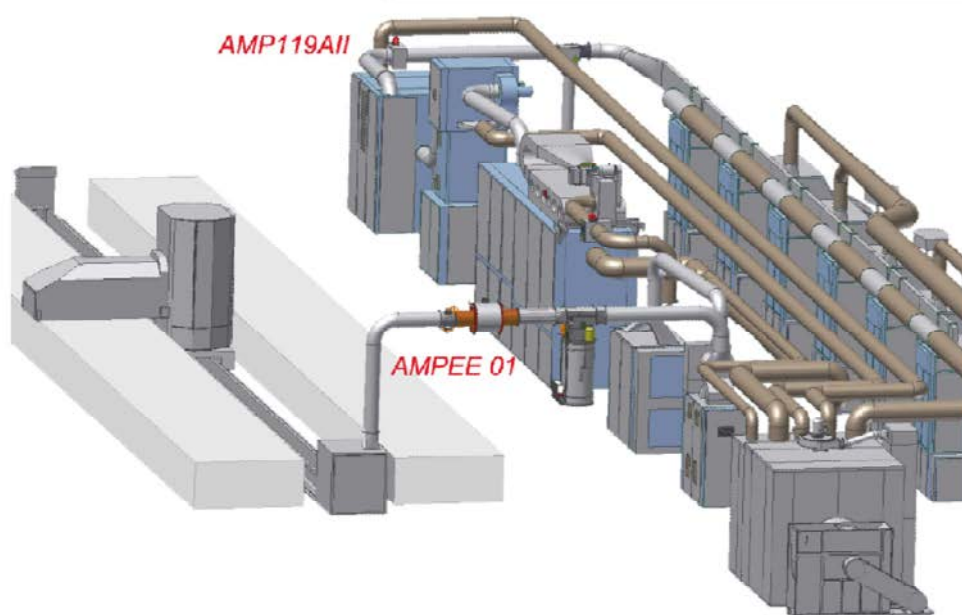




## Metal & Spark Diverter series—for textile



TO BUILD THE ANTI-FIRE WALL FOR TEXTILE INDUSTRY

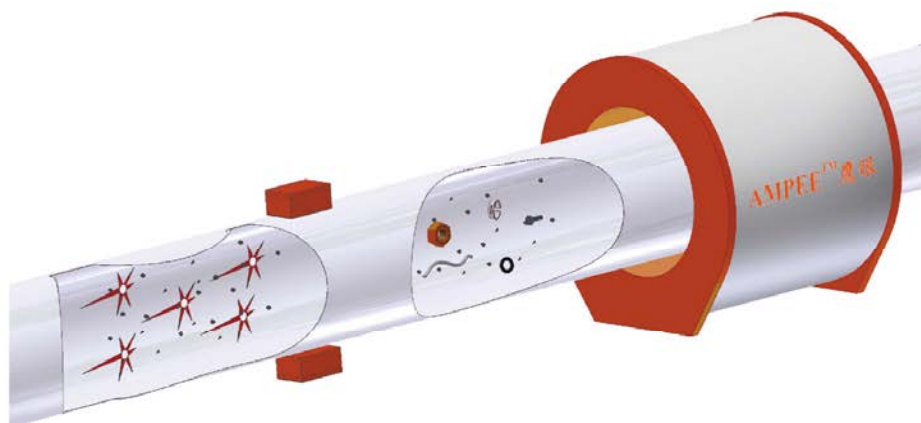


**AMP-EE01 Eagle Eyes Metal and Spark Diverter** is the latest product of AMPE. It is manufactured with high-quality components and materials and incorporates the high speed microprocessor technology. It is installed on the duct of pneumatic transport systems for materials like fibers or tuft. It effectively detects metallic particles and sparks, mixed or generated in the production process. So that ensure the safety of blowing-carding production line in spinning mills or other fiber processing production lines.



### ◆ High detection sensitivity

- Detects magnetic metal and non-magnetic metal particles, including copper, aluminum, stainless steel etc.
- Three spark sensors to ensure never missing tiny sparks.
- The spark sensors has the self-testing function for sensitivity.



### ◆ Reliable, stable and effective detection

- Adapts to the complex electromagnetic environment, and avoid false detection
- The efficient and fast diverter only needs a short installation distance
- Large capacity collector box design to reduce cleaning times
- It has the detection and alarm function of the cotton level of the collector box

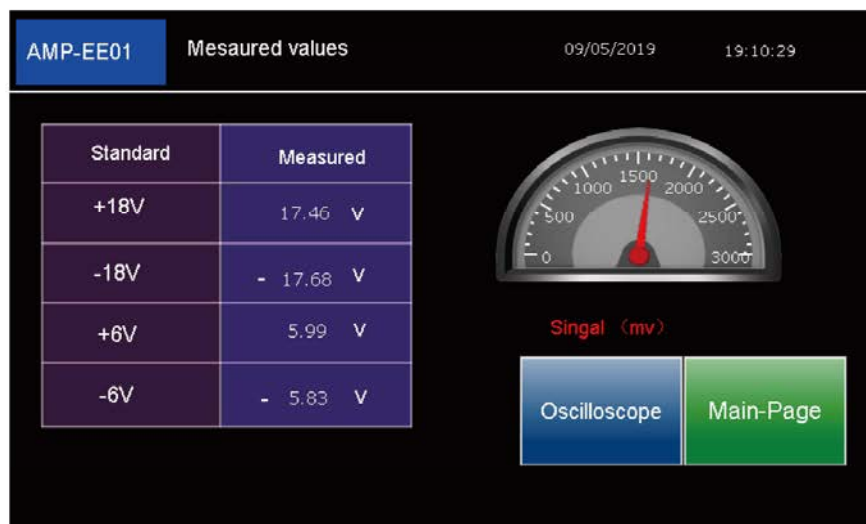


## ◆ Spark extinguishing system ensures safety

- In case of spark alarm, the system will automatically start the spark extinguishing device to spray water on the cotton in the collector box.
- The drop box has double-layer mesh partition to ensure that the sparks in the collector box do not enter the next process

