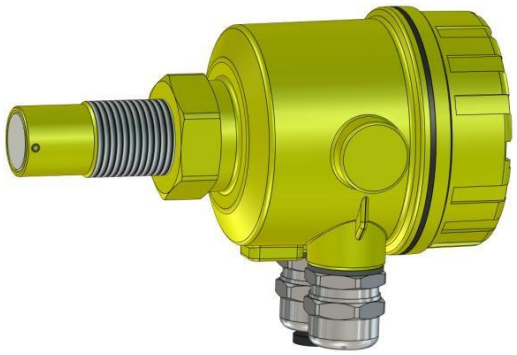
Instructions for Chute blockage detector
ZAXDS-W V1.0



Zax Technology Co., Ltd

1. Overviews

When blockage occurs in the chute, the chute blockage detector can send out the switching signal in time. According to the signal, the staff can take timely measures to prevent the accident of material blocking the chute.

2. Characteristic

2.1. It can adapts dust and other harsh environment.

2.2. Principle of non-contact detection, without wear and maintenance.

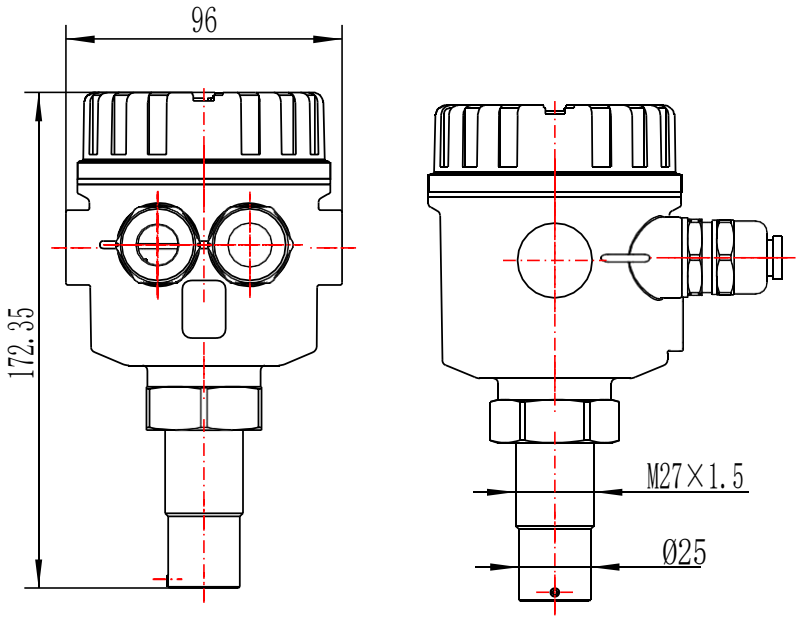
2.3. The product adopts advanced heterodyne detection method, the detection is stable and reliable.

