers	7.0 inch (8.89 cm), 1200 x 800 IPS color touch screen	
Carry Handle	2x adjustable up to 70 dB to indicate status and alerts	
Power	With RGB light pipe for status and alarms	
Light Source	External power supply: 24 VDC, 5 A max draw	
Calibration	Extreme Life Laser Diode	
Zero Count Level	ISO 21501-4 Compliant and Accredited ISO 17025	
Dimensions	< 1 Count / 5 minutes (meets specifications of JIS B 9921 and reporting requirements of ISO 21501-4 Annex C)	
Sample Output	12.76" (l) x 6.23" (w) x 8.88" (h), [32.41(l) x 15.82(w) x 22.55(h) cm]	
Vacuum Source	Internally filtered to HEPA standards (>99.97% @ 0.3 µm); with rotatable exhaust fitting for directed flow	
Battery	Internal blower, automatic flow control	
Temperature Humidity	2x Li-Ion battery slot capacity, removable and rechargeable, up to 11 hours nominal use, 50% duty cycle	
Weight	50°F to 104°F (10°C to 40°C), 20% to 95% relative humidity, non-condensing	
Languages	7.05 lbs (3.19 kg) without batteries, battery weight 1.35 lbs (0.61 kg)	
Environmental Sensors	English, Spanish, Portuguese, German, French, Italian, Russian, Chinese, Korean, Japanese, Turkish, Thai	
Supporting Software	Temperature/Relative Humidity probe: 0 to 150°F (-17.8 to 65.6°C) ±1.8°F (0.5°C), 0-100% ± 2% RH LMS Express, LMS Express RT, LMS Pharma, LMS Professional, LMS XChange	

Includes USB flash drive with lanyard, ISO probe 1 CFM (ApexZ3); 100 LPM (ApexZ50), ISP clamp, zero count filter, 24 VDC 5.0 amp power adapter and power cord, 10 feet of Beveline tubing 13/8" ID x 1/2" OD (ApexZ3); 1/2" ID x 5/8" OD BevXX (ApexZ50), 1 li-Ion smart battery included (2 battery slot capacity), 2x rolls of printer paper, Operators Manual on USB flash drive, Calibration Certificate

Optional USB Barcode Scanner, Temperature & humidity probe, 1 CFM isokinetic sample probe, USB Wi-Fi Dongle, high-pressure diffuser (ported or vented), li-Ion batteries, Beveline tubing, external battery charger w/AC power cord, printed operators manual, carry case



ApexRemote

AIRBORNE PARTICLE COUNTERS



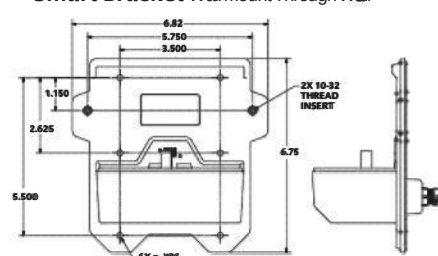
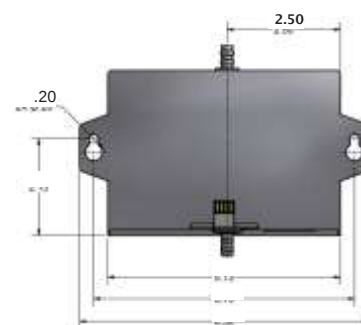
Apex represents everything that is important in a world class Environmental Monitoring System. It is the Best In Class sensor and meets all the industry standards. The Risk Mitigation features of Self-Diagnosis, Self-Diagnostics and Smart Bracket virtually eliminate data errors.

Providing real time continuous data collection at a cost effective price per point offering unmatched performance, accuracy and reliability.

F E A T U R E S

- 0.2 - 10.0µm Particle Size Channels
- 1.0 CFM or 0.1 CFM Flow Rates Available
- VHP Compatible Sensor and Housing
- 3,000 Onboard Data Record Storage
- Self-Diagnostics
- Web Functionality to Monitor Data
- Smart Bracket
- Customizable Data Reports
- Built-In Status and Alarm Lights
- 2 Year Warranty





HandHeld

AIRBORNE PARTICLE COUNTERS



The ergonomically designed and lightweight Lighthouse HandHeld particle counters feature 0.2, 0.3, and 0.5 μm sensitivities.

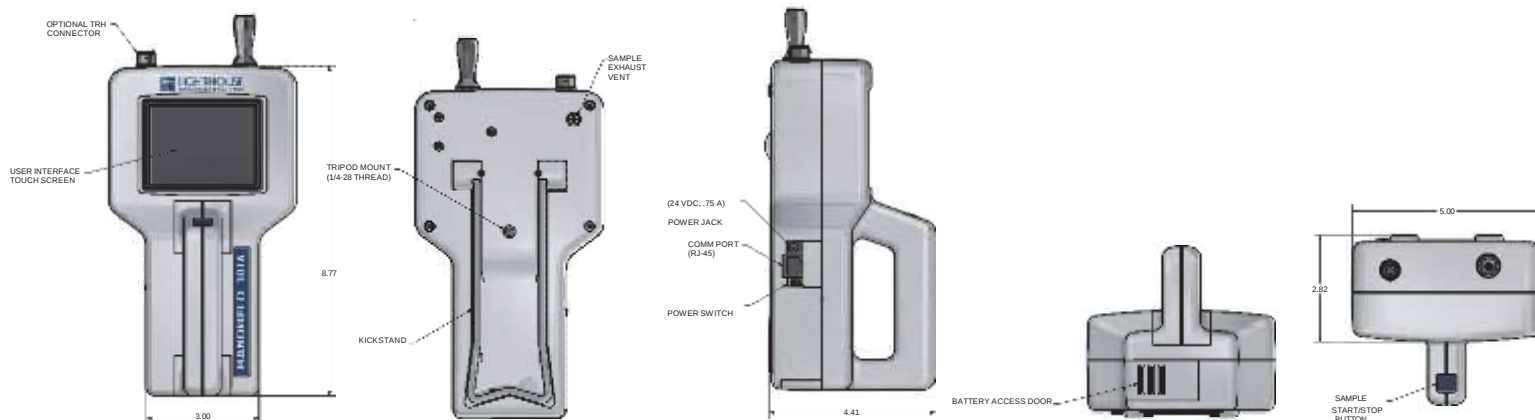
Lighthouse HandHeld particle counters can display cumulative and differential particle count and temperature/relative humidity data. The HandHeld can hold up to 3,000 records of particle data and store up to 50 recipes for sampling and reports. Removable batteries and an optional charger maximize uptime.

Data is easily downloaded using the LMS Xchange software. The HandHeld can be used as a mobile particle monitor or become part of a larger facility monitoring and management system.

