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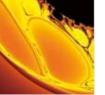


# **PRODUCTS GUIDE**

# Total solutions for monitoring liquid levels in the Marine Industry



































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



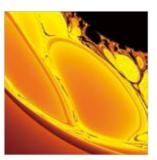
# **Your BEST Partner**





FineTek Co. is a professional manufacturer specializing in the field of industrial sensing and measurement for over 30 years.

With a strong R&D team and strict quality management, FineTek has been awarded the ISO9001 certification, and is capable of providing excellent solutions for diverse applications.





FineTek is dedicated to leading innovation for automation control instrumentation and especially devotes significant resources to R&D. For the requirements by clients and demands of the market, we hold approvals such as: ABS, GL, DNV, BV, LR corresponding to the latest marine provisions by international marine organizations.

FineTek gains its advantage through its quality services and as a result our brand name is accepted and entrusted by the customers worldwide.













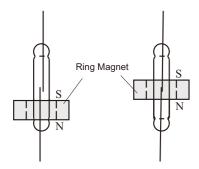
# **FD Magnetic Float Level Switch**

# **OPERATING PRINCIPLE:**

The reed switch relies on two basic scientific principles namely: buoyancy and magnetism. Buoyancy causes the float (which contains a magnet) to rise with the liquid and magnetism helps open and close the switch.

When the liquid level rises and pushes the float up, the float's ring magnet (sealed in the float) moves close to the switch in the stationary stem.

The magnet pushes the circuit together and when it makes contact, it closes the electrical circuit. When the float magnet moves away from the switch, the circuit contact is released and the switch is opened.



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

# **SPECIFICATIONS:**

Material of housing	Aluminum or Stainless Steel
Connection	1"~6" Threads or Flange Type
Wetted parts	Stainless Steel
Operating pressure	max. 35Kg/cm <sup>2</sup>
Ambient temperature	-20~85°C
Operating temperature	-20~200°C
Wetted parts material	SUS304 or SUS316
Numbers of floats	max. 4 Floats
Switching capacity	max. 60 W
Contact mode	SPST or SPDT

# **FEATURES:**

- Multipe points messuring.
- Anti- corrosion.
- No standby power consumption.
- Easy installation.Air tight.
- Stable performance. Measuring result not affected by impurities inside detected medium.



# **TEST ROD:**

The test rod can be equipped with magnetic float level switch for performance testing and inspection.





# **FF Side Mounting Float Switch**

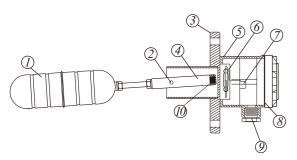
# **OPERATING PRINCIPLE:**

The reed switch relies on two basic scientific principles namely: buoyancy and magnetism. Buoyancy causes the float (which contains a magnet) to rise with the liquid and magnetism helps open and close the switch.

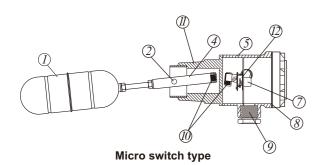
A change in liquid levels raises or lowers the float up or down. The start of the pivot arm (non float side) contains a permanent magnet that repels the switch (inside the housing).

# **FEATURES:**

- Stainless steel SUS304 & SUS316 are available.
- Customized flanges
- Floats for diverse mediums and liquids.
- IP65 Housing protection
- Micro-Switch & Reed switches available.
- Able to withstand ambient temperatures of 100°C .
- Explosion Proof options available.



Reed switch type



1. Float	6. Reed Switch	11. Screw
2. Shaft	7. Terminal	12. Micro
2 Elongo	8 Oring	Condi

4. Pivot

o switch Conduit/ 3. Flange 8. O-ring 9. Conduit Connection 10. Magnet 5. Housing





# **SPECIFICATIONS:**

Housing material	Aluminum or Stainless Steel
Connection	1-1/2"~6" Threads or Flange Type
Material of wetted parts	SUS304 or SUS316
Operating pressure	max. 30Kg/cm <sup>2</sup>
Ambient temperature	-20~85°C
Operating temperature	-20~200°C
Contact form	SPDT (1C)

# **TEST DEVICE:**

Material: SS41

Testing the floats and wiring before installation can help save time. The tests can be run without using liquid.



