PRODUCTS GUIDE

Water treatment control instrument

www.fine-tek.com

Solid / Liquid Level Measurement for Field Application
Pneumatic Vibrator/Air Hammer
Temperature Controller/ Counter /Digital Panel Meter

Your BEST Partner

FineTek has accumulated 30 years of technology and has always focused on the field of industrial sensing measurement and research and development.Specialized R & D capabilities and stringent process management have resulted in us not only obtaining ISO9001 certification but also meeting a variety of the industry certification.

FineTek is committed to the development of the flow meter, and research. Approved by the National Industrial Technology Research Institute (ITRI) who provides annual checks.The products are widely applied to all kinds of fluids and liquid applications.

INTRODUCTION

Introduction water is two-thirds of the area, which covers the surface of the earth and isone of the necessary conditions for survival on Earth. 97% of the presence of water is in the ocean, only the remaining 3% of the freshwater 0.1% of the river and is closely related to human life,Lakes, soil and the atmosphere.
Can be used to purify any water treatment technology areas and water treatment the untimate goal is to make the water reach a cartain standard of cleanlinessLevel. Applications are for: Sedimentation, filtration, coagulation, flocculation, and corrosion, scale and other water conditioning processes. Social production and life water are closely related and so is water. Processing is involved in the field of a very wide range of applications, and thus constitutive and has become a huge industrial application.

APPLICATION PROCESS

- Water purification - water intake, sub-wells, coagulation tank dosing pool, rapid filter, pumping stations, storage tanks, etc.
- Sewage - desilting basin, aeration tank, mixing pools oxidation ponds, coagulation tank, storage tank

Level

Level monitoring is very important in the water treatment industry. Water purification / sewage, sinksor dosing tanks need imm-ediate 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, diversewetted 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 applic-ations. Product material: (PVC, PP, PVDF, NBR, SUS304/316). 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:200LC for s™ainless steel.

Magnetic float level transmitter

Usually used for small-and medium-sized manufacturing process tanks and in continuous level monitoring with avariety 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

Ultrasonic level transmitter

Used in the level monitoring of the tank, it belongs to non-contacting measurement, with long service life. The 2-wire output of the product is convenient to install, which can measure the level 18m away at maximum. The protection grade is IP67.

By-pass level transmitter

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

Radar level gauge

Using FMCW continuous FM wave technology, greatly imp-roving measurement accuracy non contact measurement with LCD display, user frien-dly calibration available for High pressure, high temp.
High viscosity fluid, measuring range 0.5m~35m.

Flow

There is a continuous significant reducti-onin the resources of the world'swith 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.

Thermal dispersion flow switch

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

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 DN15~500.

Doppler ultrasonic flowmeter

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.

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 asPLC, DCS) This product is generally able to reach the on-site control purposes.

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.

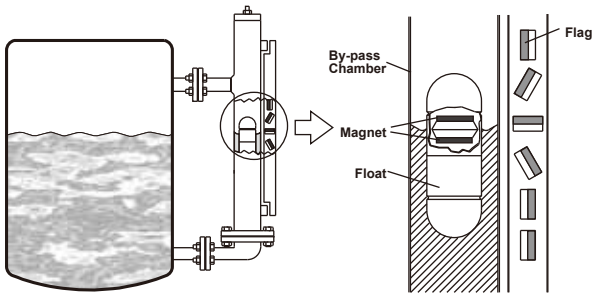
Microcomputer digital display controller

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 orig-inal complex settings becomes easier.

EFX 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

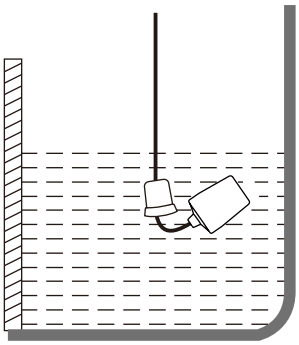
Wetted material	PVDF / PP / SUS304 / SUS316
Resolution	10mm
Operation temp.	<350°C depend on wetted material
Supply voltage	None
Float S.G.	>0.55 of water
Pressure	110 Kg/cm^2(max.)
Explosion-proof	ATEX 2G Ex d IIB T6~T3 Gb (Optional)
Switch	Contact form: SPST, SPDT contact capacity: 1A/30W /200VDC/240VAC
Transmitter	Resolution：12.7mm /6.35mm /0.1mm Output 4-20mA / 3-wire resistance output

※The specification is subject to the brochure.