F E A T U R E S

- 0.2 - 25.0 μm Particle Size Channels
- 0.1 CFM Flow Rate
- Up to 6 Channels of Simultaneous Count Data
- 21 CFR Part 11 Compliant secure USB flash transfer
- High impact Injection Molded Plastic
- Web Functionality to Monitor Data
- RS-232 via RJ45 to PC or optional printer
- 3,000 Record data storage
- Reports: ISO-14644-1 & EU GMP Annex 1
- 2 Year Warranty





TECHNICAL DATASHEET

HandHeld Airborne Particle Counters

Features / Models	HH2016	HH3016	HH3016 IAQ ^(mass concentrations)	HH5016
Minimum Size Detection	0.2 μm	0.3 μm	0.3 μm	0.5 μm
Standard 6 Channel sizes	0.2, 0.3, 0.5, 0.7, 1.0, 2.0 μm	0.3, 0.5, 1.0, 3.0, 5.0, 10.0 μm	0.3, 0.5, 1.0, 2.5, 5.0, 10.0 μm	0.5, 0.7, 1.0, 3.0, 5.0, 10.0 μm
Additional Available sizes		0.7, 2.0, 2.5, 7.0, 25.0 μm		25.0 μm
Flow Rate / Nozzle Size	0.1 CFM (2.83 LPM), 2.2 lbs (1 kg)			
Weight				
Concentration Limits	8,000,000 Particles/ ft^3 @ 10% Coincidence loss suitable			
Communication	RS-232 via RJ-45 to PC or optional printer			
Count Modes	Automatic, manual, beep, concentration, cumulative/differential			
Data Storage Records	3,000 sample records, rotating buffer, includes particle and environmental data, location, and time			
Alarms	Internal, adjustable alarm on counts, low battery, sensor failure			
Sample Inlet	Isokinetic sampling probe			
Sample Outlet	Internally filtered to HEPA standards (>99.97% @ 0.3 μm)			
Vacuum Source	Internal pump, automatic flow control			
Environmental Sensors	Direct Mount Temperature/Relative Humidity probe: 0-150°F (-17.8 to 65.6°C) $\pm$ 1.8°F @ 77°F, 0-100% $\pm$ 5% @ 33%			
Enclosure	High impact injection molded plastic			
Power	External power supply: 12 VDC, 1.25 A			
Battery	Li-Ion, removable and rechargeable			
Light Source	Extreme Life Laser Diode			
Calibration	ISO 21501-4 Compliant and Accredited ISO 17025			
Zero Count Level	< 1 Count / 5 minutes (meets specifications of JIS B 9921 and reporting requirements of ISO 21501-4 Annex C)			
Dimensions	8.75" (l) x 5.0" (w) x 2.5" (h), (22.23 x 12.70 x 6.35 cm)			
Software	LMSExpress, LMSExpressRT, LMSPharma, LMSPro, LMSXchange			
Languages	English (U.S.), Deutsch, Espanol, Italiano, Français, Russian, Japanese, Korean and Chinese			

Includes Removable battery, direct mount insokinetic sample probe; purge filter; temperature/relative humidity probe; power supply; power cord

Optional Carry Case, Isokinetic sample probe with 6ft tubing, additional Li-Ion batteries, external battery charger w/AC & car adapter, thermal printer and printer cable, printed operating manual

Remote1100LD

A I R B O R N E P A R T I C L E C O U N T E R S

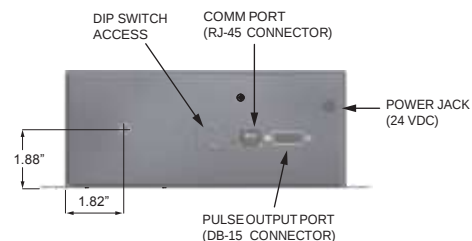
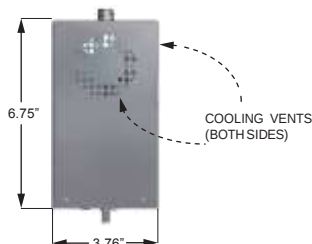
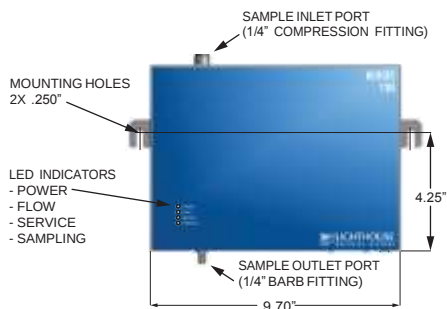


Using state-of-the-art long life laser diode technology, the Remote 1100LD Airborne Particle Counter is the industry's first laser diode based remote particle counter with a sensitivity of 0.1 μm at a high flow rate of 1.0 CFM (28.3 LPM) that uses an optics and photodiode system designed to reduce or eliminate the temperature issues associated with high power laser diode sensors.

Designed with reliability and quality in mind, the Remote 1100LD features our long-life laser diode technology that provides higher concentration limits, a better signal to noise ratio and requires less routine maintenance than conventional HeNe laser-based particle counters.

F E A T U R E S

- 0.1- 1.0 μm sensitivity
- 1.0 CFM (28.3 LPM) flow rate
- Up to 8 channels of simultaneous count data
- Worlds smallest 1.0 CFM 0.1 μm particle counter
- Meets ISO 21501-4 standards.
- Long life laser diode
- Status indicators; power, flow, service, sampling
- RS-485 Modbus or CEMS communications
- Stainless steel enclosure
- Interfaces to facility monitoring systems
- Designed to ensure 21 CFR Part 11 compliance
- 2 Year Warranty



TECHNICAL DATASHEET

Remote 1100LD Airborne Particle Counters

Features / Models	R1104	R1100
Minimum Size Detection	0.1 µm	0.1 µm
Standard 8 channel sizes	0.1, 0.15, 0.2, 0.25, 0.3, 0.5, 0.7, 1.0 µm	N/A
Standard 4 channel sizes	-	0.1, 0.2, 0.3, 0.5 µm
Communication	Serial - 485 Modbus RJ45	CEMS
Modbus Protocols	Serial or ASCII	N/a
Software	LMSExpress, LMSPharma, LMSPro and LMSXchange	LMSXchange
Flow Rate / Nozzle Size	1 CFM (28.3 LPM), 1/4" fittings	
Concentration Limits	1,000,000 Particles/ft ³ @ 10% Coincidence loss suitable for ISO classes 1-8 cleanrooms	
Data Storage Records	999	
Self Diagnostics	laser current, background voltage	
Alarm Light	Yes	
Enclosure	304 Stainless Steel	
Power	24 VDC	
External Vacuum Requirements	Nominal 1.0 CFM 18" (45.72 cm) of Hg	
Light Source	Extreme Life Laser Diode	
Calibration	ISO 21501-4 Compliant and Accredited ISO 17025	
Zero Count Level	< 1 Count / 5 minutes (meets specifications of JIS B 9921 and reporting requirements of ISO 21501-4 Annex C)	
Dimensions	10.5" (w) x 7.65" (h) x 3.35" (d); [26.67 x 19.43 x 8.51 cm]	
Includes	24 VDC power adapter and power cord, Calibration Certificate, Purge Filter	

Optional Temperature & humidity probe, 1 CFM isokinetic sample probe, 0.1 CFM isokinetic sample probe, Beveline tubing, printed operators manual

Remote5104V

AIRBORNE PARTICLE COUNTERS



A compatible with VHP, the Remote5104V is the most important in meets the stringent requirements of today's state-of-the-art facilities. The Remote5104V is the only airborne particle counter that meets the Class I Division 2 Rating and is the only airborne particle counter that is intrinsically safe. The Remote5104V is the only airborne particle counter that is intrinsically safe and is the only airborne particle counter that is intrinsically safe.

