

## Level

Level monitoring is very important in the water treatment industry. Water purification / sewage, sink or dosing tanks need immediate level control and monitoring and measurement before and after the process so you can get the best control of the system. From urban waste water, drinking water to industrial water needs the water treatment to get better. Quality.

FineTek provides various types of liquid level detection sensors, diverse wetted material, from a single chemical substance to a large number. The appropriate analysis for all liquids is required.



### Cable float level switch

Apply to the natural water, wastewater, unknown liquids and well reservoirs. Contact capacity up to 10A/250Vac. You can also do multi-level control. Float material available with plastic and stainless steel. Micro switch, Proximity Switch, Reed Switch and Mercury Switch available. Simple installation and durable.



### Magnetic float level switch

Usually applied to the dosing process of pharmaceuticals, tanks and almost any other liquid applications. Product material: (PVC, PP, PVDF, NBR, SUS3 04/316). Float lightest adaptive specific gravity: 0.45 (relative to water). Length Fully customized according to customer needs (up to 6 meters). Custom-made multi-point control, easy installation, reliable performance housing available in anti-corrosive Max. Operating temperature: 200°C for stainless steel.



### Magnetic float level transmitter

Usually used for small and medium-sized manufacturing process tanks and in continuous level monitoring with a variety of wetted material. Product Resolution: 6.35mm, with low power consumption. Source signal technology. Length completely customizable for a maximum Up to 6 meters. Output available with loop power and 3 wire resistance.



### Pressure level transmitter

Applied to the waste water, clean water, high quality liquid and weak acid-base liquids designed for complete submersibility. Unique cable seal system ensures water tight integrity. Pressure range: 0.1~400 Bar Accuracy: 0.3%FS, 0.5%FS Output: 4~20mA or 0~10Vdc IP65 protection



### EA Ultrasonic level gauge

Commonly used in pumping stations and many parts of the water treatment process. Non-contact operation ensures readings will not be affected by material character (such as pressure, viscosity, density). Liquid measuring range max. 50M, short range 5M available. Solid measuring range max. 35M, level, distance, flow volume display, function selectable.



### By-pass level transmitter

Used in containers, impurities liquid tank, for both clean and impure liquids. Visible level indication. Safer than glass type of level gauges. Smart volume allows easy installation. Magnetic switches can be installed and adjusted to control low level and high level alarms. level transducer can be installed to convert level into 4-20mA analogue signal.



### JFR Radar level gauge

Using FMCW continuous FM wave technology, greatly improving measurement accuracy. Non-contact measurement with LCD display, user friendly calibration available for High pressure, high temp. High viscosity fluid, measuring range 0.5m~40m.



## Flow

There is a continuous significant reduction in the resources of the world with a need for energy saving without delay. From industrial, commercial, home daily consumption of the earth's limited energy rises. In order to make effective resource being used to reduce unnecessary waste, we provide all kinds of flow measurement instruments, equipment for process control and factory automation. Products are high precision, with ease of installation, long maintenance cycle and low cost. Complete flow tests in the laboratory for every Flowmeter before release.



### SP Thermal flow switch

Commonly used in liquid and oils. Simple to use, with more higher sensitivity. Easy to install with no moving parts and thus no wear of the mechanical structure. Applicable to acid-base solutions.



### EPD Electromagnetic flowmeter

Common to all applications. Liquid, can also be measured if containing particles. A liquid mixture of granules for most temperatures, pressure, density and viscosity does not affect operation. Product accuracy of up to 0.3%, with optional lining material, optional diameter range from DN15~3000.



### EPM Mass flowmeter

Commonly used in liquid natural gas flow measurement, can be directly measured. The mass flow rate of the flow, density, viscosity, temperature, etc., is precise up to 0.2%, range DN 8~250.



### SF Paddle flow switch

Commonly used in liquids and clean fluids mass flow detection, using simple operating principles. Easy to install with low price. Appropriate and applicable diameter DN 25~80.



## Temperature

The temperature measurement is the most frequently in the industrial control monitoring was the physical quantity, either in the pipe or sink. Temperature measurement process needs, but also about plant safety in recent years due to the development of digital temperature. The degree of monitoring can easily through signal transmission. The information has come to take the scene of control can be more plus instant.

FineTek provide a wide range of temperature sensing elements and accurate temperature transmitters, more support in accordance with the EU zone most commonly used HART protocol.



### GP Platinum resistive temperature sensing rod

Applicable to a wide range of temperature, direct temperature Measurement, good linearity, type Change, can be customized, and an accuracy of 0.3°C.