FAB 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 / 125°C(Optional)
Contact form	SPST-NO / SPST-NC /SPDT
Contact capacity	10A/250Vac or 15A/250Vac
Actuation angle	28°±2°/10°±2°
Pressure	2kg/cm^2
Wire voltage	600vac
Isolation resistance	>100MΩ

※The specification is subject to the brochure.

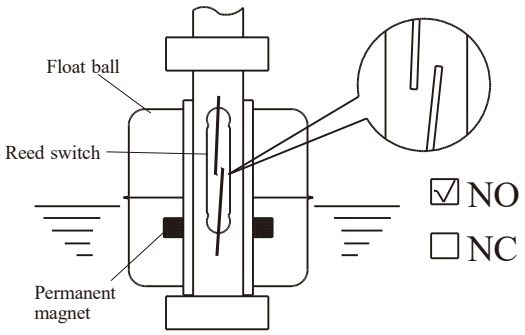
FDX Magnetic float level switch

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
Linearity	>0.5 of water
Pressure	50bar(max.)
Degree of protection	IP65
Degree of protection	ATEX 2G Ex d IIB T6~T3 Gb(Optional)

※The specification is subject to the brochure.

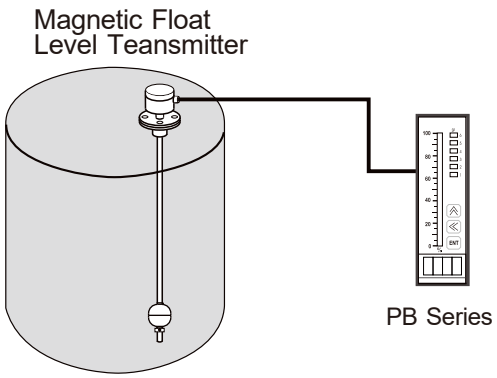
FGX Magnetic float level transmitter

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)

※The specification is subject to the brochure.

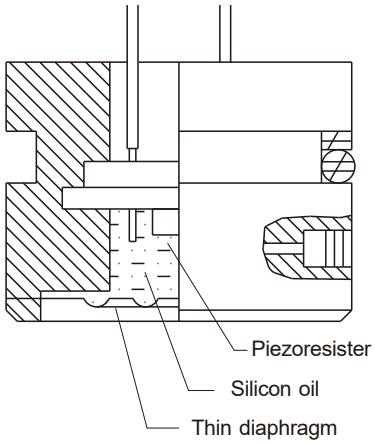
ECX Pressure level transmitter

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 150BC★
- Blind from the sensorless.
- Linearity error (A0★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	±0.3% of F.S.
Pressure	0.1 ~ 10 bar
Degree of protection	IP65

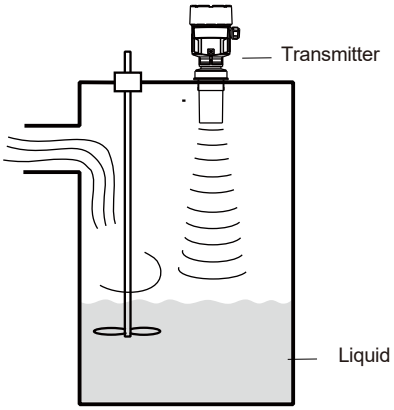
※The specification is subject to the brochure.

EAX4 Ultrasonic level transmitter

OPERATING PRINCIPLE

The ultrasonic level transmitter is a non-contact, low-cost and easy-to-install measuring device. It can be applied to most industrial applications for liquids. Most important aspect of is that it is easy-to-install and low maintenance due to no moving parts.

Silo with rotational aiming kit



FEATURES

- 4~20mA two-wire output.
- 24Vdc power supply.
- Casing protection IP67.
- With integrated structure.
- Probe material PVDF.
- False echo detection.
- 2”connection.
- Non-contact measurement. Easy installation.
- Fully isolated analog output.
- With temperature compensation feature, which can improve measurement accuracy.
- Beam angle: 5˚
- Not affected by liquid temperature, S.G, viscosity Maximum measurement range 8m (26 ft).

SPECIFICATIONS

Frequency	50KHz
Operating Voltage	24VDC
Communications	4~20mA
Blanking Distance	300mm
Maxi. Range	8m
Resolution	1mm
Accuracy	±0.25%(full scale)
Operating Temperature	-40~80˚C
Beam Angle	5˚
Max. Operating Pressure	<0.1MPa
Typical Weight	1.4kg

※The specification is subject to the brochure.