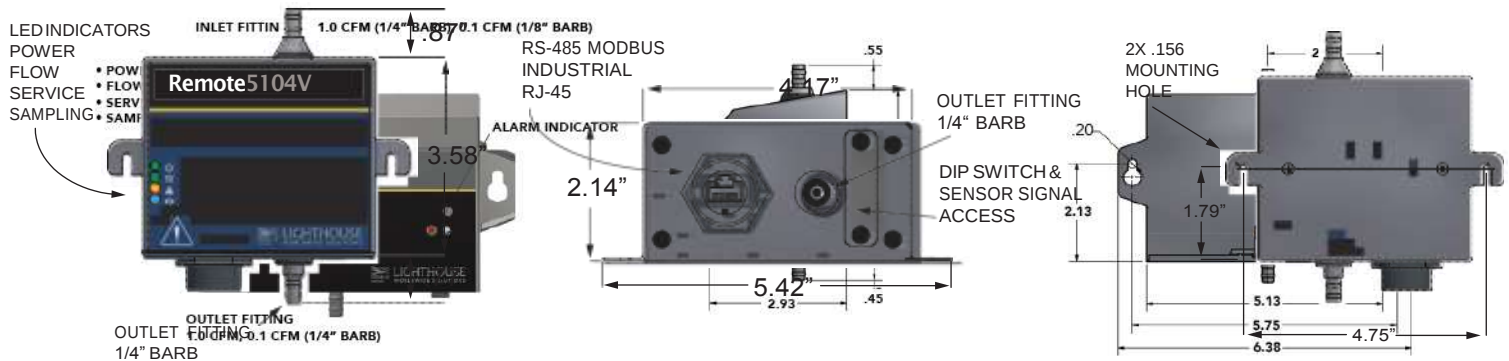
The Remote5104V uses a critical particle filter and a cost-effective price per point for flow control. Built-in performance monitoring assures accuracy and reliability of the sensor's performance.

With a sensitivity of 0.5 μm and 1.0 CFM flow rate, the Remote5104V provides real-time continuous data collection at a cost-effective price per point and integrates seamlessly with facility monitoring and building management systems.

- 0.2 - 10.0 μm Particle Size Channels
- 1.0 CFM or 0.1 CFM Flow Rates Available
- VHP Compatible Sensor and Housing
- 2,000 Onboard Data Record Storage
- Self-Diagnostics
- Class I Division 2 Rating
- Web Functionality to Monitor Data
- 0.5 - 5.0 μm (optional channels up to 25 μm)
- Smart Bracket
- 1.0 CFM (28.3 LPM) flow rate
- Customizable Data Reports
- Up to 4 channels of simultaneous count data
- Built-In Status and Alarm Lights
- Real-time continuous monitoring
- 2 Year Warranty
- 316L stainless steel, wash down splash tight enclosure
- Status indicators for power, flow, service, sampling
- RS-485 Modbus communication
- Interfaces to facility monitoring systems
- Uses external vacuum source
- 2 year warranty



More

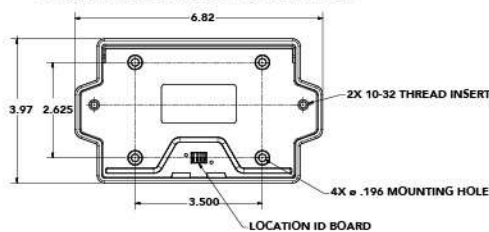


TECHNICAL DATASHEET

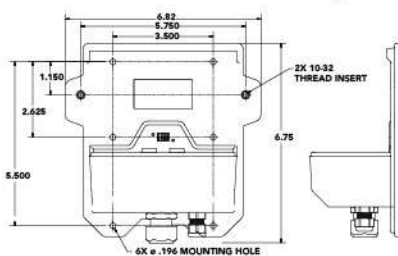
Apex R5104V Remote Particle Counter

Features / Models	ApexR5	ApexR02	ApexR03	ApexR05
Size Range		0.5 - 25.0 μ m		
Standard Channels	0.5, 5.0 μ m	0.2, 0.3 μ m 0.5, 5.0 μ m; (0.5, 1.0, 5.0, 25.0) μ m	0.3, 0.5 μ m	0.5, 5.0 μ m
Flow Rate		1.0 CFM (2.83 LPM)		
Particle Size Available sizes	0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 μ m	0.2, 0.3, 0.5, 0.7, 1.0, 2.0 μ m Laser Diode	0.3, 0.5, 0.7, 1.0, 3.0, 5.0 μ m	0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 μ m
Zero Count Level	< 1 Count / 5 minutes (meets specifications of JIS B 9921 and reporting requirements of ISO 21501-4 Annex C)			
Concentration Limits	1.6 lbs (0.73 kg)	1,000,000 Particles/ft ³ @ 10% Coincidence loss suitable for ISO class 1-8 cleanrooms	1,000,000 Particles/ft ³ @ 10% Coincidence loss suitable for ISO class 1-8 cleanrooms	
Data Storage		2,300		
Calibration	(34,300,000/m ³) coincidence loss	ISO 21501-4 Compliant and Accredited ISO 17025	ISO 21501-4 Compliant and Accredited ISO 17025	
External Vacuum Requirements		18" (45.72 cm) of Hg		
Modbus Protocols		TCPIP, RS-485, CAN		
Communication Modes		Serial - 485 Modbus RJ45		
Self-Diagnostics	Laser power supply, laser current, laser power, photo detector power supply, background voltage, photo detector health.			
Connector		Industrial RJ-45		
Validation Mode		316L Stainless steel, washdown resistant, splash tight		
Power		24 VDC		
Dimensions		5.42" (l) x 2.14" (w) x 3.04" (h) [13.9 cm (l) x 5.4 cm (w) x 7.7 cm (h)]		
Weight		15.6 oz (0.44 kg)		
Software Vacuum Requirements		LMS Pharma, LMS Pharma L (5.72 cm) of Hg		
Light Source	24 VDC power adapter and power cord, Calibration Certificate	Extreme Life Laser Diode		
Calibration		ISO 21501-4 Compliant and Accredited ISO 17025		
Zero Count Level	< 1 Count / 5 minutes (meets specifications of JIS B 9921 and reporting requirements of ISO 21501-4 Annex C)			
Dimensions		6.38" x 2.93" x 4.63" (16.2 x 7.4 x 11.7 cm)		
Optional	Temperature & humidity probe, 1 CFM isokinetic sample probe, Beveline tubing, printed operators manual,			
Options Available for all Models	Purge Filter			
Software	LMS Express or LMS Pharma			

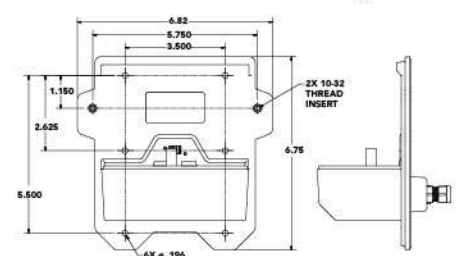
Smart Bracket Wall Mount Flush



Smart Bracket Wall Mount Through Base



Smart Bracket Wall Mount Through Wall



ScanAirPro

SMART FILTER SCANNING AND FILTER EFFICIENCY TESTING SYSTEM



T

HE Lighthouse ScanAirPro System is a particle counter based HEPA/ULPA filter scanning system. It is the only particle counter based, integrated portable system for scanning HEPA/ULPA filters for filter efficiency testing.