2.4. Easy for installation, open the holes to install.

3. Parameter table

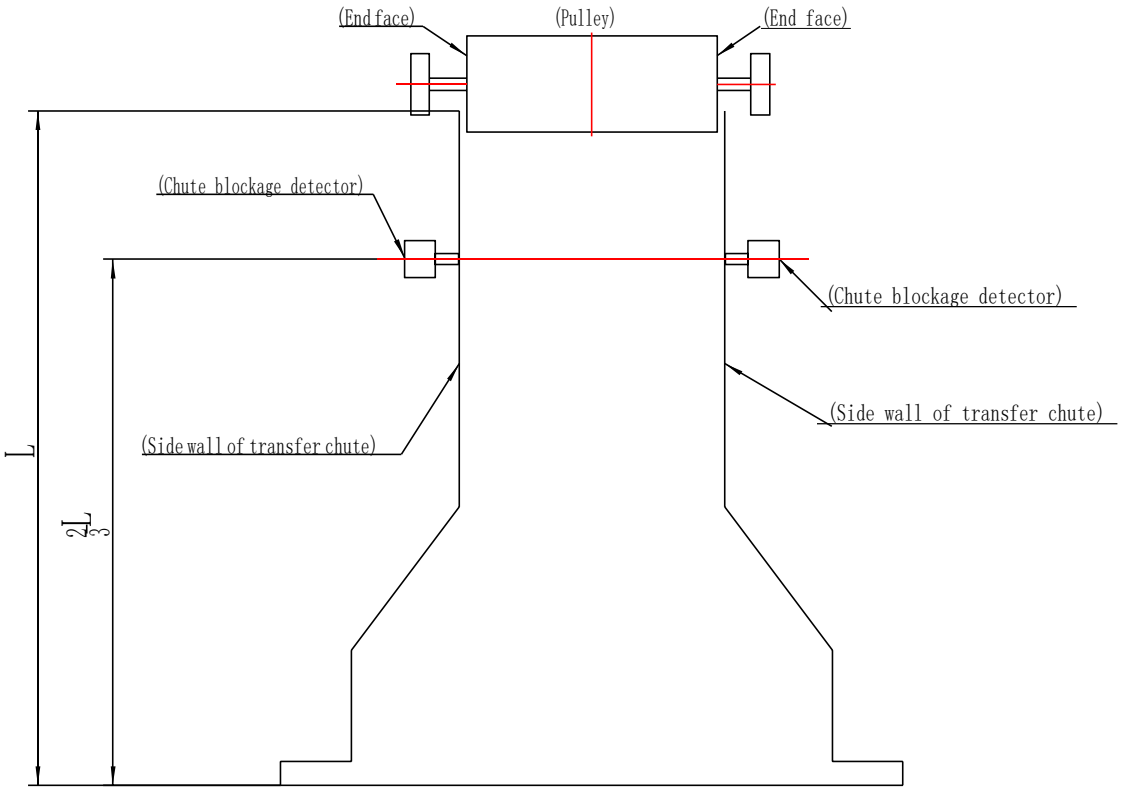
Contact rating	AC250V/3A DC24/3A
Delay output	0~15 S
working voltage	AC220V 50/60Hz
Power consumption	≤5W
operation temperature	－20 ℃~ 50℃
storage temperature	－35 ℃~ 50℃
Insulation	Input, output, power to shell > 5M Ω
working voltage	1×SPDT
Shell protection grade	IP65
Fast pulse group immunity test	Meets grade 4
Surge immunity test	Meets grade 4
Electrostatic discharge test	Meets grade 4
High voltage impulse immunity test	Meets grade 4

4. Structure features and main dimensions



Appearance size chart (Units: mm）

5. Installation indication



Installation indication diagram

6. Installation instructions

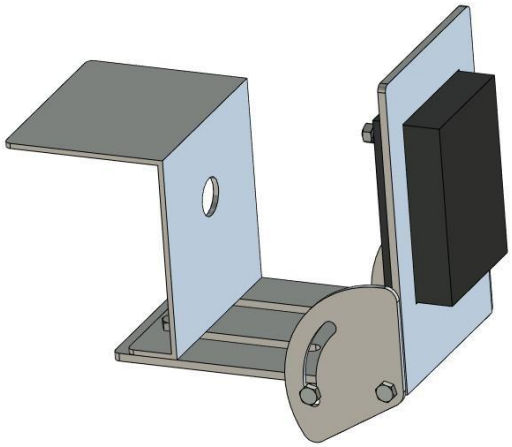
6.1. WARNING ：

6.1.1. Do not live operation

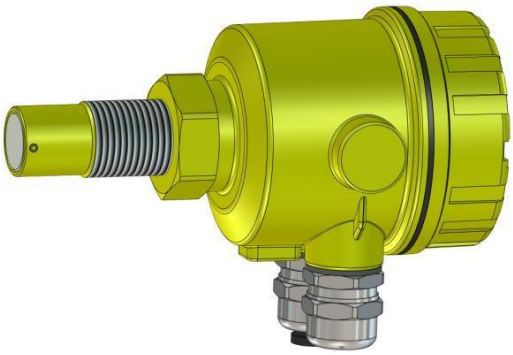
6.1.2. This product is non-explosion-proof products, please do not use in inflammable and explosive environment.

