DUST MONITOR

The AGA series of online laser dust monitor adopts the principle of laser backscattering. The dust monitor irradiates the dust particles through the high-stability laser, and the irradiated particles reflect the laser signal, Based on the reflected signal intensity changes in proportion to the dust concentration, the reflected signal will be sensed by the embedded high-sensitivity laser receiver. In final, the dust concentration can be obtained by our micro-computer technology.
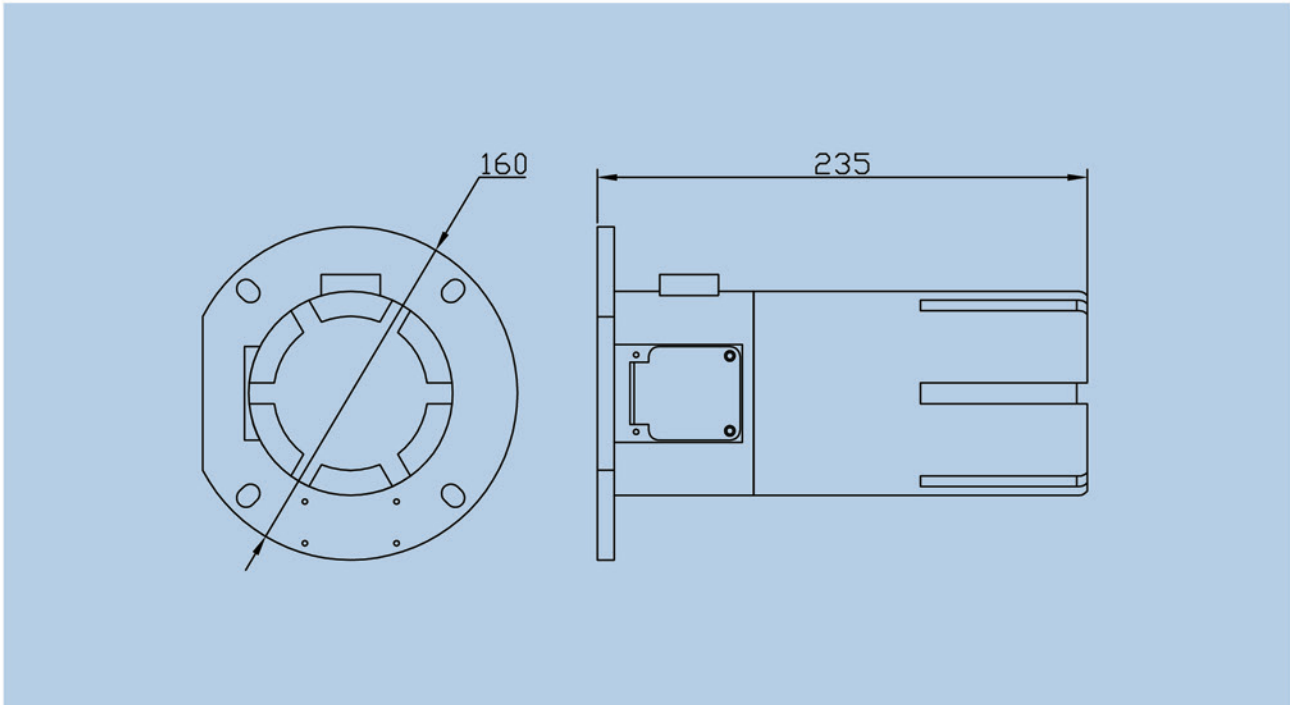
Features

- Laser backscattering and large dynamic adaptive phase-locking amplification technology make a real-time monitoring and a large measurement range.

- With the double certification of gas explosion-proof and dust explosion-proof (AGA6050 only), suitable to hazardous areas.

- The standard output signal can upload the dust concentration to the PLC, DCS, IPC etc.

- Ingressive protection in IP66 rating, dustproof and waterproof.

- Online calibration, no need to disassemble, easy to maintain.