### GK Thermocouple temperature sensing rod

Suitable for high temperature and harsh Environment, installation, use simple Convenience, accuracy up to 0.75%



### TR 120 Temperature transmitter

The universal temperature measurement, measurable TC, RTD, VOLTAGE, output 2-wire loop output, accurate The degree of 0.5°C, support HART7.0 protocol.



### TR 140 Temperature transmitter

The universal temperature measurement, measurable TC, RTD, VOLTAGE, output for 2-wire loop output, supports 2-channel temperature input and output Out accuracy of 0.5°C, support HART7.0 protocol.



## Panel Meter

FineTek the panel control meter, by years of field application experience, level transmitter for optimized design, the functions to meet the needs of a large part of the IPC. When a condition does not require the complex control systems (such as PLC, DCS) This product is generally able to reach the on-site control purposes.



### PB Microcomputer digital display light bar controller

General-purpose input signal, support the field instruments used 4-20mA News the number, and other voltage voltage and current signals. Shows the percentage of volume or weight, additional nonlinear tanks 20 points calibration function, and tray table 101 segment light bar indicated workCan, so that field staff can be more clearKnow the level. Supports dual-channel signal input Input and output. The output signal of majority support following the electrical alarm output transfer function of analog signals. Straightforward operation interface So had complicated set change more easily.



### PI Digital display meter

Economic simple 4-digit display tray table with 20mm LED display and anti-jamming design, reliable quality,the installation operation is simple. Indicating instrument used 4-20mA signal, commonly used in water treatment of industrial liquid level display. Also provided 24Vdc excitation power supply for field instruments to Use + operator! The instrument itself the power to 110/220Vac.



### PM Microcomputer digital display controller

General-purpose input signal, support the field instruments used 4-20mA News The number, and other voltage and current signals. Shows the percentage of volume or weight, additional nonlinear tanks 20 points calibration function. Supports dual-channel signal input and output. Part of the output signal of support relay alarm output, and analog signals Re-transmission function. A simple user interface, so that the original complex settings becomes easier.



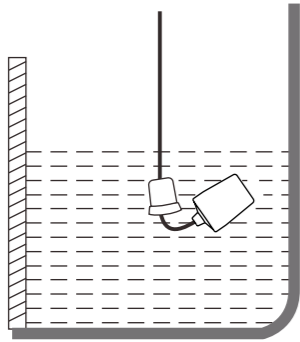
## FA / FB Cable float level switch

### OPERATING PRINCIPLE

Cable float switch is a simple structure, easy to use, and safety. Wholly reliable liquid level detection tool, which uses micro-switches, magnetic reed switch or mercury switch do contact.

To hammer rise and fall with the water level as the center angle changes when the horizontal plane and the rise or hem angle exceeds the angle, steel beads or mercury will move up and down as the angle output ON or OFF contact signal to reach the level detection function.

The float housing demand different plastic and stainless steel for selection, applicable to a variety of high and low temperature wastewater environment.



### FEATURES

- Suitable for long-distance, multi-level control, Shen pumps or containing particulate / liquid control of the bulk impurities.
- Has the best environmental tolerance, easy to replace, and cheap.



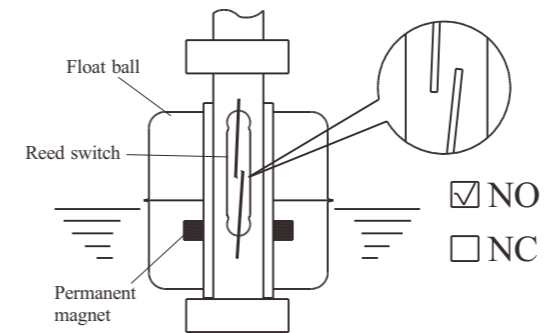
### SPECIFICATIONS

Float material	PVC / PP / SUS304
Operating temp	60°C / 70°C / 170°C(Optional)
Contact form	SPST-NO / SPST-NC / SPDT
Contact capacity	10A/250Vac or 15A/250Vac
Actuation angle	28°±2°
Pressure	2kg/cm <sup>2</sup>
Wire voltage	600vac
Isolation resistance	>100MΩ

## FC / FD Magnetic float level switch

### OPERATING PRINCIPLE

In a sealed metal or plastic tube, set point or points, Magnetic reed switch, and then the tube through one or more of the hollow equipped with a ring magnet inside the float, and the use of a fixed ring control the float and the reed switch in the relevant position, so that the float in the fluctuate within a certain range.



