BY-PASS LEVEL TRANSMITTER OPERATION MANUAL

TRANSDUCER WIRING DIAGRAM

1) User can choose to use either an analogue or digital meter as a terminal display based on the application.
2) Please refer to Fig. 1 for the wiring diagram of analogue meter; Fig. 2 for digital meter.
3) Digital meter has to come with 24Vdc power supply, 4~20mA Input. Another 24Vdc power supply will be required is there is no 24VDC.
4) Digital meter can bring with 2-4 control points setting.
5) Please contact us if users need the meters from our company.

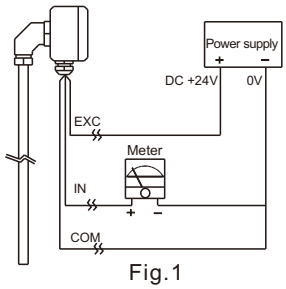


Fig.1

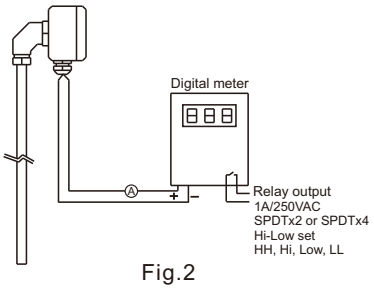


Fig.2

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Float no function	Sediment of detected material or something getsinto the chamber and causefloat jammed.	Clean the chamber.
Actual liquid level isn't simultaneous with that shown on the flag display.	Specific Gravity of the detected material doesn't match with that of the float.	Order the specs of float that matches with that of the detected material.
Abnormal display on flag display	Liquid level rising speed too fast, > 1cm/sec	Reduce the rising speed of the liquid level.
Liquid leakage from flange connection	Washer ageing	Replace with the same specs and material of washer.
Transducer abnormal function	Power supply is not 24V.	Adjust power supply.
	Connection problem	Check the connection.
Magnetic switch doesn't function.	The gap between the magnetic switch and chamber is too big.	Narrow the distance between the magnetic switch and chamber.

MAINTENANCE

1. Sediment of detected material might occur at the bottom and wall of the chamber and the float after a period of time of using. It is necessary to clean it off to ensure the accuracy of the display. To clean the chamber, open the bottom flange. Don't reverse the direction of the float while putting the float into the chamber.
2. Conduct regular check on the sealing washer connected to the flange. Ageing washer should be replaced with a new one to prevent leakage.
3. Ensure all fixtures to be tightly secured.
4. Ensure the transducer and the magnetic switch function normally.
5. Turn off the power before opening the transducer and the housing of the magnetic switch.

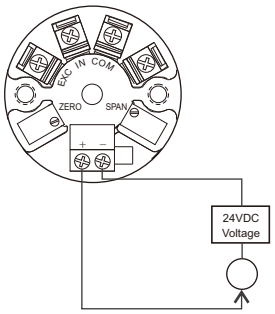
BEFORE USING / OPEN CHECK

1. Please check the packing situation.
2. Please contact us while finding any problem.
3. Please check the content:
   a). Complete product x 1 set
   b). Operation Manual x1 pc
   c). Quality Approval x 1 pc

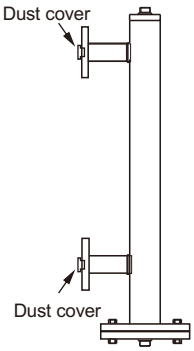
ADJUSTMENT ON TRANSDUCER

1. Position of the flag display, ruler, and the transducer of the level indicator are already setup in our factory based on the order of the customer, so it is suggested that the customer shall not make any adjustment on the abovementioned.
2. Position of the magnetic switch is adjustable based on customer's application.
3. When the liquid level doesn't match with the value of the transducer, user can adjust the transducer by following the steps below:
   a). Put the float in low level position, and adjust "ZERO" to 4-mA.
   b). Put the float in high level position, and adjust "SPAN" to 20mA.

★ **Attention!** To avoid error on measurement, never openthe housing to adjust "ZERO" and "SPAN" while the transducer is in operating condition.



MAINTAIN



1. Before the installation, please remove the dust cover as indicated in the picture.
2. The tank in which the level indicator will be mounted must NOT be an obturated tank.
3. Level indicator should be vertically mounted on the tank, and the deviation of the vertical degree should be less than 3°.
4. While arranging the connection, always keep the cables away from high temperature articles.
5. Make sure that the Specific Gravity of the detected material is consistent with that shown on the metal plate.
6. Rising speed of the liquid level should be ≦ 1cm/sec.
7. Make sure no article is in the body of the chamber while installing the level indicator.
8. ON / OFF signals are generated through the interaction of the magnetic switch and the magnetic line, so any magnetic force or magnetic articles should be kept at least 10cm away from the level indicator to avoid interference.
9. When the load of the magnetic switch is an inductive or capacitive, it is necessary to have a RC parallel connection at both ends of the contact to protect the contact.
10. Make sure that all wirings are correctly connected before supplying the power to prevent damage on the magnetic switch.
11. Avoid fierce attack on the magnetic switch to prevent damage on the float.
12. Power supply of the transducer: 24Vdc.
13. While dismounting the level indicator, loosen the bottom flange and take out the float to clean. Make sure to keep the tip of the arrow in the upward direction while putting the float back to the chamber. For customized floats which are without the arrow sign, please keep the heavy end (where the magnet is located) upward while putting it back to the chamber.

FineTek Co.,Ltd.
No.16, Tzuchiang St., Tucheng Industrial Park, New Taipei City 23678, Taiwan.
Tel: 886-2-22696789 Fax: 886-2-22686682
Email: info@fine-tek.com http://www.fine-tek.com

ISO 9001
08-EFXX-B0-EM,08/19/2013