JFR485 FMCW Radar Wave level gauge

OPERATING PRINCIPLE

The JFR4 radar wave level meter is a smart, non-contact liquid level-measuring instrument that uses 80GHz high-frequency. The antenna is further enhanced for optimal processing. The new, fast microprocessor can perform signal analysis and processing at a faster rate, ideal for liquid storage tanks.

Provides RS-485 digital signals and emits 4~20mA analog signals, which can be easily connected to back-end extension applications.

The product is dustproof and waterproof, suitable for outdoor or industrial environments, and can be used for industrial measurement of liquid levels in barrels and tanks, and other environmental applications.

FEATURES

- Non-contact measurement, no wear and tear, and no pollution.
- Small antenna size, easy to install.
- The measurement blind spot is small, therefore particularly effective on the measurement of small storage tanks.
- The beam angle is small, the energy is concentrated, and the echo ability is enhanced, making it conducive in avoiding interfering objects.
- Unaffected by corrosion, foam, and viscosity.
- Unaffected by changes in water vapor, temperature and pressure in the atmosphere.
- High signal-to-noise ratio, even in the case of fluctuations.
- The 80GHz frequency is the best choice for measuring low dielectric constant media, and it is suitable for measuring material working conditions with dielectric constant ≥ 1.8 of the medium under test.

SPECIFICATIONS

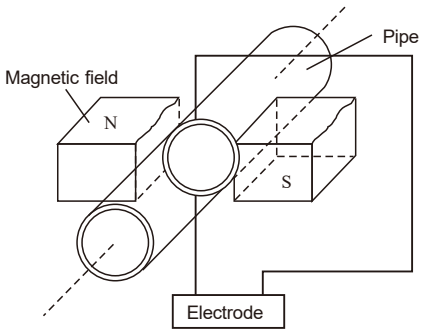
Medium	Liquids
Measurement range	35m
Frequency	80GHz
Power supply	24VDC
Power consumption	Max.0.54W
Blind distance	0.05m
Resolution	1.6 uA
Accuracy	±2mm
Analog output	4-20mA
Beam angle	6˚
Operating temp. range	-40~120℃
Operating pressure	0~3 bar
Connection	G1-1/2”A
Fault output	20.5mA ; 22mA ; 3.9mA
Damping time	0~100s adjustable
Cover material	Aluminum /IP67
Cable inlet	M20*1.5 (cable outer diameter: 6~9mm) Blind plug 20*1.5
Weight	700g

※The specification is subject to the brochure.

EPD Electromagnetic flowmeter

OPERATING PRINCIPLE

The working principle of the electromagnetic flow meter is based on the Faraday law of electromagnetic induction. When the conducting liquid flows in the orthogonal direction of the magnetic line direction, it will cut the magnetic lines and generate induced voltage, which shows linear relationship with the flowing speed. Thus, the fluidic volume flow can be calculated.



FEATURES

- The measurement results are not affected by the change in liquid density, viscosity, temperature, pressure and conductivity.
- It can be widely applied in the conducting liquids that may contain fiber, solid granules and suspended matters.
- Enclosure protection rating: IP67/NEMA 4X
- Suitable for all kind of acid/alkaline environment

Standard Type

SPECIFICATIONS

Accuracy	±0.5%, ±0.3%, ±0.2%
Medium temp.	20°C~120°C(PTFE Lining)
Ambient temp.	-40°C~70°C
IP rating	IP67/NEMA4X
Electrode material	Stainless steel, Hastelloy, titanium, tantalum
Lining material	PTFE, Synthetic rubber, neoprene
Flange material	Carbon steel
Analog output	4~20mA, 2~8KHz
Communication interface	RS485 or DC24V
Supply voltage	AC100~240Vac/24Vdc

※The specification is subject to the brochure.

Remote Type

EPF Doppler ultrasonic flowmeter

OPERATING PRINCIPLE

The doppler ultrasonic flow meter adopts contactless measurement. It is simple to install, convenient, and easy to maintain. It is suitable for measuring liquids in pipelines that contain tiny particles, impurities or air bubbles. Precise, stable & reliable, this flow meter is applicable in the sewage and wastewater to detect the flow rate of water in pipelines.
The doppler ultrasonic flow meter (EPF) transmits pulse waves to the pipeline through a sensor. The pulse wave signal is reflected after encountering particles in the liquid or air and is then received by the sensor. Based on the changing values of the frequency, the movement speed of the particles can be calculated. The average flow rate is therefore calculated using a set flow field data.

