

ISEN- SP200 Flow Switch

A flow switch is a mechanical instrument used to control the flow of air, steam, or liquids. A flow switch works by sending a trip signal to another device within the system, such as a pump, telling it to close or open, which will further protect it from damage and protect the cooling circuit. A flow switch determines if the flow is above or below a certain rate, called a set point. The set point can be adjustable or fixed, depending on the specifications of the individual instrument. When the set point is reached, the response is usually the actuation of a circuit, and once tripped, the flow switch will maintain its new state until it drops below the set point. Flow switches have a wide range of applications, including air conditioning, water treatment systems, water cooling equipment, liquid delivery systems, pump systems, and industrial process control. Flow switches are classified by characteristics such as flowing material, measurement type, and design, and are used in a variety of industries, including HVAC, industrial, pharmaceutical, food and chemical processing, water treatment, and commercial.



Application Field



Industrial Boiler



Water Plant



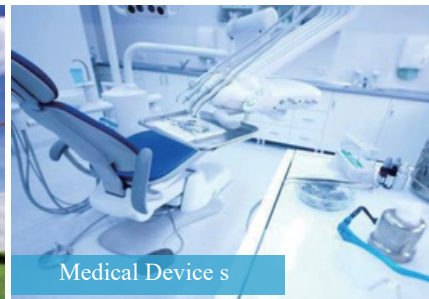
Petrochemical



Wastewater Treatment



Power Industry



Medical Devices

Measuring principle

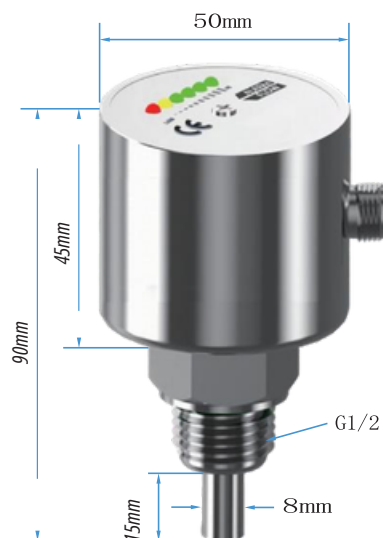
The working principle of a flow switch is based on the force or pressure change generated when a fluid passes through a sensor or device. When the fluid flow reaches or exceeds a preset threshold, the flow switch generates an electrical signal or mechanical action to trigger the corresponding control operation. A common type of flow switch is a mechanical float switch. In this device, a float is located in the pipeline and rises or falls as the fluid flows through the pipeline. When the fluid flow exceeds or falls below a preset threshold, the float triggers a switch to generate a corresponding control signal. Flow switches are widely used in process control. It can be used to monitor fluid flow and trigger alarms, open or close valves, adjust pump station operations, etc. By using a flow switch, real-time monitoring and automatic control of the flow can be achieved to ensure that the flow is within a preset range, thereby ensuring the stability and safety of system operation.

Flow switch 01

Product Features

The hardware of the instruments and meters all adopt precise electronic components widely used in high-tech fields such as aviation, automobiles, and military industries. With patented integrated circuit designs that have strong anti-interference capabilities and reliable stability, along with a user-friendly software system with rich instrument interfaces, the detection signals become more accurate and stable. Currently, the company's products have been widely applied in industries such as metallurgy, power, pharmaceuticals, chemical engineering, petroleum, water treatment, and food.

- ◆ LED indicates flow rate
- ◆ No moving parts, no maintenance required
- ◆ Multiple sensor probe lengths are available for selection
- ◆ On e model is applicable to multiple pipe diameter requirements.
- ◆ Continuous adjustable switch quantity
- ◆ Almost no pressure loss overall
- ◆ IP67 protection grade

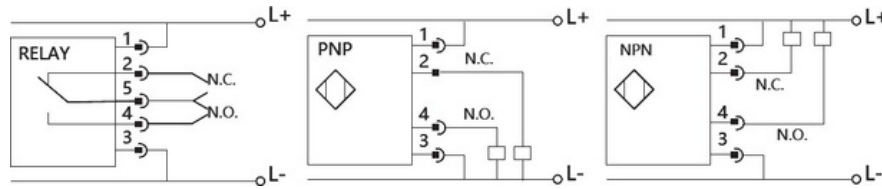


Technical Specification

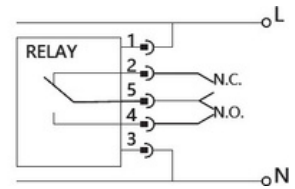
Measuring medium range	Water: 3~300cm/s, gas: 200~3000cm/s, oil: 3~300cm/s
Switch accuracy	±1~±10cm/s
Warm-up time	3 minutes after power on
Working pressure	<100bar
Medium temperature	-20°C~80°C
Process connector	G1/2, G1/4 and M18 internal thread connection
Output signal	PNP/NPN/relay
Power supply	24VDC、85~265VAC、120~370VDC
Sensor length	15mm, 20mm, 30mm, 40mm, 50mm, 60mm (customizable)
Setting method	Potentiometer setting
Response Time	2 (2...10) s
Load	Current: 250MA, relay: 30VDC/5A, 220VAC/5A
Maximum change rate of medium temperature	300k/mim
Output protection	Reverse/overload/short circuit
Protection level	IP67
Wiring method	M12 connector
Material	Probe: ANSI316L, body: ANSI316L

