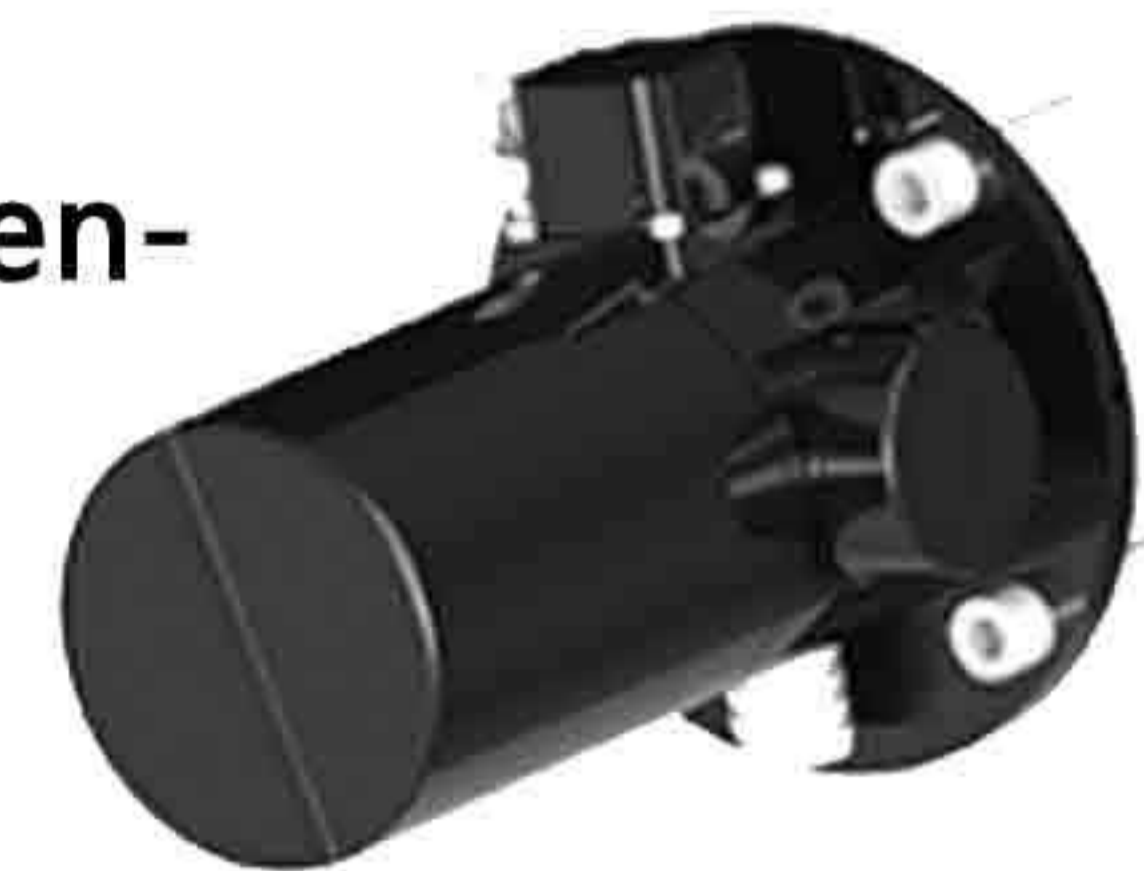


The product is an in site dust meter, which adopts the principle of laser back-scattering to measure the stable discharge of non-condensation (dry) gas, suitable for non-ultra-low emission (production emission concentration $> 15\text{mg}/\text{m}^3$)

Features

- ☆ Digital signal processing technology, high detection sensitivity & linearity, more accurate
- ☆ Light power adaptive stabilization technology to ensure the stability of detection light source
- ☆ On-line calibration, manual zero and range calibration can be achieved without disassembling the instrument
- ☆ Provide a variety of output interface
- ☆ The control software Usermonitor is provided to collect data and control instruments through an RS485 interface

