

Laser dust sensor

**(With adapter cable, connected directly
to the computer USB port)**



Company address: guangzhou city, guangdong province town of huadu district xinhua 27 public
avenue

TELL: 13622275829

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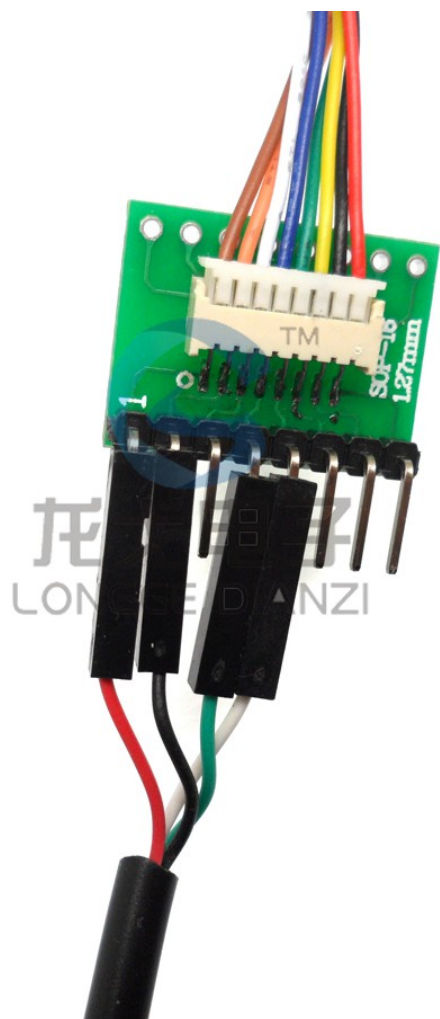
E-mail: logoele@163.com

Taobao site: <http://auto-ctrl.taobao.com/>

Web site: www.logoele.com

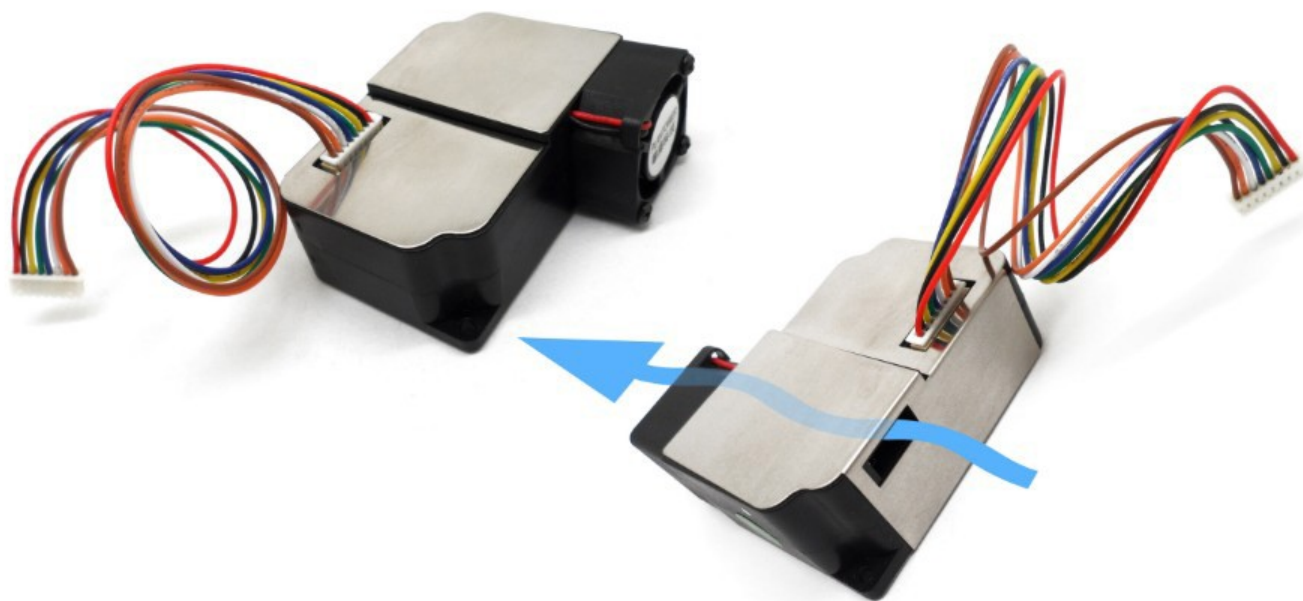
alibaba: <http://shop1362104267267.1688.com/>