### FEATURES

- The position of the control switch is customized by the user. Contact life of up to one million times.
- Protection class IP65 junction box above.
- The wetted materials are PVDF, PP; SUS304 and SUS316, suitable for all kinds of liquid.
- The maximum operating temperature of 200°C
- Maximum operating pressure of 50 Bar.

### SPECIFICATIONS

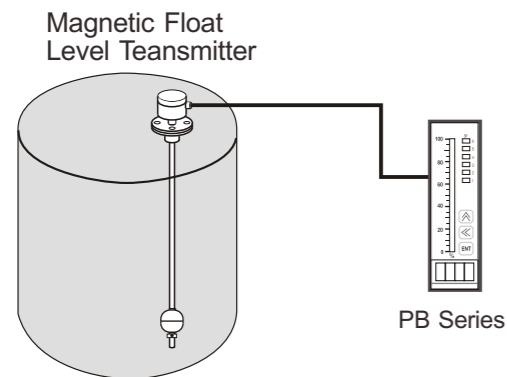
Float material	PVDF / PP / NBR / SUS304 / SUS316
Operating temp	<200°C
Contact form	SPST-NO / SPST-NC / SPDT
Contact capacity	10W / 20W / 50W / 60W
Linearity	>0.5 of water
Pressure	50bar(max.)
Degree of protection	IP65
Degree of protection	ATEX 2G Ex d IIB T6~T3 Gb(Optional)



## FG Magnetic float level transmitter

### OPERATING PRINCIPLE

Float continuous level transmitter use float within the magnet with the level change to change the resistance within the rod with the magnetic reed switch, consisting of voltage dividing circuit, the gap of the magnetic reed switch is smaller, accuracy becomes higher. Pressure signal may pass through the converter into a 4-20mA or other with standard signal. The indicator can be used with other tables head for long-distance Indicates, is a simple principle, the level indicating excellent reliability devices.



### FEATURES

- Variety of wetted materials can be selected.
- Variety float specifications, can also be applied to a variety of different specific gravity of the liquid. A special reed packaging process, has a better environmental tolerance. Applied to the ultra-small density level.
- Applicable to the environment of the tank, having a pressure. Can be used in high-temperature liquid.
- Accuracy independent of temperature, pressure, and changes in the measured object.



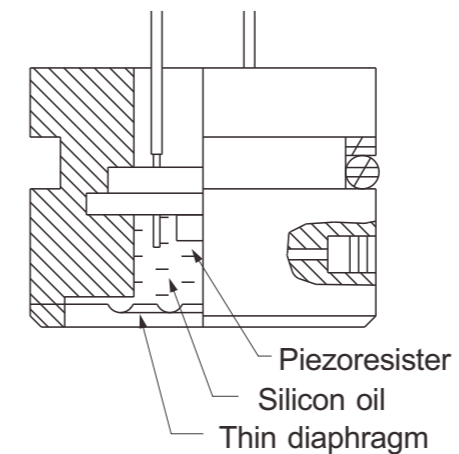
### SPECIFICATIONS

Wetted material	PVDF / PP / SUS304 / SUS316
Operating temp	<200°C
Supply voltage	Loop Power 12~36 Vdc
Linearity	>0.45 of water
Pressure	30Bar(Max.)
Degree of protection	IP65
Explosion-proof	ATEX 2G Ex d IIB T6~T3 Gb (Optional)

## EC Pressure level transmitter

### OPERATING PRINCIPLE

The pressure transmitter is constituted by a piezoelectric semiconductor wafer bridge. Diaphragm type pressure exerted on the diaphragm by the silicone oil and then spread to the semiconductor electric bridge (below) voltage is generated at both ends so that the bridge unbalance, this does not the equilibrium potential signal via the amplifier and then transferred into 4-20mA current signal, this signal 4-20mA indicator series to show the actual level.



### FEATURES

- Can be used sticky weak acid, scale-containing impurities in liquid, and gas tongcao within.
- Stainless steel diaphragm, a weak acid can be used in liquid)Maximum use temperatures up to 150°C.
- Blind from the sensorless.
- Linearity error ( $\pm 0.3\%$  FS)
- The loop power signal circuits, wiring convenience Built-in temperature compensation, long signal stability.