Product Wiring Diagram

24VDC

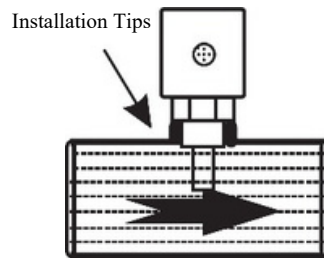


85-265VAC



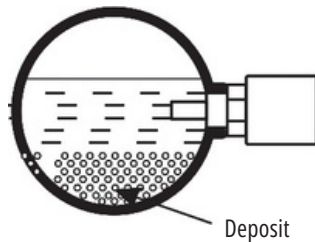
Installation Diagram

Horizontal installation



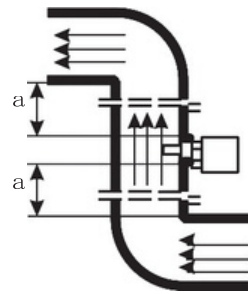
Please note that the flow switch is installed in the opposite direction of the water flow.

Side Mount



If there is sediment in the pipe, please refer to this installation method

Curve installation



$A \geq 3D$
A: distance between installation point and elbow D: pipe diameter

Product Selection Table

Model	ISEN-SP200-01		Sensor length	15	15mm	50	50mm
Process interface	G1	G1/2EXTERNAL THREAD		20	20mm	60	60mm
	G2	G1/4EXTERNAL THREAD		30	30mm	Y	Custom made
	M	M18*1.5 INTERNAL THREAD		40	40mm		
Powered by	Y	custommade	Output signal	P	PNP OUTPUT		
	D	24VDC power supply		N	NPN OUTPUT		
	A	220 VAC power supply		D	One relay output		

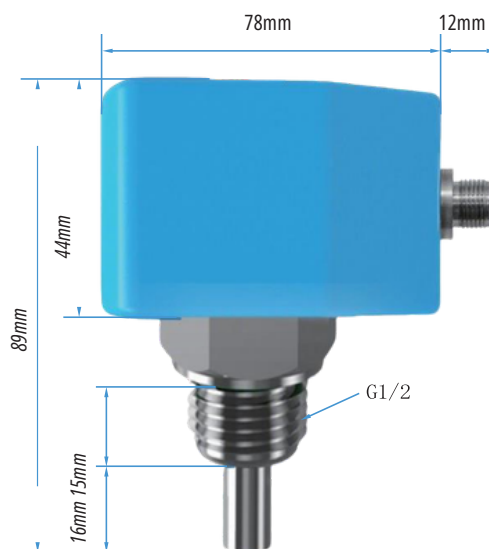
Flow Switch 02

Product Features

The hardware of the instruments and meters all adopt precise electronic components widely used in high-tech fields such as aviation, automobiles, and military industries. With patented integrated circuit designs that have strong anti-interference capabilities and are reliable and stable, along with a user-friendly software system with rich instrument interfaces, the detection signals become more accurate and stable. Currently, the company's products have been widely applied in industries such as metallurgy, power, pharmaceuticals, chemicals, petroleum, water treatment,

and food.

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- ◆ No moving parts, no maintenance required
- ◆ Multiple sensor probe lengths are available for selection
- ◆ One model is applicable to multiple pipe diameter requirements.
- ◆ Continuous adjustable switch quantity
- ◆ Almost no pressure loss overall
- ◆ IP67 protection grade

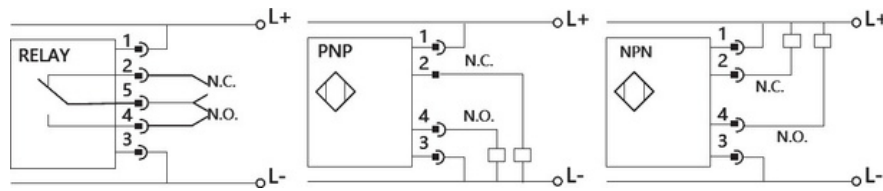


Technical Specification

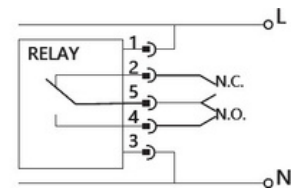
Measuring medium range	Water: 3~300cm/s, gas: 200~3000cm/s, oil:
Switch accuracy	±1~ ±10cm/s
Warm-up time	3 minutes after power on
Working pressure	<100bar
Medium temperature	-20°C~80°C
Process connector	G1/2, G1/4 and M18 internal thread connection
Output signal	PNP/NPN/relay
Power supply	24VDC、85~265 VAC、120~370VDC
Sensor length	15mm、20mm、30mm、40mm、50mm、60mm (custom made)
Setting method	Potentiometer setting
Response Time	2 (2...10) s
Load	Current: 250mA, Relay: 30VDC/5A, 220VAC/5A
Maximum change rate of medium temperature	300k/min
Output protection	Reverse / Overload / Short Circuit
Protection level	IP67
Wiring method	M12 connector
Material	Probe: ANSI316 L, Body: PVC