## ◆ Intelligent control system

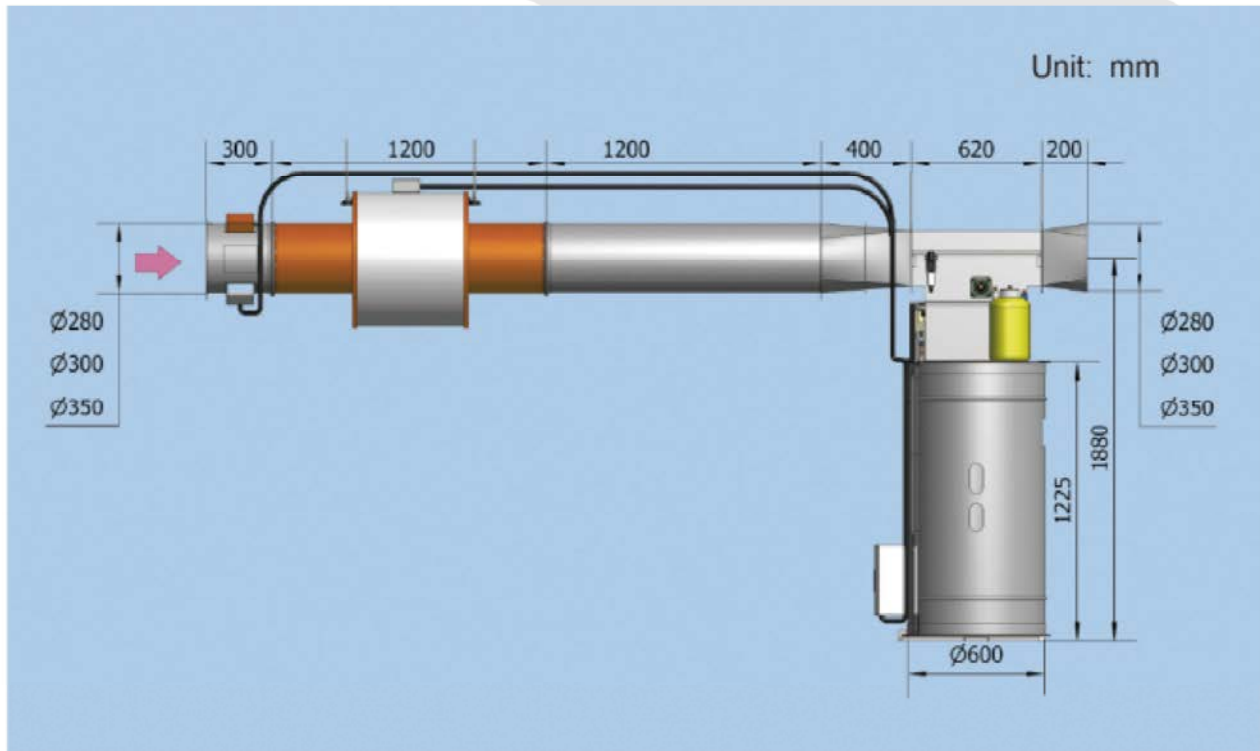
- Intelligent discrimination of metal species and moving speed, reliable elimination and minimum drop
- Position and action detection of diverter flap
- With oscilloscope to analyze metal detection signal
- Chart of spark alarm history and metal action
- The system has the memory of raw material characteristics



## ◆ Communication interface and ampemcp

- RS-485 communication port and modbus communication protocol
- It can be connected to ampemcp to realize remote control and alarm





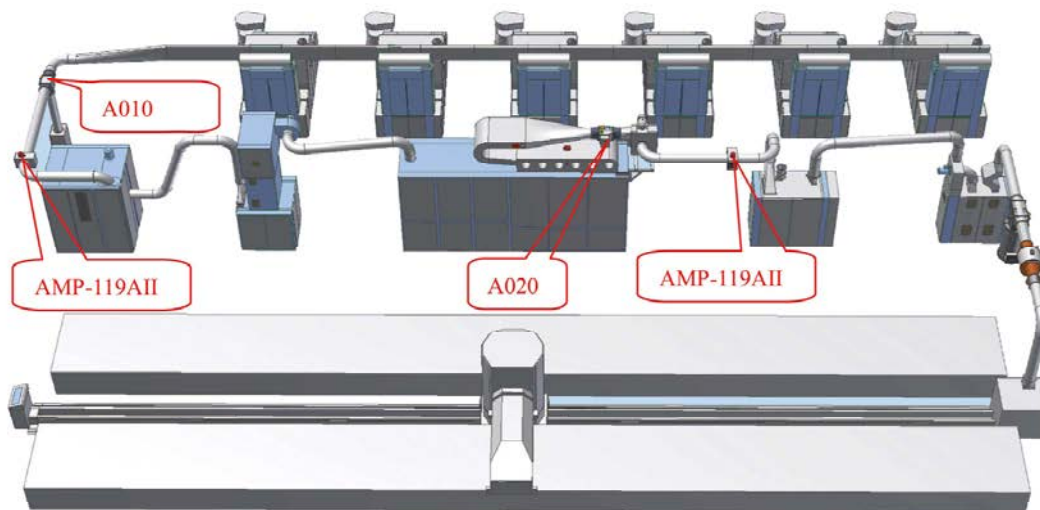
## Specifications

Metal Sensitivity	Steel ball with diameter more than 2mm/ Aluminum ball with diameter more than 5mm
Spark Sensitivity	Spark diameter more than 0.5mm
To adapt to the wind speed	5m/s ~ 25m/s
Response Time	$\leq 200\text{ms}$
Power Supply	AC220V $\pm 10\%$
Pneumatic Pressure	600 ~ 800kPa
Alarm Sound Level	>60db
Temperature	-10°C ~ 40°C
Relative Humidity	( 20 ~ 75 ) %RH
Power	Less than 100W

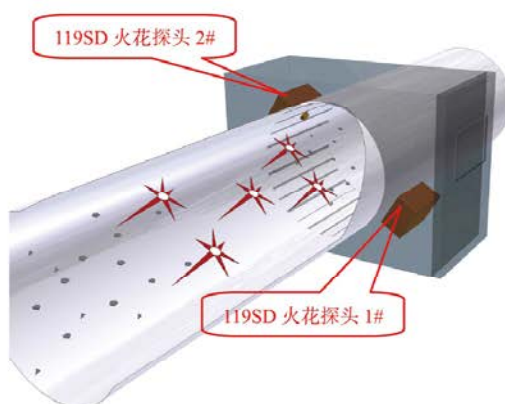


AMP-119A II type spark diverter is mainly used for fireproofing of blowing-carding system in spinning mills. It is installed on the pipe of pneumatic transport systems for materials like fibers or tuft. It effectively detects sparks, mixed or generated in the production process so that ensure the safety of blowing-carding production line in spinning mills or other fiber processing production lines.

