

TraceTek Fast Fuel Detection Probe

Product Overview

TraceTek® Fast Fuel Sensor is a fast-acting probe designed to detect hydrocarbon fuel floating on water, spreading on a flat surface, or collecting in a sump. The probe ignores water but detects a thin film of fuel floating on the surface.

The probe is available in two lengths for fixed position installations and can also be fitted onto a float assembly if the water level is unpredictable. Reaction time for the probe is typically a few seconds for light or middle weight fuels such as gasoline, jet fuel, and diesel. It is also responsive to crude oil and some heavier weight fuels and heating oils but becomes progressively slower as the fuel volatility decreases.

In many cases the FFS probe will reset after the probe is removed from contact with the spill and the fuel is allowed to evaporate. Some heavier fuels require that the sensor be soaked in isopropyl alcohol in order to clear the heavier fuel residuals. The sensor may be used repeatedly without replacement until it will no longer reset. The probe fails in the “alarm” state so there is no ambiguity when it is necessary to replace the probe. TT-FFS probes are designed to work only with TraceTek leak detection instruments and are not suitable for use with other non-TraceTek circuits. The probe may be periodically tested using a small amount naphtha (lighter fluid). The probe resets when the naphtha evaporates.



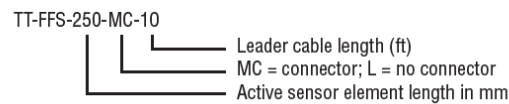
Design Features

- ◆ Fast response to small amount of fuel
- ◆ Resets for multiple uses
- ◆ Easily tested
- ◆ Compatible with TraceTek Instruments
- ◆ Intermix up to 4 FFS probes with TT5000 sensor cable to form hybrid cable and probe systems
- ◆ Suitable for installation in CID1 (Zone 0) with appropriate safety barrier
- ◆ SIL-2 Rated Safety System Component

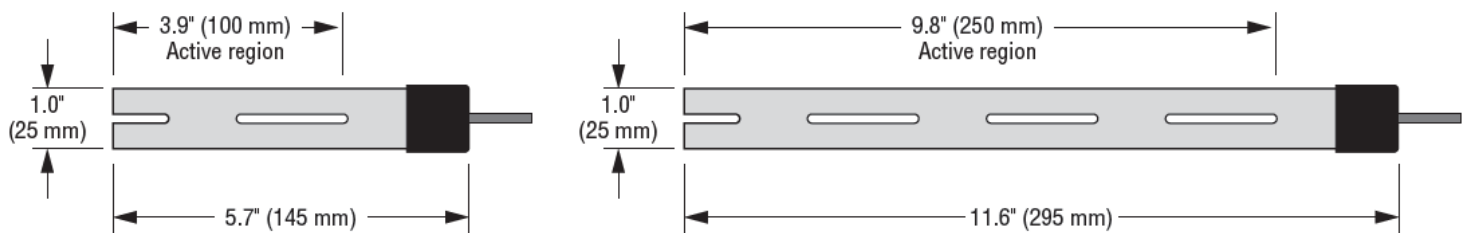
FFS Probes without Connectors

FFS Probes with – MC Series Metal Connectors

Part number	Description	Part number	Description
P000000984	TT-FFS-100-L-1	P000000990	TT-FFS-100-MC-1
P000000985	TT-FFS-100-L-3	P000000991	TT-FFS-100-MC-3
P000000986	TT-FFS-100-L-10	P000000992	TT-FFS-100-MC-10
P000000987	TT-FFS-250-L-1	P000000993	TT-FFS-250-MC-1
P000000988	TT-FFS-250-L-3	P000000994	TT-FFS-250-MC-3
P000000989	TT-FFS-250-L-10	P000000996	TT-FFS-250-MC-10



Dimensions



Product Characteristics

External diameter	1 inch (25.4mm)
Colour	Orange
Tube Material	Polypropylene with static charge reduction additive
Leader cable	4 x 22 AWG, polyurethane jacketed, fuel resistant
Connector	TraceTek "MC" series compatible with all TraceTek MC components and cable Note: FFS is wired in "End Termination" configuration

Operating Environment Information

Operating/storage temperature	-40°F to 185°F (-40°C to 85°C)
Saltwater immersion resistant	30 days in 3% salt water at 20°C without failure or degraded response
Hot water immersion resistant	30 days in 60°C water without failure or degraded response
Acid resistant	24 hours in 10% H ₂ SO ₄ or 10% HNO ₃ without failure or degraded response

Response Time

Representative materials detected: **Typical response time at 20°C:**

Gasoline Less than 5 seconds

Jet A fuel **Less than 5 seconds**

Diesel Less than 5 seconds

Naphtha **Less than 5 seconds**

Crude oil 3 minutes

Biodiesel (B100) **45 seconds**

Approvals



IS/Class I, Div. 1, Groups A, B, C, D/T4; Class I Zone 0, AEx ia IIC T4
NI/Class I, Div. 2, Groups A, B, C, D/T4; Class I Zone 2, Group IIC T4



IEC 61508 Safety Integrity Level -2 (when used with TTC-1)
Ref BN/PTX/CB859/1580190/06/R/216/0

Important

All information, including illustrations, is believed to be reliable. users, however should independently evaluate the suitability of each product for their application.