Product Wiring Diagram

24VDC

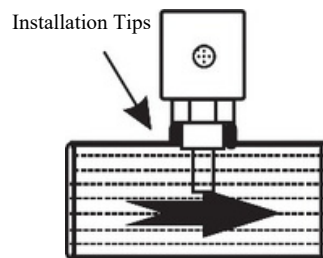


85-265VAC



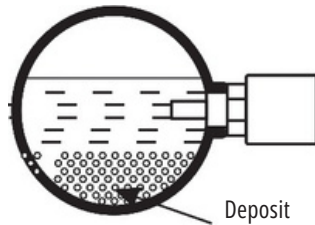
Installation Diagram

Horizontal installation



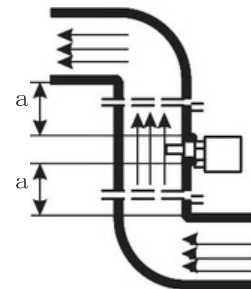
Please note that the flow switch is installed in the opposite direction of the water flow.

Side Mount



If there is sediment in the pipe, please refer to this installation method

Curve installation



$A \geq 3D$
A: distance between installation point and elbow D: pipe diameter

Product Selection Table

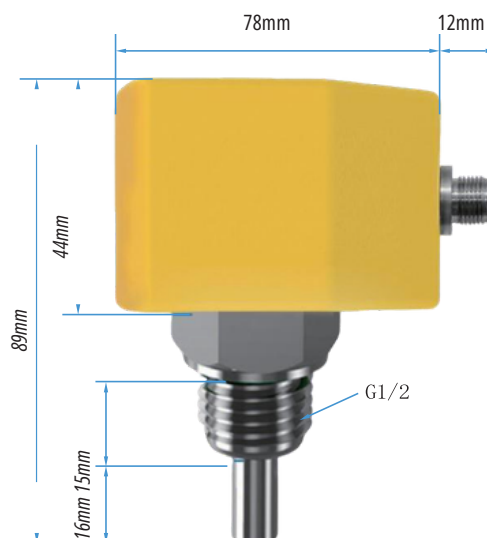
Model	ISEN-SP200-02		Sensor length	15	15mm	50	50mm
Process interface	G1	G1/2EXTERNAL THREAD		20	20mm	60	60mm
	G2	G1/4EXTERNAL THREAD		30	30mm	Y	custom made
	M	M18*1.5 INTERNAL THREAD		40	40mm		
	Y	custommade	Output signal	P	PNP OUTPUT		
Powered by	D	24VDCpower supply		N	NPN OUTPUT		
	A	220VACpower supply		D	One relay output		

Flow Switch 03

Product Feature

The hardware of the instruments and meters all adopt precise electronic components widely used in high-tech fields such as aviation, automobiles, and military industries. With patented integrated circuit designs that have strong anti-interference capabilities and reliable stability, along with a user-friendly software system with rich instrument interfaces, the detection signals become more accurate and stable. Currently, the company's products have been widely applied in industries such as metallurgy, power, pharmaceuticals, chemical engineering, petroleum, water treatment, and food.

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- ◆ One model is applicable to multiple pipe diameter requirements.
- ◆ Continuous adjustable switch quantity
- ◆ Almost no pressure loss overall
- ◆ IP67 protection grade

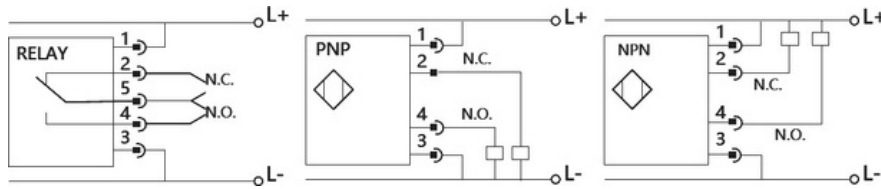


Technical Specification

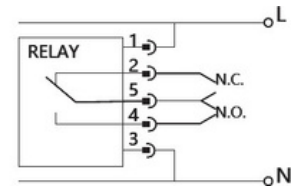
Measuring medium range	Water: 3~300cm/s, Gas: 200~3000cm/s, Oil: 3~300cm/s
Switch accuracy	±1~ ±10cm/s
Warm-up time	3 minutes after power on
Working pressure	<100bar
Medium temperature	-20°C~80°C
Process connector	G1/2, G1/4 AND M18 INTERNAL THREAD CONNECTIONS
Output signal	PNP/NPN/RELAY
Power supply	24VDC、85~265V AC、120~370VDC
Sensor length	15mm、20mm、30mm、40mm、50mm、60mm (custom made)
Setting method	=Potentiometer setting
Response Time	2 (2...10) s
Load	Current: 250mA, Relay: 30VDC/5A, 220VAC/5A
Maximum change rate of medium temperature	300k/min
Output protection	Reverse/Overload / Short Circuit
Protection level	IP67
Wiring method	M12 CONNECTOR
Material	Probe: ANSI316L, Body: PVC

