

Sample Specification for Floating Oil Thickness Monitor (Model 2114 & 2214 series)

The oil sensor shall be of a high frequency capacitance technology to monitor for the dielectric change between the water and the surface oil.

The main electronics is to be an intelligent (smart) controller mounted remote from the probe using a 2-conductor shielded wire. This will be housed in a Type 4X enclosure with viewing window for the display.

All calibration, power and control wiring shall be at the control unit. Power input shall be specified as 24vdc or 120 vac or 230 vac. Calibration, diagnostics and menu selection shall be accessed by keypad entry and display on a four line LCD backlit display. A display of the surface oil thickness will be user defined in inches, centimeters or percent.

The output shall be an isolated 4-20 mA signal proportional to the user calibrated range. A single point calibration will initiate the unit once installed. Four independent relay setpoints shall be available for user control.

On the 2114 unit, two relays will have time delay, high low fail-safe selection, and full differential for cycling the relays between two points. One relay will initiate a Pump Run Time function, and one relay will indicate a system fault.

On the 2214 unit, two alarm setpoint relays per probe input will be available.

For monitoring up to 5 cm of oil the float sensor #A00083 shall be used. This sensing float shall be of PVC and 304 SS wetted parts.

For monitoring up to 60 cm of oil, the float probe #A00525 shall be used. The probe shall have an included SS concentric shield. The assembly shall be of teflon, PVC and 304SS wetted parts.

There shall not be any electronics in the float assembly. Co-axial will run from the float to a pulse card mounted above the high water mark. This will send a frequency signal to the main control unit via 2-conductor shielded cable.

If two float assemblies are required, a dual input controller shall be used. Each sensor oil level will be displayed simultaneously and have two independent relays and 4-20 mA outputs.

An optional Intrinsic Barrier shall be available to make the float units and pulse cards intrinsically safe where required (Part # A00071)

The oil level system shall be the LevelEase 2114-HCF as manufactured by Arjay Engineering, www.ArjayEng.com.