

# PARTICLE FLOW SWITCH

## Model **KDS-1**



**ALL-IN-ONE UNIT &  
COMPACT!**

**EASY MOUNTING / HANDLING  
WIDE & DYNAMIC RANGE**



**Application Example 1**  
Detection of Cyclonic Exhaust  
Density (Airflow Control)  
Detection of Flow / No flow



**Application Example 3**  
Transport Path Changeover Valve  
Flow Detection  
(Confirmation of Mixing)



**Application Example 2**  
Bag Filter, Exhaust Air Duct  
Detection of Exhausted Particles



**Application Example 4**  
Transport Path  
Flow Detection

**MONITORING EXHAUSTED DUST AND THE DENSITY OF  
MINUTE PARTICLES AND DETECTING FLOW / NO FLOW !**

# KDS-1 PARTICLE FLOW SWITCH

## FEATURES

- Having no actuator, it can maintain the higher performance with the minimum maintenance.
- You can measure only by fixing an electrode to a duct of dust collector outlet or a pipe.
- Being all-in-one compact unit, it can easily be handled/ adjusted.
- In order to prevent it from being operated improperly for the instantaneous rise of dust density due to the bag cleaning cycle, you can make a delay-time alarm setting.
- It can not be affected by the change of flow rate.
- It is sensitive to make it possible to measure the lower density.

## SPECIFICATIONS

**Power Voltage** : 105/210VAC ±10% 50/60Hz

**Output Contact** : SPDT 250VAC 5A

**Actuation Display** : LED in Red

**Alarm Delay Time Setting** : 0~60 seconds ( On/Off delay)

**Allowable Temperature** : Amplifier -20~55°C  
Electrode -20~80°C ( High Temp option )

**Sensor Length** : up to 1000mm

**Sensor Material** : SUS304 ( 316SS as option )

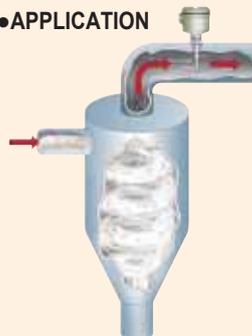
**Mounting Method** : Screw (R1),

**Dimensions** Flange ( Over JIS5K25A )

## PRINCIPLE OF OPERATION / APPLICATION

It can detect the density of minute particles with an electrode fixed on duct or pipe. It is the sensor measuring the electric charge of minute particles. When the density reaches the preset values, it outputs the contact externally. It is widely applied to detect leakage or flow because it can be accommodated to the dynamic range from low to high density. By detecting any leakage from a bag filter or a cyclone separator, it can contribute to the environment conservation or to the prevention of materials/products from running off. By detecting flow/no flow in the air transport path, it can also work on quality management of a mixture and so on as well as contamination prevention

### •APPLICATION

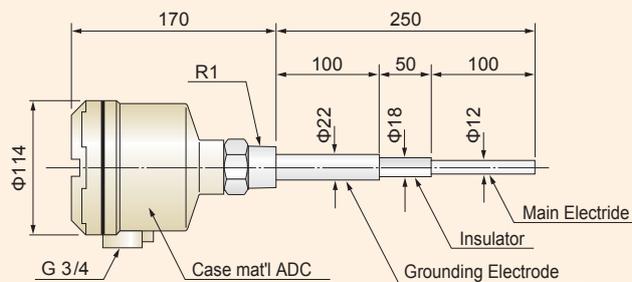
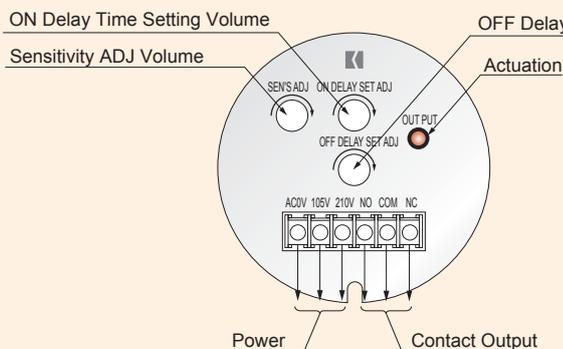


Detect the clog of cyclon  
Detect failure of baghouse



Detect the of powder  
transport line

## DIMENSIONAL OUTLINE-DRAWING



### Line of business

- Rotary Paddle Type Level Switch
- Vibration Type Level Switch
- Swing Type Level Switch
- Acoustic Level Switch
- Capacitance Type Level Switch
- Capacitive Proximity Sensor
- Capacitance Type Level Indicator
- Diaphragm Type Level Switch
- Tilt Switch
- Leak Type Level Switch
- Microwave Switch
- Sounding Bob Type Level Indicator
- Flow Switch
- Conductance Type Level Switch
- Float Switch
- Float Type Level Indicator
- Ultrasonic Type Level Indicator
- Equipments For Conveyor Lines
- Dust Monitor System
- Zirconia Oxygen Analyzer
- Laser Type Level Indicator
- RADAR Type Level Indicator
- On-line Sensors for Accurate Liquid Analysis
- Ultrasonic Flow meter

\*Please be sure to read USER'S GUIDE, Installation & Operation Instructions before using the instrument.

\*The specifications herein may be subject to change without advance notice.

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