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Laser dust sensor

PM1.0 PM2.5 PM10





Digital pins interface definition

PIN1	VCC	电源正 5V
PIN2	GND	电源负
PIN3	SET	设置管脚 /TTL 电平@3.3V
PIN4	RXD	串口接收管脚 /TTL 电平@3.3V
PIN5	TXD	串口发送管脚 /TTL 电平@3.3V
PIN6	RESET	模块复位信号 /TTL 电平@3.3V
PIN7\8	NC	悬空



Ltd

GuangZhou LOGOELE Electronic Technology Co.,

Product name: high accuracy laser type PM1.0 PM 2.5
PM10 Dust Sensor module

Description: PMS3003 Using laser light scattering principle to get air
0.3 ~ 10 Micron particulate concentration, stable and reliable data;
Built-in fan, digital output, high integration;

Features

Data is accurate: laser testing, stability, consistency;

Quick response: scene change response time is less than 10 Seconds;

Ease of integration: serial output (or IO Output port can be
customized), comes with A fan;

High resolution: resolution smallest particle diameter 0.3 Micron;

Scope of application:

PM1.0 PM2.5 PM10 Detectors, cleaners;

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Working principle

Using laser light scattering principle: when the laser light to detect the location of Particles will produce a faint light Scattering, the scattering of light in particular directions of wave and particle diameters, Through the different particle size of waveform classification system Taking into account the conversion formula you can get different sizes of particles in real time Concentration, in accordance with the calibration method Official unit of concentration;

Technical parameters:

- 1 Measurement diameters: 0.3-1.0um 1.0-2.5um 2.5-10um
- 2 Measurement units: ug/m³
- 3 Measurement accuracy: ug/m³
- 4 Response time: <10s
- 5 Work current: 5V200ma@ Work State 5V2ma@ Standby Fitness
- 6 Data interface: serial (3.3VTTL Level)
- 7 Module dimensions: 65x42x23mm

Laser dust serial data display:

雪莉蓝串口调试助手 V1.2.0 Beta

COM3 - Prolific USB-to-Serial Comm Port

正常显示状态

端口设置

☒ 标准波特率

波特率: 9600

校验位: 无校验

数据位: 8位

停止位: 1位

☐ 不占用时自动打开

关闭串口

多机通讯功能设置

方式: 多机通讯功能关

地址: DEC 001 HEX 01

接受区设置

☐ 接收另存为文件...
[打开文件](#) [打开文件夹](#)

☐ 自动换行显示

☒ 十六进制显示

☐ 暂停接受显示

[清空接受缓冲](#)

发送区设置

☐ 启用文件数据源...
[打开文件](#) [打开文件夹](#)

☐ 发送完自动清空

☐ 自动发送附加位...

☐ 十六进制输入

☐ 自动循环发送

循环时间: 1 *100ms

[清空发送缓冲](#)

