



Operating Principle of 10-782 Magnetic Reed Switch Float Level Switches

The 10-782 Series magnetic reed switch float level switches offer a reliable and cost-effective solution for OEM liquid level sensing applications. Engineered for design engineers seeking robust and scalable integration options, these switches are ideal for both simple and complex fluid systems across industrial, chemical, and environmental sectors.

Operating Principle

The 10-782 level switch uses a magnet embedded in a float that travels along a fixed stem in response to rising or falling liquid levels. As the float nears the reed switch embedded in the stem, the magnetic field actuates the switch without any physical contact. This non-contact actuation ensures long-term reliability and performance in harsh environments, including corrosive or high-turbulence fluid systems.

Reversible Action

The switch's actuation logic—open on rise or close on rise—is determined by the orientation of the float. OEM designers can easily reverse the float to configure the switch behavior for either normally open or normally closed states, enhancing design flexibility without modifying internal circuitry.

Material Compatibility

Available in Polypropylene, Acetal, and PVDF Kynar constructions, the 10-782 is adaptable to a wide range of fluid applications:

- Polypropylene: Excellent for water, soap solutions, and light acids.
- Acetal: Best suited for petroleum-based liquids like gasoline, diesel, and hydraulic oils.
- PVDF Kynar: Resistant to harsh chemicals, including acids, caustics, and chlorinated compounds.

15 OEM Application Examples by Material Polypropylene (PP):

- Water filtration systems
- Soap dispensing machines
- Cooling tower basins
- Low-acid food processing tanks
- Deionized water storage monitoring

Acetal (AC):

- Diesel generator fuel tanks
- Hydraulic oil reservoir level control
- Gasoline refueling systems
- Engine coolant expansion tanks
- Mobile equipment lubrication tanks

PVDF Kynar (KR):

- Acid neutralization tanks
- Chlorine contact chambers
- Semiconductor process water systems
- Electroplating chemical baths
- High-purity chemical storage vessels

