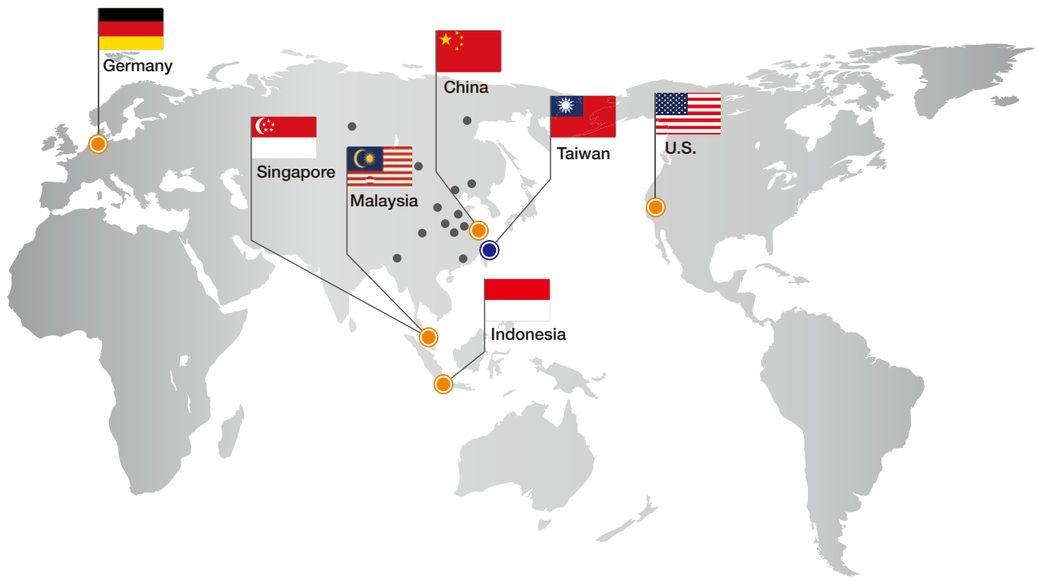
Global Network



Asia

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

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
No. 60 Kaki Bukit Place, #07-06 Eunos
Techpark 2 Lobby B, Singapore 415979
TEL: 65-6452-6340
EMAIL: info.sg@fine-tek.com

Indonesia
FineTek Co., Ltd. - Indonesia Office
Ruko Golden 8 Blok H No.38
Gading Serpong, Tangerang, Indonesia
TEL: 62 (021)-2923-1688
EMAIL: info.id@fine-tek.com

Malaysia
FineTek Co., Ltd. - Malaysia Office
8-05, Plaza Azalea, Persiaran Bandaraya,
Seksyen 14, 40000 Shah Alam, Selangor, Malaysiac
TEL: 603-5524-7168
EMAIL: info.my@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

FineTek

Distributor:

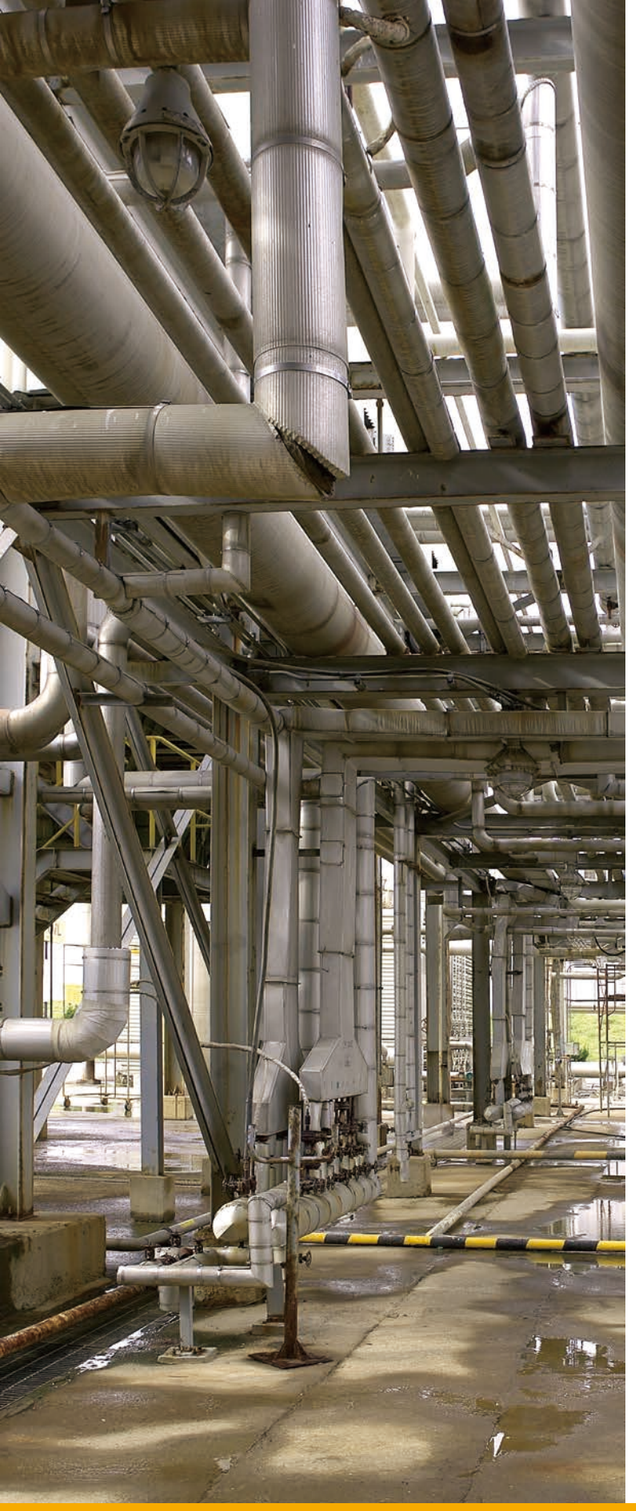
08-All04-B0-EP, 04/16/2012

PRODUCTS GUIDE

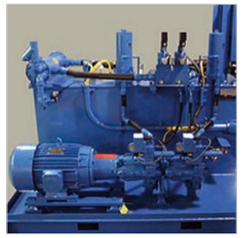
Total Solution for Fluid Detection

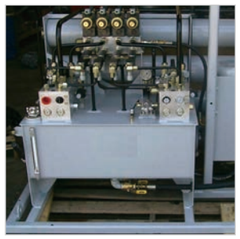
www.fine-tek.com

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



Your BEST Partner



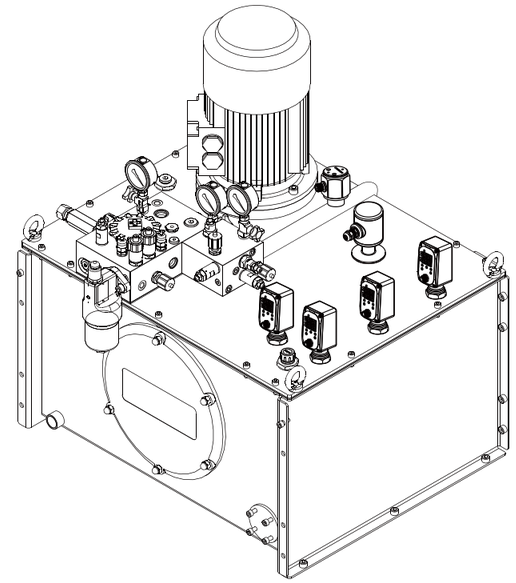


FineTek Co. is a professional manufacturer specializing in the field of industrial sensing and measurement with its experience and techniques for over 30 years.
With strongest R&D ability and strict quality management on manufacturing processes, FineTek has got the ISO9001 certification, and is capable of providing excellent products meeting the requirements from different applications.

FineTek designs and develops sensing elements for hydraulic power system to meet the specifications required for machinery. Hydraulic power system connects closely to no matter constructions, mobiles, marines and aero machines, theremore, FineTek offers complete lines of sensors for monitoring the fluid and oil no matter in tank or pipe to all customers.

INDUSTRY:

- Process Machinery
- Plastic Injunction Machine
- Wind Power Propeller Hydraulic Control
- Power Generator
- Lubrication Control
- Hydraulic Control
- Construction Machine
- Agricultural Machine



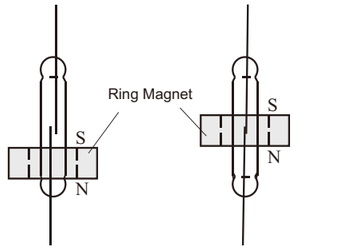
Your Made-To-Order Solutions

FineTek

FC/FD Mini Float Level Switch

PRINCIPLE:

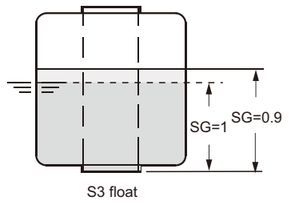
When the magnetic field of ring magnet inside the float is moved into the proximity of reed switch inside the stationary stem, the reed switch "snaps" the contact together and closes the electrical circuit. When the magnetic field is moved away from the reed switch, the reed switch does not touch. The circuit is open.



Reed switch open (OFF) Reed switch closed (ON)

LIQUID PROPERTIES AND FLOATS:

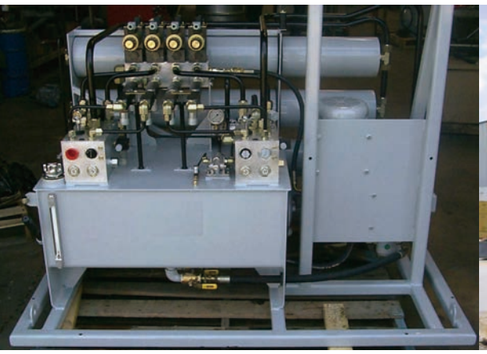
When the liquid specific gravity is smaller or bigger than the water, the float on the switch will either increase or decrease the immersion depth. The switch actuation level will also change.



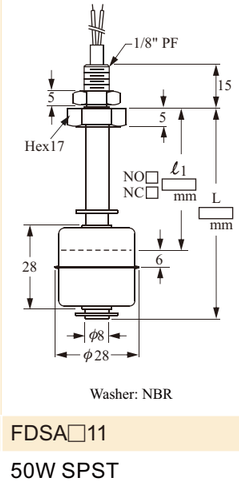
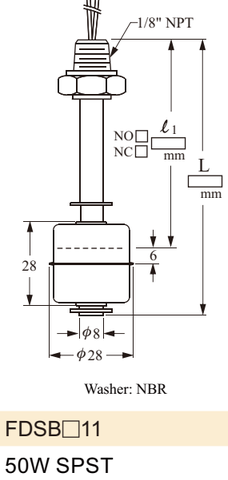
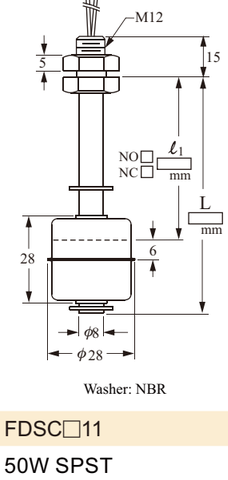
S3 float

FEATURE:

- Many different types with economic price.
- Anti- corrosion.
- No standby power consumption.
- Easy installation. Excellence Air Tight.
- Stable performance. Measuring result unaffected by impurities inside detected medium.