6.2. Prepare materials ：

6. 2. 1. Mounting bracket



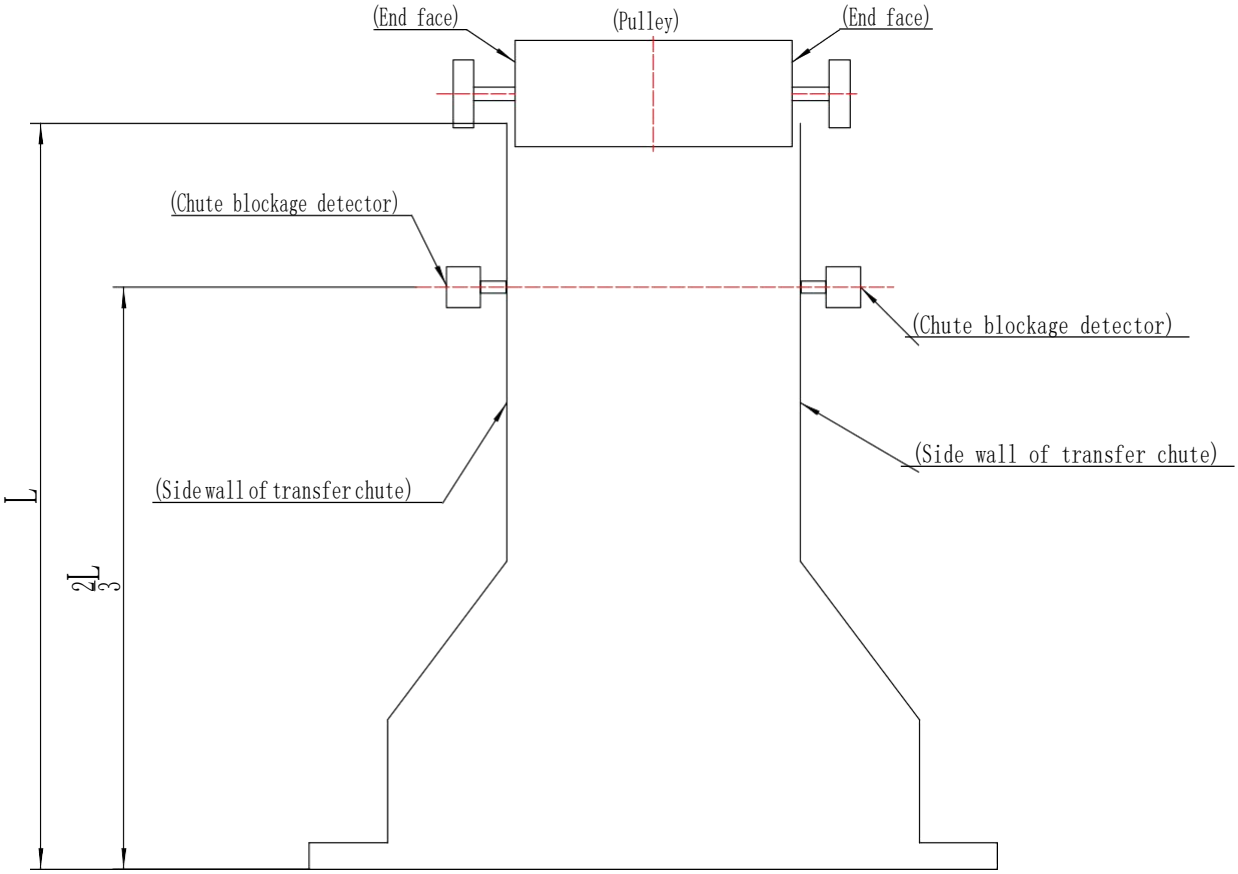
6. 2. 2. Chute blockage detector ×2 〈One transmitter and one receiver〉