AMP-119A II type spark diverter is used widely in the blowing-carding system. This machine is usually installed on the pipe between the cotton transferring fan and carding or in no fire area before the multi-bin mixer.

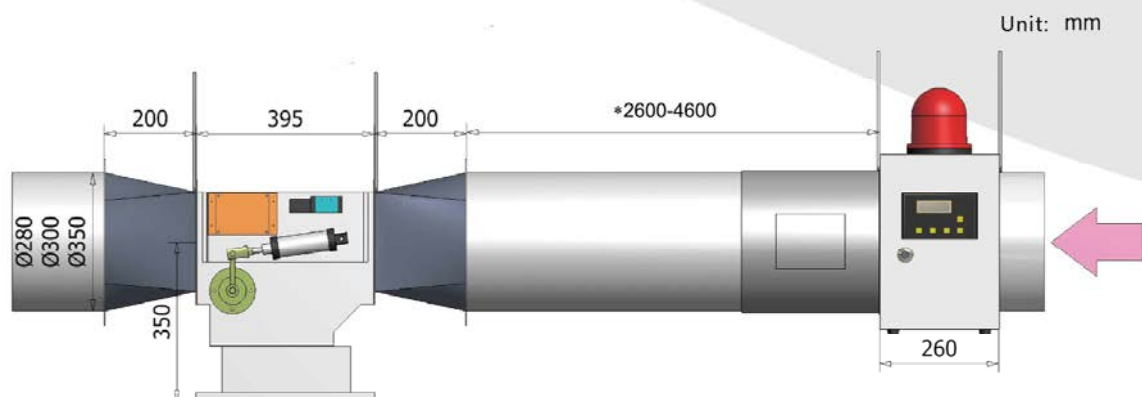


AMP-119AII be installed on the blowing-carding system

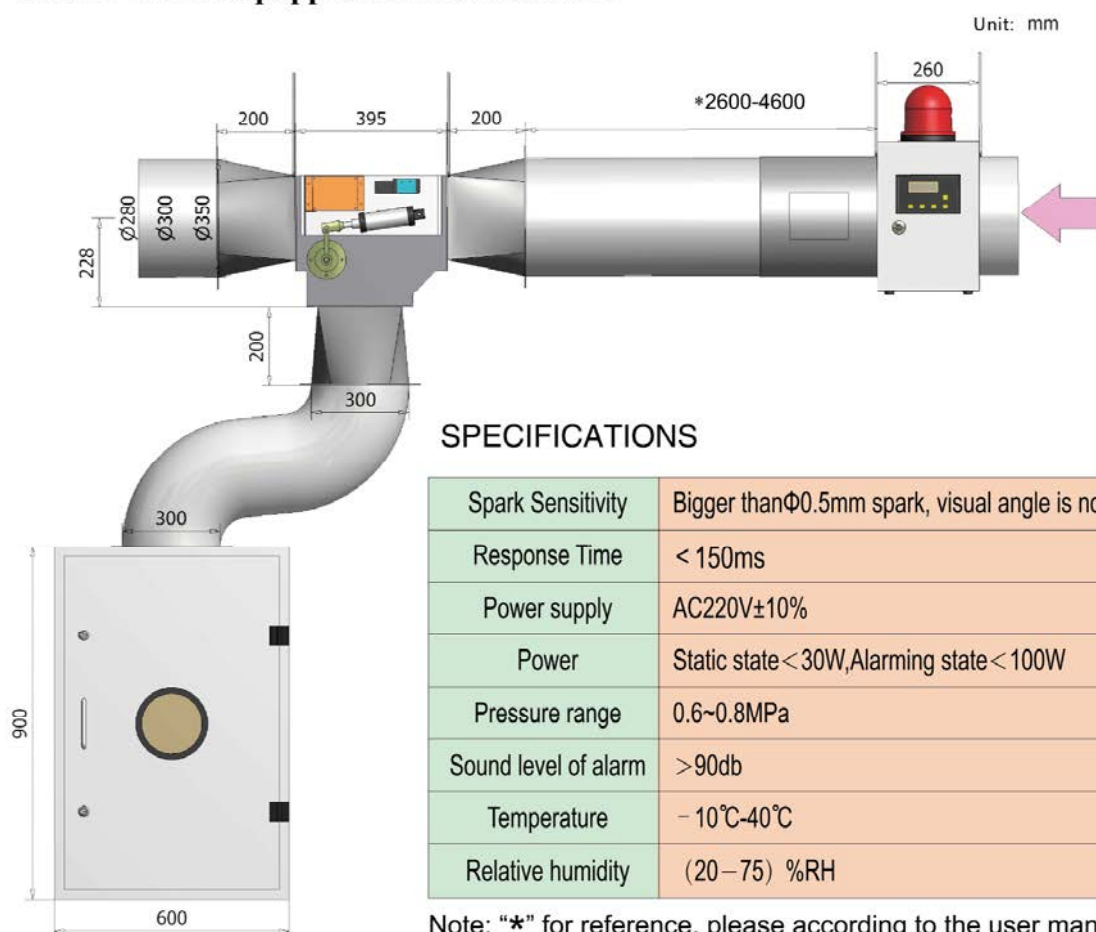


- ◆ Double detector structure, all-dimensional visual angle  
There is one spark detector in the front of the control box and another at the back to ensure the detection covers all the dimensions.
- ◆ Highly sensitive spark exploration  
With new technical spark detector, highly sensitive, tiny spark flowing in high speed in fiber can be detected.
- ◆ Highly efficient detection  
The AMP-119AII diverter will alarm immediately with sound and light when it detects the sparks or embers, at the same time it can switch on the fire eliminating valve and stop the associated equipments automatically. Then discharge the cotton flow with fire into the fire extinguishing box.