FEATURES

- It's available to have a the flow measurement without cutting or disassembling the existing pipes, easy for on-site installation.
- LCM display shows instantaneous and cumulative flow rates.
- 4-20mA output, pulse wave output, RS485 Modbus communication.
- Suitable for various types of wastewater with high bubble content and liquids containing particulate impurities.
- Interface languages: Traditional Chinese, Simplified Chinese, English.

SPECIFICATIONS

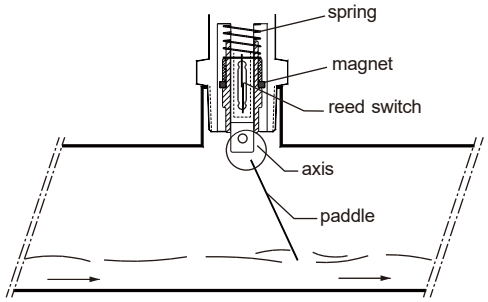
Screen dimensions	LCM 128*64 pixel backlight
Comm. interface	RS-485(Modbus)
Analog output	4~20mA
Pulse width	Automatic (pulse wave width 50%)
Pulse mode	NPN transistor output 32vdc/200mA
Pipeline dimensions	DN15 ~ DN500
Flow range	0.03 ~ 12 m/s
Measurement accuracy	0.12~1.5m/s , ±0.25% F.S. 1.5~12m/s, ±2% O.R.
Power input	18~32 VDC/100~240VAC
Operating temp.	-20° ~ 70°C
Conveyor protection level	Waterproof and dust-proof IP67
Sensor operating temp.	-25° ~ 55°C
Sensor cable length	6.8m
Sensor protection level	Waterproof and dust-proof IP66

※The specification is subject to the brochure.

SFX 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/cm2.

Ex NEPSI

SPECIFICATIONS

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

FLOW CONTROL RANGE TABLE

Pipe spec. / Flow Volume Gallon / Min. / Paddle Length	1"		1-1/2"		2"		2-1/2"		3"	
	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

SPX Thermal dispersion flow switch

OPERATING PRINCIPLE

Digital Thermal Dispersion Flow Switch detection feature is mainly used where the medium is liquid. Due to different application requirements in the working environment, various models are used, for example, standard type, extended type etc.
Two temperature sensing elements are placed in the pipeline.
One is heated and the other is not, resulting in a difference in temperature. When the liquid medium flows past the two elements, heat energy is taken away and the temperature of the heated element will fall. The flow rate of the liquid medium is thus calculated according to the difference in temperature of the two elements.

SPECIFICATIONS

Flow rate range	Water: 1 to 150cm / s
Medium temp.	20~85°C
Ambient temp.	20~80°C
Operating pressure	100 bar (max.)
Power consumption	150mA (max. at 24Vdc)
Connection thread	G1/2
Protection level	IP67
Supply voltage	19~36Vdc
Alarm output	Open: NPN/PNP (250mA) Relay:0.3A@125VAC, 1A@30 VDC (NO or NC)

FEATURES

- Thermal dispersion flow switches have higher sensitivity when compared with traditional mechanical switches.
- Three signal output methods for customers to choose from.
- Unlimited installation locations.
- Will not wear off the structure; liquids containing impurities can still be measured.
- The length of the flow sensor rod can be adjusted according to the environment. The pipe diameter can also be adjusted and used in a wide range of applications.
- Replaced the knob with buttons for easier adjustment.
- Digital interface which can be quickly set by using the buttons.
- Multi-segment display with 10 LEDs to sense the liquid flow rate more accurately.

PBX / PMX 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, 18~36 Vdc
Input signal	0-20mA, 0-200mA, 0-5V, 0-10V, 0-20V, 0-200V
Sampling	4Hz
Display range	-1999~9999
Digit size	0.36"Red
Panel degree of protection	IP54
Operation temp.	0~55℃
Communication interface	RS-485
Protocol	Modbus

※The specification is subject to the brochure.