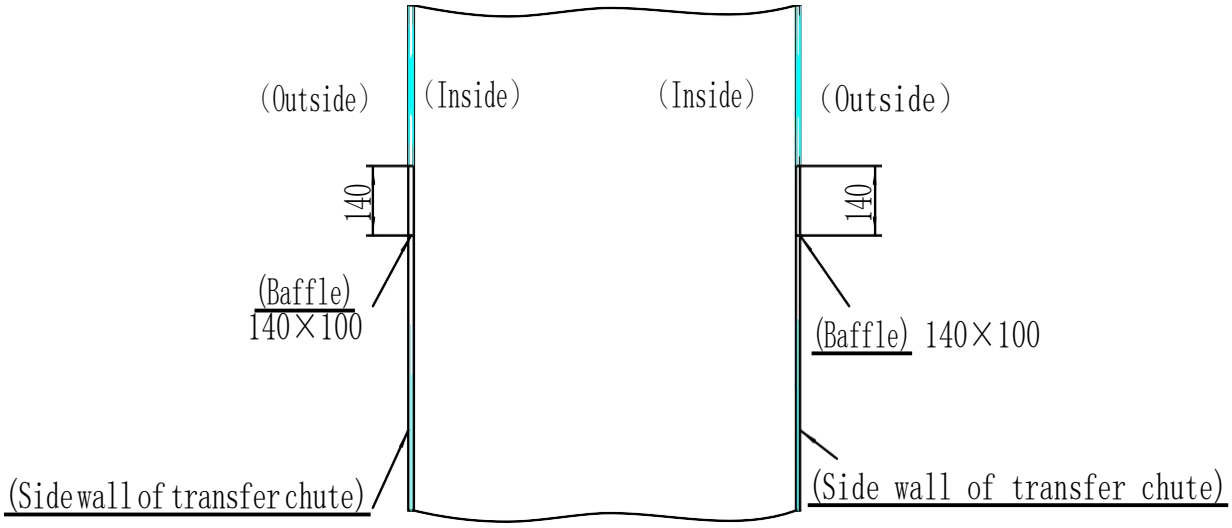
6. 2. 3. Mounting sleeve ×2

6.3. Installation steps ：

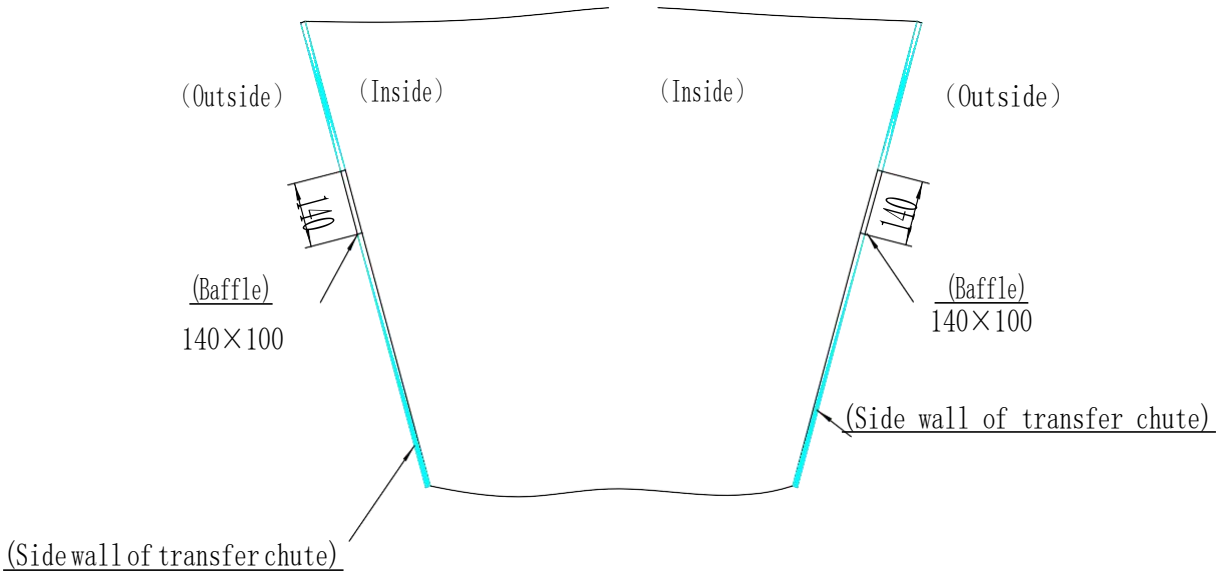
6.3.1. Determine the installation position and select the side wall of the transfer chute in the direction of the end face of the blanking pulley for installation. The recommended installation height is about two-thirds of the distance from the bottom of the transfer chute.