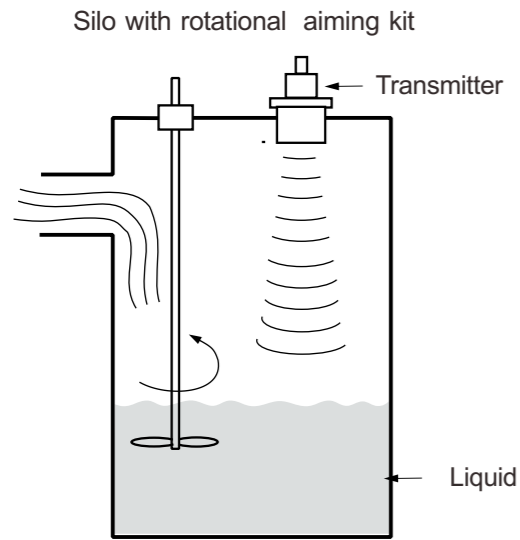
### SPECIFICATIONS

Wetted material	Probe : SUS304 / SUS316 Wire : PVC / FEP
Operating temp	-10°C ~ 80°C / High temperature type:150°C
Supply voltage	Loop Power 13~36 Vdc
Linearity	$\pm 0.3\%$ of F.S.
Pressure	0.1 ~ 10 Bar
Degree of protection	IP65

## EA Ultrasonic level transmitter

### OPERATING PRINCIPLE

During in operation, the ultrasonic wave firstly emit to the measured medium level. When the ultrasonic wave reaches the surface and reflects back to the transducer, the time interval between transmission and reception will be converted to the physical parameter like the medium level or distance between the ultrasonic level indicator and medium surface. The formula is  $D = (334.1 + 0.6t) \times T/2$ , where the  $D$  = the transmission distance;  $t$  = temperature; and  $T$  = transmission time.



### FEATURES

- 4~20mA 2 wire output
- 13~30Vdc power supply
- IP67 protection casing
- Compact structure
- Detector material: PVDF
- False echo detection
- Standard 2" pipe connection
- Non-contact measurement, easy installation
- Fully isolated analog output
- With internal temperature compensation
- Not affected by liquid characters such as temperature, S.G, viscosity.



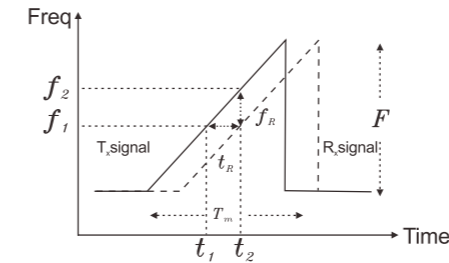
### SPECIFICATIONS

Sensor material	SUS304 / SUS316
Operating temp.	-40°C ~ 90°C
Supply voltage	110 / 230 Vac 50/60Hz / 12~30Vdc
Accuracy	±0.25% / ±1% of F.S.
Measuring range	10M ~ 50M
Degree of protection	IP68
Communication	HART

## JFR Radar liquid level transmitter

### OPERATING PRINCIPLE

FMCW radar (JFR): frequency modulated continuous wave, use high-frequency(The GHz level) scan mode, the electromagnetic wave is emitted via an antenna period of time to the measured object, reflected back to the receiving end. When the transmitted wave reflected back through the measured object, and then received via the antenna, the transmitting wave with reception wave will generate a frequency difference by using a frequency difference may be further step calculate the distance from the radiator to the analyte. Thus the application by the conversion may be measured material capacity.



Design formula

$$Slop = \frac{F}{T_m} = \frac{f_R}{t_R} = \frac{f_R}{\frac{2R}{c}} \quad t_R = \frac{2R}{c}$$

$$R = \frac{F \times c \times T_m}{2F}$$

### FEATURES

- Measurable corrosive and toxic liquids, hydrocarbons, and mud.
- Not material specific gravity, temperature, viscosity, foam, dust change Action.
- Echo graphical display, show tank within the signal waveform. Can be excluded from the barrel fixed obstacles.
- Distance, level, the percentage of current 4-20mA. The isolated circuit architecture interference ability
- The CE grade of anti-jamming capability (EFT 2000V, Bclass above).



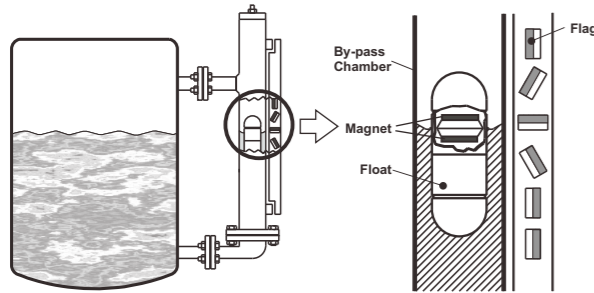
### SPECIFICATIONS

Sensor material	SUS304/316/PTFE
Operating temp.	-20 ~ 150°C / 200°C
Ambient temp.	-20~70°C
Supply voltage	24 ± 10% Vdc
Accuracy	5mm / 10mm / 20mm
Measuring range	10M ~ 30M
Dielectric coefficient	>2.5
Degree of protection	IP65
Communication	ModBus @RS-485

## By-pass level transmitter

### OPERATING PRINCIPLE

Fine-Tek's By-pass indicator utilizes hydrostatic principle to show the liquid level in the tank. A float with a magnet inside rises and drops according to the liquid level change. Magnetic flags will flip as float passes through to indicate liquid level based on magnetic attraction method.