Reed switch module

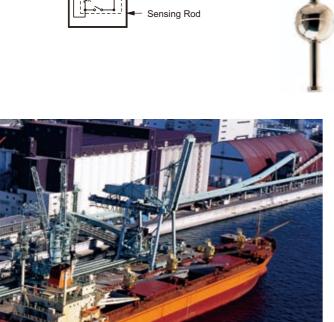
# **FG Magnetic Float Level Sensor**

# **OPERATING PRINCIPLE:**

The "Magnet Float Level Transmitter" is composed of a float and sensing rod (shown below). As the float is raised or lowered by the liquid level, the sensing rod will induce a resistance output, which is directly proportional to the liquid level.

The Magnet Float Level Transmitter is a sturdy, reliable and durable device that is applicable across most industries.

# COM EXC IN Sensing Element Magnet Float Sensing Red Sensing Red



# **FEATURES:**

- Lower installation costs, maintenance, personnel training reduced and decreased plant shock downtime.
- High performance and reliable electric circuit modular design.
- Output unaffected by temperature & pressure changes.
- Explosion Proof series available.
- Marine Approvals: ABS, DNV, BV, LR, GL are available.

Material of housing	Aluminum or Stainless Steel
Protection	IP65 or Ex proof
Connection	2"~6" Threads or Flange Type
Material of wetted parts	SUS304 or SUS316
Operating pressure	max. 30Kg/cm <sup>2</sup>
Ambient temperature	-20~85°C
Operating temperature	-20~120°C
Resolution	6.35mm or 12.7mm
Load resistance	1K~20MΩ
Output signal	4~20mA
Measuring range	max. 5 M



**SPECIFICATIONS:** 

Model	TAB-2110 Transducer
Power supply	12~36Vdc
Output	Loop power 4~20mA
Load resistance	RL(max.)=50(Vs-8)
Ambient temperature	-40~80°C
Ambient humidity	0~80% RH
Accuracy	±0.1%(25°C)
Temperature	0.01%F.S./°C
Adjustment range	Span Ajustment 20% FS Zero Ajustment 5% FS







# **By-Pass Level Transmitter**

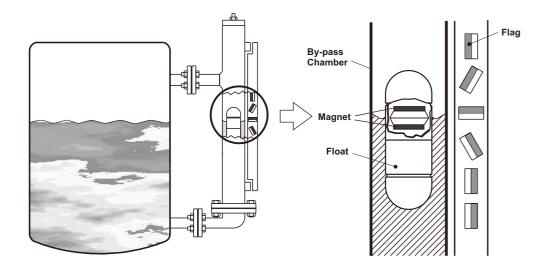
# **OPERATING PRINCIPLE:**

By-Pass indicators accurately show the liquid level inside a tank. The bypass chamber contains a magnetic float which rises and falls with the liquid

The user can physically see the changes as the flag indicators change color as the magnetic float passes by. Analog output and switches are also available.

# **FEATURES:**

- Withstands high temperatures, pressure and highly corrosive liquids.
- Highly rigid even in hazardous locations.
- Level transducers for analog output or adjustable magnetic switches available.
- Unaffected by power disruptions.
- Liquid level visible to user.







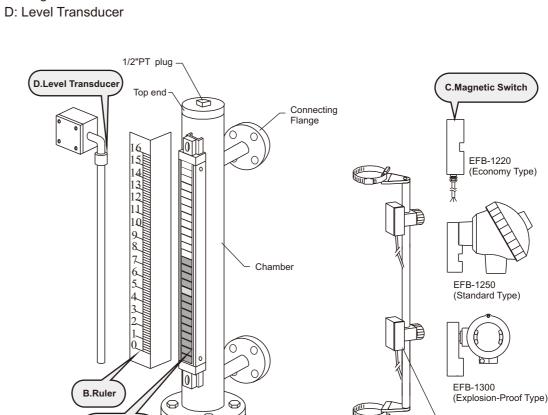
# **SPECIFICATIONS:**

Chamber material	Stainless Steel SUS304/ SUS316
C-C distance	150mm~5800mm
Connection	3/4"~4" Flange/ Threads ANSI, JIS, DIN or other
S.G. of float	0.6~0.87
Operating pressure	max. 25 kg/cm <sup>2</sup>
Operating temperature	max. 200°C
Protection	IPX7



B: Metal Ruler

C: Magnetic Switch





EFB-1400 (Adjustable Type)

