



## F/S FP Series Flameproof Float Switch

The Deeter F/S FP is magnetic float on a reed switch sensor stem for control and indication of a liquid level while in a potentially explosive atmosphere.

 II 1/2G 2D  
Ex db IIC (\*) Ga/Gb      $-55^{\circ}\text{C} \leq \text{Ta} \leq +85^{\circ}\text{C}$   
Ex tb IIIC (\*) Db      $-40^{\circ}\text{C} \leq \text{Ta} \leq +85^{\circ}\text{C}$   
IP68

 II 2GD  
Ex db IIC (\*) Gb      $-55^{\circ}\text{C} \leq \text{Ta} \leq +85^{\circ}\text{C}$   
Ex tb IIIC (\*) Db      $-40^{\circ}\text{C} \leq \text{Ta} \leq +85^{\circ}\text{C}$   
IP68

\* Temperature class options to suit environment and process temperatures  
T5 / T100°C for process temperatures  $\leq 85^{\circ}\text{C}$   
T4 / T135°C for process temperatures  $\leq 125^{\circ}\text{C}$   
T3 / T200°C for process temperatures  $\leq 190^{\circ}\text{C}$

Atex Certificate: ExVeritas 17ATEX0301X  
IECEX Certificate: IECEX EXV 17.0030X  
Refer to certificate for clarification of directive code and equipment protection level.



### Features include:

- ATEX and IECEX approved.
- Custom length sensor stems up to 6 Metres.
- Stainless steel 316 housing and wetted components.
- Up to 7 switch points on one stem.
- Custom made for mixed normally open/normally closed switches.
- Suitable for gas and dust environments.
- IP68 Ingress protection.
- Voltage free reed switch contacts.
- M20 or ½"NPT cable connections.
- Custom mounting options available.
- Narrow sensor stem and mounting for tanks without internal access.
- Suitable for high liquid temperatures.
- Can be specified for process temperatures down to  $-55^{\circ}\text{C}$

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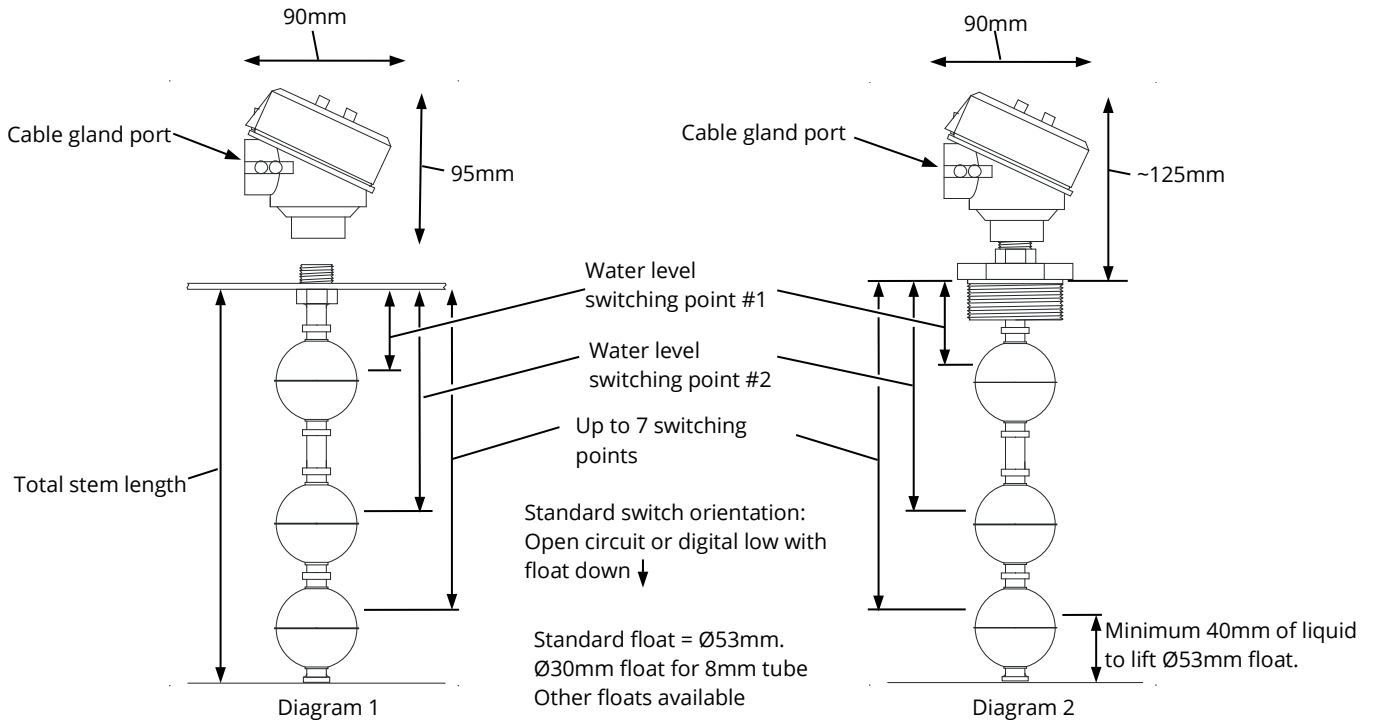
Type	Specification	
Sensor technology	Magnetic float with reed switch	
Sensor tube and wetted materials	Stainless steel 316L	
Connection head material	Stainless steel 316	
IP rating with suitable cable gland	IP68	
Approximate weight: Ø12mm stem Ø8mm stem	1Kg +process connector + 0.5Kg/Metre 1Kg +process connector + 0.3Kg/Metre	
Float Diameter: Specific gravity: Ø12mm stem Ø8mm stem	53mm : 0.65 30mm : 0.75	Other floats available
Maximum liquid temperature: Reed switch Hall Effect	-20 to +85°C -10 to +80°C	-55°C/-40°C or +125°C/+190°C on request
Maximum head temperature	-55 to +80°C for Gas hazard -40 to +80°C for Dust hazard	Note 1
Maximum operating pressure	150PSI / 10Bar standard 450PSI / 31 Bar	Note 2
Thread connection-Sensor tube	½"-14 NPT	
Thread connection-Wiring port	½"-14 NPT or M20X1.5	
Connection head height	95mm	
Switch rating: >4 point Reed switch <=4 point reed switch	0 to 50Vdc. 1Amp. 50Watts Max 0 to 240vac. 1Amp. 50Watts max	Note 3

Note 1: When this equipment is intended to be used in a liquid with a process temperature above 85°C it is an essential requirement that the sensor head temperature is measured to determine if the ambient air cooling is sufficient to keep the head below 80°C. See installation manual for detail.

Note 2: The F/S FP sensor float and tube can withstand the stated pressure when sealed inside a tank. The connection head and resin seal to the sensor stem must not be pressurised. The standard Zone 0 fittings are rated at 10bar, these fittings are not part of the certified flameproof seal and should not be considered as part of an explosion proof containment. Please call our technical sales department regarding sensors for liquid pressures up to 31bar.

Note 3: The sum current drawn by all switch points must not exceed 1Amp total.

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### Ordering information

Due to the various options available please call our sales office to discuss your requirements. Options include: Probe length, Switch voltage, Switch point quantity, Switch point height, Threaded mounting/seal options, float sizes, 8 or 12mm sensor tube, cable entry thread.

Upon receipt of the above information a drawing and Deeter part No. will be issued to identify the options selected. This part No. will be required when making your order.

**All electrical equipment should be installed by a qualified/certified electrician.**

Deeter Electronics Ltd. follows a policy of continual development of its products and reserves the right to change specifications and/or features without notice.