## 1. AMP-119AII equipped with A020 diverter



## 2. AMP-119AII equipped with A010 diverter

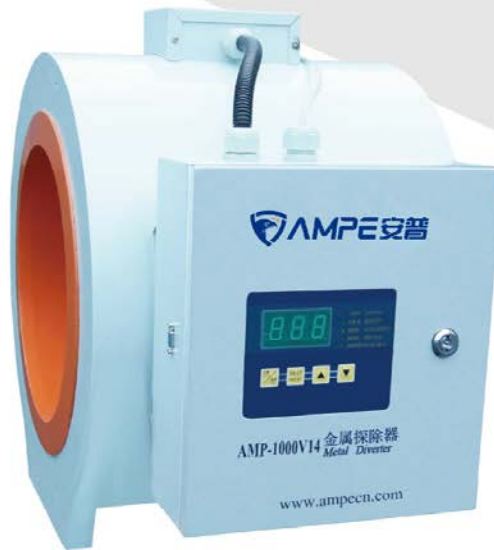


### SPECIFICATIONS

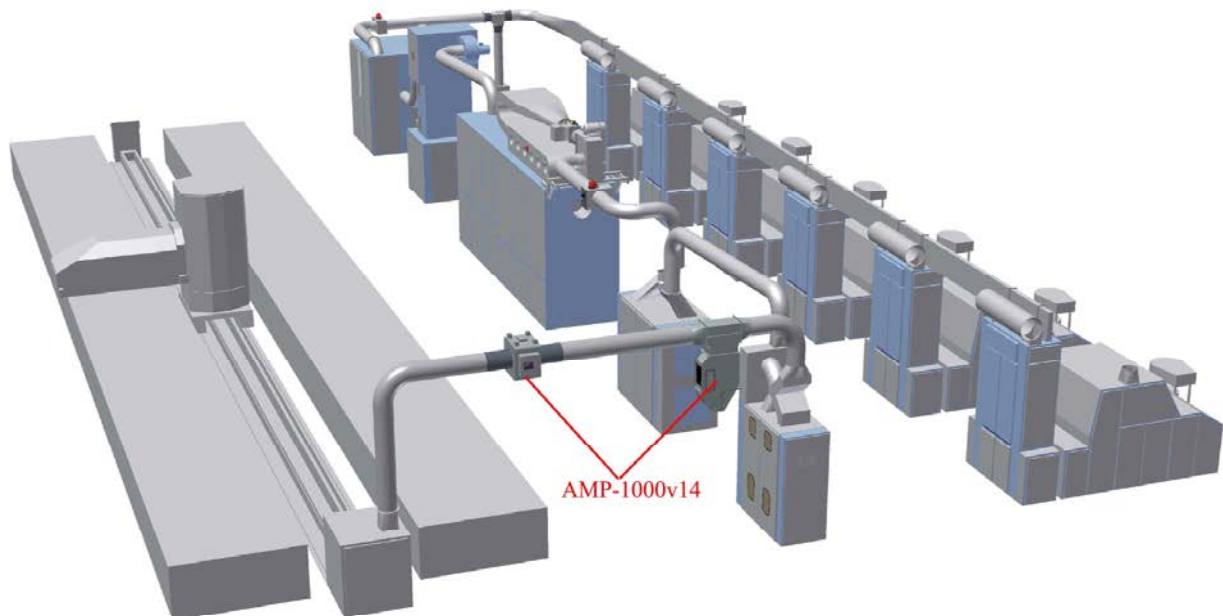
Spark Sensitivity	Bigger than $\Phi 0.5\text{mm}$ spark, visual angle is no less than $90^\circ$
Response Time	$< 150\text{ms}$
Power supply	$\text{AC}220\text{V} \pm 10\%$
Power	Static state $< 30\text{W}$ , Alarming state $< 100\text{W}$
Pressure range	$0.6 \sim 0.8\text{MPa}$
Sound level of alarm	$> 90\text{db}$
Temperature	$-10^\circ\text{C} \sim 40^\circ\text{C}$
Relative humidity	$(20 \sim 75) \% \text{RH}$

Note: "\*" for reference, please according to the user manual.





AMP-1000v14 metal diverter is generally used for cotton textile factory in spinning procedure, and can be directly installed on the conveying pipe. It can automatically detect and divert the metal particles, which mixed in the cotton flow. It is very important equipment which can ensure the safety of textile enterprises in the blowing-carding product lines and other fiber production lines. It had been improvement designed in 2014, the sensitivity is higher and the ability of anti- electromagnetic wave is stronger.



AMP-1000v14 be installed in the blowing-carding line

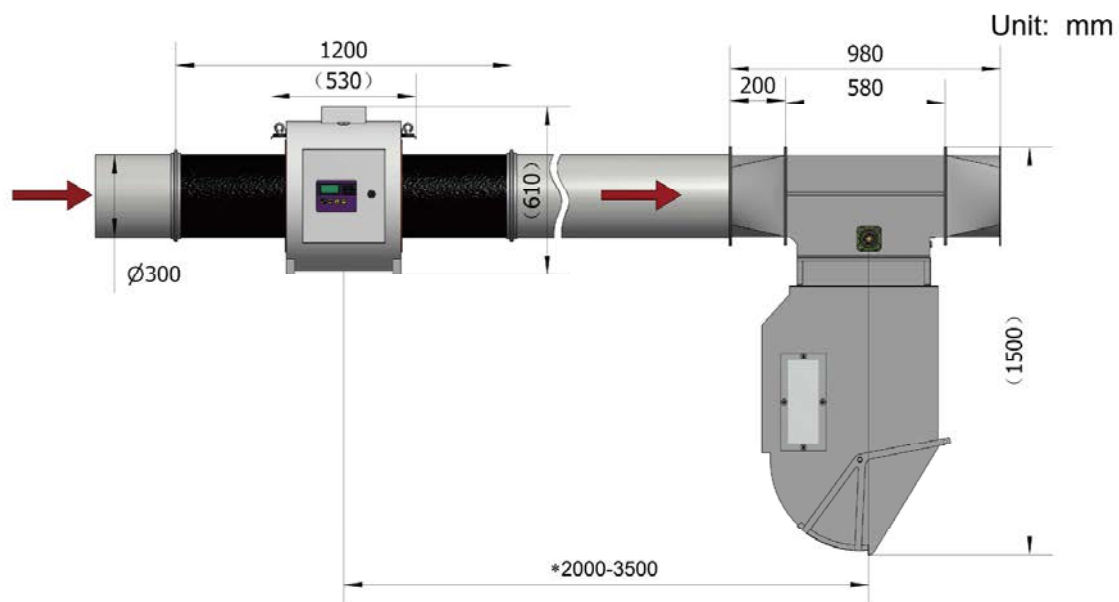


◆ The principle of metal detection

The cotton often contain short iron wire, screws, washers and other metal particles, when the metal particles which mixed in the fiber go through the detection area of the metal diverter, the detector will send the signal to the diverter. Then the diverter will divert the cotton flow which contains metal particles to the collector box, to prevent the metal particles from entering to the next procedure, or the metal particle may destroy the machinery equipment and cause the fire emergency.

