



 **EXTREME LIFE LASER DIODE TECHNOLOGY**



**REMOTE 3104P**  
**REMOTE 5104P**  
**Airborne Particle Counters**

Incorporating the Extreme Life Laser Diode Technology for a >20-year Mean Time to Failure (MTTF), Lighthouse designed the **REMOTE 3104P** and **5104P** airborne particle counters for continuous trouble-free operation.

With sensitivities of 0.3 and 0.5 micron, respectively, at a flow rate of 1 CFM (28.3 LPM), the **REMOTE 3104P** and **5104P** provide real-time continuous data collection at a cost-effective price per point. Using an internal vacuum source, the compact **REMOTE 3104P** and **5104P** particle counters can be installed where space is at a premium.

The **REMOTE 3104P** and **5104P** integrate seamlessly into large facility monitoring and management systems by leveraging their Ethernet, RS-485 MODBUS or Serial USB ports. Transferring up to 6 channels of simultaneous particle count data is fast and easy for these instruments.

**Designed and built by**  
**Lighthouse - a name you can trust.**

Lighthouse is an ISO 9001:2008 Registered Company.

[www.golighthouse.com](http://www.golighthouse.com)

**Features:**

- ★ REMOTE 3104P: 0.3 - 25.0µm Range
- ★ REMOTE 5104P: 0.5 - 25.0µm Range
- ★ 1.0 CFM (28.3 LPM) Flow Rate with Internal Pump
- ★ Up to 6 Channels of Simultaneous Data
- ★ All Models Meet JIS Standards
- ★ Stainless Steel Enclosure
- ★ Up to Four 4-20 mA Inputs (30 mW)
- ★ LED Status Indicators
- ★ External Alarm Connector
- ★ Ethernet, RS-485 Modbus and Serial USB ports
- ★ Facility Monitoring System Interface
- ★ Flow-controlled Internal Vacuum Pump
- ★ >20 Year Mean Time To Failure Reliability

**Benefits:**

- ★ 2 Year Warranty
- ★ Installs in Limited Space
- ★ Cost Effective Price per Point
- ★ Proven Data Integrity
- ★ Proven Reliability
- ★ Continuous Real-Time Data
- ★ Easy System Integration
- ★ International Support
- ★ Low Cost of Ownership



Internal Vacuum Pump

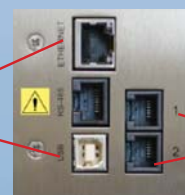


Direct Mount Isokinetic Probe

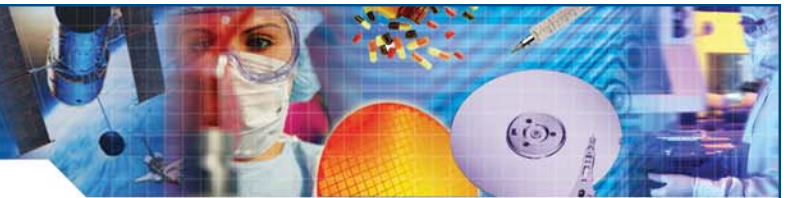


Status LEDs

Multiple Communication Ports and Protocols



4-20mA Inputs



*Specifications:*

	3104P	5104P
<b>Size Range:</b>	0.3 - 25.0 µm	0.5 - 25.0 µm
<b>Channel Sizes:</b>	Standard: 0.3, 0.5, 1.0, 5.0 µm	Standard: 0.5, 1.0, 5.0, 10.0 µm
<b>Counting Efficiency:</b>	50% @ 0.3 µm; 100% for particles > 0.45 µm (per JIS)	50% @ 0.5 µm; 100% for particles > 0.75 µm (per JIS)

**Additional channels and channel sizes are available - please contact your Sales Engineer for information regarding these options.**

<b>Flow Rate:</b>	1.0 CFM (28.3 LPM)
<b>Laser Source:</b>	Laser Diode
<b>Zero Count Level:</b>	<1 count / 5 minutes (per JIS); Zero Count with Vibration: 0.02g <sup>2</sup> /Hz from 8-66 Hz
<b>Concentration Limits:</b>	500,000 Particles / ft <sup>3</sup> @ 5% Coincidence Loss
<b>Calibration:</b>	NIST Traceable
<b>Vacuum Requirements:</b>	Internal Vacuum Pump
<b>Air Flow:</b>	Internally Monitored and Controlled
<b>Communication Modes:</b>	Ethernet, RS-485 MODBUS, Serial USB
<b>LED Indicators:</b>	Power, Flow, Service, Sampling
<b>Data Storage:</b>	3,000 Samples
<b>Connectors:</b>	2 RJ45, 2 RJ12 and one USB 'B'
<b>Supporting Software:</b>	LMS XChange; Lighthouse Monitoring System; LMS Express, Express RT and RT+; LMSNet
<b>Up to Four 4-20 mA Inputs:</b>	Can be used with the Lighthouse standard 4-20 mA Temperature/Relative Humidity, Air Velocity or Differential Pressure Probes or any other 4-20 mA device
<b>External Alarm Output:</b>	Normally Open Dry Contact Rated 0-60 V AC/DC 1 Amp
<b>Enclosure:</b>	Stainless Steel
<b>Power:</b>	24 VDC
<b>Dimensions:</b>	9.5"(l) x 6.5"(w) x 8.51"(h) [24.13 x 16.51 x 21.62 cm]
<b>Weight:</b>	12.33 lbs (5.59 kg)

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*Environmental Conditions:*

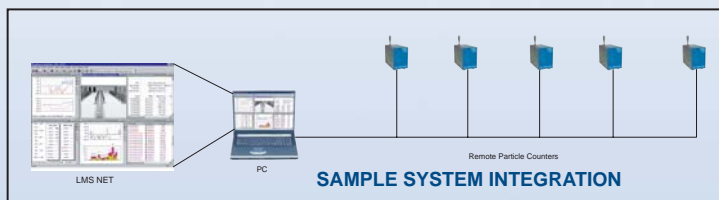
**Operating:** 50°F to 104°F (10°C to 40°C) / 20% to 95% non-condensing

**Storage:** 14°F to 122°F (-10°C to 50°C) / Up to 98% non-condensing

*Accessories:*

**Included:** Operating Manual on CD; LMS XChange; Power Supply; Power Cord

**Optional:** Printed Operating Manual; REMOTE Display; REMOTE Display 10-foot Extension Cable; Network Adapter; Wireless Network Adapter; Isokinetic Sampling Probe; Sample Tubing; Data Cabling; Purge Filter; Temperature/Relative Humidity Probe; Air Velocity Probe; Differential Pressure Probe; RS-232 Interface Cable and Adapter; High Pressure Diffuser (except 2014P); LMS Express, Express RT, RT+ and LMSNet software



**Manufactured by:**



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**Distributed by:**

