

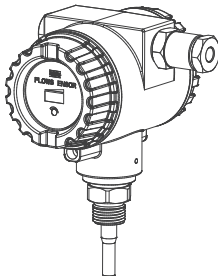
- Sensor and controller ——
- Flow ■ pressure ■ temperature ■ level ■ position



Operation instruction

Explosion-proof flow switch

FS800 Series



1、 Principle characteristics

Based on the thermal principle, the sealed probe contains two resistors, one of which is heated as a detection resistance, the other is not heated as a reference resistance, when the medium flows, the heat on the heating resistance is taken away, the resistance value is changed, and the difference between the two resistors is used as a basis for judging the cut-off rate.

No moving parts, maintenance-free, easy to install, one model suitable for a variety of pipe diameter requirements, continuous adjustable switching volume, extremely low pressure loss, compact structure, LED display flow trend and switching status.

2、 Product application

Gas-liquid dual, can be used for pneumatic and hydraulic systems, can be used for circulating water, cutting fluid and lubricating oil cut-off detection, as well as pump idling protection.

Technical parameters

◇ Setting range:	one 150cm/s(water), 3... 300cm/s(oil), 20... 2000cm/s (air)
◇ Signal output:	PNP,NPN, Relay, Normally open + Normally Closed (SPDT)
◇ Power supply:	24V±20%DC or 230V±15%AC
◇ Switching current:	Max 400mA(PNP or NPN type) Max 4A (relay type)
◇ No-load current:	Max. 80mA
◇ Flow indicator:	LED row (8 PCS)
◇ Setting mode:	Potentiometer setting
◇ Pressure range:	100bar
◇ Temperature gradient:	4°C/s
◇ Response time:	1-13S, typical value 2s
◇ Initialization time:	8S
◇ Electrical protection:	Reverse phase, short circuit, overload protection

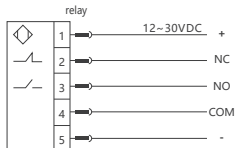
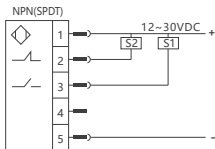
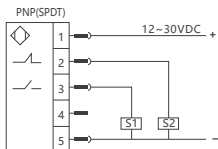
- ◊ **Protection level:** IP67
- ◊ **Medium temperature:** - 20-80 °C
- ◊ **Ambient temperature:** - 20-80 °C
- ◊ **Storage temperature:** - 20-100 °C
- ◊ **Connection mode:** Explosion-proof fittings, cable fasteners
- ◊ **Material:** Probe: Stainless steel; Housing: cast aluminum
- ◊ **Explosion-proof rating:** Ex d II CT6

Connection mode

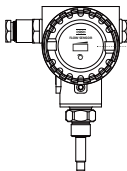
! Be sure to have the product wired by a qualified electrician and comply with electrical equipment Installation of relevant national and international specifications.

The power supply voltage shall comply with EN 50178, SELV, PELV standards

- Cut off the power
- Wiring the product according to the corresponding wiring method in the figure below



operation interface



Protective screws:

Remove before adjustment

Factory standard: 3mm flat-head screwdriver

(Switch sensitivity adjustment)



Red LED light indicates that the current is interrupted or the flow rate is lower than the set value of the switch release



Yellow LED light indicates that the flow rate is equal to the set value switch action



The bright yellow and green leds indicate that the flow rate is greater than the set value, and the more the green light indicates the higher the flow rate

Adjustment reference method:

1. After power on, check all the indicator lights of the switch and reset after self-test
2. Use the factory screwdriver to remove the dust-proof screws
3. Turn on the flow and check the indicator status
4. Use the factory screwdriver to insert the switch setting hole and adjust the switch action value according to actual needs. It is recommended that the indicator light should be three green under normal flow conditions
5. Turn off the flow/turn on the flow to ensure that the switch signal output is normal

Installation instructions

Before installing this device, please read this document to ensure that the product is suitable for your application and is not limited in any way;

Failure to follow operating instructions or technical documentation may result in personal injury or property damage;

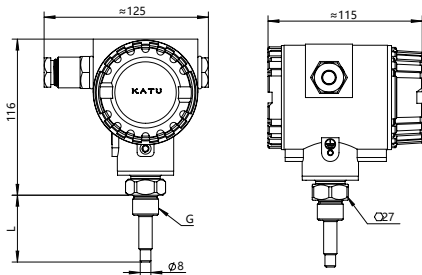
Check compatibility of the product material with the medium under test in all application ranges;

If the equipment is used only as a medium for the material to be tested, it must only be ensured that the equipment is used correctly to ensure long-term stable operation and that the tested media will not cause damage to the tested part of the product;

! The responsibility for determining whether the measurement sensor is suitable for the application lies with the operator, and the manufacturer accepts no responsibility for the consequences of improper use by the operator. Improper installation and use of the sensor results in invalid claims under warranty.

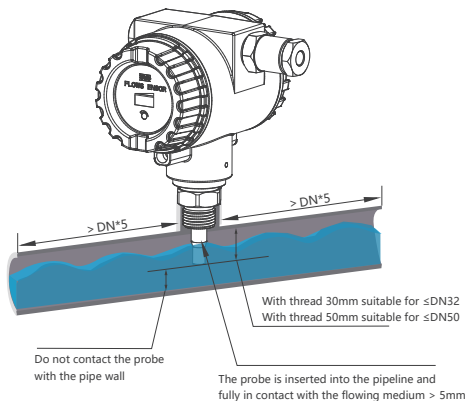
! Before installing and removing the switch, ensure that the system is not under any pressure.

- Connect the switch according to the selected process interface
- Fully tighten, recommended tightening torque range: 25 to 35Nm
- In critical applications, such as severe vibration or shock, the fittings can be mechanically decoupled by micro-hoses.



attention

When installed vertically, it should be installed on the pipe segment that flows from the bottom to the top. When mounted horizontally, the probe should be shielded from air and sediment.



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