



F/S FP Series Level Sensor

The Deeter F/S FP is a magnetic float on a reed switch or Hall Effect sensor stem for control and indication of a liquid level, and can be specified for use in potentially explosive atmospheres and marine environments.

ATEX coding:

 II 1/2G 2D
Ex d IIC (*) Ga/Gb
Ex t IIIC (*) Db IP68
-20°C ≤ Ta ≤ +85°C

 II 2GD
Ex d IIC (*) Gb
Ex t IIIC (*) Db IP68
-20°C ≤ Ta ≤ +85°C

* Temperature class options to suit environment and process temperatures
T5 / T100°C for process temperatures ≤ 85°C
T4 / T135°C for process temperatures ≤ 125°C
T3 / T200°C for process temperatures ≤ 190°C

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

Bureau Veritas Marine Type Approval Certificate: 53346/A0 BV

Features include:

- Available with ATEX and IECEX Ex d approval.
- Available with Bureau Veritas Marine Type Approval.
- Custom length sensor stems up to 6 Metres.
- Stainless steel 316L 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 or Hall Effect sensing technology.
- 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.



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| Type | Specification | |
|--|---|----------------------------|
| Sensor technology | Magnetic float with reed switch or Hall Effect | |
| Sensor tube and wetted materials | Stainless steel 316L | |
| Connection head material | Stainless steel 316L | |
| 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 +45°C | 125°C/190° C on request |
| Maximum head temperature | -20 to +80°C | Note 1 |
| Maximum operating pressure | 150PSI / 10Bar standard 450PSI / 31Bar | Note 2 |
| Thread connection-Sensor tube | ½"-14 NPT | |
| Thread connection-Wiring port | ½"-14 NPT or M20X1.5 | |
| Connection head height | 95mm | |
| Power supply: Reed switch Hall Effect | Voltage free contacts 7 to 28Volts | |
| Switch rating: >4 point Reed switch <=4 point reed switch Hall effect | 0 to 50Vdc. 1Amp. 50Watts Max 0 to 240vac. 1Amp. 50Watts max Open collector 28Vdc Max. 50mA Max | Note 3 |

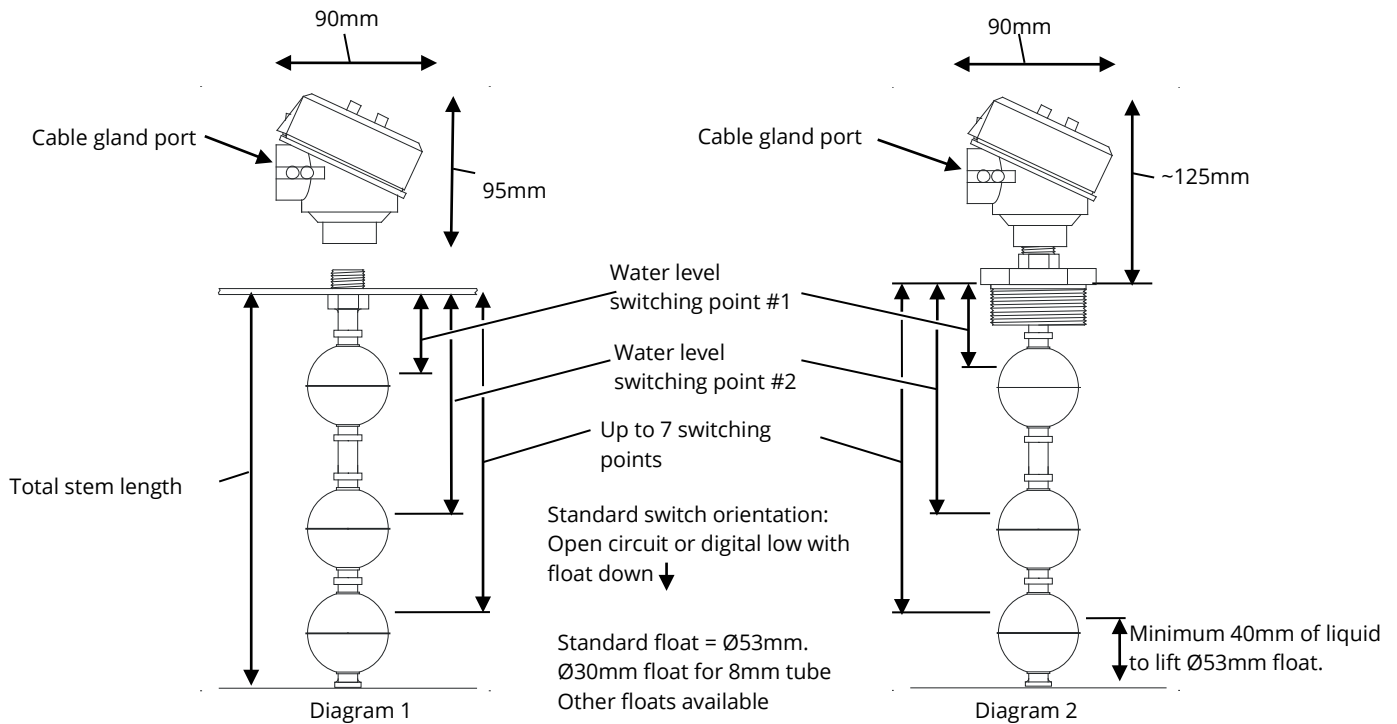
Note 1: When this equipment is intended to be used in a liquid with a process temperature above 85°C it is an essential requirement that the sensor head temperature is measured to determine if the ambient air cooling is sufficient to keep the head below 80°C. See installation manual for detail.

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 zone0 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.

Please note that this product only has ATEX/IECEx approval when it bears the Ex logo and coding on the product labelling and is supplied with a valid ATEX/IECEx certificate.

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Ordering information

Due to the various options available please call our sales office to discuss your requirements. Options include: ATEX/IECEX Approval, Marine Type Approval, Probe length, Switch voltage, Switch point quantity, Switch point height, Threaded mounting/seal options, Reed/Hall Effect technology, 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.

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