◆ New design of 2014

The new design control box of AMP-1000v14 can be installed on the metal detector or directly installed on the wall. The new design make the device have much higher sensitivity and stronger immunity ability.



AMP-1000v14 standard installation  
(for positive and negative pressure procedure)

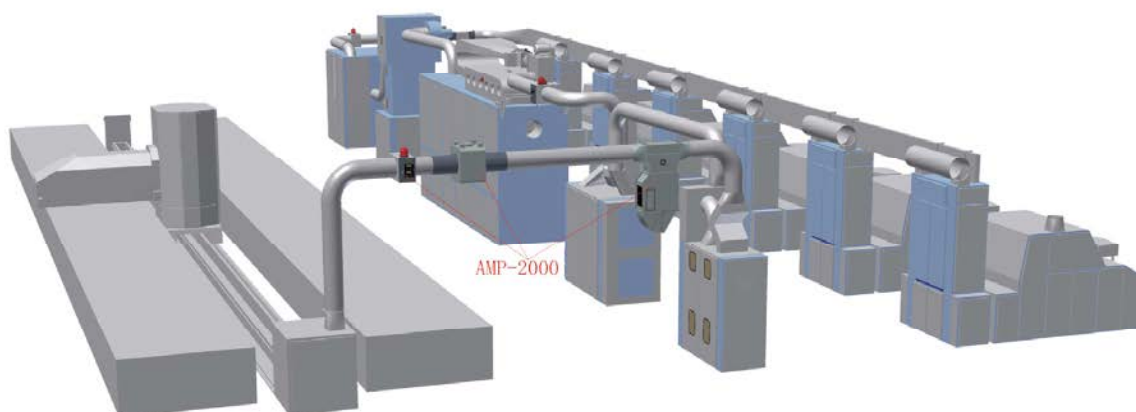
Specifications

Metal sensitivity	Can detect the iron ball that larger than $\Phi 3\text{mm}$
Response time	< 150ms
power	AC220V $\pm 10\%$
Pneumatic pressure	0.6~0.8MPa
Environment	temperature: $-10^{\circ}\text{C}$ - $40^{\circ}\text{C}$ ;
requirement	relative humidity: (20 – 75) %RH

Note: “\*” for reference, please according to the user manual.



AMP-2000 Metal&spark diverter is a kind of classic product of Jiangsu Ampeon, which has been widely used by the textile enterprises. It is generally used for cotton textile factory in spinning procedure, and can be directly installed in the pneumatic transportation system. It can automatically detect and divert the metal particles, sparks and embers which mixed in the cotton flow. It is a very important equipment which can ensure the safety of textile enterprises in the blowing-carding product lines and other fiber production lines.



AMP-2000 be installed in the blowing-carding line

◆ **High sensitivity of metal and spark detection**

High sensitivity for the tiny moving spark and magnetic metal particles which mixed in the fiber.

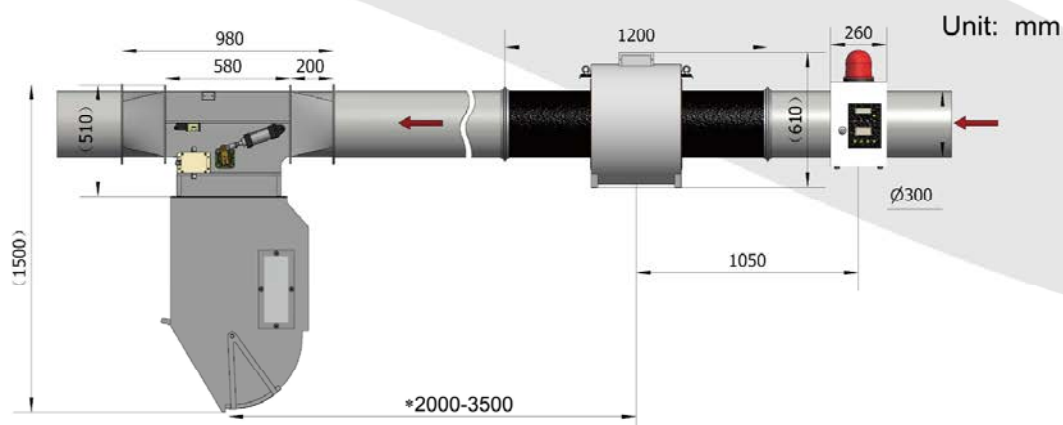
◆ **Steady and reliable performance**

Professional design for high immunity of environment to adapt the complex electromagnetic surroundings in the textile factories. High effective and fast diverter can work on both positive and negative pressure procedure, and very short installation distance will be needed. It has the characteristics of steady and reliably performance, easy installation and convenient maintenance.

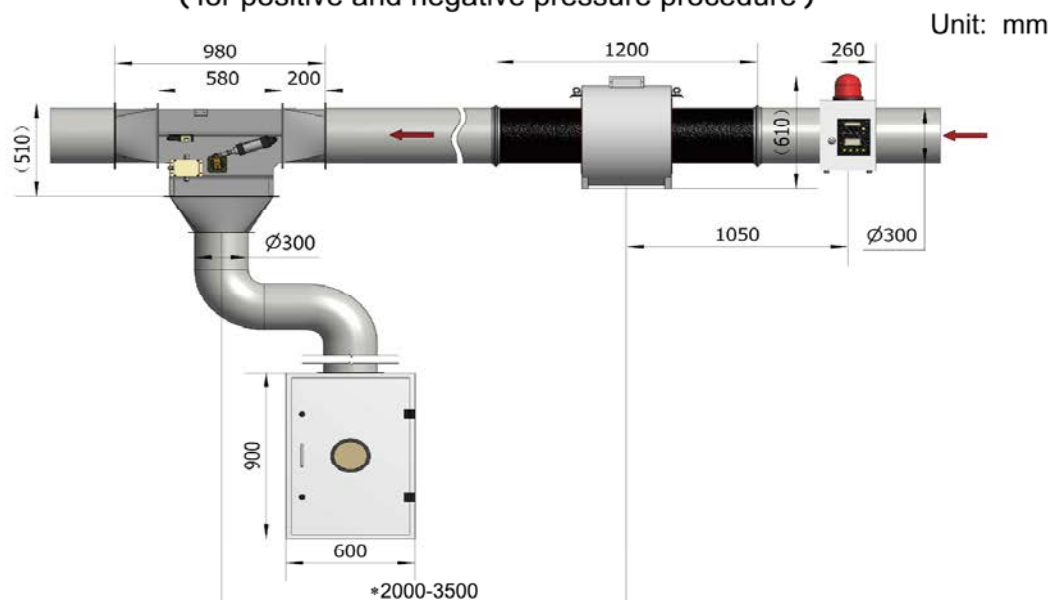
◆ **Classic product of continuous improving**

AMP-2000 is continuously improving to make it has been a type of classic product which widely used by the domestic textile enterprises since 2000.