Application Demo

▲ Ultrasonic level transmitter

▲ Electromagnetic flowmeter

▲ Radar level gauge

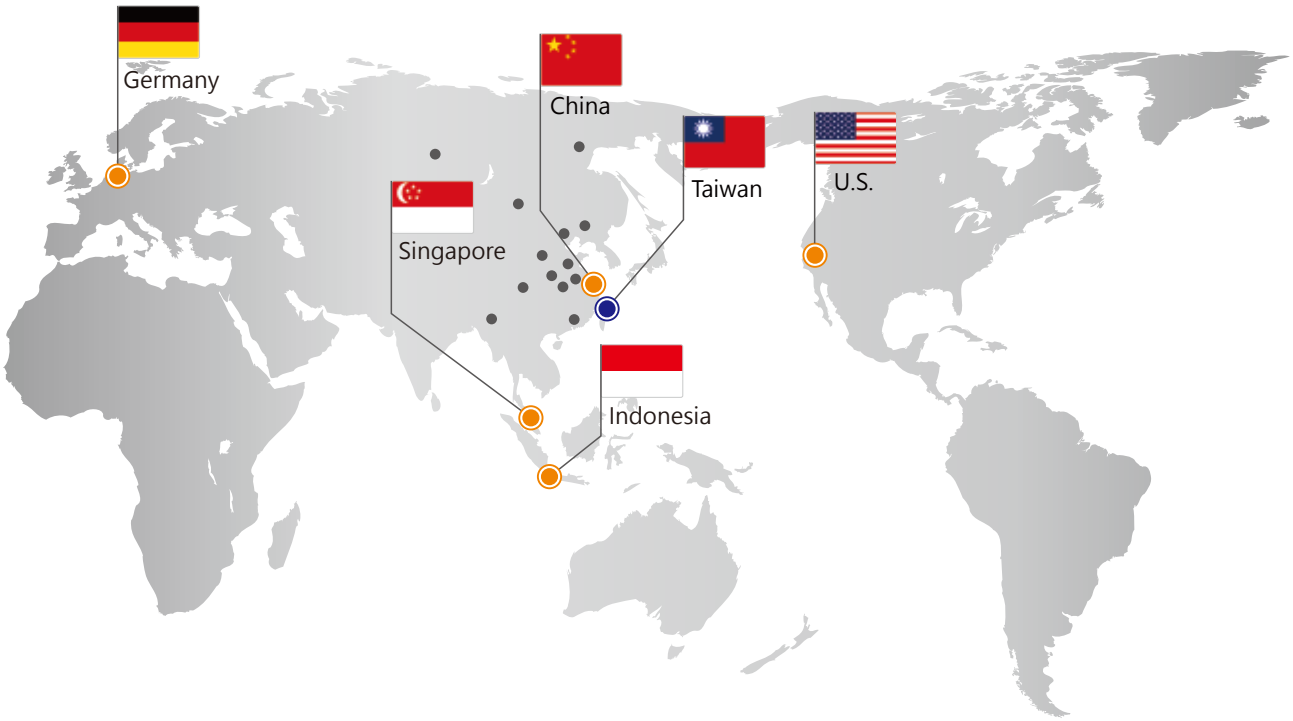
▲ Magnetic float level switch

▲ Magnetic float level transmitter

▲ Electromagnetic flowmeter

▲ By-pass level transmitter

Global Network



Head Quarter

Taiwan
FineTek Co., Ltd. - Taipei Head Quarter
No.16, Tzuchiang St., Tucheng Industrial Park
New Taipei City 236, Taiwan
TEL: 886-2-2269-6789
FAX: 886-2-2268-6682
EMAIL: info@fine-tek.com

North America

California, U.S.
Aplus Finetek Sensor Inc. - US Office
355 S. Lemon Ave, Suite D
Walnut, CA 91789
TEL: 1 909 598 2488
FAX: 1 909 598 3188
EMAIL: info@aplusfine.com

Europe

Germany
FineTek GmbH - Germany Office
Bei den Kämpen 26
21220 Seevetal-Ramelsloh, Germany
TEL: +49-(0)4185-8083-12
FAX: +49-(0)4185-8083-80
EMAIL: info@fine-tek.de

Mütec Instruments GmbH - Germany Office
Bei den Kämpen 26
21220 Seevetal-Ramelsloh, Germany
TEL: +49-(0)4185-8083-0
FAX: +49-(0)4185-8083-80
EMAIL: muetec@muetec.de

Asia

China
Fine automation Co., Ltd. - Shanghai Factory
No.451 DuHui Rd, MinHang District, Shanghai,
China 201109
TEL: 86-21-6490-7260
EMAIL: info.sh@fine-tek.com

Singapore
FineTek Pte Ltd. - Singapore Office
37 Kaki Bukit Place, Level 4 Singapore 416215
TEL: 65-6452-6340
EMAIL: info.sg@fine-tek.com

Indonesia
PT. FineTek Automation Indonesia - Indonesia Office
PERGUDANGAN TUNAS BITUNG
JL. Raya Serang KM. 13,8, Blok C3 No. 12&15,
Bitung Cikupa, Tangerang 15710
TEL: 62 (021)-2958-1688
EMAIL: info.id@fine-tek.com

FineTek

Distributor:

08-AII07EP-111424