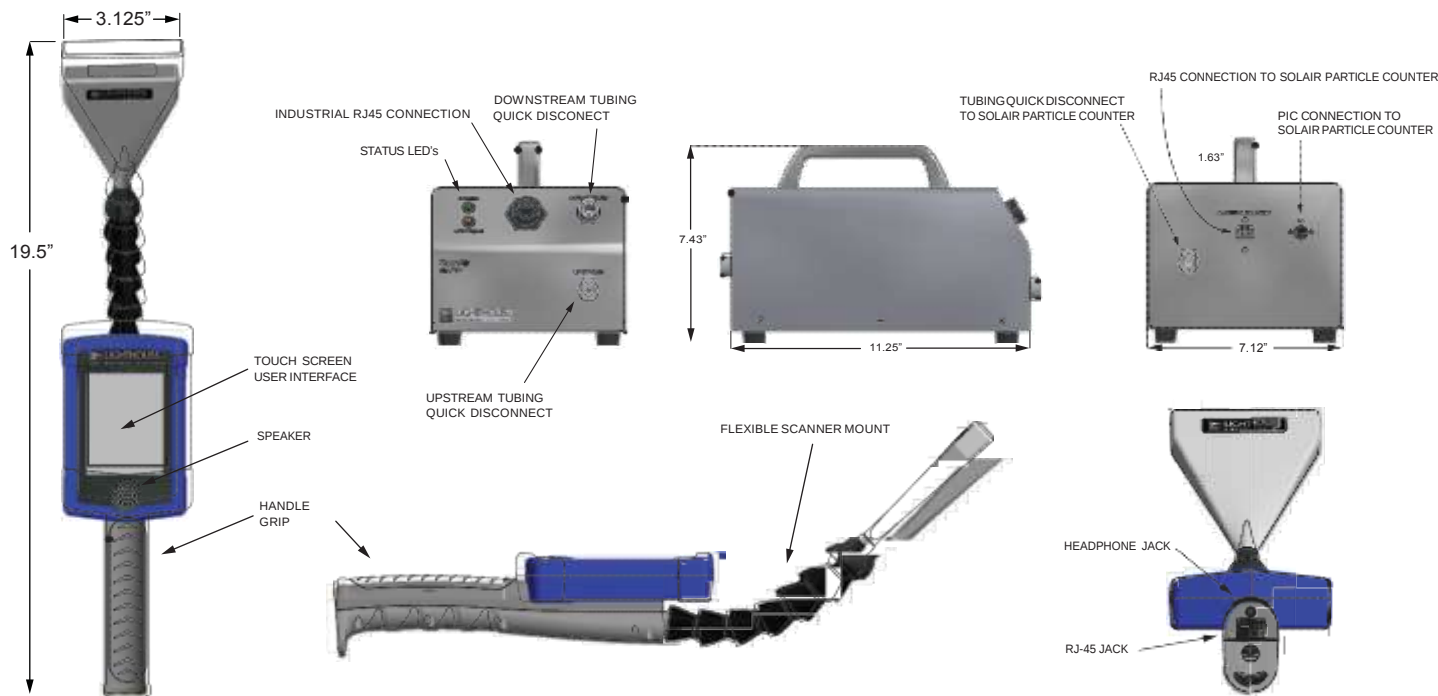
Use it to scan filter media for leaks. Incorporating an ergonomic lightweight scanning probe with touchscreen user interface, the ScanAir Pro System also includes a SOLAIR portable particle counter and a dual-port diluter that can be remotely switched between measurements from the touch screen handle.

When used in conjunction with an aerosol generator (producing DESH, Emery 3004, DOP, paraffin oils, salt solutions or PSL as upstream challenge); the ScanAirPro system allows you to take an upstream and downstream measurement that displays real-time percent leak information on the integrated touch screen display.



F E A T U R E S

- 1 CFM sample rate.
- Detection limits down to 0.1 μm .
- 18 lbs (includes, particle counter, diluter, probe).
- Test filters according to ISO 14644-3
- Touchscreen user interface.
- Upstream and downstream mode of measurement.
- Automatic calculation of alarm threshold.
- Scans and sizes leaks.
- Display % leak during downstream mode.
- Display upstream or downstream measurements.
- Ideal for use on ladders or hard to reach places.



TECHNICAL DATASHEET

ScanAirPro Smart Upstream Sampling and Downstream Filter Scanning System.

Features

Flow Rate	1.0 CFM (28.3 LPM)
Adjustable Scan Head	YES
Touchscreen User Interface	YES
Upstream Measurements	YES
Downstream Measurements	YES
Standard Probe Cable and Tubing Length	3 meters (10 foot).
Communication Integration	Solair Airborne Particle Counters.
Headphone Jack	YES
Enclosure	Stainless Steel
Weight ScanAir Pro Sampling Probe and Head	6 oz (.17 kg)
Weight Diluter	9.7 lbs (4.4 kg)

Included

Operating manual on CD, USB interface cable, AC adapter, purge filter, and carry case.

Optional

Printed Operating Manual, LMS Express Software

Vertex50

LIQUID PARTICLE COUNTER



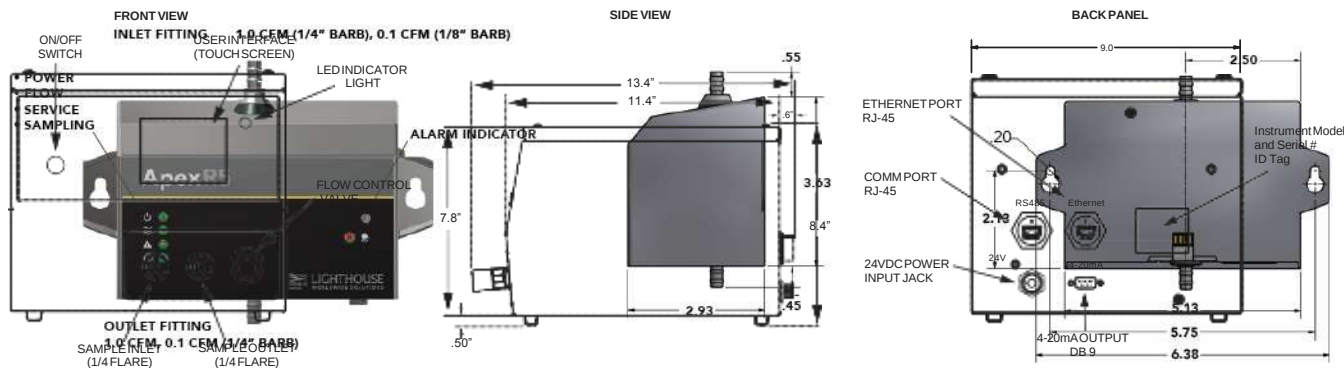
A The Vertex50 is the smallest 50 data important in liquid particle counter on the market and system. It is the Operator Class 5.5" TFT touch screen all the simplify the standardize the Risk Mitigation state of the self-Diag and built by Lighthouse Worldwide Solutions data Vertex50 is backed by a two-year warranty and international support.

Providing real time continuous data collection at a The Vertex50 industry standard RS-485 MODBUS and 4-20mA communication protocols provide seamless integration into facility monitoring systems or can be used as a stand-alone device.

FEATURES

- Using its integrated ethernet TCP/IP interface allows the Vertex50 to connect to standard corporate Ethernet LAN's as easily as it connects to facility monitoring systems.
- 0.2 - 10.0µm Particle Size Channels
- 1.0 CFM or 0.1 CFM Flow Rates Available
- VHP Compatible Sensor and Housing
- 1,000 Onboard Data Record Storage
- Self-Diagnostics
- Channel Sizes: 50nm, 100nm, 150nm, 200nm
- Web Functionality to Monitor Data
- Four channels of simultaneous count data
- Smart Bracket
- 100 mL per minute flow rate
- Customizable Data Reports
- Built-in 3.5" color touch screen display
- Built-In Status and Alarm Lights
- 316L stainless steel construction
- 2 Year Warranty
- Ethernet, RS485 Modbus Serial, 4-20mA
- NEMA style enclosure
- Integrated manual flow control
- Interfaces with existing facility management systems
- 2 Year Warranty