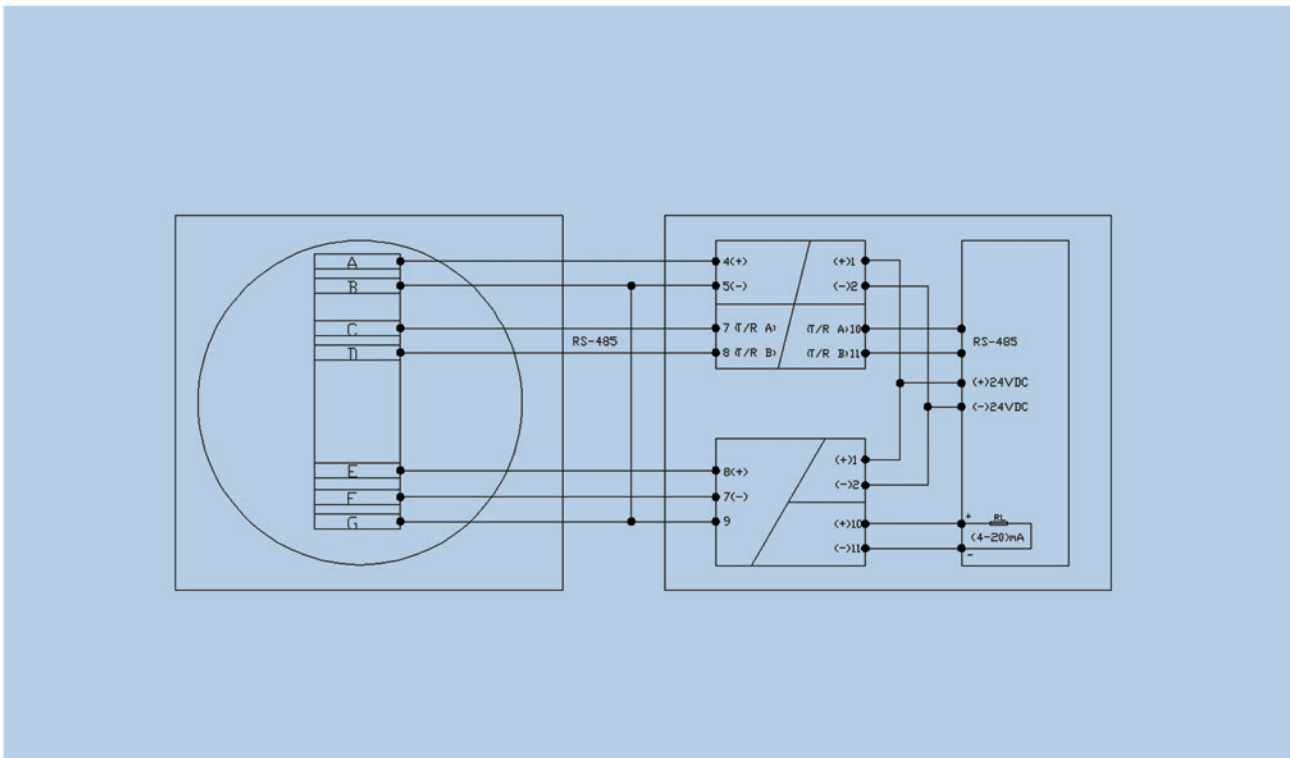- Compatible with the control panel and IPC etc.