6.3.2. Two 140 mm long and 100 mm wide hole shall be opened on the two side walls of the selected transfer chute for installation, the two holes facing each other.

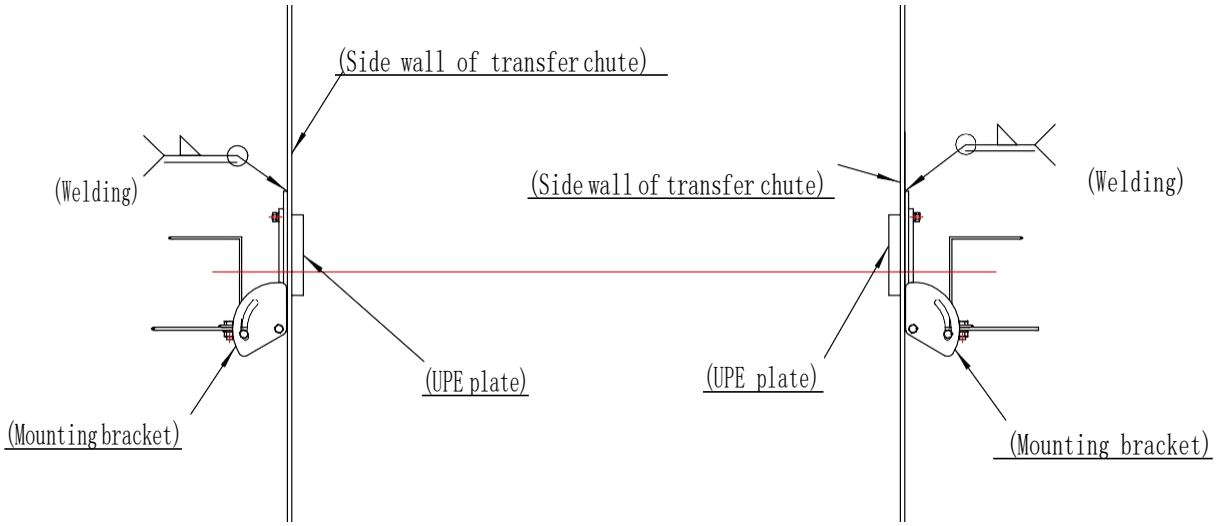


When the side wall of the transfer chute is vertical

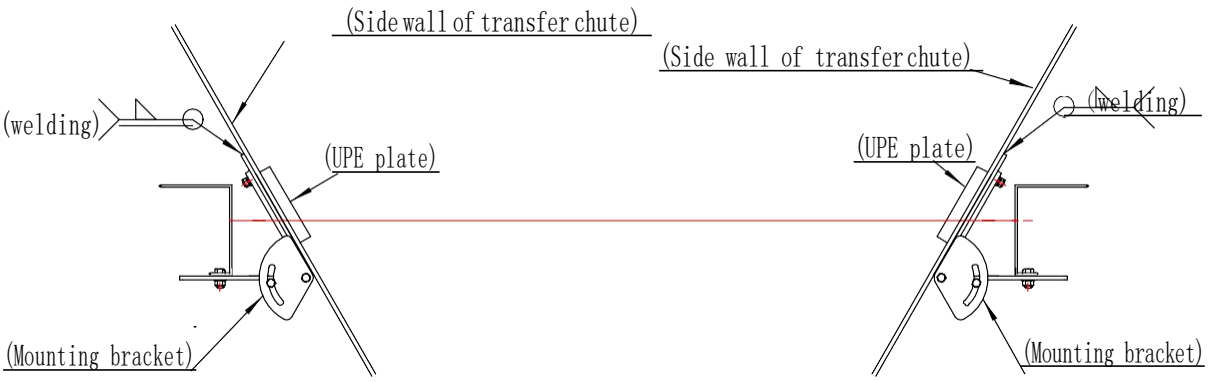


When the side wall of the transfer chute is tilts