TECHNICAL DATASHEET

ApexR5 Remote Particle Counter

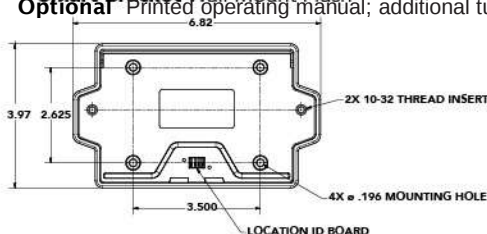
Features / Models	ApexR5	ApexR02	ApexR03	ApexR05
Size Range		50 - 200 nm		
Standard Channel Sizes	0.5, 5.0 μm	0.2, 0.3 μm	0.3, 0.5 μm	0.5, 5.0 μm
Standard Channel Sizes		50 nm, 100 nm, 150 nm, 200 nm		
Additional Available sizes	0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 μm	0.2, 0.3, 0.5, 0.7, 1.0, 2.0 μm	0.3, 0.5, 0.7, 1.0, 3.0, 5.0 μm	0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 μm
Sample Volume		5.0 mL/min		
Target Count Level	1.6 lbs (0.73 kg)	≤ 20 count/L	1.4 lbs (0.63 kg)	
Laser Source		Solid state laser		
Calibration	(34,300,000/m ³) coincidence loss	NIST traceable	Coincidence loss suitable for ISO classes 1-8 cleanrooms	
Communication Modes		Ethernet, Serial RS-485, 4-20mA		
Display Protocols		TFT color touch screen	RS-485 or ASCII	
Concentration Limit		10,000 counts/mL @ 10% coincidence loss		
Self-Diagnostics		Laser power supply, laser current, laser power, photo detector power supply, background voltage, photo detector health.		
Sample Inlet/Outlet Connection		1/4" Flaretek™		
Validation Method Conditions Operating	50°F to 104°F (10°C to 40°C), 20% to 95% non-condensing			
Environmental Conditions Storage	14°F to 122°F (-10°C to 50°C), up to 98% non-condensing			
Sample Temperature	50°F to 122°F (10°C to 50°C)			
Sample Pressure	20 PSI to 72 PSI (138 kPa to 496 kPa)			
Internal Seals/Requirements	Quartz, PFA, Kalrez, Viton, FPM, EPDM (45.72 cm) of Hg			
Communication Protocol		MODBUS TCP, MODBUS Serial, 4-20mA		
Calibration	External Supply: Rated input 120-240V AC 50/60Hz, 0.7A, 1.1A Rated Output 7.2V DC, 5A			
Dimensions	9.0"(w) x 13.4"(d) x 8.4"(h) [22.9 x 34.0 x 21.3 cm]			
Weight	13.5 lbs (6.1 kg)			

Includes 24V power adapter, power cord (US/UK/EU/CN), 1.8m USB-RS485 serial cable with industrial connector, 25' Ethernet cable with industrial connector, USB flash drive with Operators Manual, 2 x 10 foot sample inlet and outlet tubes (with flared tips and lock nuts), flow cell cleaning kit, calibration certificate and carrying case.

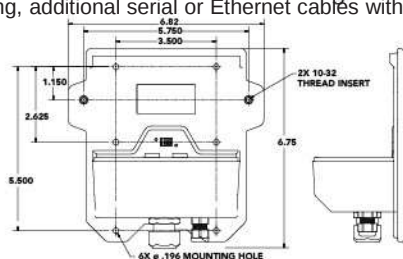
Options Available for all Models

Software LMS Express or LMS Pharma

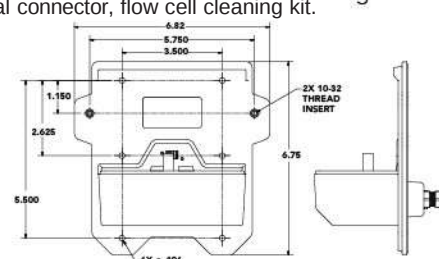
Smart Bracket Wall Mount Flush



Smart Bracket Wall Mount Through Base



Smart Bracket Wall Mount Through Wall



LS20/60

LIQUID BATCH SAMPLERS

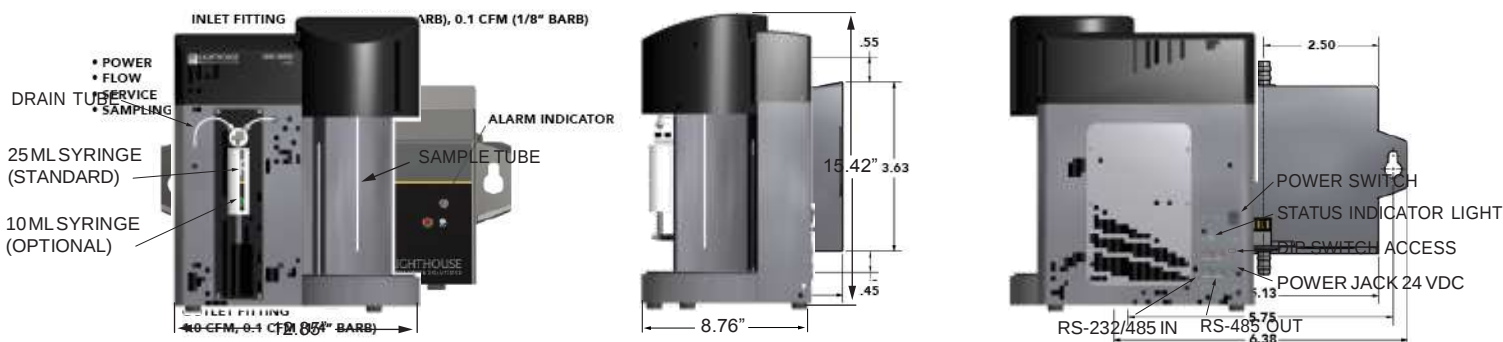


A The Liquid Batch Samplers are an integrated in-situ sampling and optical monitoring system. It is the best choice for use in process-based industry standards. The Risk Mitigation features of Self-Diagnostics and SmartBracket virtually eliminate data error. With a sample flow rate of 60 ml/min or 20 ml/min, the Liquid Batch Samplers provide unprecedented measurement speed and accuracy. Data collection at a high efficiency syringe pump flow control system and high volume sensor, it is the perfect tool for multiple batch sampling applications.

The Liquid Batch Samplers are easy to configure and operate. Data is automatically recorded and readily available in real-time graph and tabular form. Reports can be preconfigured and printed at the touch of a key.

- 0.2 - 10.0µm Particle Size Channels
- 1.0 CFM or 0.1 CFM Flow Rates Available
- VHP Compatible Sensor and Housing
- 3,000 Onboard Data Record Storage
- Self-Diagnostics
- Web Functionality to Monitor Data
- 0.1 - 100.0µm or 1.0µm-50µm Particle Size Channels
- Smart Bracket
- Sample Volumes 1mL to 1 Liter
- Customizable Data Reports
- 8 channel sizes
- Built-In Status and Alarm Lights
- Precise syringe pump flow control
- 2 Year Warranty
- Stainless steel enclosure
- Built-in magnetic stirrer
- Compact footprint
- RS-485 MODBUS communication
- 2 Year Warranty





