Issue Date: April 15, 2022

Franklin Fueling Systems

Franklin Fueling Systems EVO600 and EVO6000 with FMP-DDS Discriminating Dispenser Sump Sensor and FMP-DTS Discriminating Turbine Sump Sensor

INTERSTITIAL DETECTOR (LIQUID-PHASE)

Detector:

Output type: qualitative
Sampling frequency: continuous
Operating principle: float switch

Test Results:

	unleaded gasoline	diesel	E85	water/E85 20%/80% upper layer	water/E85 80%/20% lower layer	water/E85 30%/70% upper layer	water/E85 70%/30% lower layer
FMP-DDS/DTS							
Detection time (min)	7.8	53.8	7.8	5.8	15.2	6.2	7.0
Fall time (min)	<20	<60	<20	<20	<20	<20	<20
Detection Limit (in)	0.125	0.125	0.125	0.125	0.125	0.125	0.125

	water
FMP-DDS	
Detection time (min)	<1
Fall time (min)	<1
Threshold Level	
Low level (in)	1.1090

High level (in)	7.4687

FMP-DTS

Detection time (min)	<1
Fall time (min)	<1
Threshold Level	
Low level (in)	1.1698
High level (in)	10.9522

Applicability:
California Code of Regulations require a written statement of compatibility for systems containing products other than those used in this evaluation.

Comments:
Sensors can be removed, cleaned and reinstalled if an alarm is triggered or if the sensor is periodically tested. The FMP-DDS and FMP-DTS sensors are identical in operation and communication to Franklin Fueling System's TSP-DDS and TSP-DTS sensors. The FMP-DDS and FMP-DTS sensors can connect to any INCON console with no software or setup changes. FMP-DDS and FMP-DTS sensors can be distinguished from TSP-DDS and TSP-DTS sensors by the part number on the label that begins with "FMP" instead of "TSP." The TSP-DDS, TSP-DTS, FMP-DDS, and FMP-DTS sensors appear as the same device from the automatic tank gauge.

The DDS and DTS sensors contain an identical product sensitive strip that triggers a product alarm when exposed to any type of fuel. The top and bottom floats of both types of sensors detect the presence of liquid and an alarm will be generated if the liquid rises above the threshold of either float. When the product sensitive strip was tested in each of the three mixtures of water/E85, the DDS and DTS sensors went into alarm when subjected to the top and lower layers of water/E85. For the upper layer containing hydrocarbon, the DDS sensor indicated a product alarm as designed for each of the 20%, 30% and 70% of the water/E85 mixture. For the lower layer of each of the 20%, 30% and 70% of the water/E85 mixtures, the 20% mixture indicated a product alarm after a short period of time, while the 30% and 70% mixtures indicated a water alarm when the threshold of the bottom float was exceeded but did not detect the presence of product after a period of 24 hours.

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