Product Wiring Diagram

24VDC

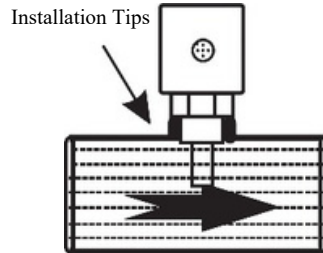


85-265VAC



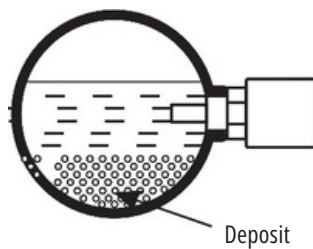
Installation Diagram

Horizontal installation



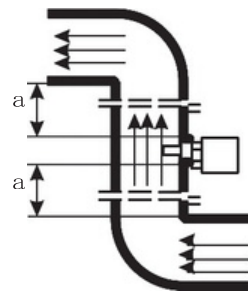
Please note that the flow switch is installed in the opposite direction of the water flow.

Side Mount



If there is sediment in the pipe, please refer to this installation method

Curve installation



$A \geq 3D$
A: distance between installation point and elbow D: pipe diameter

Product Selection Table

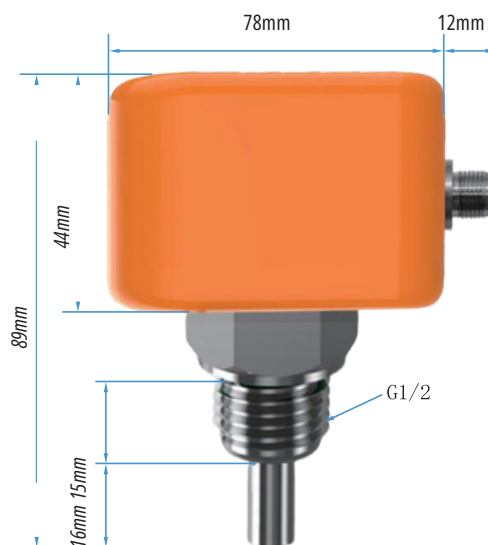
Model	ISEN-SP200-03		Sensor length	15	15mm	50	50mm
Process interface	G1	G1/2EXTERNAL THREAD		20	20mm	60	60mm
	G2	G1/4EXTERNAL THREAD		30	30mm	Y	custom made
	M	M18*1.5 INTERNAL THREAD		40	40mm		
	Y	custommade	Output signal	P	PNP OUTPUT		
Powered by	D	24VDC power supply		N	NPN OUTPUT		
	A	220VAC power supply		D	One relay output		

FlowSwitch 04

Product Features

The hardware of the instruments and meters all adopt precise electronic components widely used in high-tech fields such as aviation, automobiles, and military industries. With patented integrated circuit designs that have strong anti-interference capabilities and reliable stability, along with a user-friendly software system with rich instrument interfaces, the detection signals become more accurate and stable. Currently, the company's products have been widely applied in industries such as metallurgy, power, pharmaceuticals, chemical engineering, petroleum, water treatment, and food.

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- ◆ Multiple sensor probe lengths are available for selection
- ◆ One model is applicable to multiple pipe diameter requirements.
- ◆ Continuous adjustable switch quantity
- ◆ Almost no pressure loss overall
- ◆ IP67 protection grade

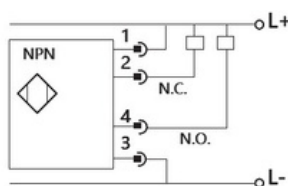
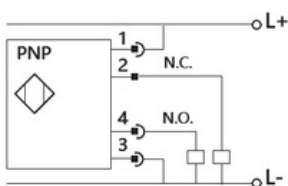
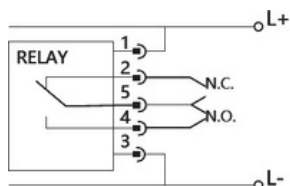


Technical Specification

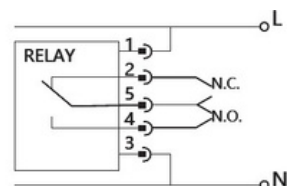
Measuring medium range	Water: 3~300cm/s, Gas: 200~3000cm/s, Oil: 3~300cm/s
Switch accuracy	±1~ ±10cm/s
Warm-up time	3 minutes after power on
Working pressure	<100 bar
Medium temperature	-20°C~80°C
Process connector	G1/2, G1/4 AND M18 INTERNAL THREAD CONNECTIONS
Output signal	PNP / NPN / RELAY
Power supply	24VDC、85~265VAC、120~370VDC
Sensor length	15mm、20mm、30mm、40mm、50mm、60mm (可custom made)
Setting method	=Potentiometer setting
Response Time	2 (2...10) s
Load	Current: 250MA, Relay: 30VDC/5A, 220VAC/5A
Maximum change rate of medium temperature	300k/mim
Output protection	Reverse/Overload / Short Circuit
Protection level	IP67
Wiring method	M12 CONNECTOR
Material	Probe: ANSI316L, Body: PVC

