Hydraulic Low Level Switch

P-HYD-2069

What is the Hydraulic Low Level Switch:

- The Hydraulic Low Level Switch is used as an input in our controller to shut off the hydraulic pumps in the event of low oil, so we don't damage equipment and also reduce the amount of oil lost in case of a leak.

How does it work:

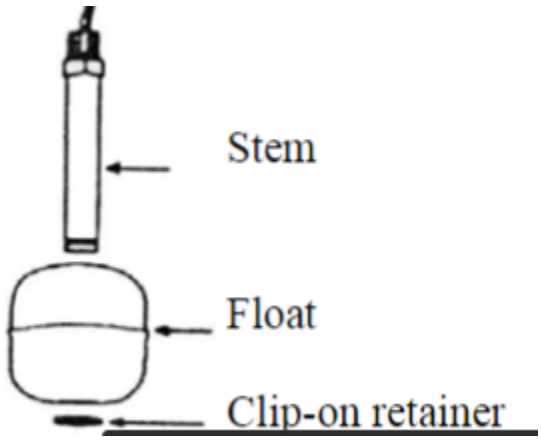
- The switch is a magnetically actuated dry reed switch, which means that there is a magnet inside the stainless housing or float and depending on weather that float is in the up or down position it will open or close an electrical circuit.

Helpful Information:

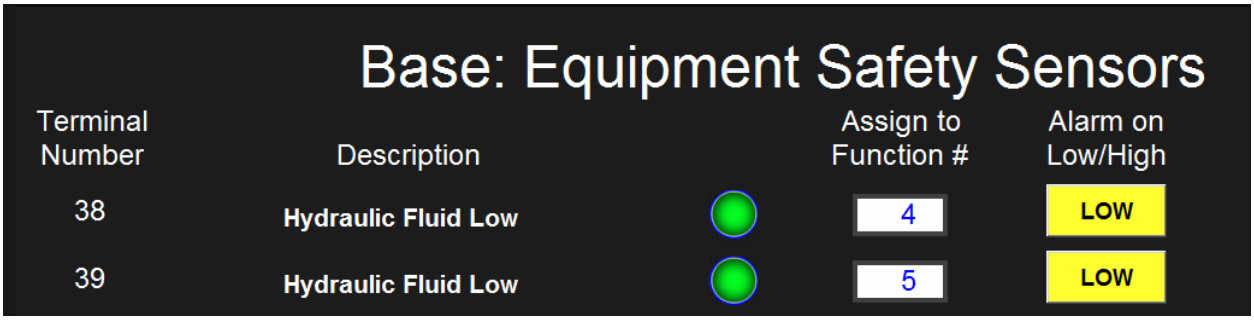
- The switch can be changed from a normally open circuit or to a normally closed circuit by removing the float and turning it around. For normally closed operation the witness mark (round circle) will be down, and for normally open operation the witness mark (round circle) will be up. For tommy carwash controllers we use this switch is normally closed operation.

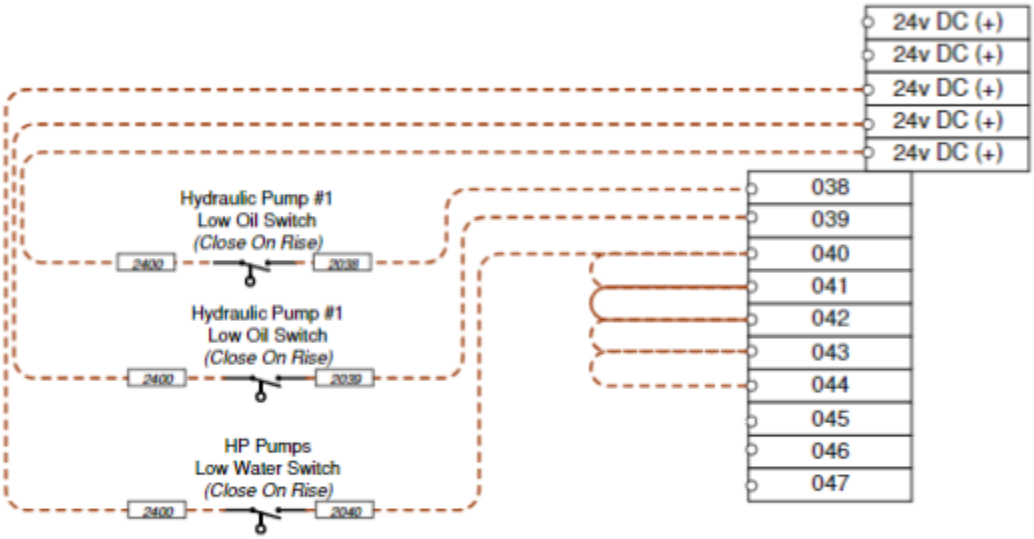
- Ensure that the hydraulic tanks are filled properly, the hydraulic fluid should be just to the top of the sensor. Overfilling the tank will cause excessive fluid leakage before the float gets low enough to activate. Underfilling could cause the float to fluctuate and equipment to turn on and off erratically.

- Maintenance should consist of inspection to see that the float is free to move and not coated with any substance which would change its weight or volume significantly. If this occurs, the float should be removed for cleaning. This is accomplished without disturbing the installation. In addition, the stem may be wiped down to remove any build-up.



- The hydraulic low level float is terminated in our controller as a “Equipment Safety Sensor” and must be setup in order to properly work.
    - Click on “Setup Menu”
    - Than Safety Sensors
    - Find the correct safety sensor based on which terminal its wired to
    - Click the white box under “Assign to Function #”
    - Enter the number of the output you want to turn off when the sensor goes low (IE: if you want output 304 to turn off you type “4” in the box)
    - Make sure you have “Low” selected under the “Alarms on Low/High”
- In this example we are using input 38 for hydraulic tank number 1 low level float and input 39 for hydraulic tank number 2 low level float.





TPA Typical Base Safety Sensor Terminals

Field Wiring
Use #18 THHN
or equivalent