



## Ex Hazardous Horizontal Float Switch

TM-DEE-HFS Ex


The HFS Ex Hazardous Area Horizontal Float Switch is a float operated magnet arm on a reed switch sensor stem for control and indication of a liquid level while in a potentially explosive atmosphere.



Features include:

- ATEX and IECEx Ex d approved.
- Voltage free SPST or SPDT reed switch contacts.
- Stainless steel 316L housing and wetted components.
- Custom mounting options available.
- Suitable for high liquid temperatures.
- Suitable for gas and dust environments.
- IP68 Ingress protection.
- Suitable for low specific gravity liquids.
- M20 or ½" NPT cable entry.

ATEX Coding:

 II 1/2G 2D  
Ex db IIC (\*) Ga/Gb  
Ex tb IIIC (\*) Db  
-20°C ≤ Tamb ≤ +85°C

\* Temperature class options to suit the 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: ExVer 17ATEX0280X

IECEX Certificate: IECEx ExV 17.0016X

All Specifications are subject to change without notice



# TECHMARK

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## Ex Hazardous Horizontal Float Switch

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Type	Specification	
Sensor technology	Reed switch operated by float on magnetic arm	
Sensor tube and wetted materials	Stainless steel 316L	
Connection head material	Stainless steel 316L	
IP rating with suitable cable gland	IP68	
Approximate weight	1.2Kg to 2.5Kg depending on mounting option selected	
Float Diameter Specific gravity	37.5mm Suitable for liquid specific gravity >0.4	Other floats available
Maximum liquid temperature: For T5/100°C hazard environment For T4/135°C hazard environment For T3/200°C hazard environment	-20 to +85°C -20 to +125°C -20 to +190°C	
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	
Voltage free contact switch rating: SPST Form A SPDT Form C	0 to 240Vac. 1Amp. 50Watts Max 0 to 50Vdc. 0.25Amp. 20Watts Max	

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 HFS Ex 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 pressure of the hazardous zone must not exceed normal atmospheric conditions (0.8 to 1.1bar).

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.

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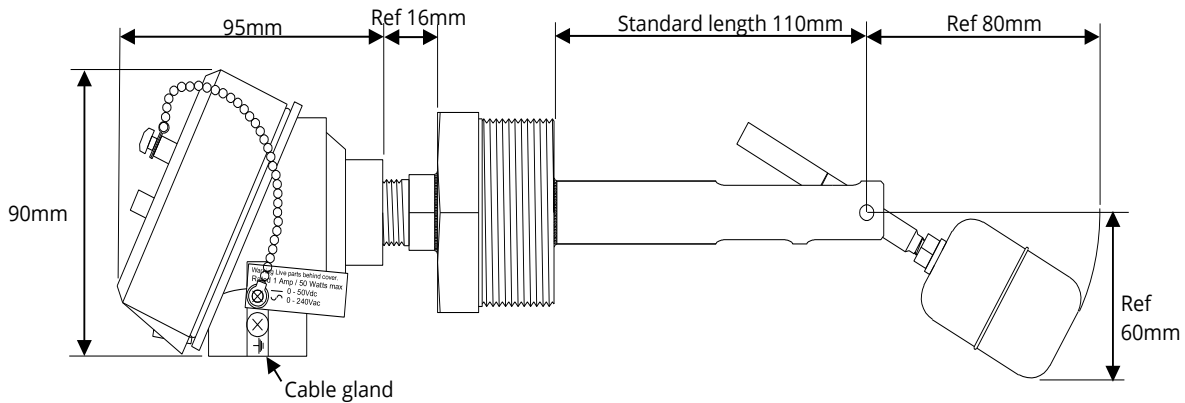
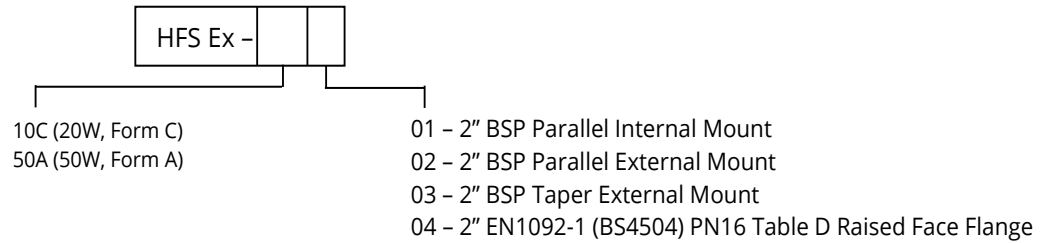


Diagram 1

### Ordering Code



Example: HFS Ex-10C01 = Hazardous Area Horizontal Float Switch Level Switch, 4 Watt Form C switch, 2" BSP Parallel Internal Mount.

**Custom sensor lengths and mounting options are available. Please contact our sales office for more information.**

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