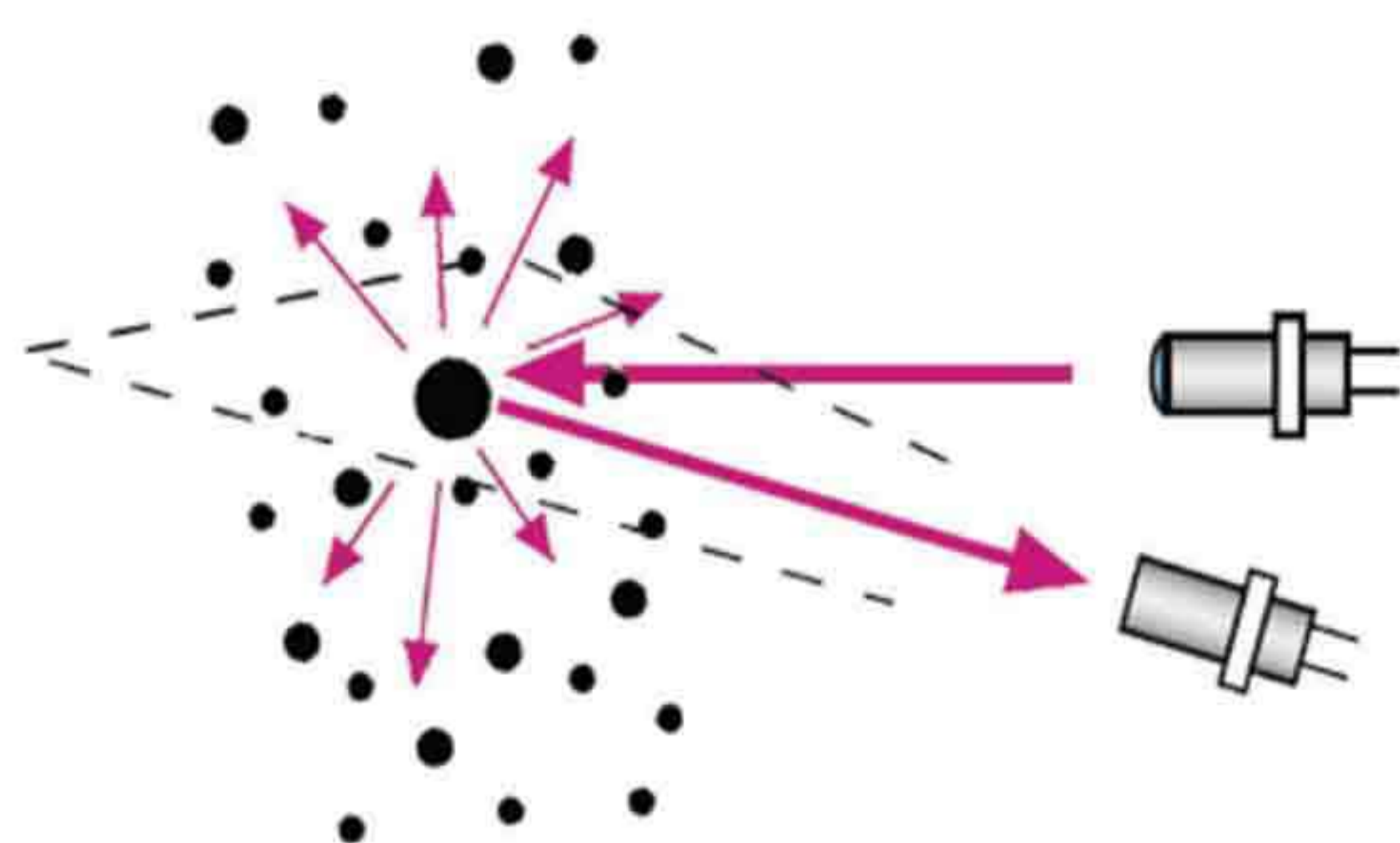


Principle

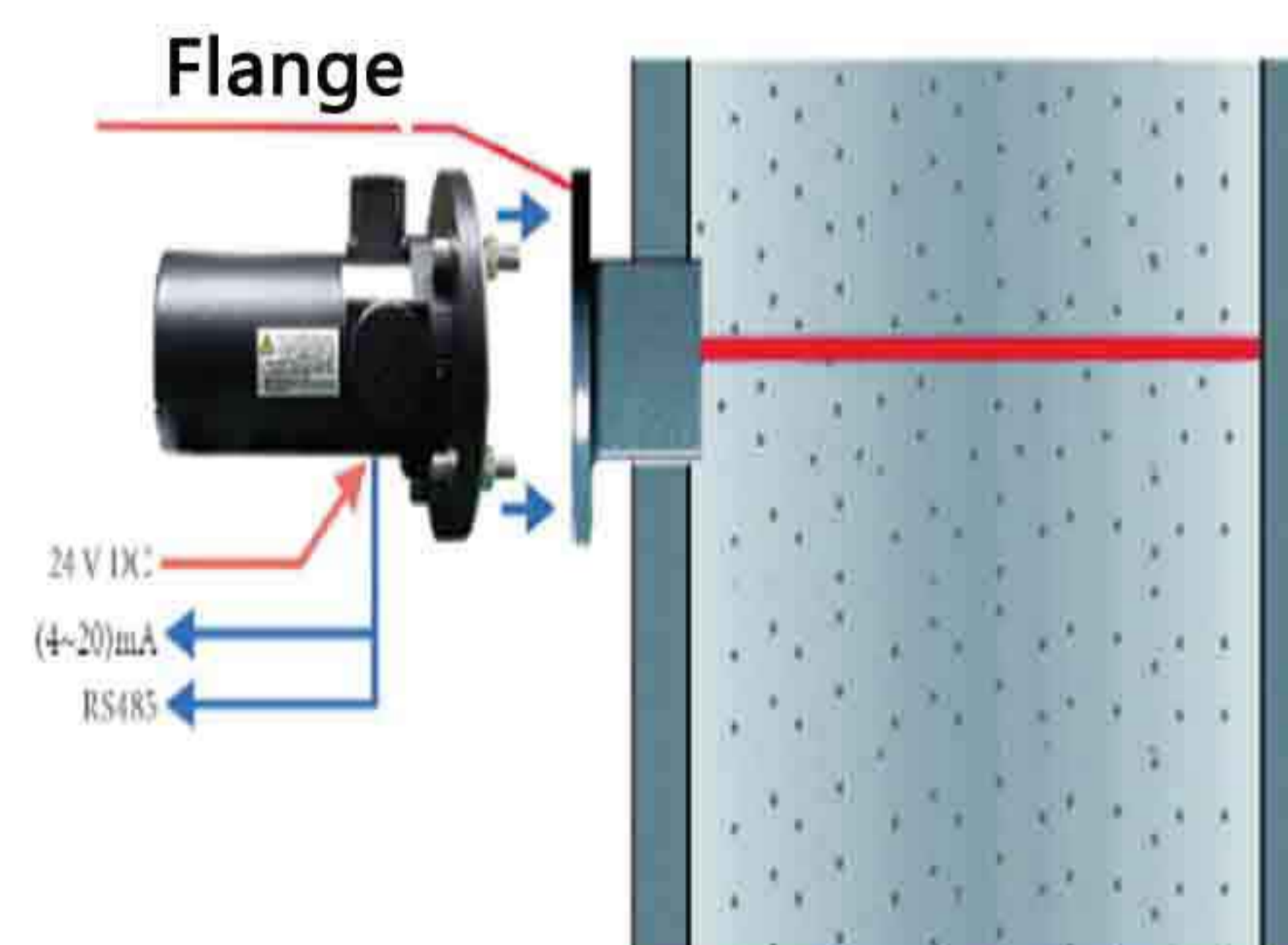
Laser backscattering principle:

The high stability laser signal irradiates dust particles in the flue, and the irradiated particles reflect the laser signal

A laser receiver is built into the dust meter to detect the weak signal reflected by dust, and the concentration of dust can be calculated by a specific algorithm



Laser backscattering principle



Installation drawing

Specifications

Model	PW-DM series
Working Principle	Laser backscattering measurement
Operation Wavelength	(650±20)mm
Measurement Error	±2%FS
Zero Drift	±2%FS/24 hours
Span Drift	±2%FS/24 hours
Response Time	≤10s
Measure Range	0~2000mg/m ³ (adjustable)
Flue Width	0.7~20m
Power	DC 24V/0.3A
Working Temperature	-20~55°C
Max Gas Temperature	400°C(can choose higher temp)
Max Flue Pressure	10Kpa (when equipped with Purging system)
Analog Output	4-20 mA Max 750 Ω
Digital Interface	RS485
Dimension	205*160*160mm (H * W * D)
Shell Material	Metal
Weight	2 Kg
IP Grade	IP66

Optional spare parts

- ☆ Field display system
- ☆ Purging system
- ☆ Automatic calibration unit
- ☆ Wireless remote monitoring unit

Mechanical interface parameters:

- ☆ Flange: diameter DN65/outer diameter 70mm/hole center distance 130mm
- ☆ Purging mouth: outer diameter 40mm & Internal one inch thread

Operating Guide

- ☆ Each equipment is only suitable for specific application and installation environment' The optical path and measurement range set according to the installation environment are directly related to the system output value. Af-

ter the installation environment is changed, you need to perform corresponding debugging

- ☆ Dust concentration detector cannot replace ion counter. An ion counter is required at concentrations less than $0.1\text{mg}/\text{m}^3$
- ☆ Any industrial site where dust meter is used should be equipped with a purging system and kept working 24 hours a day
- ☆ Industrial online or long-term operation, need regular maintenance. Regular inspection of window lens pollution & cleaning treatment
- ☆ Calibration and on-site proving
 - On-site proving is to establish the correspondence between the instrument measured value and the real value. This job should be done at first installation
 - Calibration is to check the consistency of instrument after it has been in operation for a period of time. This job should be done after working for a period of time

Applications

- ☆ Monitoring for CEMS
- ☆ Detect the efficiency of dust removal equipment
- ☆ Detect combustion efficiency
- ☆ Detect dust load in workshop
- ☆ Scientific research & experiment test
- ☆ Detect dust concentration in industrial manufacturing process