AMP-2000 standard installation  
( for positive and negative pressure procedure )



AMP-2000 installation of floor collector box type  
( only for positive pressure procedure )

## Specifications

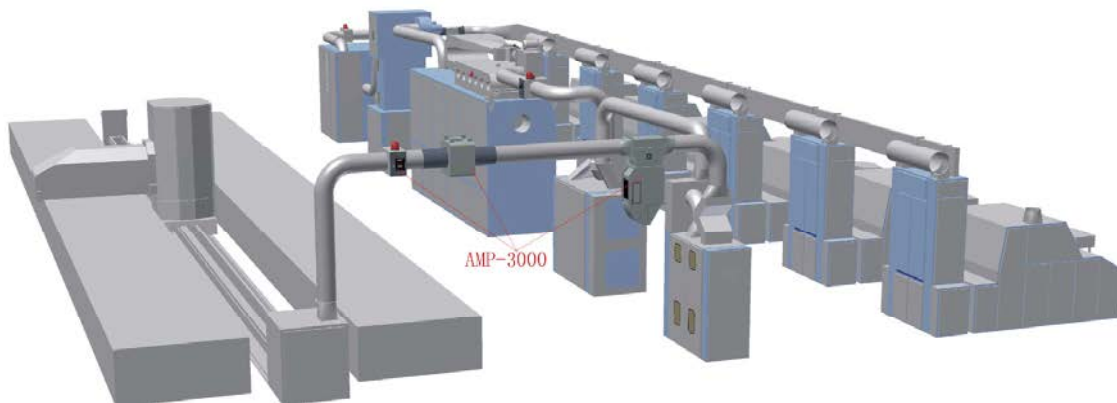
Metal sensitivity	Can detect iron ball which larger than $\Phi 3\text{mm}$
Spark sensitivity	Can detect spark which larger than $\Phi 1\text{mm}$
Response time	$< 150\text{ms}$
Power	$\text{AC}220\text{V}\pm 10\%$
Pneumatic pressure	$0.6\sim 0.8\text{MPa}$
Alarm sound level	$> 90\text{db}$
Environment	Temperature: $-10^{\circ}\text{C}\sim 40^{\circ}\text{C}$ ;
requirement	Relative humidity: $(20 - 75) \% \text{RH}$

Note: "★" for reference, please according to the user manual.





**AMP-3000** Metal&spark&heavy matter diverter is directly installed on the pipe of pneumatic transportation system. It is a very important equipment which can ensure the safety of textile enterprises in the blowing-carding product lines and other fiber production lines. It hardly influence the cotton flow and the air pressure. The product can be installed in the areas of positive and negative air pressure.



AMP-3000 be installed in the blowing-carding system



## ◆ High sensitivity of metal and spark detection

High sensitivity for the tiny moving spark and magnetic metal particles which mixed in the fiber.

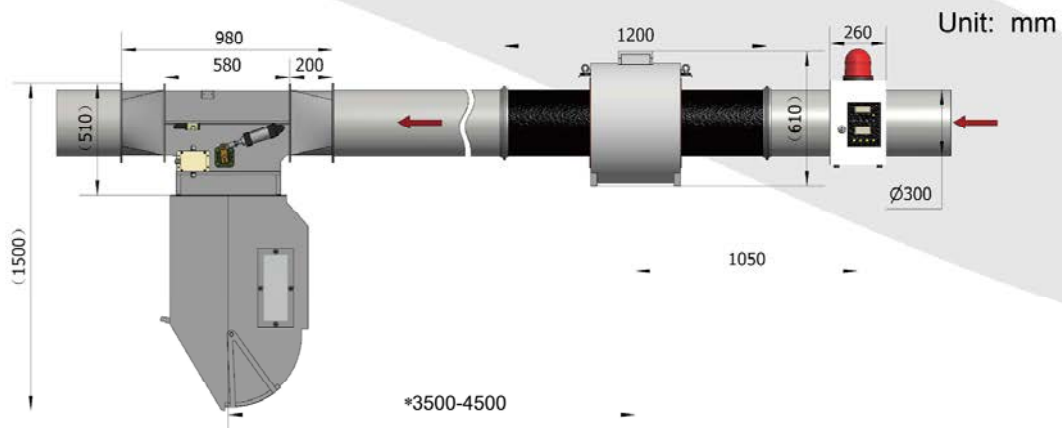
## ◆ Steady and reliable performance

Professional design for high immunity of environment to adapt the complex electromagnetic surroundings in the textile factories. It has the characteristics of steady and reliably performance, easy installation and convenient maintenance.

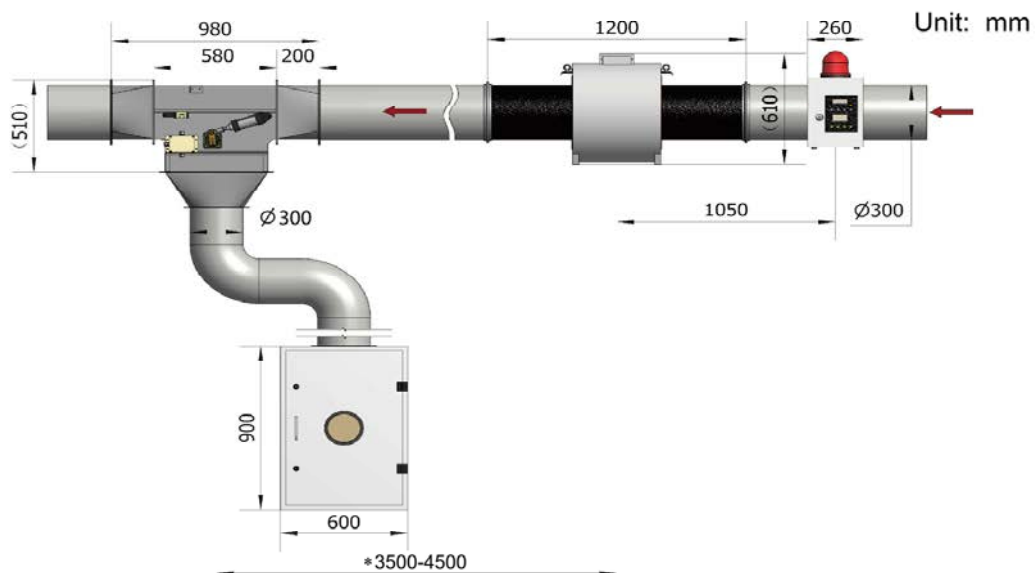
## ◆ Special design of flap

AMP-3000 can be installed on both positive and negative pressure procedure. When the heavy matter that mixes in the cotton flow goes through the concave flap, it will fall into the trough of the flap, because of the gravity.