6.3.3. Install the mounting bracket at the hole position as shown in the figure.

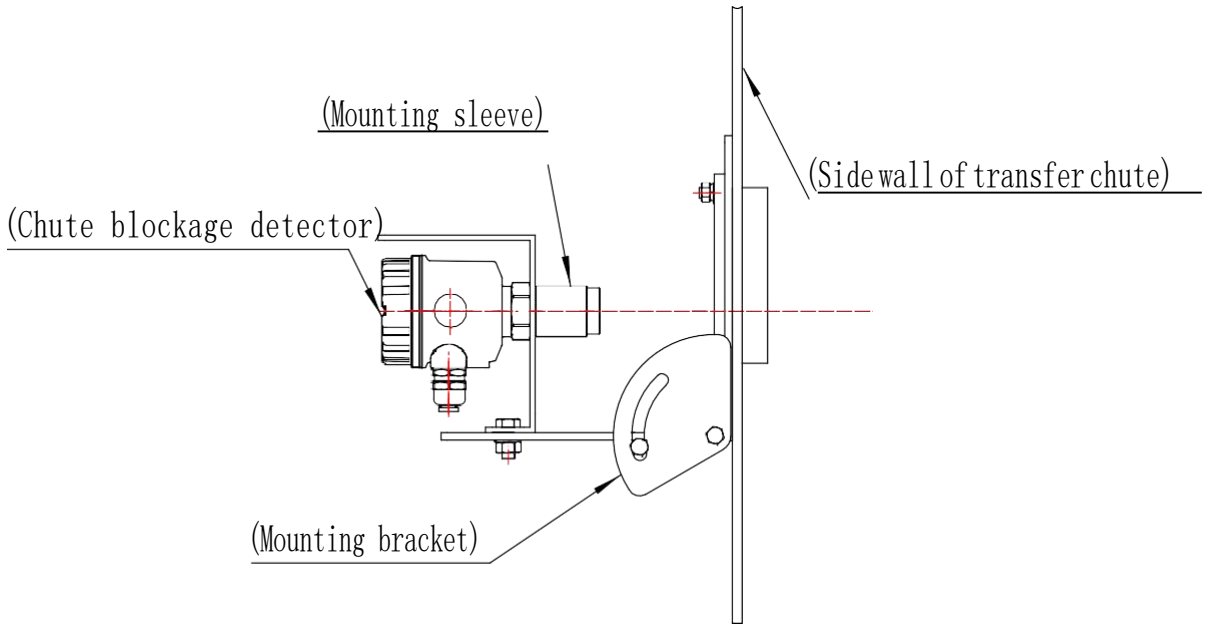


When the side wall of the transfer chute is vertical

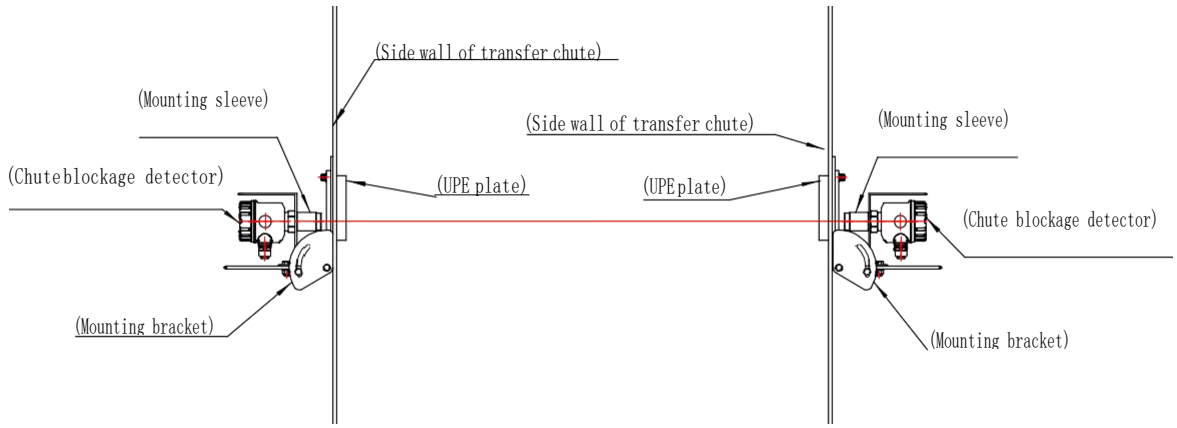


When the side wall of the transfer chute is tilts

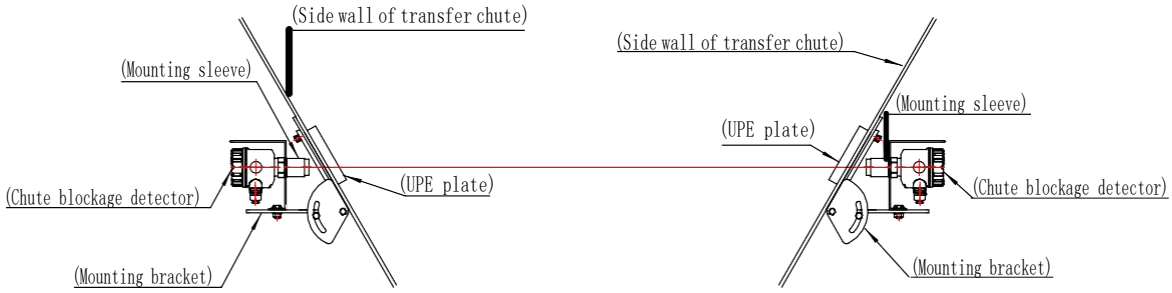
6.3.4. Install the sensor on the mounting bracket with mounting sleeve.



6.3.5. Adjust the mounting bracket angle make the chute blockage detector is in a horizontal position, and ensure that the transmitter and receiver are on a horizontal line. Tilted installation or transmitter and receiver are not on a horizontal line will affect the detector working stability. Adjust the distance of the sensor, make it as close as possible with the UPE plate on the mounting bracket.

