

CAUTION

Prior to installing, the instructions provided herein should be completely reviewed and understood before operating or repairing this equipment. All CAUTION and WARNING notes must be strictly observed to prevent personal injury or equipment damage.

Description

Pneumatic Level Switch (PLS)

The float-actuated snap-acting switch controls a pneumatic signal to open and close the dump valve. The level switch consists of a float on one end and a magnet at the other end. The float is used to determine the presence or absence of liquid in a vessel at the switch connection. As the liquid level in the vessel rises, the float rises, and the magnet falls.

Electric Level Switch Description

The Kimray horizontal electric level switch was originally developed to operate solenoids, relays, and small motors. These devices typically require several watts of power, and fit well in the range of 3W to 100W for the standard horizontal level switch. However, with the trend moving to automation and process monitoring, there is a need to operate in the microwatt range of power typically provided by PLC's, RTU's, and other distributed control systems. The Kimray low-power electronic level switch employs rhodium contacts that prevent potential oxidation issues.

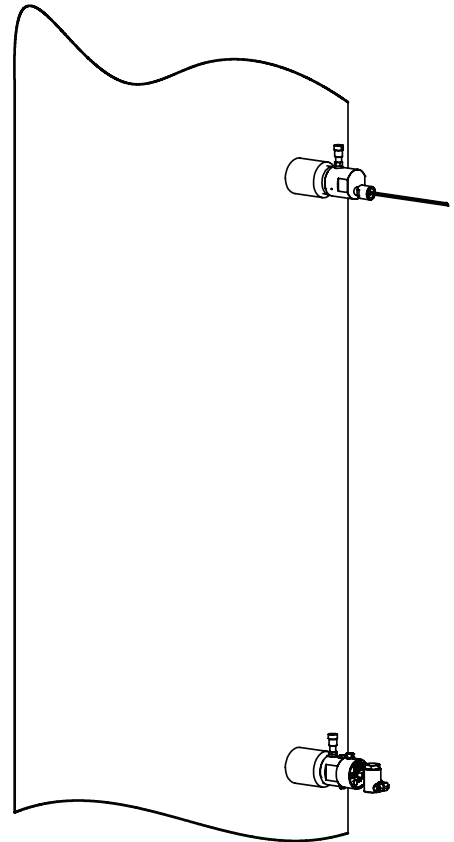
Only use Kimray replacement parts.

Installation

Before installing the pneumatic level switch, inspect it for shipment damage and for foreign material that may have collected during shipment.

To prevent galling or seizing use a nickel-impregnated PTFE thread sealant tape or equivalent.

1. Verify all pressure connections are tight before pressurizing the system.
2. Make certain the float and extension rod are tight.
3. Install on vessel, connect pressure lines.
4. Depending upon orientation, the manual override could be located on either the top or bottom.
5. Test to ensure functionality, run operation.



CAUTION

When ordered, the Float Operated Switch configuration and construction materials were selected to meet specific pressure, temperature, pressure drop and fluid conditions. Since some body/trim material combinations are limited in their pressure drop and temperature ranges, do not subject the Float Operated Switch to any other conditions without first contacting the Kimray Inc. sales office or a sales / applications representative.

FLOAT OPERATED LEVEL SWITCH



QUICK START GUIDE

Start-up and Test

With the installation completed and appropriate relief and check valves installed and set, slowly open the upstream and downstream shutoff valves. In order to test the function of the switch, allow only a small amount of upstream pressure to flow through the upstream shutoff valve. Check for proper switch operation by cycling the manual override several times.

Maintenance

Maintenance should be performed on a regular basis. An initial inspection interval of 6 months is recommended. Depending on the service conditions of the switch, the inspection interval may be decreased or increased.

The switch can be repaired without being removed from the piping.

Only use genuine Kimray replacement parts.

Repair kits and detailed repair instructions are available for each valve.

Visit www.kimray.com or contact your Kimray authorized distributor for additional product information and / or literature.



CAUTION

Determine that the float travel is not obstructed inside the pipe, etc.



Note

For poor quality or damaged threads that are hard to seal, such as parallel threads or threads on fittings subject to vibration, more than three wraps may be necessary.



Note

Use flats for tightening and loosening only. DO NOT use pipe wrench on body.

Inspection Schedule

Body	Under normal conditions, body will last for years
* Under severe operating conditions this maintenance schedule will not be adequate and a more frequent time schedule may be required.	

Trouble Shooting

Problem	Possible Cause(s)	Possible Solution
Switch won't operate	Bad switch cartridge, wrong voltage for cartridge	Replace switch cartridge

WARNING

Before beginning installation:

- Read and follow instructions.
- Make sure the valve cannot operate during installation.

Do not exceed the maximum supply pressure specified on the valve nameplate.

Never tighten any fitting or the main connections to the valve while there is pressure on the line.

WARNING

Before any service, be certain that the valve is fully isolated and that all pressure upstream and downstream has been relieved. Use bypass valves or fully shut off the process.

Be sure that any operating or instrument gas lines have been disconnected.

Never stand directly in front of or over a valve when the system is pressurized. The valve could suddenly open, blowing debris into the person's face and eyes.

WARNING

A leaking valve is an indication that service is required. Failure to take valve out of service immediately may cause a hazardous condition.

NOTE

If conditions indicate the possibility of backward flow you may wish to install check valves. Never assume that a check valve is fully blocking the downstream line.

For questions or comments, contact your local Kimray authorized distributor, or visit www.kimray.com.

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All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.