AMP-3000 standard installation  
(for positive and negative pressure procedure)



AMP-3000 installation of floor collector box type  
(only for positive pressure procedure)

## Specifications

Metal sensitivity	Can detect iron ball which larger than $\Phi 3\text{mm}$
Spark sensitivity	Can detect spark which larger than $\Phi 1\text{mm}$
Response time	$< 150\text{ms}$
Power	$\text{AC}220\text{V} \pm 10\%$
Pneumatic pressure	$0.6 \sim 0.8\text{MPa}$
Alarm sound level	$> 120\text{db}$
Environment	Temperature: $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$ ;
requirement	Relative humidity: $(20 - 75) \% \text{RH}$

Note: "\*" for reference, please according to the user manual.

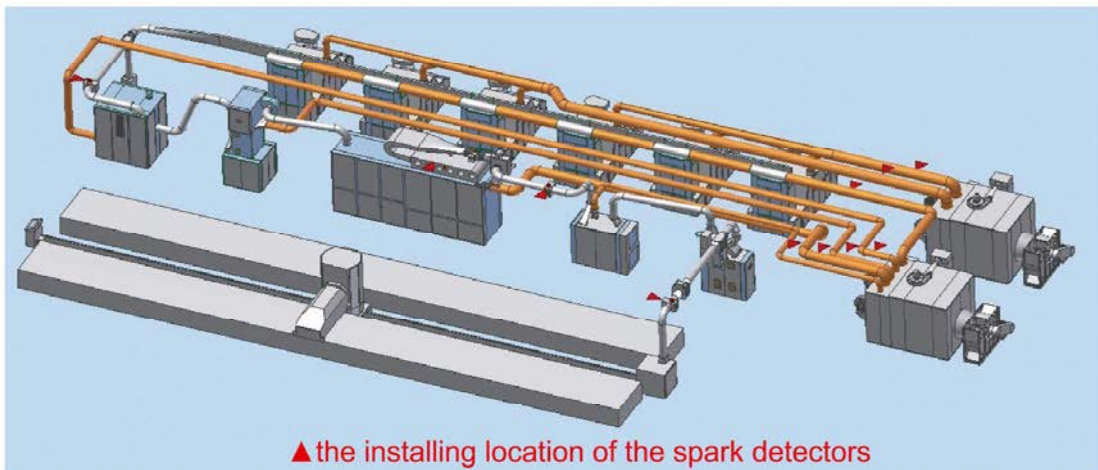
# AMP-119D Multi-route spark diverter



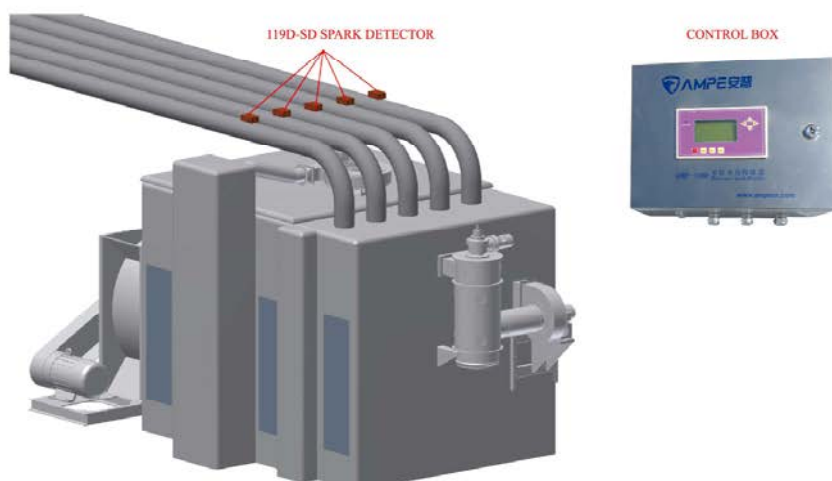
AMP-119D multi-route spark diverter is an anti-fire equipment of easy installation, flexibility configuration, reliable use and adapting to complex environment. This product has been widely used in the spinning mills in the production line of the blowing-carding, rolling of opening and cleaning procedure and dust filtration system.

AMP-119D multi-route spark diverter can detect tiny sparks and embers in the textile fibers, other materials conveying flow or dust. Once the diverter detects sparks, it will alarm immediately, stop the fan and switch on the diverter to ensure the safety of production.

## ◆ Product use



▲ the installing location of the spark detectors



AMP-119D be installed on the dust filtration system

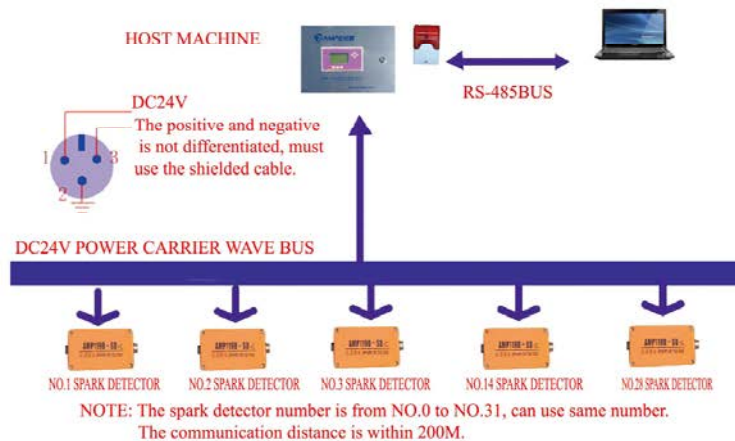
## ◆ Specifications



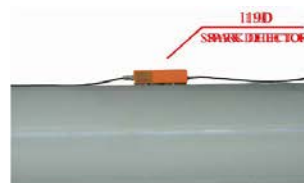
Sensitivity	Can detect spark which larger than $\Phi 1\text{mm}$ , visual angle is more than 90 degrees
Response time	Less than 300ms
Power	AC220V $\pm 10\%$
Pneumatic pressure	0.6~0.8MPa
Alarm sound level	>90db
Corresponding distance	Within 200 meters

## ◆ Installation of host machine and detector

AMP-119D is consist of host machine and spark detector. The host machine is generally installed on the wall, it can be fastened by M8 expansion bolts. It uses the power carrier wave communication between the host machine and the spark detectors. Installing the communication network only needs two wires. It has the characteristics of long distance of signal transmission, easy and reliable structure.



