



Engineering Innovative Solutions™

PRODUCT OVERVIEW

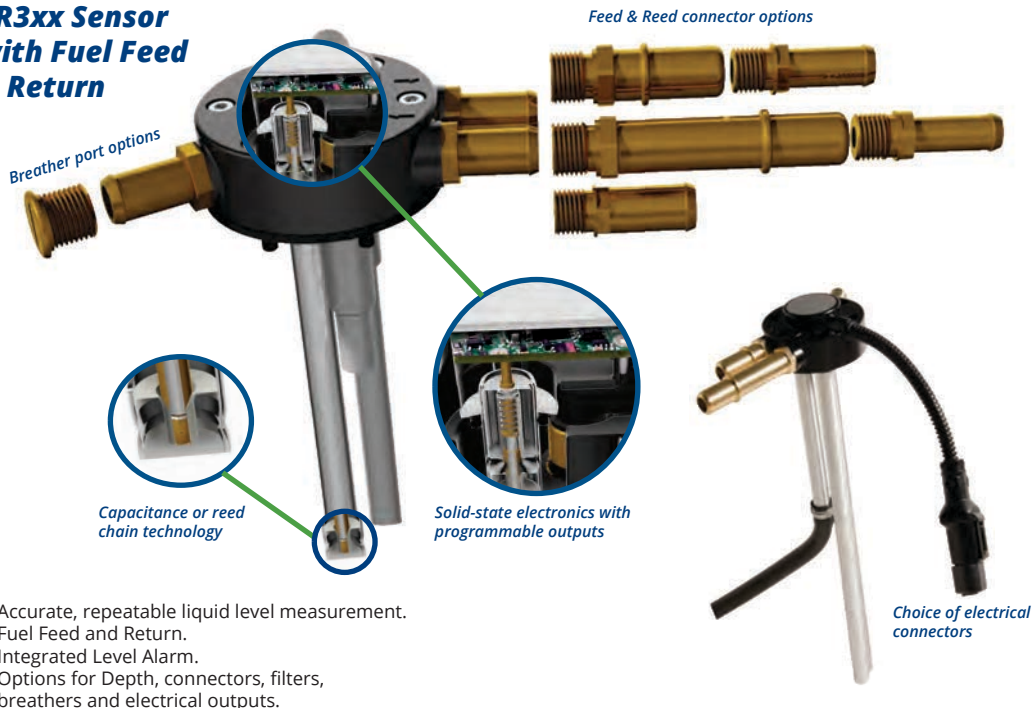


**DESIGN.
INNOVATION.
MANUFACTURE.
SUPPLY
WORLDWIDE.**

Liquid Level Sensors & Switches

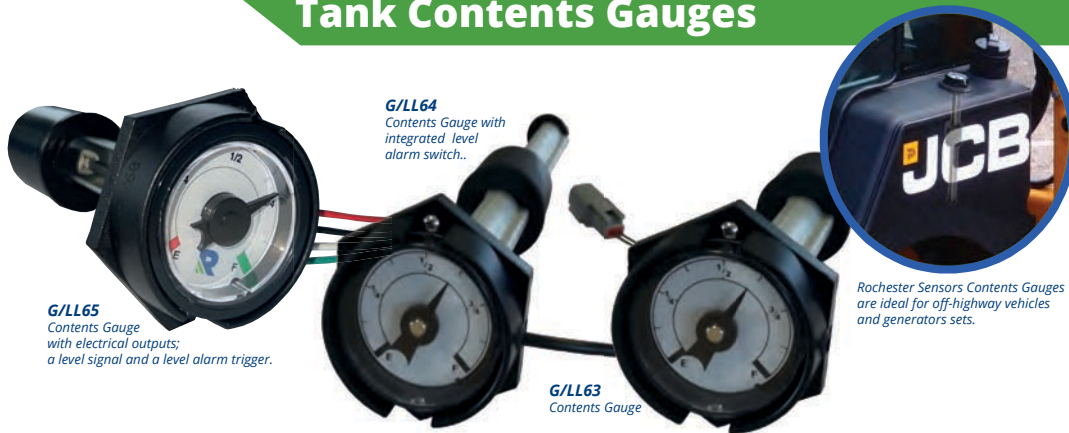
Rochester Sensors's product design process is driven by our customers. Our flexible, modular sensors and gauges enables engineers to reduce the number of devices they specify, reducing costs and complexity without compromising on quality or functionality.