### FEATURES

- Applicable in environment with high temp., high pressure, strong acid, strong alkaline and hazardous locations. The structure is simple but durable and reliable. It is also available with various options for upgrade.
- A level transducer or magnetic switch can be installed and adjusted during operation. It is not operated by electricity thus it will not be affected by power failure.
- Add different color of hag per 10cm that can he recognized easily.
- Multiple applications for textile dyeing, sewage water processing, power generating, boiler and petrochemical industries.



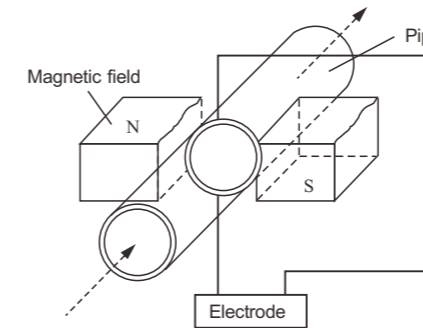
### SPECIFICATIONS

Wetted material	PVDF / PP / SUS304 / SUS316
Accuracy of flag	50mm
Operation temp.	<400°C depend on wetted material
Supply voltage	None
Float S.G.	>0.55 of water
Pressure	110 Kg/cm <sup>2</sup> (max.)
Degree of protection	ATEX 2G Ex d IIB T6~T3 Gb (Optional)
Switch	Contact form: SPST, SPDT contact capacity: 1A/30W /200VDC/240VAC
Transmitter	Resolution : 12.7mm /6.35mm /0.1mm Output 4-20mA / 3-wire resistance output

## EPD Electromagnetic flowmeter

### OPERATING PRINCIPLE

Electromagnetic flowmeter measurement principle based on Faraday's law of electromagnetic induction, The conductive liquid stream in a magnetic field lies perpendicularly to the direction of the magnetic lines of force when liquid is flowing and crossing the magnetic lines, voltage is generated through this induction.



### FEATURES

- Used for measurement of liquid density, viscosity, pressure, conductivity and the effect of other changes.
- Can measure the liquid with particles and suspended matter.
- Protection class up to IP68.
- Lining materials have a variety of options.
- Functions in a extreme PH environments.



### SPECIFICATIONS

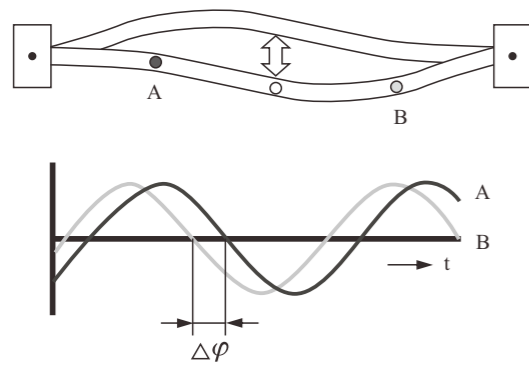
Accuracy	± 1.0%, ± 0.5%, ± 0.3%
The fluid temperature	80°C (NBR) 120°C (PTFE)
Ambient temperature	-10°C~50°C
Degree of protection	Integrated IP65 Submersion IP68
Electrode material	Hastelloy, titanium tantalum
Lining material	PTFE,NBR
Measuring tube	stainless steel
Output	4-20mA, 1-5000Hz
Communication interface	RS-485
Power	24Vdc 110/220Vac @50/60Hz



## EPM Mass flowmeter

### OPERATING PRINCIPLE

The sensor is a measuring chamber with inlet and outlet flanges for mounting on a pipeline. Inside the measuring chamber there are two parallel U-shaped flow tubes, which vibrate by means of an electromagnetic coil and a magnet. Liquid flowing into the tube creates resistance to its upward movement and downward pressure on the tube. Absorbing vertical momentum by driving around the tube's bend, the liquid, flowing out of the pipe, pushes the tube up. This makes the tube twist. When the tube is moving down in the second half of the oscillation cycle, it twists in the opposite direction. This twisting is called coriolis effect and allows the mass flow values to be calculated.