#### OPTIONAL ACCESSORIES FOR BY-PASS LEVEL TRANSMITTER:

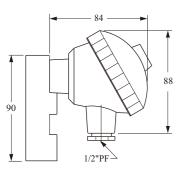
#### **Magnetic Switch**

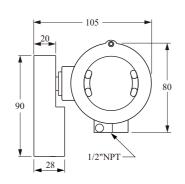
Contact form: SPDT hold type: EFB-1220, EFB-1250, EFB-1300 SPDT normal type: EFB-1230, EFB-1260, EFB-1310

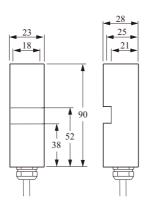
Contact capacity: 1A/ 30W/ 200Vdc/ 240Vac

Operating temperature: -20~200°C

Protection: IP67







#### **Level Transducer**

Material of housing: Aluminum: K. X. L type

SUS304/SUS316: N type

Tube :  $\phi$ 14mm /  $\phi$ 17.2 (length over 3M)

SUS 304 or SUS 316

Accuracy: 6.35mm

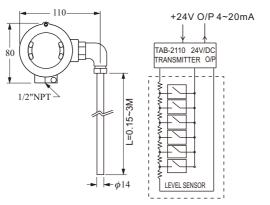
Output: 4~20mA two-wire

Power: 12~36Vdc

Megsuring range :  $0.15~3M / 3~5.8M (\phi 17.2)$ 

Ambient temperature.:-10~80°C

Accuracy: ±0.1%



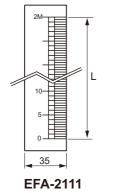
# Ruler

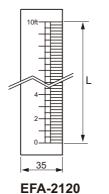
Dimension: 35(W)x1.5(T)xL

Material: SUS 304 Numbr color: Black

Operation temperature: -20~400°C

Length: 5.8M (228")





# PM/ PB Display Meter

#### FEATURES:

Display meters can be connected to our level sensors to show the user the exact liquid level inside the tank/bin. It is also possible to set switch for high and low levels on the meters.

# **SPECIFICATIONS:**

Digital display model
PM-1430 \ PM-1530
PM-2430 \circ
Bargraph display model
PB-1471 \ PB-2471 \
PB-1470 \ PB-1570 \circ

Power supply 85~265 Vac / 18~36Vdc

Input signal 4~20mA / 0~20mA 2~10Vdc / 0~10Vdc

Output signal 4~20mA/0~20mA 2~10Vdc / 0~10Vdc

Relay output 4 or 6 replay contacts(max. 8) SPST 3A/250Vac

Operating temperature 0~55°C

Display

4 or 5 digits,
101 segment LED bargraph

Dimension  $96 (W) \times 48 (H)$  $48 (W) \times 144 (H)$  $144 (W) \times 48 (H)$ 









# **MEF Mini By-Pass Level Transmitter**

# **APPLICATION:**

Applicable in various environments such as oil tanks, water tanks and steam boilers.

Especially useful in tight or limited spaces

# **FEATURES:**

- Visible changes in liquid levels.
- Compact & easy to install.
- Magnetic switch can be installed to monitor the high/ low level with alarm output.
- Level transducer available with 4-20mA output.

# **SPECIFICATIONS:**

Wetted parts material chamber	Stainless Steel SUS304/ SUS316
C-C distance	150mm~3000mm
Connection	3/8"~3" Flange/ Threads ANSI, JIS, DIN or other
S.G. of float	0.7~0.8
Operating pressure	max.10Kg/cm <sup>2</sup>
Operating temperature	max. 200°C
Protection	IPX7





# FD Bilge level switch

# **WORKING PRINCIPLE:**

The float moves up and down with the liquid in the tank. The magnet inside the float actuates the switch which can turn any connected devices on and off.

# SPECIFICATIONS:

Switching Capacity Max.	50W SPST
Switching Voltage Max.	240Vac/200Vdc
Switching Current Max.	1A
Operation Pressure	1 ATM
Operation Temp.	max. 80°C
Wetted Material	SUS304 (NBR float)
Suitable S.G.	0.7
Connector/ Cable	M12/PVC/Silicon /DIN 43650

# **FEATURES**:

- Durable performance.
- Optional stainless steel -SUS304/ 316L
- Reed switch and wires isolated from liquid for safety.
- No power supply required.
- 1 million switching lifetime.
- Slosh shield prevent false actuation due to turbulence



# FDB-0450 SLOSH SHIELD PARTS

