

## FIKE DUST DETECTION SYSTEM TYPE A1

### DESCRIPTION

The Fike Dust Detection System is designed to signal the presence of airborne dust particles in pipes, at quantities higher than the normal operation threshold level. It is a compact device consisting of an enclosure housing state of the art electronics and a measuring probe. The unit is specifically designed for easy installation and operation.

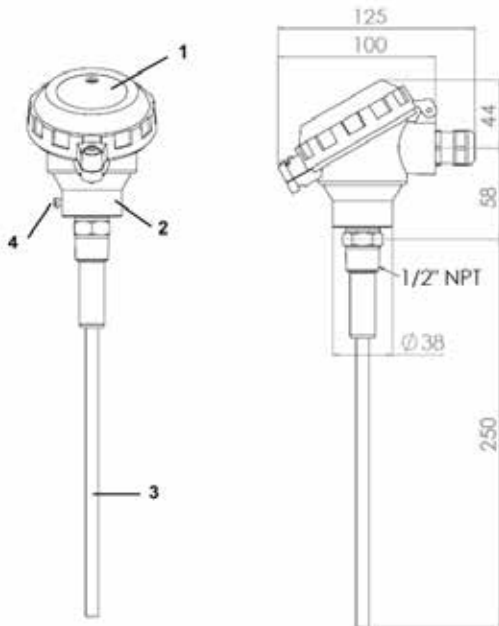
The Fike Dust Detection System is a microprocessor-based, self-adjusting device, equipped with two outputs and a cover-mounted LED indication. The field junction box is available to provide relay contacts and other electronics.

The inductive electrification sensing technology elevates the Fike dust detection system to a totally new level in dust monitoring and offers better possibilities to control dust level than standard systems.

### FEATURES AND BENEFITS

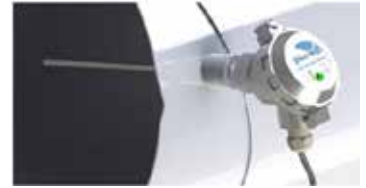
- Self adjusting
- No drift
- Easy calibration
- Essentially maintenance free
- Easy commissioning and start-up, no impact on normal production
- Effective layer of protection - reduces or eliminates hazardous dust zones
- Continuous detection / supervision
- Early warning of potential contamination by nuisance dust
- Expensive works to clean dust deposits are prevented
- Prevention of downtime
- Easy and reliable detection of leaking filterbags
- Quality assurance of air and system

### DIMENSIONS



1. Enclosure cover
2. Enclosure
3. Measuring probe
4. Grounding screw

Tri-Clamp process connector



*Detector installed in duct*



*Frontpanel Dust Detector A1*

## SPECIFICATIONS

Type	Fike Dust Detection System A1
Measurement objects	Solids particles in a gas flow
Particle size	0.3 µm or larger
Measurement range	From 0.1 mg/m <sup>3</sup>
Measurement principle	Inductive Electrification
Protection category	IP65
Probe length (total / measuring)	250mm / 185mm
Pipe diameter	DN80 - DN600 <sup>1</sup>
Power supply	13 ... 24 VDC
Power consumption	3 W
Cable connection	2 meter fixed cable
Process connection	1" Tri-clamp connection
Output signals	Two voltage outputs (max current feed 170 mA at 24 VDC) Three colour LED indicator in cover
Relay alarm settings	Alert: 5 times normal dust level Alarm: 20 times normal dust level

<u>Process Conditions</u>	
Temperature	Max 250°C
Pressure	Max 200 kPa
Gas velocity	Min 4 m/s
Humidity	Max 95% RH (non-condensing)

<u>Ambient Conditions</u>	
Temperature	-20°C ... 60°C
Humidity	Max 95% RH (non-condensing)

<u>Materials and Weight</u>	
Probe (wetted part)	Stainless Steel (AISI 316L)
Process connection (wetted part)	Stainless Steel (AISI 316L)
Probe insulation (wetted part)	PEEK
Enclosure	Aluminium
Weight	0.6 kg

(1) If the pipe diameter ≤ 185 mm or ≥ 600mm, contact Fike for further assistance.