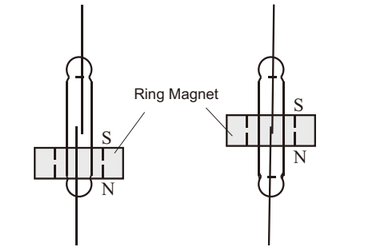
SPECIFICATION:

Dimensio(mm)	 Washer: NBR	 Washer: NBR	 Washer: NBR
Type	FDSA□11	FDSB□11	FDSC□11
Switching rating	50W SPST	50W SPST	50W SPST
Switching voltage max.	240Vac/200Vdc	240Vac/200Vdc	240Vac/200Vdc
Switching current max.	0.5A	0.5A	0.5A
Carry current max.	1A	1A	1A
Lead wire	XLPE (UL3266,AWG22)	XLPE (UL3266,AWG22)	XLPE (UL3266,AWG22)
Max. pressure (Kg/cm^2)	10kg/cm^2	10kg/cm^2	10kg/cm^2
Operating temperature	-20~120°C (Option200°C)	-20~120°C (Option200°C)	-20~120°C (Option200°C)
Material	SUS304,SUS316	SUS304,SUS316	SUS304,SUS316
Suitable specific gravity	0.7	0.7	0.7

FC/FD Magnetic Float Level Switch

PRINCIPLE:

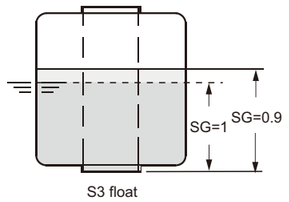
When the magnetic field of ring magnet inside the float is moved into the proximity of reed switch inside the stationary stem, the reed switch "snaps" the contact together and closes the electrical circuit. When the magnetic field is moved away from the reed switch, the reed switch does not touch. The circuit is open.



Reed switch open (OFF) Reed switch closed (ON)

LIQUID PROPERTIES AND FLOATS:

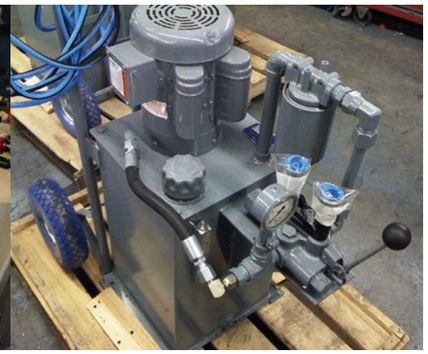
When the liquid specific gravity is smaller or bigger than the water, the float on the switch will either increase or decrease the immersion depth. The switch actuation level will also change.



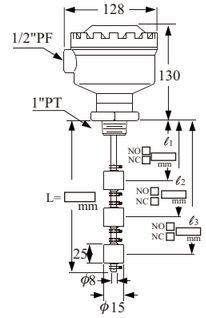
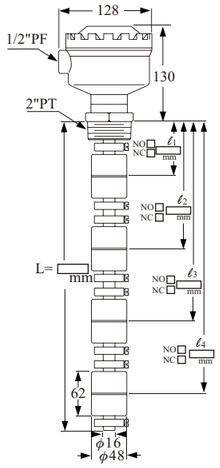
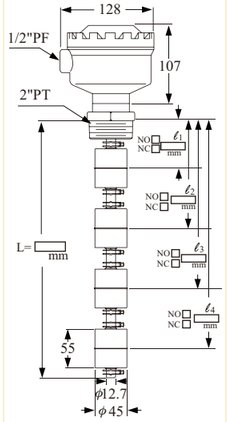
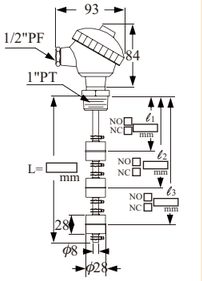
S3 float

FEATURE:

- Multiple points measuring.
- Anti- corrosion.
- No standby power consumption.
- The housing water proof protection is at least IP65.
- Easy installation. Excellence Air Tight.
- Stable performance. Measuring result not affected by impurities inside detected medium.



SPECIFICATION:

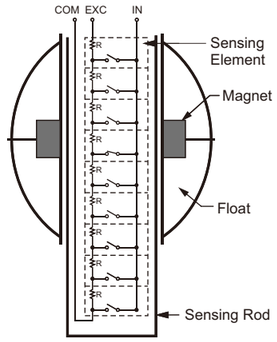
Dimension (mm)				
Type	FC C (DQ) 1 N1 3	FC C (FQ) 6 F4 4	FD B (FQ) 4 S3 4	FD E (DQ)1 S1 3
Enclosure material	PP	PP	Aluminum alloy	Aluminum alloy
Connection	1"PT	2"PT	2"PT	1"PT
Wetted material	SUS304	PVDF	SUS304	SUS304
Pipe	ϕ8	ϕ16	ϕ12.7	ϕ8
Float material	NBR	PP	SUS304	SUS304
Specific gravity	0.5	0.8	0.65	0.7
Max. pressure	ATM	5kg/cm^2	12kg/cm^2	10kg/cm^2
Float quantity max.	3	4	4	3
Ambient temperature	−20 ~ 80°C	−20 ~ 80°C	−20 ~ 200°C	−20 ~ 200°C
Operating temperature	−20 ~ 100°C	−20 ~ 100°C	−20 ~ 120°C	−20 ~ 120°C
Contact rating	50W	60W	60W	50W
Contact form	SPST	SPDT	SPDT	SPST

Magnetic Float Level Switch

DF Magnetic Float Level & Temperature Transmitter

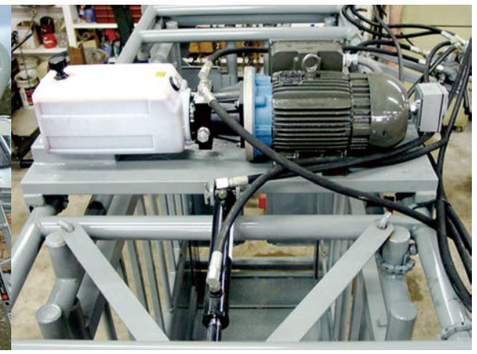
PRINCIPLE:

The "Magnetic Float Level Transmitter" is composed of the float and sensing rod (shown as below). As the float raised or lowered by liquid level, the sensing rod will have a resistance output, which is directly proportional to the liquid level. Also, the float level indicator can be equipped with the TAB-2100 (please see page 3) to produce a 0/4~20mA signal. In addition, we can use with PB series bargraphic display scaling panel meter for level control and display. Anyway, "Magnet Float Level Indicator" is a great benefit to all kinds of industries with its easy working principle and reliability.