TECHNICAL DATASHEET

Apex Particle Counter

Features / Models	LS20 ApexR5	ApexR02	LS60 ApexR03	ApexR05
Minimum Size Detection	1.0 μm		0.1 μm	
Standard Channel Sizes	1.0, 2.0, 3.0, 5.0, 10.0, 15.0, 25.0, 50.0 μm	0.2, 0.3 μm	0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.5 μm	0.5, 5.0 μm
Size Ranges	User definable 1.0 - 50.0 μm		0.1 - 0.5 μm ; 0.2 - 2.0 μm ; 0.3 - 3.0 μm ; 0.5 - 100.0 μm	
Additional Available sizes	20.0, 30.0, 50.0, 70.0, 100.0 μm	0.2, 0.3, 0.5, 0.7, 1.0, 2.0 μm	60 ml, 100 ml, 250 ml, 500 ml, 1000 ml	0.5, 0.7, 1.0, 3.0, 5.0, 70, 100 μm
Reports	Current USP, EP, JP, KP, CP and custom recipes		Current USP, EP, JP, KP, CP and custom recipes	
Counting Limits	1,000,000 Particles/ft ³ @10%		Laser Diode, 4,000,000 Particles/ft ³ @10% (137,200,000/m ³)	
Calibration	NIST Traceable		NIST Traceable	
Communication	Ethernet or Serial		Ethernet or Serial	
Maximum Sample Volume	1 Liter		1 Liter	
Communication Mode	RS-485 MODBUS		RS-485 MODBUS	
Wetted Components	Teflon (PFA), Quartz, Kalrez, Kel F, Polypropylene		Teflon (PFA), Quartz, Kalrez, Kel F, Polypropylene	
Stirrer	Magnetic with adjustable speed		Magnetic with adjustable speed	
Connectors	RJ-45		RJ-45	
Supporting Software	LS20 Software, LS60 Software		LS20 Software, LS60 Software	
Enclosure	Stainless Steel		Stainless Steel	
Power	100-240 VAC, 24 VDC		100-240 VAC, 24 VDC	
Dimensions	12.875"(l) x 8.75"(w) x 14.75"(h) [32.7 x 22.2 x 37.5 cm]		12.875"(l) x 8.75"(w) x 14.75"(h) [32.7 x 22.2 x 37.5 cm]	
Weight	20.5 lbs (9.3 kg)		20.5 lbs (9.3 kg)	
Environmental Conditions	Operating: 50°F to 104°F (10°C to 40°C) / 20% to 95% non-condensing Storage: 14°F to 122°F (-10°C to 50°C) / up to 98% non-condensing		Operating: 50°F to 104°F (10°C to 40°C) / 20% to 95% non-condensing Storage: 14°F to 122°F (-10°C to 50°C) / up to 98% non-condensing	
Zero Count Level	< 1 Count / 5 minutes (meets specifications of USP 797 and reporting requirements of USP 21501-4 Annex C)		< 1 Count / 5 minutes (meets specifications of USP 797 and reporting requirements of USP 21501-4 Annex C)	
Minimum System Requirement	Windows 7TM or Windows 10TM compatible computer.		Windows 7TM or Windows 10TM compatible computer.	

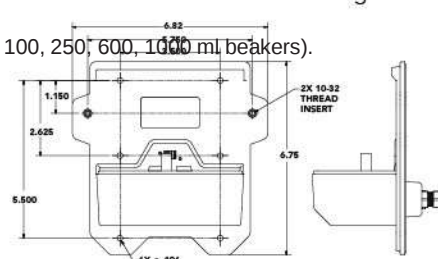
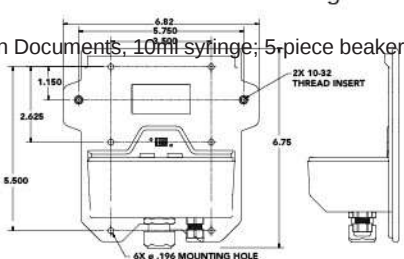
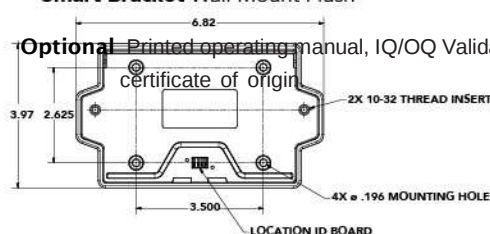
Options Available for all Models

Includes: Instrument, USB to RJ45 cable, power supply, 500 ml beaker with edge guard, 10 feet of tubing, flow cell cleaning solution, LMS Express or LMS Pharma software, nut and ferrule kit, 2x magnetic stir bars; Operators Manual on USB key; Calibration Certificate and Carry Case with wheels.

Smart Bracket Wall Mount Flush

Smart Bracket Wall Mount Through Base

Smart Bracket Wall Mount Through Wall



Optional: Printed operating manual, IQ/OQ Validation Documents, 10 ml syringe, 5-piece beaker set (50, 100, 250, 600, 1000 ml beakers).

RemoteLPC

LIQUID PARTICLE COUNTERS



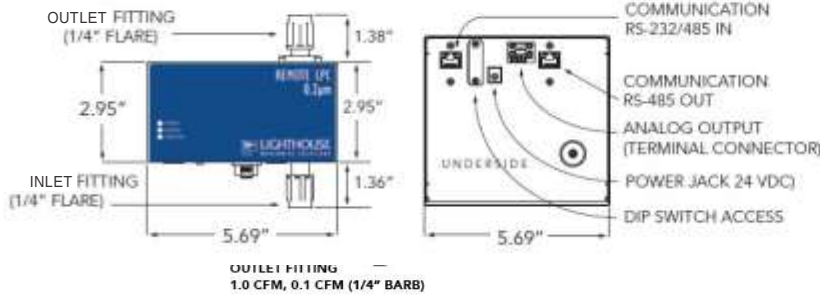
Ancorating the latest in laser optical particle counting technology, the RemoteLPC is the Best LPC particle counter for the industry standard. The Risk Mitigation features of Self-Diagnostics and SmartBracket virtually eliminate data errors. The Remote LPC integrates seamlessly into a large facility monitoring and management systems and provides up to 2 months of simultaneous particle count data using the 4-20mA output and a 100MB of data via Modbus.

FEATURES

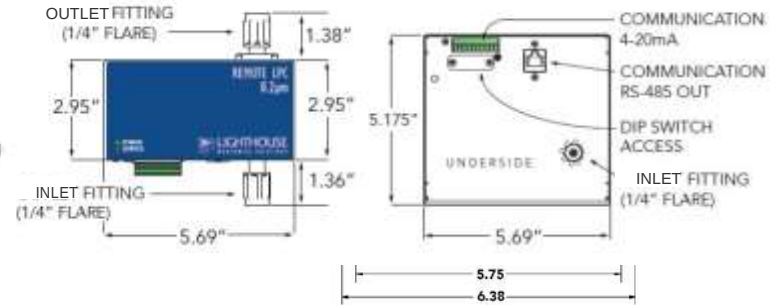
- 0.2 - 50.0µm Particle Size Channels
- 100 CFM or 0.1 CFM Flow Rates Available
- VED Compatible Sensor and Housing
- 4,000 On-board Data Record Storage
- Self-Diagnostics
- Interfaces with facility monitoring systems
- Web Functionality to Monitor Data
- Compact size
- Smart Bracket
- Designed for reliability
- Customizable Data Reports
- Built-In Status and Alarm Lights
- 2 Year Warranty



