

Doppler FLOW / NO FLOW SWITCH

FLOWguard 310



Working principle

FLOWguard is a material flow/ no flow detector using the Doppler effect. According to the Doppler effects, the frequency of microwave changes when encountering a moving object. The detector is installed on the pipe or above the conveyor belt. The detector emits electromagnetic waves. When there is material flowing, the frequency of the reflected wave changes. When there is no material flowing or blocking, the frequency of the reflected wave won't change. The detector judges whether the material flows according to whether the frequency of the reflected wave changes and outputs a FLOW or NO FLOW signal through a relay.

Benefits

- Microwave has good penetration and is not affected by flying dust, steam, stickiness
- Compact design, small footprint and flexible installation.
- No moving parts and maintenance free.

Specification

| | |
|---------------------|--|
| Power supply | 24V DC |
| Output | relay |
| Frequency | 24~26GHz |
| Delay | 250ms~15s |
| Transmitter power | 5mW |
| Process fitting | thread/flange |
| Housing material | Stainless steel |
| Ambient temperature | -40~70°C |
| Process temperature | -40~220°C (Up to 1000°C with adapter) |
| Process pressure | 1bar (Up to 20bar with adapter) |
| Protection | IP67 |

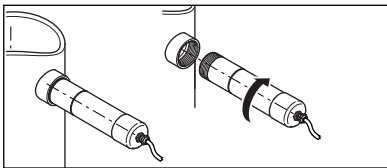
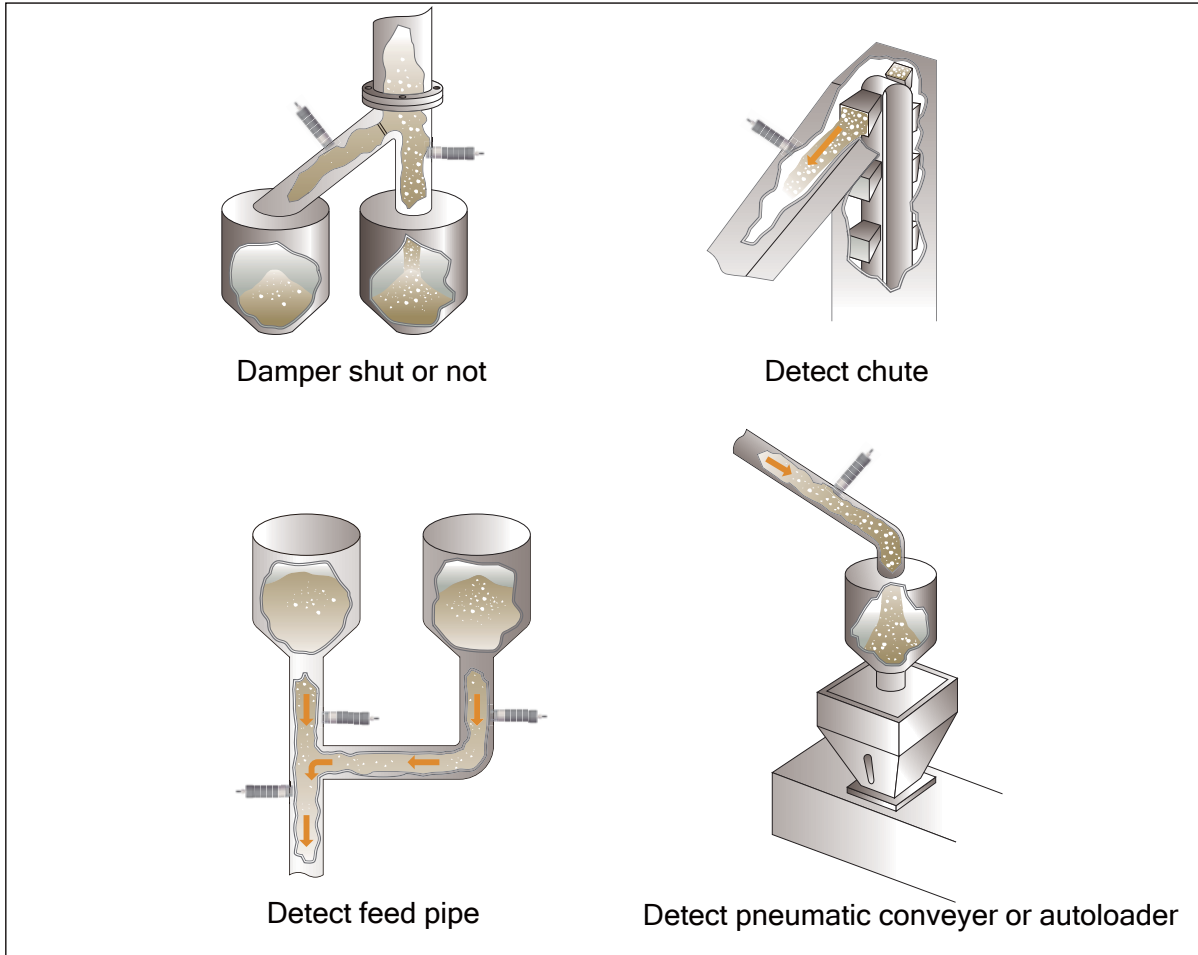
Application

- (1) Detect solid flow/no-flow in pipelines
- (2) Detect blocked or unblocked states in chute

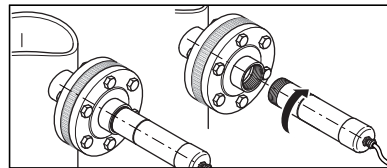
Industry

- Building material: cement,clinker,woodchips
- Chemical: plastic powder or granuls,fertilizer,silica
- Food: coffee,animal food,oats,tobacoo leaf tobacco leaf
- Power: coal,carbon dust,flyash

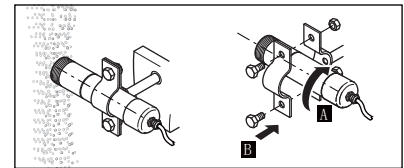
Installation



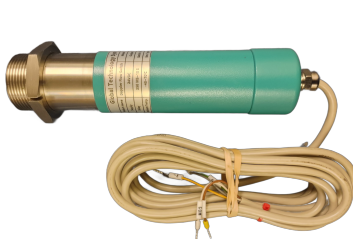
Thread mounting



Flange mounting



Pipe clamp mounting



Optional Ramsey Adapter