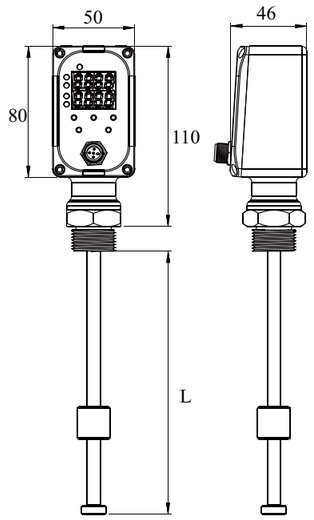
FEATURE:

- Level accuracy is independent on environmental temperature and pressure variation.
- High reliable & robust modular design.
- High & Low oil level alarm.
- Fast display of current oil level.
- Easy installation and free of maintenance.



SPECIFICATION:

Dimension(mm)

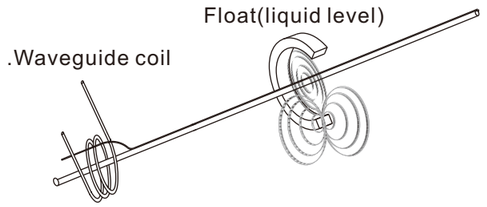


Connection	3/4"PF; 1/2"G;3/4"G;M24x1.5
Housing material	Aluminum alloy
Housing adjustable	Up To 290°
Probe material	SUS304
Float material	NBR
Ambient temperature	-40 ~ +85 °C
Operating temperature	-40 ~ +100 °C
Operating pressure	1Bar
Enclosure protection	IP65
Power supply	15 ~ 30 Vdc
Electric connection	M12x1; 8-pole
Comsumption current	< 100 mA
Display	"4-figure 7-segment LED x 2 red; digit height 11 mm"
Digital output type	2 MOSFET x 2
Digital output voltage	Power supply -1.5 Vdc
Digital switching current	0.5 A per switch(Max.)
Digital output short current	2.5 A per switch
Analogue output	"0/4…20 mA x 2
Response time	< 1s
Level accuracy	± 1 % F.S. at 25 °C
Resolution	5mm
Level range	100~1000mm
Temperature accuracy	± 0.25 % F.S. at 25 °C
Temperature range	-50…150 °C; (-58…+302 °F)
Thermal sensor	PT100

DG Magnetostrictive Level & Temperature Transmitter

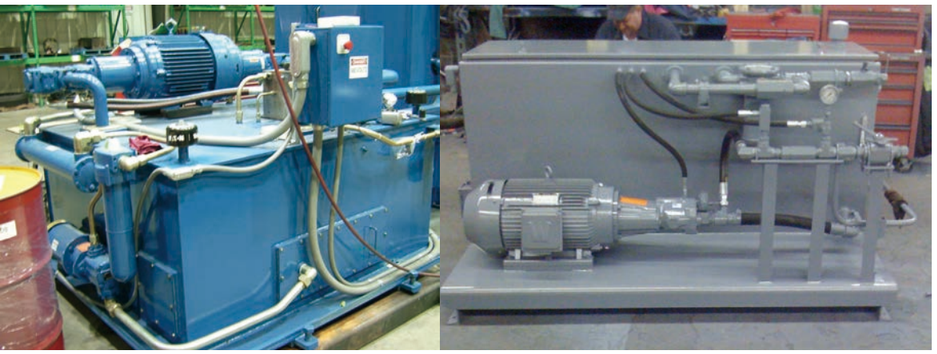
PRINCIPLE:

Magnetostrictive Level & Temperature Transmitter is built based on the principle of magnetic field interaction of two different directions, which sends out a signal to determine the exact level of the medium. Therefore, even if there is a power failure and reconnection is needed, it will not affect the previous setting parameters. So there is no reconfiguration involved.
As Magnetostrictive Level Transmitter gives direct signal output, additional output interface is not needed. Application is very accurate and reliable, it will reduce the malfunction of the product. Moreover, due to the durability of the sensing element, minimal maintenance is needed, thus replacement parts inventory is not needed.



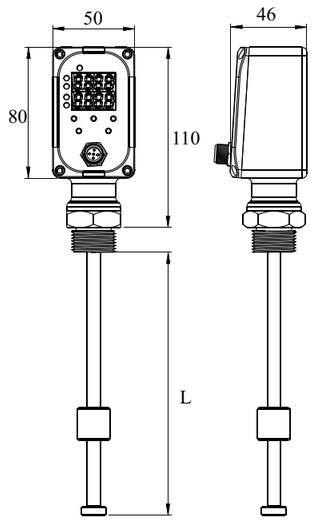
FEATURE:

- Fast response up to 100HZ.
- Stable & Reliable.
- Different output types: 4-20mA,0.5V,0.10V.
- Easy installation and free of calibration.
- Resolution up to 0.1mm fluidic level variation 0.5mm repeatability to better control oil level.
- High & Low oil level alarm.
- Easy installation and free of maintenance.



SPECIFICATION:

Dimension(mm)



Connection	3/4"PF; 1/2"G;3/4"G;M24x1.5
Housing material	Aluminum alloy
Housing adjustable	Up To 290°
Probe material	SUS304/316/316L
Float material	NBR
Ambient temperature	-40 ~ +85 °C
Operating temperature	-40 ~ +100 °C
Operating pressure	1Bar
Enclosure protection	IP65
Power supply	15 ~ 30 Vdc
Electric connection	M12x1; 8pin/5pin/4pin
Comsumption current	< 100 mA
Display	"4-figure 7-segment LED x 2 red; digit height 11 mm"
Digital output type	2 MOSFET x 2
Digital output voltage	Power supply -1.5 Vdc
Digital switching current	0.5 A per switch(Max.)
Digital output short current	2.5 A per switch
Analogue output	"0/4…20 mA x 2
Response time	< 1s
Level accuracy	± 0.05 % F.S. at 25 °C
Resolution	0.5mm
Level range	100~1000mm
Temperature accuracy	± 0.25 % F.S. at 25 °C
Temperature range	-50…150 °C; (-58…+302 °F)
Thermal sensor	PT100

Magnetostrictive Level & Temperature Transmitter

DB RF-Admittance Level & Temperature Transmitter

PRINCIPLE:

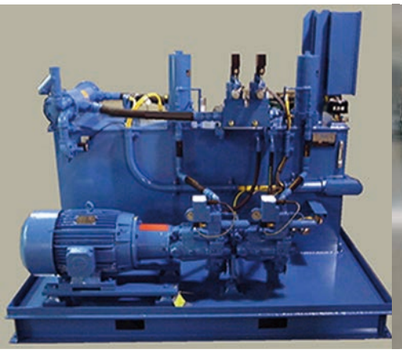
RF-Admittance Level & Temperature Transmitter is a dual function instrument which measures the level and temperature of a liquid. It has two 4-digits displays to show the level. In addition to the displays, it comes with 2 sets of 4~20mA Outputs, high / low level alarms, and high / low temperature alarms. It is a reliable multifunction indicator.