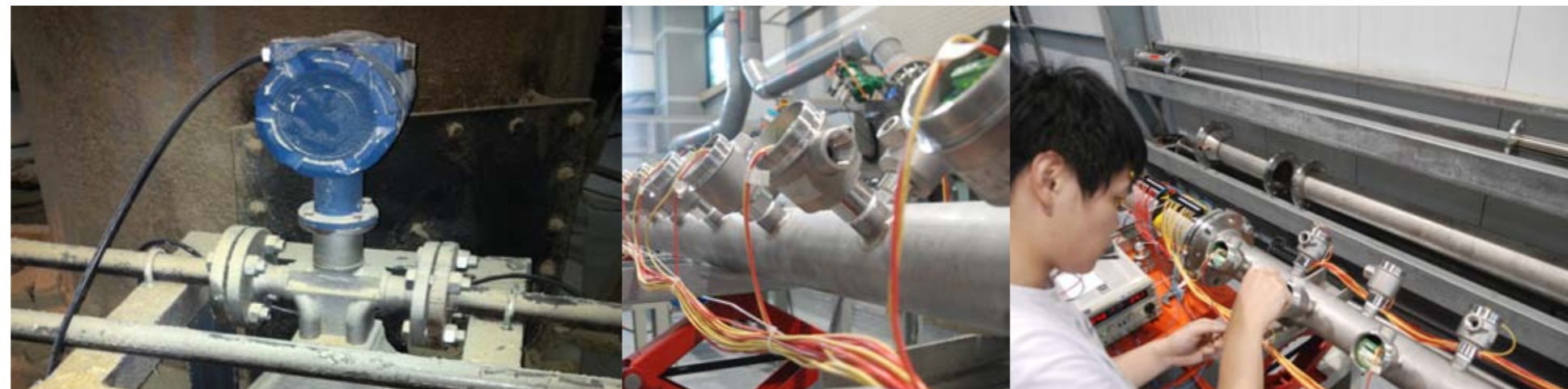


### SPECIFICATIONS

Accuracy	± 0.2%, ± 0.5%
Ambient temperature	-25°C~55°C
Density measuring	0.2~2.0 g/cm <sup>3</sup>
Temperature measuring	-50°C~125°C
Degree of protection	IP65
Flange material	carbon steel stainless steel
Output	4-20mA/0-10mA 1-10KHz
Communication interface	RS-485
Power	24Vdc 110/220Vac@50/60Hz

### FEATURES

- Direct mass measuring.
- High accuracy .
- Digital signal processing.
- Straight upstream / downstream piping not required .
- High viscosity liquids measuring.



## SP Thermal flow switch

### OPERATING PRINCIPLE

Thermal dispersion flow switches measure the velocity of a liquid inside a pipe or channel. The switch's probe contains two key components a heating sensor and temperature sensor. The heating sensor is positioned closest to the flowing liquid and provides a consistent heat. The temperature sensor measures the temperature emitted from the heating sensor. When liquid is flowing, there is a temperature difference between the two sensors. The temperature difference has an inverse relationship with the flow velocity.

### SPECIFICATIONS

Flow rate range	Water: 1 to 150 cm / s oil: 3 to 300 cm / s
Warm-up time	15 seconds
Operating temperature	-25°C ~ 80°C (fluid temperature)
Pressure	100 bar max
Degree of protection	IP67
Operating power	19 ~ 30Vdc
Contact	NPN / PNP 400mA max) Output signal Relay: 1A/30Vdc, 0.3A/125Vac(NO or NC) 5A/250Vac (SPDT).

### FEATURES

- Measurement with high sensitivity, good stability. Small size and mounting position is unrestricted.
- No moving mechanical structure is easy to wear. Can be measured to a liquid containing impurities.
- Measured for different pH's for liquid environments.

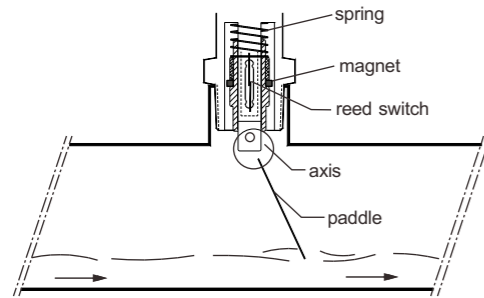




## SF Paddle flow switch

### OPERATING PRINCIPLE

Paddle-type flow switch works when the flow of water forces the blade to close the switch. When the liquid in the pipe flows, the paddle and spring push the blade up actuating the switch. When the flow stops and the paddle hangs perpendicularly, the switch is opened.



