

# FF7X SERIES EXPLOSION TYPE SIDE MOUNTING FLOAT SWITCH OPERATION MANUAL



NEPSI PROOF NO.GYJ111213 Ex d IIC T3~T6  
 PTB PROOF NO.05 ATEX 1025 Ex II 2G Ex d IIB T6~T4 Gb  
 Ex II 2D Ex tb IIIC T85°C~T135°C  
 Db IP65

**APPLICABLE MODEL:FF70,FF71,FF73,FF74,FF75**

## PRINCIPLE:

Employ theory of liquid buoyancy for the main principle of "FF" series. With change of liquid level the float travels up and down. The reed switch inside the enclosure acts by the affect of magnet on pivot. The same theory applies to micro swith . Utilize the interaction between magnets of pivot and micro switch to activate micro switch.

## SPECIFICATION:

- 2.Contact Rating : 1) 5A/250 Vac (Micro Switch)  
 2) 20W 220Vac/200Vdc (Reed Switch)  
 3.Contact Form : SPDT 、 DPDT (FF12CEM)

## Trouble-Shooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
The float doesn't working	Thepivot is blocked by granule	Clean out the bitty or greanule
	The outer linking pipe is too long to make pivot function	Shorten the length of outer linking pipe.
	The float is blocked and inundated.	Replace the float.
No signal output	Cable connection problem	Check the cable connection
	Reed Switch is damaged	Replace the reed or micro switch

\*Shall the trouble not to be rooted-out, please contact us.

## MAINTAIN

- 1) Clean out the bitty or granule from float & pivot regularly.
- 2) Please check & fix all components into correct position.

## BEFORE USE / OPEN CHECK

- 1) Please check the packing situation.
- 2) Please contact us while find the damage.
- 3) Please check carton content :
  - a)One set of Complete Product.
  - b)One set of Operation Manual.
  - c)One set of QA certificate.

## INSTALLATION:

1. The cable duct must face downward.
2. The float and extension rod must be inserted into a bin completely.
3. Check the liquid object's S.G. before installation.
4. The mounting hole must be larger than that of float.
5. Don't to mount the devices near the bin's inlet or outlet.
6. When the float move to horizontal position, the switch will be turned on or off.
7. The diameter and length of the connecting pipe of tank are in a direct ratio.  
Please refer it as below :

Pipe Dia.	45~50mm	50~55mm	55~60mm	60~65mm	65~70mm
Pipe Length(Max.)	130mm	140mm	150mm	160mm	170mm

8. Tolerance of the total product length is  $\pm 5$ mm

## INSTALLATION INSTRUCTIONS FOR EX-PROOF PRODUCTS:

1. There is an internal/external ground terminal in the housing. Please be sure to ground terminals when you use.
2. When install or maintain in the field, to comply with the caution "Open after power off"
3. Cable conduit should equip with explosion approval device (AD105DS). It can't be revised arbitrarily and have to lock well.
4. Be sure to obey the safe regulation of electric appliance for dangerous field when install and maintain.
5. Corrosive gas or liquid application isn't available for Aluminum & Stainless (SUS) material.
6. The level of temperature class for explosion sign and its maximum allowed temperature relating to the medium.

Temp. categories	T1	T2	T3	T4	T5	T6
Max. surface temp.	$\leq 450^{\circ}\text{C}$	$\leq 300^{\circ}\text{C}$	$\leq 200^{\circ}\text{C}$	$\leq 135^{\circ}\text{C}$	$\leq 100^{\circ}\text{C}$	$\leq 85^{\circ}\text{C}$
Medium temp.	$\leq 440^{\circ}\text{C}$	$\leq 295^{\circ}\text{C}$	$\leq 195^{\circ}\text{C}$	$\leq 130^{\circ}\text{C}$	$\leq 95^{\circ}\text{C}$	$\leq 80^{\circ}\text{C}$

7. Customers can't change the internal components and have to check the outer.



## Aplus Finetek Sensor, Inc.

California, U.S.  
 355 S. Lemon Ave, Suite D, Walnut, CA 91789; Tel : 1 909 598 2488  
 Illinois, U.S.  
 1741 Industrial Drive, Unit #3, Sterling, IL 61081; Tel : 815-632-3132  
 Email: info@aplusfine.com