RF Admittance Level Transmitter: utilizing the capacitance formed between the sensing probe and the reference probe or the metal vessel wall to calculate the level of the medium inside the vessel according to the capacitance theory that the capacitance and vessel are proportional increased.

Temperature Transmitter: Measuring the temperature of a liquid by RTD temperature sensor built inside the tube. Temperature value is shown on the display or converted into 4~20mA Output signal.

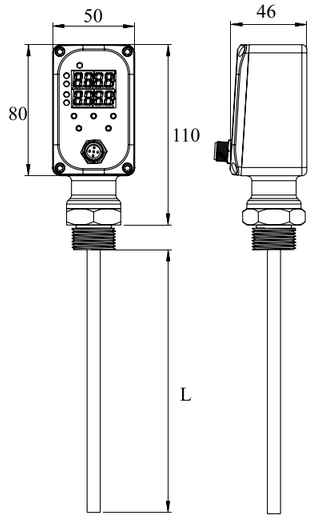
FEATURE:

- Low power consumption.
- High accuracy & linearity (<1% F.S.)
- Unique design of temperature compensation to eliminate influence of temperature variation.
- Low temperature drifting (0.2% F.S./C)
- Easy to calibrate by any 2 points interval.
- Suitable for high temperature, high pressure and corrosion environments.
- Easy installation and free of maintenance.

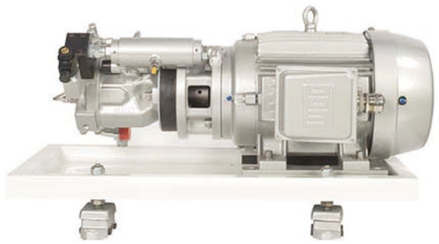


SPECIFICATION:

Dimension(mm)



Connection	3/4"PF; 1/2"G;3/4"G;M24x1.5
Housing material	Aluminum alloy
Housing adjustable	Up To 290°
Probe material	SUS304
Ambient temperature	-40 ~ +85 °C
Operating temperature	-40 ~ +100 °C
Operating pressure	1Bar
Enclosure protection	IP65
Power supply	15 ~ 30 Vdc
Electric connection	M12x1; 8-pole
Current consumption	< 100 mA
Display	"4-figure 7-segment LED x 2 red; digit height 11 mm"
Digital output type	2 MOSFET x 2
Digital output voltage	Power supply -1.5 Vdc
Digital switching current	0.5 A per switch (Max.)
Digital short current	2.5 A per switch
Analogue output	"0/4...20 mA x 2
Response time	< 1s
Level accuracy	± 2 % F.S. at 25 °C
Resolution	2mm
Level range	50~1000mm
Temperature accuracy	± 0.25 % F.S. at 25 °C
Temperature range	-50...150 °C; (-58...+302 °F)
Thermal sensor	PT100



RF-Admittance Level & Temperature Transmitter

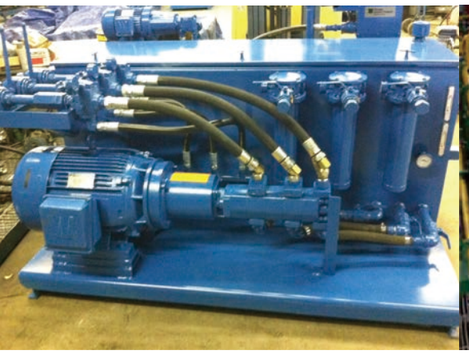
DR Temperature Transmitter

PRINCIPLE:

Thermal Sensor with Temperature Transmitter measures the temperature of a liquid by RTD temperature sensor built inside the tube. Temperature value is shown on the display. In addition to the displays, it comes with 4~20mA Outputs, high / low level alarms, and high / low temperature alarms. It is a reliable multifunction indicator.

FEATURE:

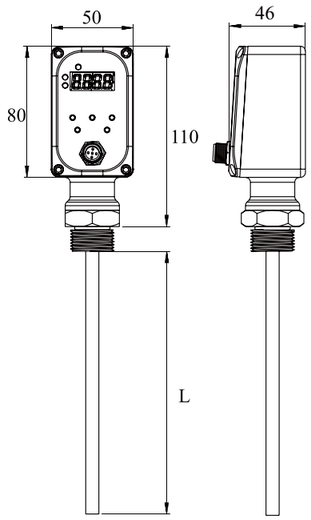
- Dual NPN/PNP digital output
- High accuracy up to 0.25% F.S.
- In-field temperature calibration
- High reproducibility of temperature display
- Suitable for acid, alkali and high pressure complex conditions
- Low power consumption.
- Easy installation and free of maintenance.



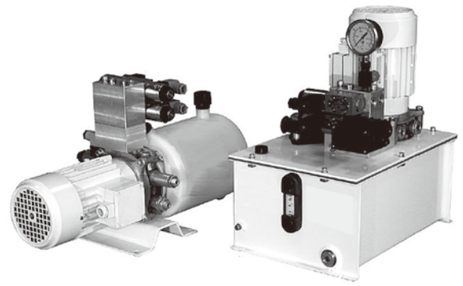
Temperature Transmitter

SPECIFICATION:

Dimension(mm)



Connection	3/4"PF; 1/2"G;3/4"G;M24x1.5
Housing material	Aluminum alloy
Housing adjustable	Up To 290°
Probe material	SUS304
Ambient temperature	-40 ~ +85 °C
Operating temperature	-40 ~ +100 °C
Operating pressure	10Bar
Enclosure protection	IP65
Power supply	15 ~ 30 Vdc
Electric connection	M12x1; 8-pole
Current consumption	< 100 mA
Display	"4-figure 7-segment LED red; digit height 11 mm"
Digital output type	2 MOSFET
Digital output voltage	Power supply -1.5 Vdc
Digital switching current	0.5 A per switch (Max.)
Digital short current	2.5 A per switch
Analogue output	"0/4…20 mA
Response time	< 1s
Temperature accuracy	± 0.25 % F.S. at 25 °C
Temperature range	-50…150 °C; (-58…+302 °F)
Thermal sensor	PT100