Switch on in case of liquid flowing in pipes

### FEATURES

- Simple structure, easy to install, without adjustment.
- Long life, cheap.
- Maximum pressure up to 25kg/cm<sup>2</sup>.



### SPECIFICATIONS

Repetitive error	5%
Operating temperature	-30°C~150°C
Degree of protection	IP65
Contact capacity	60W/220Vac,200Vdc
Contact form	SPDT

### FLOW CONTROL RANGE TABLE

Paddle Length	Pipe spec.		1"		1-1/2"		2"		2-1/2"		3"	
	Flow Volume Gallon / Min.		Act.	De-Act.	Act.	De-Act.	Act.	De-Act.	Act.	De-Act.	Act.	De-Act.
1"			4.7	3.9	10.9	8.3	19.9	16.1				
1-1/4"					7.7	6.1	16.5	12.3	31.3	22.8		
1-1/2"					5.7	4.5	13.4	9.5	25.2	18.5		
2"							8.4	6.3	15.1	12.8	29.7	21.9
2-1/2"									13.9	10	20.4	15.4
3"											17.1	12.8

※1 Gallon=3.7854 Litter

## TR120 Temperature transmitter

### OPERATING PRINCIPLE

Department of the bridge accurately detect the input signal through the isolation type signal amplifier and impedance converter to get a stable input signal. High-speed low-power microprocessor linear curve conversion provide high accuracy analog output via isolated D/A converter signal.

### FEATURES

- Double-isolated design, a wide range of applications, there is a good anti-jamming capacity.
- Temperature accuracy of up to 0.5°C.
- Minimum loop power only 12V
- Load capacity of up to 1kΩ.
- HART 7.0 latest version certification.

### SPECIFICATIONS

Supply voltage	12~32 Vdc(Loop Power)
Input voltage	0~500mV, 0~1V, 0~5V, 0~10V, 0~20V
Input current	0~20 mA, 4~20 mA
Input T/C	K/ J/ T/ E/ R/ S/ B/ N
Input resistance	PT100, 0~400Ω
Output	4~20 mA
Accuracy	18 bits
Operation temp.	-20~60°C
Communication	HART
Isolation	1500Vac
Warm-up	<10min



Input Type	Range	Min. Span	Accuracy*	Temperature coefficient (% / °C)
<b>Voltage</b>	-10~100mV	2mV	≤±0.01mV	≤±0.005%
<b>B</b>	250~1820°C	100°C	≤±5.5°C	≤±0.04%
<b>E</b>	-200~1000°C	50°C	≤±2°C	≤±0.01%
<b>J</b>	-210~1200°C	50°C	≤±2°C	≤±0.01%
<b>K</b>	-200~1370°C	50°C	≤±2°C	≤±0.01%
<b>N</b>	-200~1300°C	50°C	≤±2°C	≤±0.01%
<b>R</b>	-50~1760°C	100°C	≤±3°C	≤±0.04%
<b>S</b>	-50~1760°C	100°C	≤±3°C	≤±0.04%
<b>T</b>	-200~400°C	40°C	≤±2°C	≤±0.01%
<b>Resistance</b>	0~400Ω	5Ω	≤±0.04Ω	≤±0.005%
<b>PT100</b>	-200~850°C	10°C	≤±0.5°C	≤±0.005%

Cold junction compensation : ≤±1°C

## TR140 Temperature transmitter

### OPERATING PRINCIPLE

The Din-Rail dual channel transmitter used department of the bridge accurately detect the input signal through the isolation type signal amplifier and impedance converter to get a stable input signal. High-speed low-power microprocessor linear curve conversion provide high accuracy analog output via isolated D/A converter signal.

### FEATURES

- Double-isolated design, a wide range of applications, there is a good anti-jamming capacity.
- Temperature accuracy of up to 0.5°C.
- Minimum loop power only 12V.
- Independent dual-channel design.
- Load capacity of up to 1kΩ.
- HART 7.0 latest version certification.