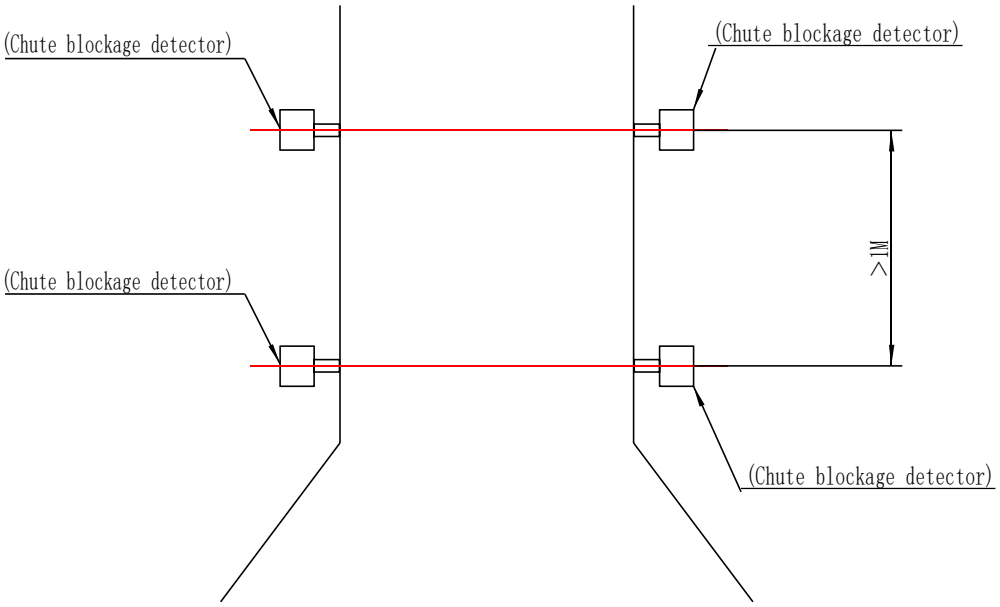


When the side wall of the transfer chute is vertical

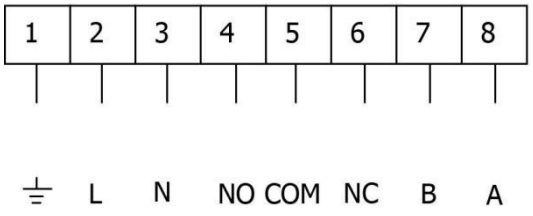


When the side wall of the transfer chute is tilts

6.3.6. When multiple pairs of chute blockage detectors are installed on a transfer chute, the vertical distance between adjacent two pairs of chute blockage detectors shall not be less than 1 meter.



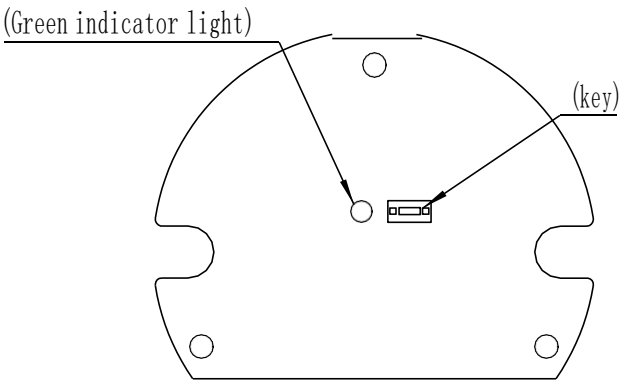
6.4. Wiring principle



Chute blockage detector wiring diagram

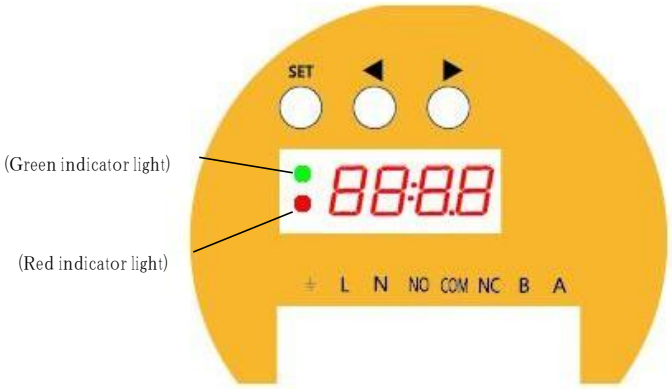
Note: L and N are AC220V power input terminals, NC and COM are normally closed contact output terminals, NO and COM are normally open contact output terminals, and are grounding terminals. A and B are RS-485 communication terminals.

6.5. Debugging



Transmitter panel

6.5.1. Transmitter: There is a green indicator light and a button on the panel, button used to switch the microwave transmission module switch. When debugging the detector, it is necessary to temporarily turn off the microwave emission, which can be completed by this button. Indicator light flashing represents microwave off, normally on represents microwave on.



Receiver panel

6.5.2. Receiver: Normal operation, the four digital tube displays XX:XX. The XX in the front is the actual received microwave intensity, and the XX in the back is the set microwave sensitivity. When the actual received microwave intensity is less than the set microwave sensitivity, will alarm, with the red light on and the green light off; the red indicator light is the alarm indicator and the green indicator light is the normal working indicator.

6.5.3. SET: Click right-hand button of the receiver panel to set the signal strength of blocking alarm, and click left-hand button to set the alarm delay of chute blockage detector. Click the SET key to save after setting.

7. （Working principle）

The detector consists of transmitter and receiver. Microwave is used as detection mode. The transmitter transmits microwave signal, and the receiver receives microwave signal. The chute is blocked or not blocked by detecting the difference of received signal strength.

8. Maintain

8.1.1. Dust removal and check fasteners regularly;

8.1.2. Frequently observe whether LED digital display and indicator display are normal