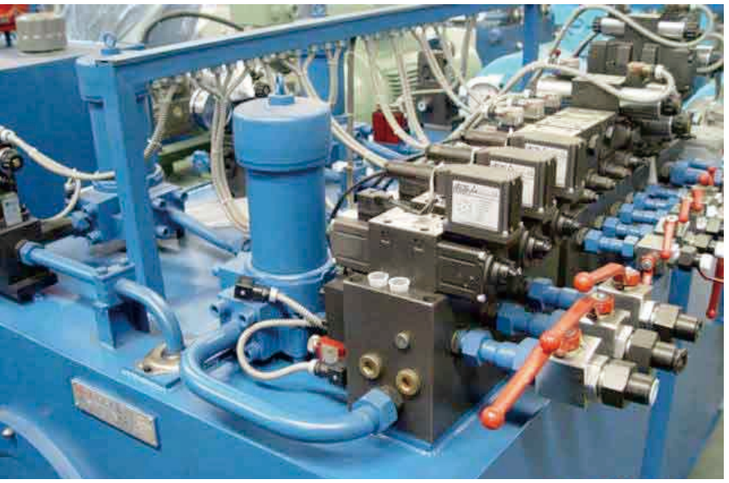
GP Thermal Sensor

PRINCIPLE:

THERMOCOUPLE:
Thermocouples are very simple and durable temperature sensors. They are comprised of two different materials joined at one end and separated at the other. The separated ends are considered the output, and they generate voltage which is proportional to the heat they are measuring or monitoring.

The Seebeck Effect describes a thermoelectric phenomenon by which temperature differences between two dissimilar metals in a circuit converts into an electric current.

RESISTANCE BULB:
Metal wire that changes its electric resistance to changes in temperature are utilized is called “ Resistance Wire”. This resistance wire, normally of platinum is used to manufacture a temperature sensor called “Resistance Temperature Detector (RTD) element” . Generally speaking, RTD is composed of RTD element, lead wires, protection tube and terminals.

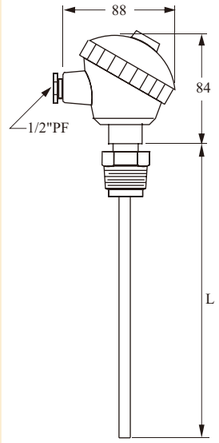


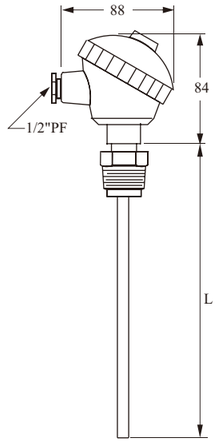
FEATURE:

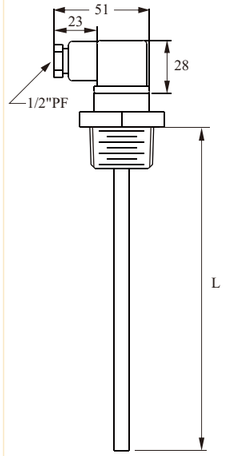
- Widely measuring range to 1200°C max.
- Speed feedback, it's minute error was caused by time differential
- Temperature value is detecting by electromotive force, the temperature test 、adjustable、signal exchangeable will be processed easily.
- The price is cheaper than other thermo components.
- The platinum resistance with high repeatability.

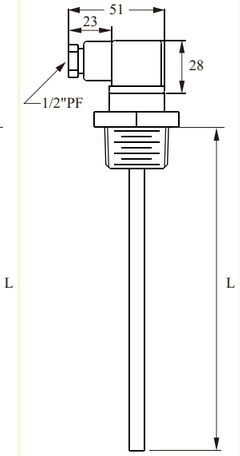
SPECIFICATION:

Dimension (mm)









	Thermocouple	Resistance bulb	Thermocouple	Resistance bulb
Type	GKEA	GPEA	GKES	GPES
Connection	1/2＂PT, 3/4"PT	1/2＂PT, 3/4"PT	1/2＂PT, 3/4"PT	1/2＂PT, 3/4"PT
Temperature range	0~1200°C	-50~500°C	0~80°C	-50~80°C
Accuracy	JIS, 0.75 grade ±0.0075 X |t|	IEC751, CLASS B 0.3±0.005 X |t|	JIS, 0.75 grade ±0.0075 X |t|	IEC751, CLASS B 0.3±0.005 X |t|
Enclosure protection	IP65	IP65	IP65	IP65
Probe diameter	ϕ8, ϕ9.5	ϕ8, ϕ12.7, ϕ17.2	ϕ6, ϕ8, ϕ9.5	ϕ6, ϕ12.7, ϕ17.2
Wetted Material	SUS304/316 Titanium, PTFE	SUS304/316 Titanium	SUS304/316 Titanium, PTFE	SUS304/316 Titanium
Insulation resistance	>1000MΩ/500V	>1000MΩ/500V	>1000MΩ/500V	>1000MΩ/500V
Wire	Nickel-Aluminum Nickel-Aluminum	----------	Nickel-Aluminum Nickel-Aluminum	----------