42 4D 00 14 00 51 00 6A 00 77 00 35 00 46 00 4F 33 D2 0F 28 00 3F 04 1A
42 4D 00 14 00 51 00 6A 00 77 00 35 00 46 00 4F 33 D2 0F 28 00 3F 04 1A
42 4D 00 14 00 51 00 6A 00 77 00 35 00 46 00 4F 33 D2 0F 28 00 3F 04 1A
42 4D 00 14 00 52 00 6B 00 78 00 36 00 47 00 50 34 11 0F 3C 00 3F 03 74
42 4D 00 14 00 52 00 6B 00 78 00 36 00 47 00 50 34 11 0F 3C 00 3F 03 74
42 4D 00 14 00 52 00 6B 00 78 00 36 00 47 00 50 34 11 0F 3C 00 3F 03 74
42 4D 00 14 00 52 00 6B 00 78 00 36 00 47 00 50 34 35 0F 52 00 3C 03 AB
42 4D 00 14 00 52 00 6B 00 78 00 36 00 47 00 50 34 35 0F 52 00 3C 03 AB
42 4D 00 14 00 52 00 6B 00 78 00 36 00 47 00 50 34 35 0F 52 00 3C 03 AB
42 4D 00 14 00 52 00 6B 00 75 00 36 00 47 00 4F 33 D5 0F 29 00 3A 04 1B
42 4D 00 14 00 52 00 6B 00 75 00 36 00 47 00 4F 33 D5 0F 29 00 3A 04 1B
42 4D 00 14 00 52 00 6B 00 75 00 36 00 47 00 4F 33 D5 0F 29 00 3A 04 1B
42 4D 00 14 00 53 00 6D 00 77 00 37 00 48 00 4F 34 3B 0F 51 00 3E 03 B5
42 4D 00 14 00 53 00 6D 00 77 00 37 00 48 00 4F 34 3B 0F 51 00 3E 03 B5
42 4D 00 14 00 53 00 6D 00 77 00 37 00 48 00 4F 34 3B 0F 51 00 3E 03 B5
42 4D 00 14 00 54 00 6D 00 79 00 37 00 48 00 50 34 C2 0F 81 00 3F 04 71
42 4D 00 14 00 54 00 6D 00 79 00 37 00 48 00 50 34 C2 0F 81 00 3F 04 71
42 4D 00 14 00 54 00 6D 00 79 00 37 00 48 00 50 34 C2 0F 81 00 3F 04 71
42 4D 00 14 00 53 00 6D 00 78 00 37 00 48 00 50 34 E9 0F 70 00 3C 04 82
42 4D 00 14 00 53 00 6D 00 78 00 37 00 48 00 50 34 E9 0F 70 00 3C 04 82
42 4D 00 14 00 53 00 6D 00 78 00 37 00 48 00 50 34 E9 0F 70 00 3C 04 82
42 4D 00 14 00 53 00 6D 00 77 00 37 00 48 00 4F 34 C8 0F 69 00 40 04 5C
42 4D 00 14 00 53 00 6D 00 77 00 37 00 48 00 4F 34 C8 0F 69 00 40 04 5C
42 4D 00 14 00 53 00 6D 00 77 00 37 00 48 00 4F 34 C8 0F 69 00 40 04 5C
42 4D 00 14 00 51 00 6B 00 76 00 35 00 47 00 4F 34 3B 0F 3A 00 3D 03 95
42 4D 00 14 00 51 00 6B 00 76 00 35 00 47 00 4F 34 3B 0F 3A 00 3D 03 95

发送: 0

接收: 9816

全部计数复位

发送计数复位

接收计数复位

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起始符 1	0x42	(固定)
起始符 2	0x4d	(固定)
帧长度高八位	帧长度=2x9+2(数据+校验位)
帧长度低八位	
数据 1 高八位	数据 1 表示 PM1.0 浓度 (CF=1, 标准颗粒物) 单位 ug/m3
数据 1 低八位	.....
数据 2 高八位	.....	数据 2 表示 PM2.5 浓度 (CF=1, 标准颗粒物) 单位 ug/m3
数据 2 低八位	.....
数据 3 高八位	.....	数据 3 表示 PM10 浓度 (CF=1, 标准颗粒物) 单位 ug/m3
数据 3 低八位	.....
数据 4 高八位	.....	数据 4 表示 PM1.0 浓度 (大气环境下) 单位 ug/m3
数据 4 低八位	.....
数据 5 高八位	.....	数据 5 表示 PM2.5 浓度 (大气环境下) 单位 ug/m3
数据 5 低八位	.....
数据 6 高八位	.....	数据 6 表示 PM10 浓度 (大气环境下) 单位 ug/m3
数据 6 低八位	.....
数据 7 高八位	.....	数据 7 (保留)
数据 7 低八位	.....
数据 8 高八位	.....	数据 8 (保留)
数据 8 低八位	.....
数据 9 高八位	.....	数据 9 (保留)
数据 9 低八位	.....
数据和校验高八位	.....	校验码=起始符 1+起始符 2+.....+数据 9 低八位
数据和校验低八位	.....

Data 1.2.3 Read the to value is a TSI For standard data.

Data 4.5.6 Reading to the value of value is an atmosphere as the standard.

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TSI Profile

TSI As a leader in the design and production of precision measuring instruments, TSI Collaborative researchinstitutes as well as customers around the world for many disciplines of measuring instruments Development of standards, including: atmospheric sciences, airflow, fluid dynamics, indoor air quality, and bio-hazardous. Located in United States territory's corporate headquarters And local offices throughout Europe and Asia makes TSI Every corner of the world. Every day, our dedicated staff in turning research into reality.