

Application Alley

PARTNER | SOLVE | DELIVER

Automotive Fluid Level Sensors

Reed Switch-Based & Conductive Technologies



Custom Engineered Solutions for Tomorrow A top automobile manufacturer faced an issue of not meeting emissions standards due to needing to separate a pipe and hose assembly during maintenance. The hose and pipe needed to be attached to meet the CARB emission standards, which created the requirement to have a sensor installed that showed these two pieces were connected when the engine was running.

Our team responded quickly and partnered with the customer to arrive at a series of iterations for a solution. These developed into a patented design where we used an inductive coil and PCB to measure the Q and inductance of a coil that wrapped around the locking feature of the hose connection to meet the necessary standards.

We were approached for a reed based position sensor solution. Our research determined the resolution on 0.5mm for the pipe being installed into the hose was not possible with a reed switch and a magnet. There were also challenges such as "under-the"hood" temperatures, vibration, and surrounding metal to contend with.

Standex-Meder supplies fluid level sensors that use a wide range of technologies - from magnetic Reed Switch technology to conductive technology.

We offer engineering assistance at each stage of the procurement process – from product conception to volume production. Our "global footprint" means that we can produce the product you need close to your using facilities – thereby simplifying logistics and lowering costs. Component Corner (Expert Insights) Executive Standex-Meder Customer

Our team had an urgent need to address issues related to our automotive coolant fluid sensors not functioning properly during testing and also normal use. The Standex-Meder team quickly responded by partnering with our team of Engineers to diagnose the problem, designed a reliable solution, led testing and measurement, validated requirements, and allowed us to continue with the manufacturing process.

Standex-Meder designs fluid level sensors that are appropriate for each individual application. From basic sensors which are driven by external electronics to turnkey sensor systems with switched outputs, Standex-Meder also delivers solutions to the most demanding fluid level sensing applications that can detect level, pressure, and flow.

Broadest Range of Products & Capabilities

- Magnetic technology based fluid level sensors use Standex-Meder manufactured magnetic Reed switches and injection molded float/magnet assemblies.
- Capability to switch dry circuits to power loads as high as 70 VA and 300 VAC.
- Non-intrusive sensing capability (externally mounted sensors)

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- Sensors designs that can be mounted using seal grommets, spin welding, hot plate bond-ing or screw threaded into the container.
- Designs available for plastic and metal containers.
- Designs for injection molded or blow molded plastic containers.
- Conductive technology based sensors have the ability to operate properly with low viscosity fluids such as liquid soap.
- Conductivity based fluid level sensor systems that eliminate normal operational issues caused by multiple conductive paths.

Applications

- Fluid level sensor
- Windshield washer fluid
- Coolant level
- Brake fluid
- DI water

- Wastewater overflow
- Sump pumps and septic tank level
- Liquid detergent level for dishwasher and laundry
- Fabric softener for laundry
- Syrup level sensors for food processing
- Water level for commercial coffee makers and similar devices
- Boiling water

Find out more about our ability to propel your business with our products by visiting www.standexmeder.com or by giving us a hello@standexelectronics.com today! One of our engineers or sales leaders will listen to you intently.

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About Standex-Meder Electronics

Standex-Meder Electronics is a worldwide market leader in the design, development and manufacture of standard and custom electro-magnetic components, including magnetics products and reed switch-based solutions.

Our magnetic offerings include planar, Rogowski, current, and low- and high-frequency transformers and inductors. Our reed switch-based solutions include Meder, Standex and OKI brand reed switches, as well as a complete portfolio of reed relays, and a comprehensive array of fluid level, proximity, motion, water flow, HVAC condensate, hydraulic pressure differential, capacitive, conductive and inductive sensors.

We offer engineered product solutions for a broad spectrum of product applications in the automotive, medical, test and measurement, military and aerospace, as well as appliance and general industrial markets.

Standex-Meder Electronics has a commitment to absolute customer satisfaction and customer-driven innovation, with a global organization that offers sales support, engineering capabilities, and technical resources worldwide.

Headquartered in Cincinnati, Ohio, USA, Standex-Meder Electronics has eight manufacturing facilities in six countries, located in the United States, Germany, China, Mexico, the United Kingdom, and Canada.

For more information on Standex-Meder Electronics, please visitus on the web at www.standexmeder.com.

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