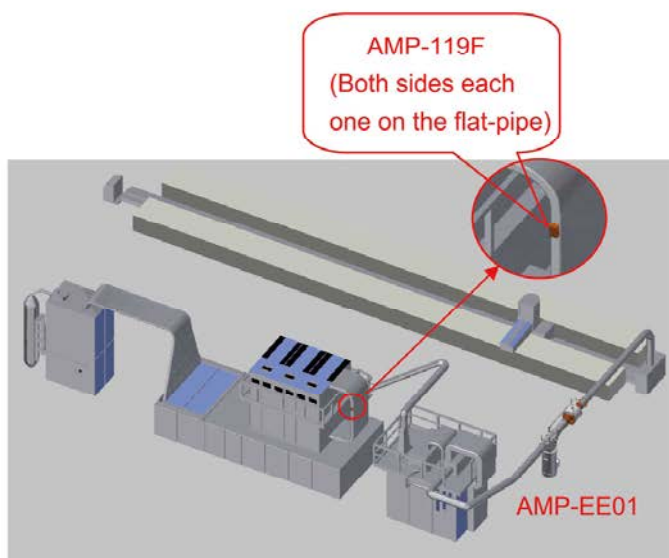
When installing, make a  $\Phi 22\text{mm}$  hole in the cotton conveying pipe (hole requirements round, smooth without burrs), make the inspection window of the detector face to the hole. Because of the detector with strong magnet, it can be adsorbed on the metal pipe.



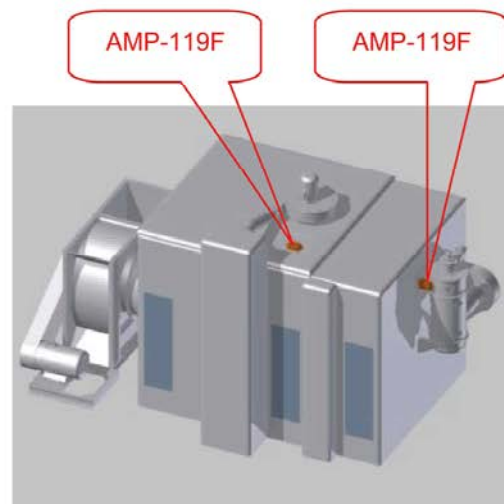




AMP-119F type spark detector is mainly used for blowing-carding system(including dust filtration system) in spinning mills. It is installed on the duct of pneumatic transport systems for materials like fibers or tuft. It effectively detects sparks which mixed in the production process so that ensure the safety of blowing-carding production line in spinning mills or other fiber processing production lines.

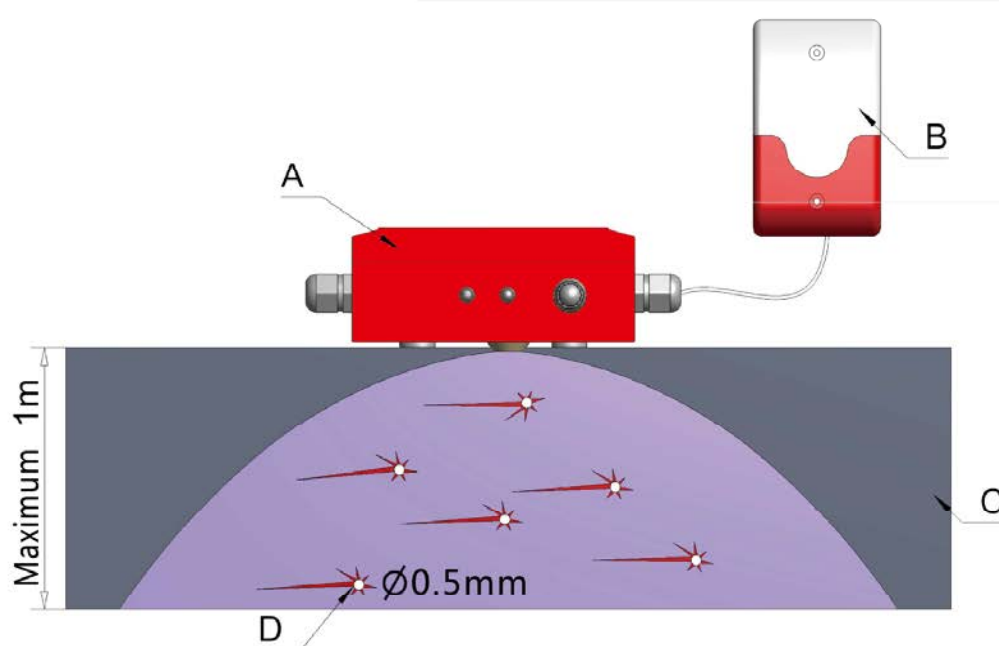


AMP-119F be installed  
on the Mixer



AMP-119F be installed on  
the Dust-filtering Unit





Note: A. Detector control box      B. Horn Strobe  
C. Conducting pipe or box      D. Moving sparks

## Trait

- ◆ AMP-119F detector will alarm immediately with sound and light when it detects the sparks or embers.
- ◆ AMP-119F has the characteristics of simple structure, easy installation and convenient maintenance.

## Specifications

Spark Sensitivity	Bigger than $\Phi 0.5\text{mm}$ spark, visual angle is no less than $90^\circ$
Response Time	$\leq 200\text{ms}$
Power supply	AC220V $\pm 10\%$
Power	$< 5\text{W}$
Sound level of alarm	$> 60\text{db}$
Temperature	$-10^\circ\text{C} - 40^\circ\text{C}$
Relative humidity	(20—75) %RH



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