Specifications

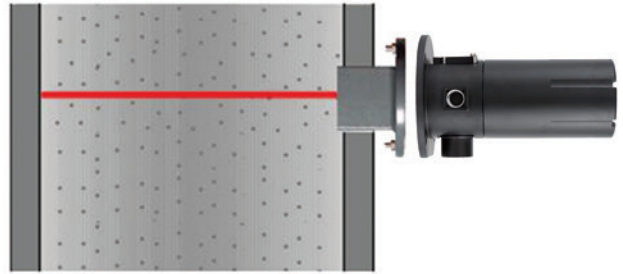| Description	Specifications	AGA6050	AGA6000
Dust detected			
workshop dust	particle size≥5μm	●	●
pipeline dust	particle size≥5μm	●	●
Function			
detection principle	laser backscattering	●	●
wavelength	(650±20)nm successive wave power density＜5mW/m^2	●	●
measure range	0-100/500/1000/4000 mg/m^3	●	●
response time	≤10s	●	●
drift	≤2%F.S	●	●
space range	0.7-5m (in environment)	●	●
	0.7-20m (in pipe)	●	●
Electric			
power supply	24VDC	●	●
power consumption	≤2.5W	●	●
signal output	4-20mA	●	●
	RS485	●	●
signal input	RPG-2200 safety barrier is required,12V, 50mA	●	●
Environment			
ingress protection	IP65	●	●
operating temperature	-20℃～50℃	●	●
operating humidity	10～95%RH non-condensing	●	●
operating pressure	80-120kPa	●	●
Structure			
body material	aluminum alloy	●	●
weight	about 2.8kg	●	●
dimensions	235*160*160mm(H*W*D)	●	●
Certificates			
EX	ExibⅡBT4 Gb	●	-
	ExibD21T130℃ Gb	●	-
SIL	SIL2	●	●

Dimensions

Wiring

DUST MONITORING SYSTEM

Explosive dust will explode with an extremely strong destructive power when it encounters fire. Besides, dust particles have attracted much attention as a major indicator of environmental pollution.

The online dust monitoring system produced by AIYI Technologies can provide solutions for the above. The dust monitoring in pipelines and dust removal equipment to meet emission requirements. Besides, the system can also be used for the monitoring of explosive dust in workshops and warehouses. When the dust concentration in the environment exceeds the standard, the system will automatically alarm and exhaust.

The dust monitor adopts the laser backscattering principle to measure the dust concentration with high accuracy. And it is not affected by factors such as temperature and humidity. It is suitable for the harsh environment of wind, rain, high and low temperature for a long time.

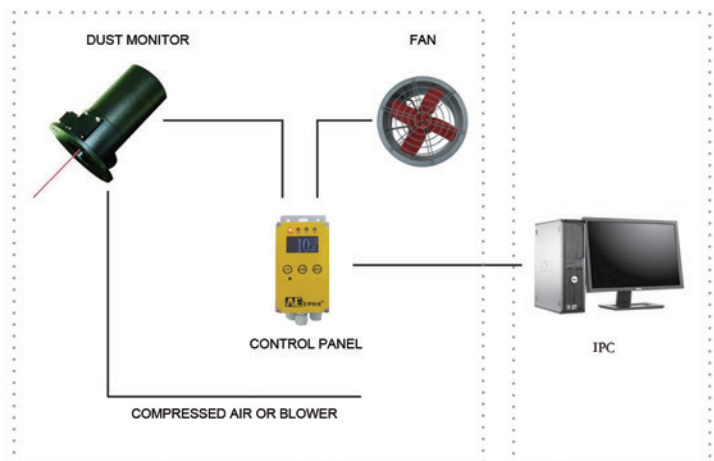## DUST MONITORING IN PIPE/FLUE

Two main solutions: dust monitoring in pipe/flue, dust removal efficiency monitoring of dust removal equipment. The system is installed in the pipe/flue by the laser dust monitor through the flange, and it comes with 4-20mA/RS485 standard signal output, which can upload the real-time data to the terminal like DCS, PLC), IPC, etc.

EXPLOSIVE DUST MONITORING

The explosive dust monitoring system can be used in the sites where there is an explosive hazard, to detect aluminum powder, zinc powder, various plastic powders, intermediates of organic synthetic drugs, wheat flour, sugar, wood chips, milk powder, tea powder, tobacco powder, plant fiber dust, etc.

According to the actual requirements, the dust monitor can be installed in the environment of the feeding process, conveyor belt, hoist, and other representative process points. When the dust exceeds the preset alarm value, the system will automatically perform various functions such as sound and light alarm, fan control etc.

AIYI Technologies

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Disclaimer: All pictures, configurations and parameters in this document are for reference only. There may be differences with the actual products. Any difference is subject to the latest real products.