Product Wiring Diagram

24VDC



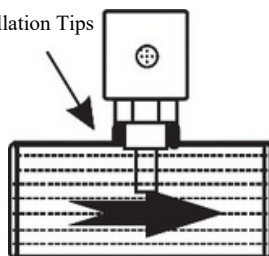
85-265VAC



Installation Diagram

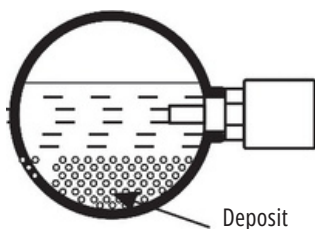
Horizontal installation

Installation Tips



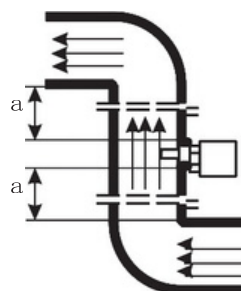
Please note that the flow switch is installed in the opposite direction of the water flow.

Side Mount



If there is sediment in the pipe, please refer to this installation method

Curve installation



$A \geq 3D$
A: distance between installation point and elbow D: pipe diameter

Product Selection Table

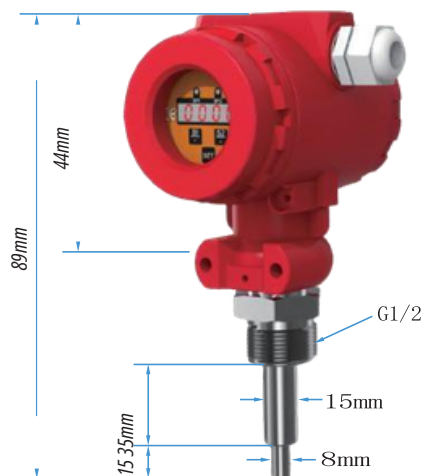
Model	ISEN-SP200-04		Sensor length	15	15mm	50	50mm
Process interface	G1	G1/2EXTERNAL THREAD		20	20mm	60	60mm
	G2	G1/4EXTERNAL THREAD		30	30mm	Y	custom made
	M	M18*1.5 INTERNAL THREAD		40	40mm		
Powered by	Y	custom made	Output signal	P	PNP OUTPUT		
	D	24VDC power supply		N	NPN OUTPUT		
	A	220VAC power supply		D	One relay output		

Flow Meter 05

Product Features

The hardware of the instruments and meters all adopt precise electronic components widely used in high-tech fields such as aviation, automobiles, and military industries. With patented integrated circuit designs that have strong anti-interference capabilities and reliable stability, along with a user-friendly software system with rich instrument interfaces, the detection signals become more accurate and stable. Currently, the company's products have been widely applied in industries such as metallurgy, power, pharmaceuticals, chemical engineering, petroleum, water treatment, and food.

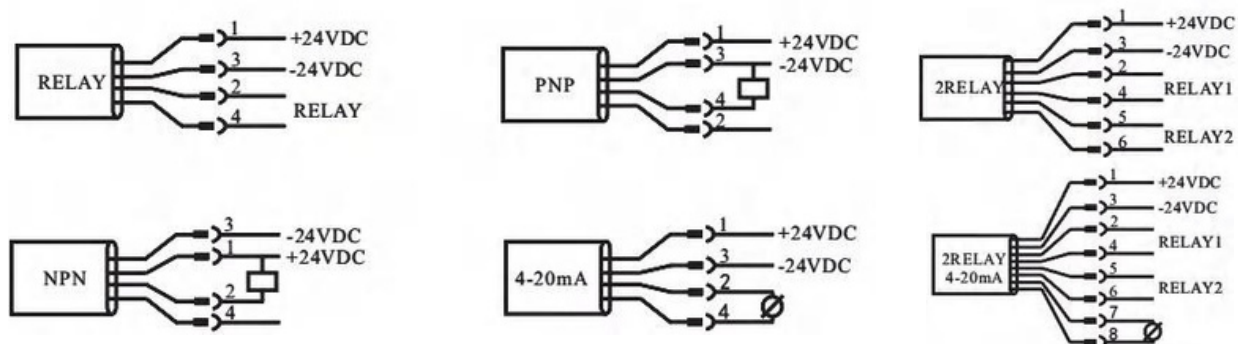
- ◆ LED indicates flow rate
- ◆ No moving parts, no maintenance required
- ◆ Multiple sensor probe lengths are available for selection
- ◆ One model is applicable to multiple pipe diameter requirements.
- ◆ Continuous adjustable switch quantity
- ◆ Almost no pressure loss overall
- ◆ IP67 protection grade