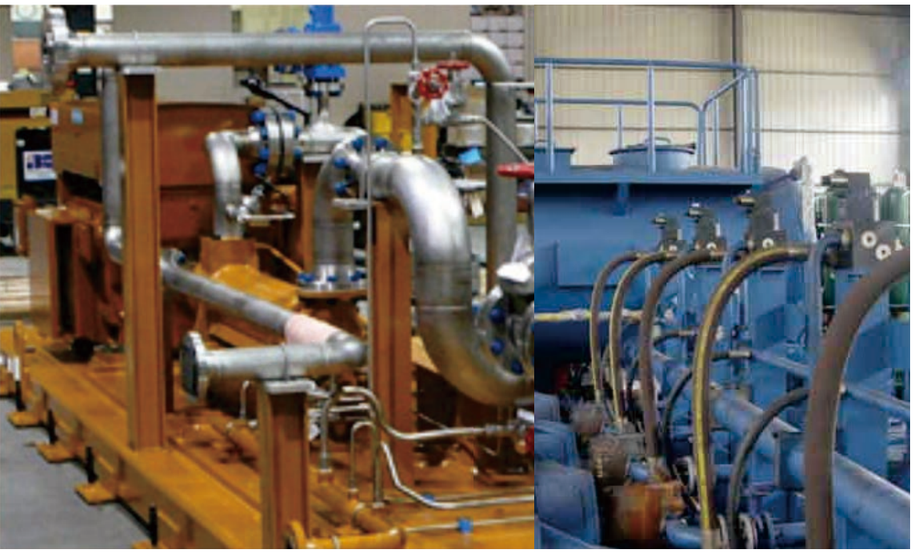
SP Thermo-Dispersion Flow Switch

PRINCIPLE:

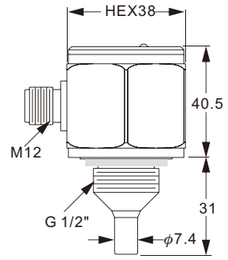
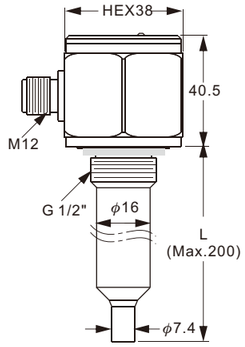
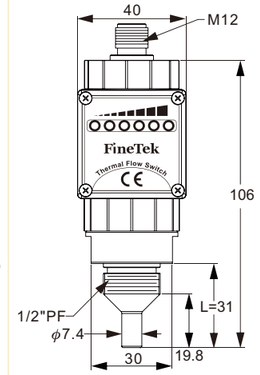
Thermp-dispersion flow switch is a precise flow sensing device, whose movement principle is heat diffusion.
The probe consists of two temperature sensors. One sensor measures the temperature of the fluid when the probe is immersed. The other sensor is heated by a constant power.
This creates a temperature difference between two sensors. Temperature difference is an inverse ratio to the flow velocity. The probe and housing are made by stainless steel or engineering plastic.
Since the device is without moving parts, therefore there is no wear and tear problem.

FEATURE:

- Comparing to the traditional paddle type flow switch, thermal dispersion flow switch offers high sensitivity, no limitation of installing location, and no moving parts wear and tear.
- Different materials can be adopted to suit liquid with impurities, acidity, and alkaline.
- Probe length could be made in order to meet any application.
- There are three different output signals for users to choose.



SPECIFICATION:

Dimension(mm)			
Type	SP200 Compact Type	SP201 Extension Type	SP220 Economy Type
Connection	G1/2, G1/4, NPT1/2	G1/2, NPT1/2	G1/2, G1/4, NPT1/2
Housing material	SUS304/ 316/ 316L	SUS304/ 316/ 316L	SUS304/ 316/ 316L
Wetted material	SUS304/ 316/ 316L	SUS304/ 316/ 316L	SUS304/ 316/ 316L
Wiring	3-wire NPN/PNP Power-brown Grounding-blue Output-black	3-wire NPN/PNP Power-brown Grounding-blue Output-black	3-wire NPN/PNP Power-brown Grounding-blue Output-black
Enclosure protection	IP67	IP67	IP67
Ambient temperature	-20 ~ 80°C	-20 ~ 80°C	-20 ~ 80°C
Operating temperature	100 bar (max.)	100 bar (max.)	100 bar (max.)
Supply volatge	19 ~ 30Vdc	19 ~ 30Vdc	19 ~ 30Vdc
Current consumption	50mA (max.)	50mA (max.)	50mA (max.)
Warm-up time	Approx.10 Sec	Approx.15 Sec	Approx.15 Sec
LED indication	Flow velocity below set point- Red LED on, Open Flow velocity equals set point- Yellow LED on, Close Flow velocity above set point- 4 Green LED to indicate flow speed, Close		
Operating temperature	-20 ~ 80°C	-20 ~ 80°C	-20 ~ 80°C
Masuring range (Flow)	Water: 1~150 cm/s Oil: 3~300 cm/s	Water: 1~150 cm/s Oil: 3~300 cm/s	Water: 1~150 cm/s Oil: 3~300 cm/s
Alarm output	Open Collector : NPN / PNP(<400mA) Relay : 1A/30Vdc, 0.3A/125Vac (NO or NC)	Open Collector : NPN / PNP(<400mA) Relay : 1A/30Vdc, 0.3A/125Vac (NO or NC)	Open Collector : NPN / PNP(<400mA) Relay : 1A/30Vdc, 0.3A/125Vac (NO or NC)

SQ Pressure Switch

PRINCIPLE:

When system pressure is above or under the setup pressure value, pressure sensor inside the controller will be activated and create an ON / OFF switch function to start / shut down an equipment.

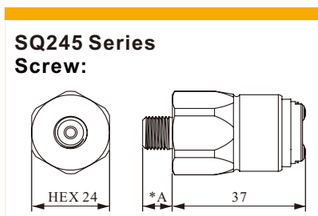
FEATURE:

- Robust in Any Severe Applications
- Body material: Stainless Steel
- Contact material: Silver, Gold
- Electrical Connection:
  Screw, Plug, Spade Terminal
- Adjustable Pressure
- High Quality Pressure Switch

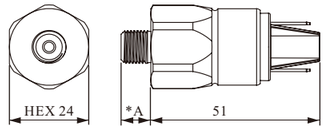
Dimension(mm):

SQ245 Series

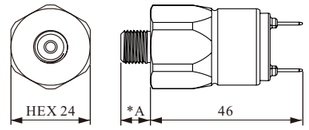
Screw:



Push-on:



Spade:

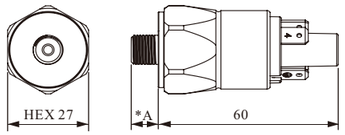


(Umit: mm)