### SPECIFICATIONS

Supply voltage	12~32 Vdc(Loop Power)
Input voltage	0~500mV, 0~1V, 0~5V, 0~10V, 0~20V
Input current	0~20 mA, 4~20 mA
Input T/C	K/ J/ T/ E/ R/ S/ B/ N
Input resistance	PT100, 0~400Ω
Output	4-20 mA
Accuracy	18 bits
Operation temp.	-20~60°C
Communication	HART
Isolation	1500Vac
Warm-up	<10min



Input Type	Range	Min. Span	Accuracy*	Temperature coefficient (% / °C)
Voltage	-10~100mV	2mV	≤±0.01mV	≤±0.005%
B	250~1820°C	100°C	≤±5.5°C	≤±0.04%
E	-200~1000°C	50°C	≤±2°C	≤±0.01%
J	-210~1200°C	50°C	≤±2°C	≤±0.01%
K	-200~1370°C	50°C	≤±2°C	≤±0.01%
N	-200~1300°C	50°C	≤±2°C	≤±0.01%
R	-50~1760°C	100°C	≤±3°C	≤±0.04%
S	-50~1760°C	100°C	≤±3°C	≤±0.04%
T	-200~400°C	40°C	≤±2°C	≤±0.01%
Resistance	0~400Ω	5Ω	≤±0.04Ω	≤±0.005%
PT100	-200~850°C	10°C	≤±0.5°C	≤±0.005%

Cold junction compensation : ≤±1°C

## TR160 Economic temperature transmitter

### OPERATING PRINCIPLE

Temperature transmitter series use a bridge, accurately detect the input signals, and then use the output of the amplifier and impedance converter to obtain a stable into the signal. High-speed low-power microprocessor linear curve conversion provide high accuracy analog output via isolated D / A converter signal.

### FEATURES

- Power supply 24Vdc, wire 4-20mA output. Input signal: mV, V, mA, thermocouple, RTD or Ohm.
- Disconnection and alarm current output beyond the range of measurement.

### SPECIFICATIONS

Supply voltage	10~36 Vdc(Loop Power)
Input voltage	0~100mV
Input current	4~20 mA
Input T/C	K/ J/ T/ E/ R/ S/ B/ N
Input resistance	PT100, 0~400Ω
Output	4-20 mA /20-4mA
Operation temp.	-40~85°C
Communication	RS-485

Input Type	Unit	Accuracy*
Voltage	-10~100mV	≤±0.1mV
B	250~1820°C	≤±4°C
E	-200~1000°C	≤±3°C
J	-210~1200°C	≤±3°C
K	-200~1370°C	≤±3°C
N	-200~1300°C	≤±3°C
R	-50~1760°C	≤±3°C
S	-50~1760°C	≤±3°C
T	-200~400°C	≤±2°C
Resistance	0~400Ω	≤±0.4Ω
PT100	-200~850°C	≤±0.5°C



## GP/GK Thermocouple

### OPERATING PRINCIPLE

Two metal conductors of different materials, which produces electrical connections a closed loop at the weld end heated, the temperature difference, the loop this phenomenon is called "Seebeck-there will be a current flow, effect "

### FEATURES

- Measuring a wide temperature range, the maximum available to 1200°C. The response is fast, the error generated due to the time difference is very small. The temperature in the thermal electromotive force detection, the temperature measurement, regulating, transform signal processing is relatively easy.
- The thermocouple price is cheap compared to other temperature components. Platinum resistor (PT), high reproducibility.

### SPECIFICATIONS

Measuring range	0-1200°C
Accuracy	0.3%(PT), 0.75%
Degree of protection	IP65
Isolation resistance	>1000 MΩ
Wetted material	SUS304,SUS316,Ti,PTFE



## PB/PM Bargraphic display scaling meter

### OPERATING PRINCIPLE

A commonly used industrial A / D converter with high zero stability. To accurate detection of input signal, the second signal amplifier and resistance a stable anti-converter input signal through a high-speed microprocessors rely on precision signal operations, and output control the parameters of the system point links, and signals through the D / A converter, the values do re-transmission in order to achieve the control purpose.

### FEATURES

- Two sets of signals can also accept input, range from so With custom.
- Measurement commonly used industrial the instrument AC, DC signal.Up to do a 8:00 level control.
- Communication with PLC, supports RS-485 interface.The product complies with IEC60092-504 / IEC60947-2.

### SPECIFICATIONS

Supply voltage	85~265 Vac 20~250 Vac(Vdc) 18~36 Vdc
Input signal	0-20mA, 0-200mA, 0-5V, 0-10V, 0-20V, 0-200V
Sampling	4HZ
Display range	-1999~9999 / -19999~32767
Digit size	0.36"Red/Green (for Dual-channel)
Power consumption	9W / 12W
Panel degree of protection	IP54
Operation temp.	0~55°C
Communication interface	RS-485
Protocol	Modbus