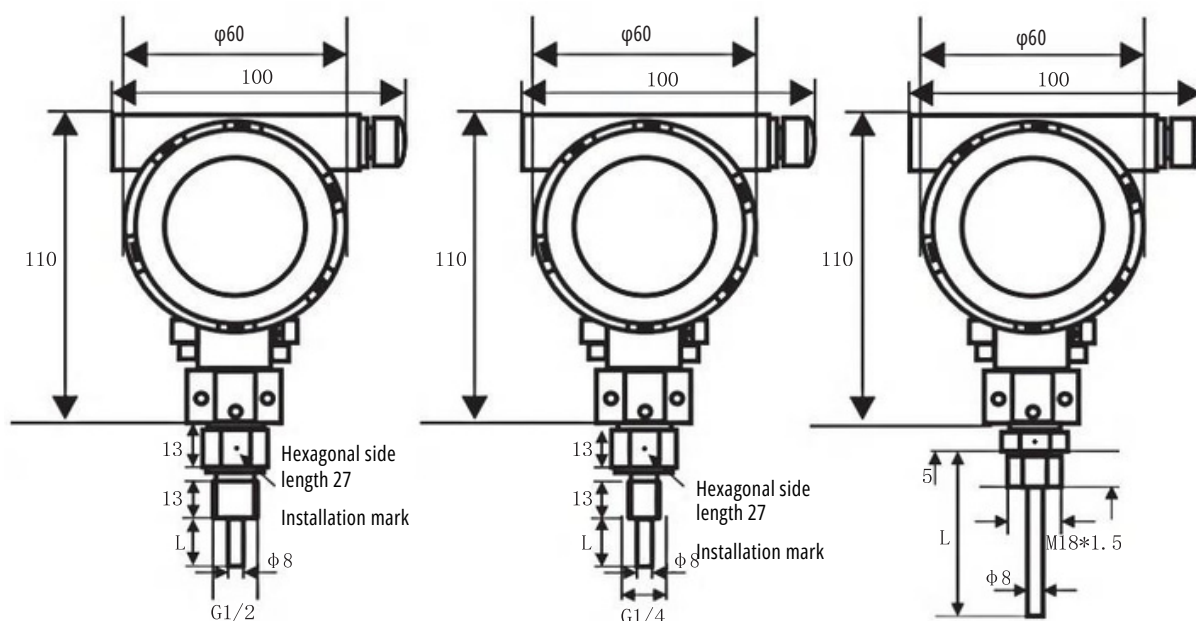
Technical Specification

Measuring medium range	Water: 3~300cm/s, Gas: 200~3000cm/s, Oil: 3~300cm/s
Switch accuracy	+1~±10cm/s
Warm-up time	3 minutes after power on
Working pressure	<100bar
Medium temperature	-20°C~80°C
Process connector	G1/2, G1/4 AND M18 INTERNAL THREAD CONNECTIONS
Output signal	PN P/ NP N/ RE LA Y/ 4- 20mA
Power supply	24VDC、85~265VAC、120~370VDC
Sensor length	15mm、20mm、30mm、40mm、60mm (可custom made)
Setting method / Display	Button setting/seven-segment LED digital display
Response Time	2 (2...10) s
Load	Current: 250MA, Relay: 30VDC/5A, 220VAC/5A
Maximum change rate of medium temperature	300k/mim
Output protection	Reverse / Overload / Short Circuit
Protection level	IP67
Wiring method	M12 CONNECTOR
Material	Probe: ANSI316L, Body: ANSI316L

Product Wiring Diagram



Switch Dimensions



Product Selection Table

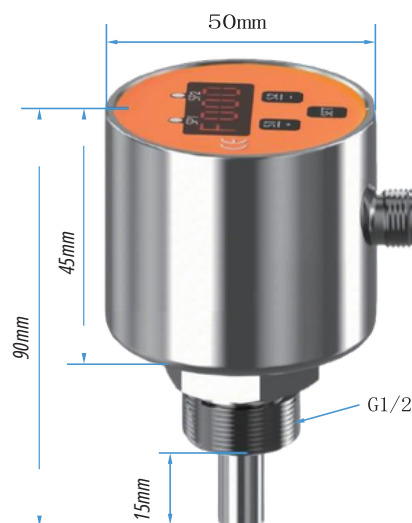
Model	ISEN-SP200-05			15	15mm	50	50mm
Process interface	G1	G1/2 EXTERNAL THREAD	Sensor length	20	20mm	60	60mm
	G2	G1/4 EXTERNAL THREAD		30	30mm	Y	Custom made
	M	M18*1.5 INTERNAL THREAD		P	PNP OUTPUT		
	Y	Custom made	Output signal	N	NPN OUTPUT		
Powered by	D	24VDC power supply		A	4-20mA output		
	A	220VAC power supply		D	1/2/3/4 relay outputs		

Flow Switch 06

Product Features

The hardware of the instruments and meters all adopt precise electronic components widely used in high-tech fields such as aviation, automobiles, and military industries. With patented integrated circuit designs that have strong anti-interference capabilities and reliable stability, along with a user-friendly software system with rich instrument interfaces, the detection signals become more accurate and stable. Currently, the company's products have been widely applied in industries such as metallurgy, power, pharmaceuticals, chemicals, petroleum, water treatment, and food.