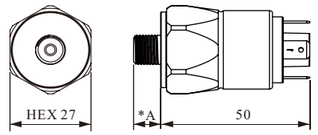
*A **9mm:** M10*1 taper, M10, G1/4", PT1/4", NPT 1/8" **12mm:** M12*1.5, G1/4", PT1/4", NPT 1/4"

SQ275 Series

Screw:



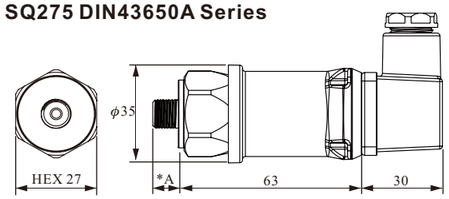
Spade:



*A **9mm:** M10*1 taper, M10, G1/4", PT1/4", NPT 1/8" **12mm:** M12*1.5, G1/4", PT1/4", NPT 1/4"

(Umit: mm)

SQ275 DIN43650A Series



(Umit: mm)

*A **9mm:** M10*1 taper, M10, G1/4", PT1/4", NPT 1/8"
12mm: M12*1.5, G1/4", PT1/4", NPT 1/4"

SPECIFICATION:

CE

	SQ245 Series	SQ275 Series	SQ275 Series
Type			
Connection	M10*1 (TAP 1°) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"	M10*1 (TAP 1°) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"	M10*1 (TAP 1°) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"
Wiring	Screw, Push-on, Spade Terminal	Push-on, Spade Terminal	Push-on, Spade Terminal
HEX length	24mm	27mm	27mm
Body material	Zinc-Plated Steel ROHS	Zinc-Plated Steel ROHS	Zinc-Plated Steel ROHS
Operating temperature	-10°C ~100°C (IEC 60068-2-2)	-10°C ~100°C (IEC 60068-2-2)	-10°C ~100°C (IEC 60068-2-2)
Body protection	IP00 (IEC 60529)	IP00 (IEC 60529)	IP00 (IEC 60529)
Body cover protection	IP67 (IEC 60529)	IP65 (IEC 60529)	IP65 (IEC 60529)
Vibration resistance	10g/5-200Hz sine-ware (IEC17025)	10g/5-200Hz sine-ware (IEC17025)	10g/5-200Hz sine-ware (IEC17025)
Dielectric strength	1.5KV (IEC60947-2)	1.5KV (IEC60947-2)	1.5KV (IEC60947-2)
Insulation resistance	100MΩ (IEC60092-54 section3)	100MΩ (IEC60092-54 section3)	100MΩ (IEC60092-54 section3)
Membrane material	NBR -30~100°C VITON -5 ~120°C EPDM -30~120°C	NBR -30~100°C VITON -5 ~120°C EPDM -30~120°C	NBR -30~100°C VITON -5 ~120°C EPDM -30~120°C
Contact rating	4A/ 50Vdc 4A/ 250Vac (UL508)	2A/ 50Vdc 4A/ 250Vac (UL508)	2A/ 50Vdc 4A/ 250Vac (UL508)
Frequency	2Hz	2Hz	2Hz
Mechanical life	$1.5X10^6$ cycles (in 50 bar)	$1.5X10^6$ cycles (in 50 bar)	$1.5X10^6$ cycles (in 50 bar)
Screw torque	<0.35Nm	<0.35Nm	<0.35Nm
Contact type	NO, NC	SPDT	SPDT
Pressure range	0.2~100bar	0.3~100bar	0.3~100bar
Pressure accuracy	±5%@20°C	±5%@20°C	±5%@20°C

SD Optical Switch

PRINCIPLE:

The optical switch is designed by the principle of Snell's law, when light moves from a medium of a given refractive index n1 into a second medium with refractive index n2, both reflection and refraction of the light may occur. An incident light ray strikes at point on the interface between two media of refractive indices n1 and n2. Total internal reflection is an optical phenomenon that happens when a ray of light strikes a medium boundary at an angle larger than a particular critical angle with respect to the normal to the surface. If the refractive index is lower on the other side of the boundary, no light can pass through and all of the light is reflected. When light crosses a boundary between materials with different refractive indices, the light beam will be partially refracted at the boundary surface, and partially reflected.

SPECIFICATION:

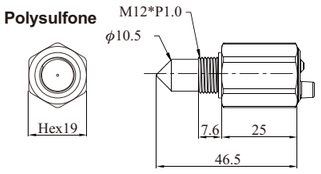
Connection	M12x1.0 or 3/8"G (PF) 3/8"NPT (SUS304, SUS316 only) 1/2"G (SD204BR□□-A only)
Body material	PC、Polysulfone、 SUS304、SUS316
Ambient temp.	-10~80°C
Operating temp.	-10~125°C
Lead wire	2m Cable (ϕ3.8) 3C PVC 24AWG custom made if over 2m
Enclosure protection	IP68
Power supply	10~28Vdc
Load current	Max.Load 100mA
Over current protection	100mA
Operating pressure	Max.10kg/cm^2 (PC、POLYSULFONE) Max.40kg/cm^2 (SUS304、SUS316)

FEATURE:

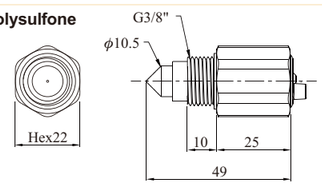
- NPN, PNP open collector output to energize relay or PLC.
- Housing material of PC, Polysulfone, SUS304,
- SUS316 for acidity and alkaline; applicable in water, oil, liquid solution, liquor, alcohol....etc.
- Over-current and reverse polarity protected

Dimension(mm):

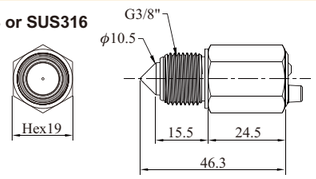
PC or Polysulfone



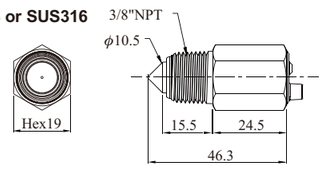
PC or Polysulfone



SUS304 or SUS316



SUS304 or SUS316



SUS304