MODBUS MODEL



4-20mA MODEL



TECHNICAL DATASHEET

Apex Remote Particle Counters

Features / Models	Remote LPC0.1	Remote LPC0.2	Remote LPC0.3	Remote LPC0.5
Minimum Size Detection	0.1 μm	0.2 μm	0.3 μm	0.5 μm
Standard 2 Channels	0.1, 0.3 μm	0.2, 0.3 μm	0.3, 0.5 μm	0.5, 1.0 μm
Optional 2 Channel 4-20mA	0.1, 0.3; 0.1, 0.5 μm	0.2, 0.3; 0.2, 1.0; 0.2, 2.0 μm	0.3, 0.7; 0.3, 2.0; 0.3, 3.0 μm	0.5, 2.0; 0.5, 5.0 μm
Standard 4 Channels	0.1, 0.3, 0.5, 1.0 μm	0.2, 0.3, 0.5, 1.0, 2.0 μm	0.3, 0.5, 0.7, 1.0, 3.0, 5.0 μm	0.5, 0.7, 1.0, 2.0, 3.0, 5.0, 7.0, 10.0 μm
Optional 4 Channels	0.1, 0.3, 0.5, 1.0 μm	0.2, 0.3, 0.5, 1.0, 2.0 μm	0.3, 0.5, 0.7, 1.0, 3.0, 5.0 μm	0.5, 1.0, 2.0, 5.0 μm
Concentration Limit	64,000 counts/ml @ 5% coincidence error	4,000 counts/ml @ 5% coincidence error	4,000 counts/ml @ 5% coincidence error	4,000 counts/ml @ 5% coincidence error
Flow Rate Limits	1,000,000 Particles/ft ³ @10%	100,000 Particles/ft ³ @10%	100,000 Particles/ft ³ @10%	100,000 Particles/ft ³ @10%
Laser Source	Diode Laser	Diode Laser	Diode Laser	Diode Laser
Calibration	Ethanol	Ethanol	Ethanol	Ethanol
Data Storage	Rotating buffer 2,000 records (modbus models)	Rotating buffer 2,000 records (modbus models)	Rotating buffer 2,000 records (modbus models)	Rotating buffer 2,000 records (modbus models)
Data Storage Modes	RS232/485 via RJ45 to PC, RS485 Modbus, ASCII, Modbus or MR protocol	RS232/485 via RJ45 to PC, RS485 Modbus, ASCII, Modbus or MR protocol	RS232/485 via RJ45 to PC, RS485 Modbus, ASCII, Modbus or MR protocol	RS232/485 via RJ45 to PC, RS485 Modbus, ASCII, Modbus or MR protocol
LED Indicators	Power, Sampling (4-20mA model); Power, Service, Sampling (485 modbus model)	Power, Sampling (4-20mA model); Power, Service, Sampling (485 modbus model)	Power, Sampling (4-20mA model); Power, Service, Sampling (485 modbus model)	Power, Sampling (4-20mA model); Power, Service, Sampling (485 modbus model)
Power Alarm Output	Normal dry contact rated 100V AC/DC 1 Amp	Normal dry contact rated 100V AC/DC 1 Amp	Normal dry contact rated 100V AC/DC 1 Amp	Normal dry contact rated 100V AC/DC 1 Amp
Enclosure	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Sample Inlet/Outlet Connection	1/4" Flare	1/4" Flare	1/4" Flare	1/4" Flare
Sample Temperature	32-140°F (0-60°C)	32-140°F (0-60°C)	32-140°F (0-60°C)	32-140°F (0-60°C)
Sample Pressure	24 VDC PSSE	24 VDC PSSE	24 VDC PSSE	24 VDC PSSE
Wetted Surface Materials	Quartz, PTFE, PFA	Quartz, PTFE, PFA	Quartz, PTFE, PFA	Quartz, PTFE, PFA
Power Source	Extreme Life Laser Diode	Extreme Life Laser Diode	Extreme Life Laser Diode	Extreme Life Laser Diode
Dimensions	5.7"(l) x 5.2"(w) x 3.0"(h) [14.47 x 13.2 x 7.6 cm]	5.7"(l) x 5.2"(w) x 3.0"(h) [14.47 x 13.2 x 7.6 cm]	5.7"(l) x 5.2"(w) x 3.0"(h) [14.47 x 13.2 x 7.6 cm]	5.7"(l) x 5.2"(w) x 3.0"(h) [14.47 x 13.2 x 7.6 cm]
Weight	< 1 Count / 5 minutes (meets specifications of JIS B 5021-1.58 lb)	< 1 Count / 5 minutes (meets specifications of JIS B 5021-1.58 lb)	< 1 Count / 5 minutes (meets specifications of JIS B 5021-1.58 lb)	< 1 Count / 5 minutes (meets specifications of JIS B 5021-1.58 lb)
Includes	Power supply; tubing; flow cell cleaning, brush with Micro90 cleaning solution.	Power supply; tubing; flow cell cleaning, brush with Micro90 cleaning solution.	Power supply; tubing; flow cell cleaning, brush with Micro90 cleaning solution.	Power supply; tubing; flow cell cleaning, brush with Micro90 cleaning solution.

Options Available for all Models

Optional Printed operating manual; flow control device; sample tubing;

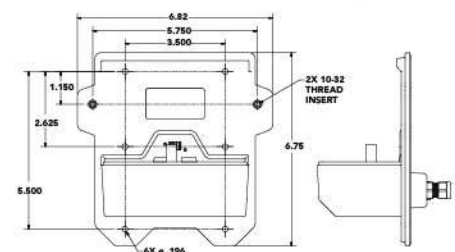
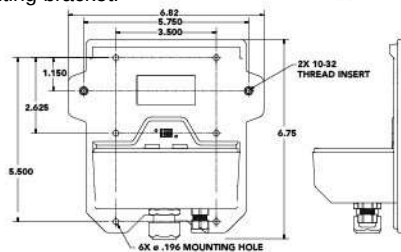
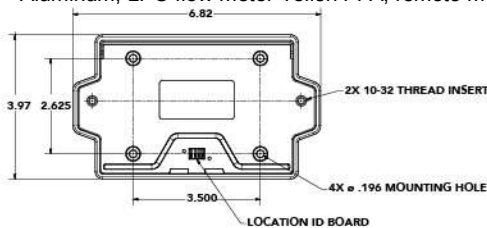
Software LMS Express or LMS Pharma

cabling; flaring kit; flare nuts; LPC stand with flow meter mount; LMC flow meter

Aluminum, LPC flow meter Teflon PFA; remote mounting bracket.

Smart Bracket Wall Mount Through Base

Smart Bracket Wall Mount Through Wall



ActiveCount

MICROBIOLOGICAL SAMPLERS

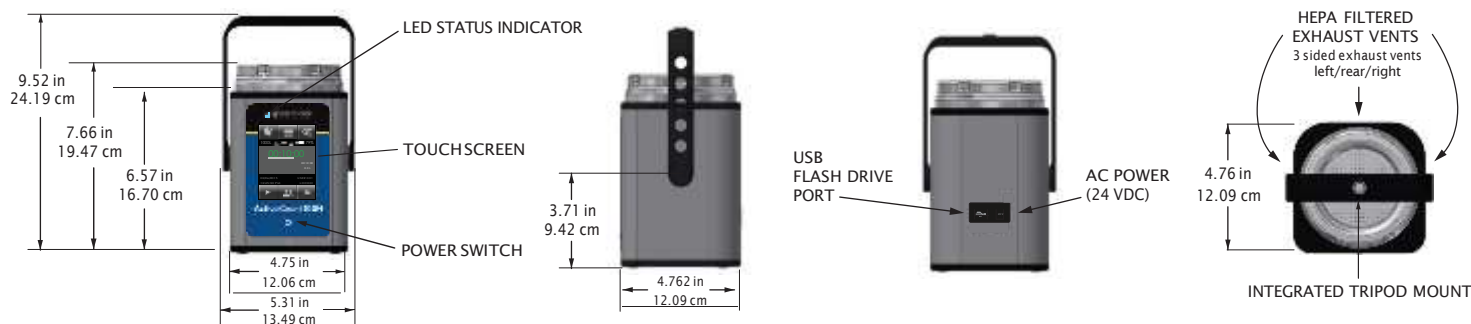


The ActiveCount family is a set of high performance portable active air samplers suitable for use in cleanrooms and aseptic environments. They offer self-adjusting flow control to ensure accurate sampling, as well as continuous and periodic sampling modes for optimum sampling flexibility.