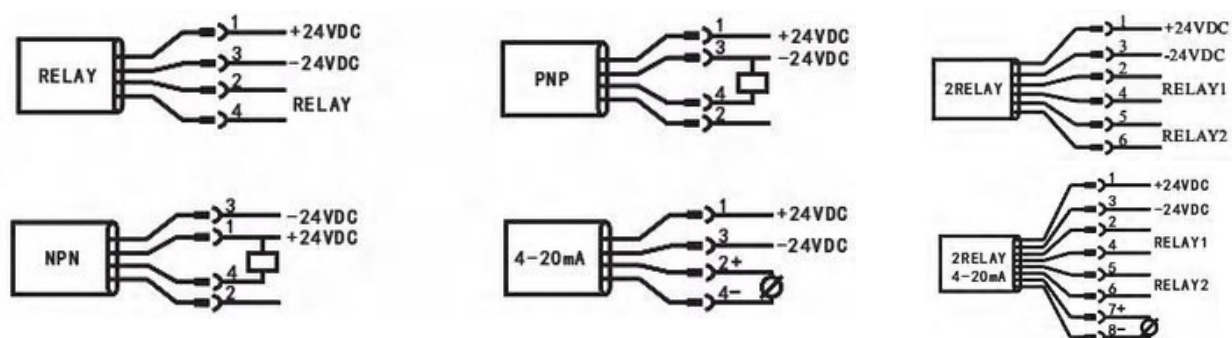
- ◆Digital display of the percentage of data usage
- ◆Microcomputer control, capable of using both air waves and electromagnetic waves
- ◆Easy to operate and high sensitivity
- ◆The percentage corresponding to the current traffic can be set at any time.
- ◆No moving parts, no maintenance required
- ◆Reversing the polarity of the power supply can achieve...
Two different working states Continuous adjustable switch quantity
- ◆Continuous adjustable switch quantity
Almost no pressure loss



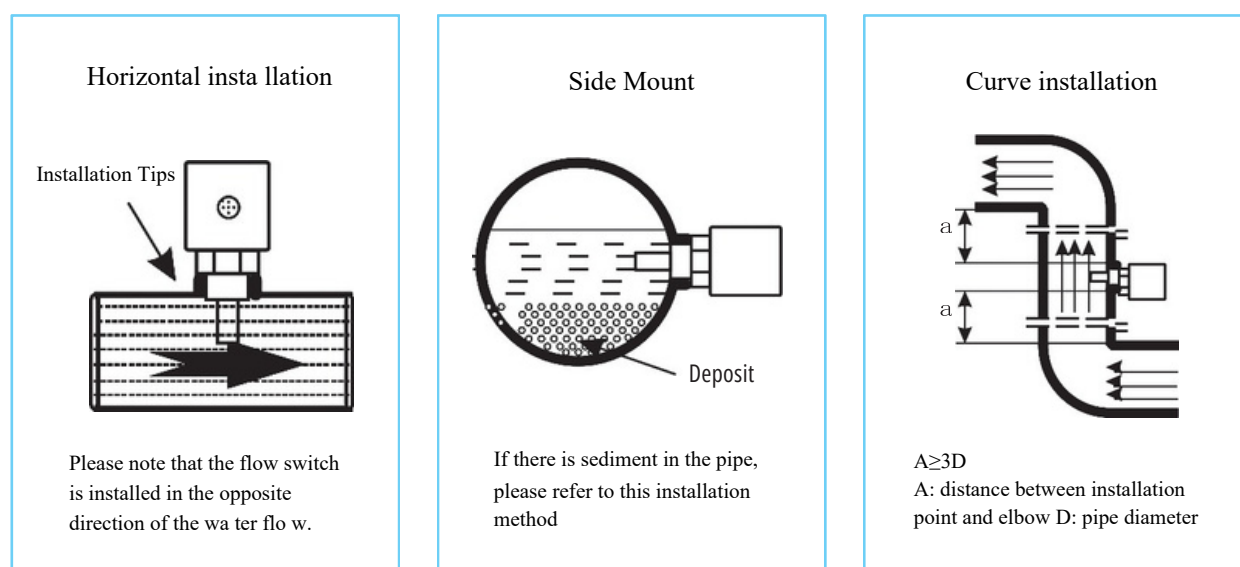
Technical Specification

Measuring medium range	Water: 3~300cm/s, Gas: 200~3000cm/s, Oil: 3~300cm/s
Switch accuracy	±1~ ±1.0cm/s
Warm-up time	3 minutes after power on
Working pressure	<100 bar
Medium temperature	-20°C~80°C
Process connector	G1/2, G1/4 AND M18 INTERNAL THREAD CONNECTIONS
Output signal	PNP / NPN / RELAY / 4-20mA
Power supply	24VDC、85~265VAC、120~370VDC
Sensor length	15mm、20mm、30mm、40mm、60mm (可custom made)
Setting method / Display	Button setting / seven-segment LED digital display
Response Time	2 (2...10) s
Load	Current: 250MA, Relay: 30VDC/5A, 220VAC/5A
Maximum change rate of medium temperature	300k/min
Output protection	Reverse / Overload / Short Circuit
Protection level	IP67
Wiring method	M12 CONNECTOR
Material	Probe: ANSI316L, Body: ANSI316L

