

TANK HIGH ALARM SWITCH

Model HLS, Fil-A-Larm Switch

The Model HLS Tank Fil-A-Larm Switch is used on light fuel oil storage tanks to reliably activate an overfill warning signal. This alerts the transfer operator to stop filling the tank. Federal codes for overfill prevention may be satisfied by an overfill alarm that sounds when the tank contents reach 90% of the tank capacity or one minute prior to overflow if the rate of fill is constant.

The control consists of a sealed brass probe that screws into a 1 1/4" NPT tapped opening in the top of the tank. A magnetic reed switch is factory encapsulated inside the probe where it is protected from liquid vapors. The closed cell Buna-N magnetic float is the only moving part.

Applications

The Model HLS level switch may be used with any light fuel oil or clean low viscosity fluid compatible with the brass probe and Buna-N float materials. The Model HLS is not intended for installation where a portion of the control outside the tank might be submerged. Provide a suitable protective enclosure for access when installing underground. The Preferred sidewalk fill box is suitable for this purpose.

Suggested Specifications

Tank high level alarm switch shall be Model HLS-X (where X is the distance between the bottom of the 1 1/4" mounting boss and the desired liquid level alarm point in inches) as manufactured by Preferred Utilities Mfg. Corp., Danbury, CT. It shall be float-operated, installed through a single 1 1/4" NPT tapping on the top of the tank, suitable for pressures up to 150 PSIG, manufactured entirely of nonferrous material, and complete with a switch rated at 100 watts. Electrical connections shall be made external to the tank in an explosion-proof head assembly approved by Underwriters Laboratories for Class I, Groups C & D applications.

Approvals: Meets the requirements of NFPA 30 Section 2-10.3, and 40CFR Subpart B, part 280.20c for overfill prevention on underground storage tanks when used with the Preferred Utilities Model FA-AV and an alarm bell.

Tank Diameter	80% Warning	85% Warning	90% Warning	95% Warning
4'	12"	10"	8"	5"
6'	18"	15"	12"	7"
8'	24"	20"	15"	10"
10'	30"	25"	19"	12"
12'	36"	30"	23"	15"

Distance between fluid and top of tank inner wall for various "percentage of full" warnings.



Fil-A-Larm Switch, Model HLS

Specifications:

Mounting:	1 1/4" NPT coupling
Fluid Temperature:	180° F maximum
Fluid Specific Gravity:	0.5 minimum
Fluid Pressure:	150 PSIG maximum
Electrical*:	SPST, 100W at 120 VAC resistive, 20 mADC 24 VDC resistive, 8 VA (holding) AC relay coil duty
Switch Action:	Can be N.O. or N.C.**
Electrical Housing:	Cast aluminum, weather-proof, explosion-proof
Wetted Parts:	Brass probe and Buna-N float
UL Listed:	Class I Groups C & D

* Do not operate tungsten lamps directly from the contacts of the Model HLS as the cold filament inrush current will damage the contacts

** When the HLS is used with a Preferred Model FA-AV-1, 2, or 3, please specify that switch is to be "normally closed" (N.C.).

Ordering Information

Order Model HLS-__" (NO or NC). Use the table to find the distance from the fluid surface to the top of the tank at the desired "percentage of full" warning level and enter that value into the model ordering description. If the Model HLS mounting boss will be mounted above the tank inner wall due to a riser, bushings, double-wall construction, etc., add this amount to the effective length of the probe when ordering.