ActiveCount100H and ActiveCount25H come with HEPA filtered exhaust, a removable magnetic baseplate, a stainless steel sampling head and dust cover.

F E A T U R E S

- Wipedownable and suitable for sterile conditions
- Autoclavable sampling head and dust cover
- ISO 14698-1 compliant
- 50 programmable user names
- 400 programmable location names
- Data logging to USB flash drive
- Password security for sample settings
- Continuous, Periodic and Gas sampling modes
- Battery with 8-10 hours normal use
- 2 Year Warranty



TECHNICAL DATASHEET

ActiveCount Microbiological Samplers

Features / Models	AC100H	AC100	AC25H
Flow Rate	100 liters/minute	100 liters/minute	25 liters/minute
Petri Dish Holder	Removable, magnetic and autoclavable	Fixed	Removable, magnetic and autoclavable
Impactor Head	316LSS with 300 holes, 19m/s, d50: 1µm	316LSS with 300 holes, 19m/s, d50: 1µm	316LSS with 88 holes 19m/s, d50: 1µm
Weight	6.75 lbs. (3.06 kg)	5.80 lbs. (2.63 kg)	5.80 lbs. (2.63 kg)
Dust cover	316L Stainless Steel, autoclavable		
Dish compatibility	Compatible with standard 90 mm petri dish (85mm-92mm) and Rapid Micro Bio Systems Cassette		
Sample volume presets	8 Programmable volume presets		
User names	50 Programmable user names		
Location names	400 Programmable location names		
Display	3.5 inch (8.9 cm) color touch screen		
LED light	RGB LED light for status, alerts and alarms		
Speaker	Adjustable speaker volume		
Time/Date formats	Time format 12 or 24 hours, Date formats YYYY/MM/DD, MM/DD/YYYY, DD/MM/YYYY		
USB port	USB 2.0 port		
Data records	Unlimited; saved on USB flash drive in .csv file format		
Log file data fields	Start date, time, location, user, sample duration, flow duration, volume, cycles, status		
Active flow control	Actively controlled airflow		
Handle - tripod mountable	Tripod mountable handle 3/8-16, includes 1/4-20 threaded adapter		
HEPA filtered exhaust (H models)	HEPA filtered exhaust captures 99.97% of particles at 0.3 µm		
Enclosure	316L Stainless Steel		
Power	24VDC power adapter (100-240V ~ 1.5A 50-60Hz)		
Battery	8 Hours continuous sampling or 10 hours normal sampling use, 4 hours charge time		
Weight	6.75 lbs. (3.06 kg)		
Calibration	ISO 17025 Accredited		
Operating environment	0-90% Humidity non condensing, 0-40°C sampling, 0-35°C charging		
Dimensions	7.6"(h) x 4.7"(w) x 4.7"(d) [19.4(h) x 12.0(w) x 12.0(d) cm]		
Carry case	Pelican case with Lighthouse Worldwide Solutions logo		

Includes ActiveCount, 316L stainless steel sample head, 316L stainless steel dust cover, removable magnetic baseplate (if applicable), blower inlet seal, Petri dish adjustment tool, USB flash drive, 1/4-20 threaded tripod adapter, 24 VDC power adapter with cord, calibration certificate, carry case.

Optional Remote impactor kit, Rapid Micro Bio Systems Kit, compressed gas sampler, tubing, cleanroom tripod, IQ/OQ protocols.

ActiveCountR

VIABLE IMPACTOR SYSTEM



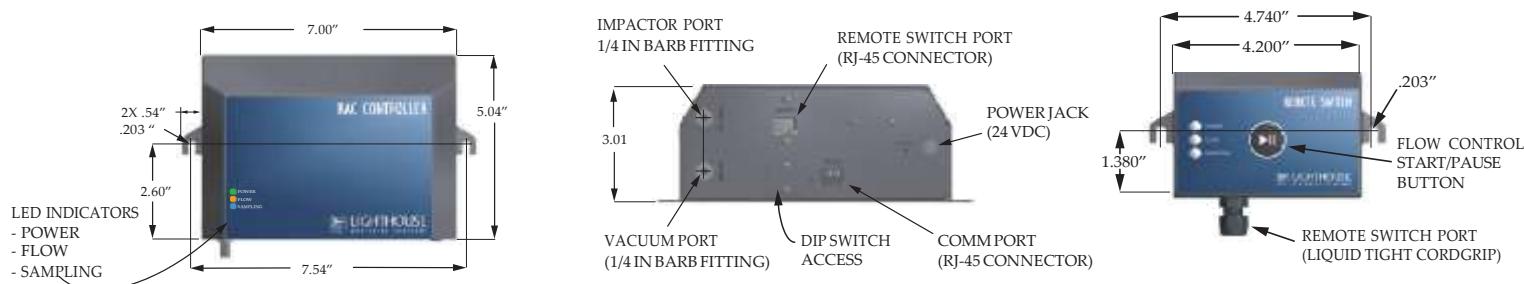
LIGHTHOUSE designed the ActiveCountR system to meet the industry need for continuous trouble-free operation and flexible running parameters. The ActiveCountR utilizes an external vacuum source which can be an independent pump system, house vacuum or a shared vacuum source with non-viable particle counters.

The sampling head is designed to be remote mounted within the critical sampling environment. The sampling head comes in a bottom mount and side mount design. The remote sampling switch allows the operator to start, stop or pause sampling without having to intervene into the critical area being sampled. Sampling can also be controlled via software.

FEATURES

- Meets EN 17141 impaction efficiency
- 1 CFM flow rate
- Local or remote start/stop control via software
- External vacuum source for clean operation
- Stainless steel enclosure
- LED status indicators for power, flow and sampling
- Auto power fail recovery
- 316L stainless steel sampling head
- Designed for reliability
- 2 year warranty





TECHNICAL DATASHEET

ActiveCountR Viable Impactor System

Features/Models	ActiveCountR
Flow Rate	1 CFM
Sampling Methodology	Impaction Principle
Impactor Head	316LSS with 113 holes, 19m/s, d50: 1.2µm
Communication Protocol	RS-485 Modbus
LED Indicators	Power, Flow, Sampling
User Interface	Manual Start/Stop; Control Software (LMS Express)
Communication Connectors	Switch: Liquid-tite cord grip; Controller: RJ45
Enclosure	Stainless Steel
Sample Outlet Connection	1/4" Barb
Vacuum Requirements	16 in HG
Power	24VDC
Dimensions Impactor	Diameter: 4.41"(11.20 cm), height 2.1"(5.33 cm)
Dimensions Switch	5.8"(w) x 2.7(h) x 1.0"(d) [15 x 6.9 x 2.5 cm]
Dimensions Controller	W 8.0"(w) x 5.0(h) (20.32 cm), H 5.0"(12.7 cm), D 3.0"(7.62 cm)
Weight Impactor	Impactor: 4.4 lbs (2.00 kg)
Weight Switch	Switch 0.59 lbs (0.27 kg)
Weight Controller	Controller: 2.6 lbs (1.18 kg)
Operating	Operating 50°F to 104°F (10°C to 40°C) / 20% to 95% non-condensing
Storage	Storage 14°F to 122°F (-10°C to 50°C) / Up to 98% non-condensing
Includes	Power supply, sample tubing
Optional	Printed installation guide; LMS Express

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