Product Wiring Diagram



Installation Diagram



Product Selection Table

Model	ISEN-SP200-06		Sensor length	15	15mm	50	50mm
Process interface	G1	G1/2 EXTERNAL THREAD		20	20mm	60	60mm
	G2	G1/4 EXTERNAL THREAD		30	30mm	Y	Custom made
	M	M18*1.5 INTERNAL THREAD	Output signal	P	PNP OUTPUT		
	Y	Custom made		N	NPN OUTPUT		
Powered by	D	24VDC power supply		A	4-20mA output		
	A	220VAC power supply		D	1/2/3/4 relay outputs		

Flow and temperature integrated switch 07

Product Features

The hardware of the instruments and meters all adopt precise electronic components widely used in high-tech fields such as aviation, automobiles and military industry. With patented integrated circuit designs that have strong anti-interference capabilities and are reliable and stable, along with a user-friendly software system with rich instrument interfaces, the detection signals become more accurate and stable. Currently, the products of the petroleum and water quality divisions have been widely applied in industries such as metal lurgy, power, pharmaceuticals, chemicals, physics, and food.

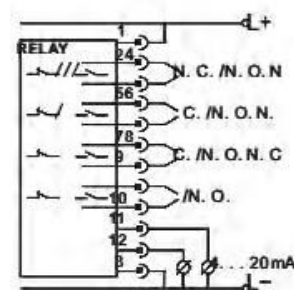
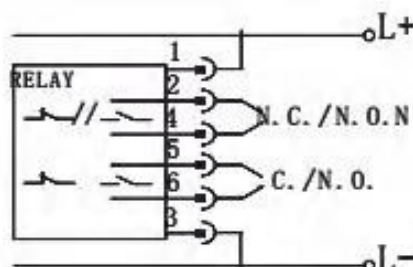
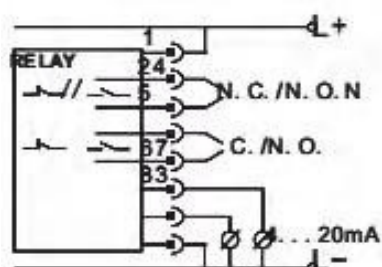
- ◆ Digital display shows the percentage of flow and temperature
- ◆ Microcomputer control, capable of both pneumatic and hydraulic operation
- ◆ Easy installation, simple operation, high sensitivity
- ◆ The overall size is compact and it features a highly reliable integrated circuit design.
- ◆ No moving parts, no maintenance required
- ◆ One model is applicable to multiple pipe diameter requirements.
- ◆ Continuous adjustable switch quantity
- ◆ Almost no pressure loss



Technical Specification

Measuring medium range	Water: 3~300cm/s, Gas: 200~3000cm/s, Oil: 3~300cm/s
Switch accuracy	±1~±10cm/s
Warm-up time	3 minutes after power on
Working pressure	<100bar
Medium temperature	-20°C~80°C
Process connector	G1/2、G1/4 EXTERNAL THREAD/可custom made
Output signal	PNP/NPN/RELAY/4-20mA
Power supply	24VDC、85~265VAC、120~370VDC
Sensor length	15mm、20mm、30 mm、40mm、60mm (可custom made)
Setting method	Button settings
Response Time	5 (2...5) s
Load	Current: 250mA, Relay: 30VDC/5A, 220VAC/5A
Maximum change rate of medium temperature	300k/min
Output protection	Reverse / Overload / Short Circuit
Protection level	IP67
Wiring method	M12 CONNECTOR
Material	Probe: ANSI316L

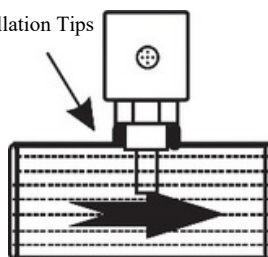
Product Wiring Diagram



Installation Diagram

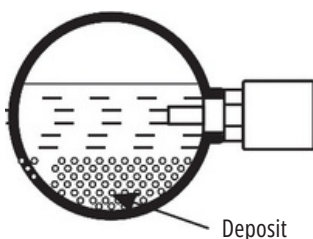
Horizontal installation

Installation Tips



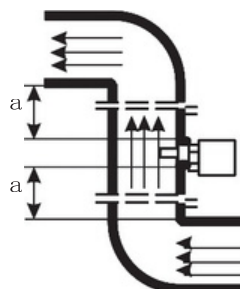
Please note that the flow switch is installed in the opposite direction of the water flow.

Side Mount



If there is sediment in the pipe, please refer to this installation method

Curve installation



$A \geq 3D$
A: distance between installation point and elbow D: pipe diameter

Product Selection Table

Model	ISEN-SP200-07		Sensor length	15	15mm	50	50mm
Process interface	G1	G1/2 EXTERNAL THREAD		20	20mm	60	60mm
	G2	G1/4 EXTERNAL THREAD		30	30mm	Y	Custom made
	M	M18*1.5 INTERNAL THREAD	Output signal	P	PNP OUTPUT	N	NPN OUTPUT
	Y	Custom made		A	4-20mA output		
Powered by	D	24VDC power supply		D	1/2/3/4 relay outputs		
	A	220VAC power supply		W	Display no output		