FR3xx Sensor with Fuel Feed & Return



- Accurate, repeatable liquid level measurement.
- Fuel Feed and Return.
- Integrated Level Alarm.
- Options for Depth, connectors, filters, breathers and electrical outputs.

Tank Contents Gauges

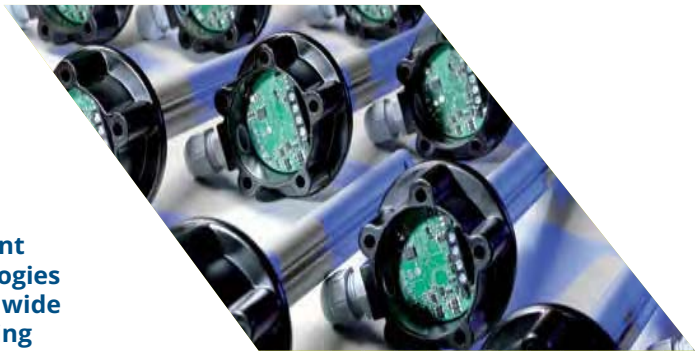


G/LL6x Family

This is range of liquid level gauges features high precision moulded components, an one piece float guide arrangement and uses a magnetic coupling to transmit the liquid level to the indicator dial; preventing potential leak paths. Choose from a standard gauge, a gauge with an integrated level alarm or three devices in one; a mechanical contents gauge with a continuous electrical level signal and a switch to trigger a level alarm.



100+ years of continued development of measurement and communication technologies to measure liquid levels in a wide array of applications, including harsh environments.



Got a liquid level challenge? You're in the right place

- ❏ Strong team of senior-level personnel with sensor development expertise throughout the organization
- ❏ Extensive engineering design and validation prowess
- ❏ High priority in protecting internal development efforts with patents and trade secrets
- ❏ Design for hazardous location applications (UL, ATEX and IECEx) expertise
- ❏ Strong acquisition and integration experience including expanding product offerings to a global array of customers
- ❏ Deep strength in engineering capabilities, including over 100 engineers throughout the organization
- ❏ In-house equipment automation capabilities including design, build, install and optimization
- ❏ Global supply chain with specific commodity expertise backed by a professional supplier quality organization

Sensing Technologies

- ❏ Capacitance
- ❏ Free space (ie 60 GHz) radar
- ❏ High-speed guided wave radar
- ❏ Magnetic field sensing (Hall & MR)
- ❏ Magnetic reed chain (AKA: Reed switch probe)
- ❏ Thick film / advanced matrix film
- ❏ Spiral and mechanical float

Communication Technologies

- ❏ **Analog:** Resistance, voltage, 4-20mA and PWM
- ❏ **Digital:** 485, CAN, LIN, Modbus, Ethernet
- ❏ **Special protocols:** Proprietary, 1-wire, SAE J1939, NEMA 2000
- ❏ **Wireless:** BLE

Meet the family!

Since acquired by Rochester Sensors (previously Rochester Gauges), FPI Sensors International is now Rochester Sensors Quick Turn Group. Fozmula is Rochester Sensors UK and Concept Technology is integrated into Rochester Sensors.

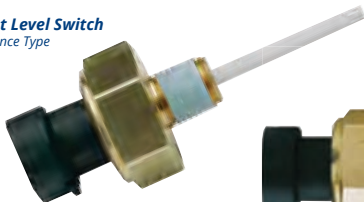


Rochester Sensors' family of continuous liquid level float sensors and float switches can be ordered from our Quick Turn service department. Designed for fuel, coolant, water and lubrication applications, these devices can be built to custom specifications and shipped within a short time of order placement. Wetted materials are part-number dependent and may consist of stainless steel, brass, PVC, polypropylene or PTFE

Electronic Liquid Level Switches

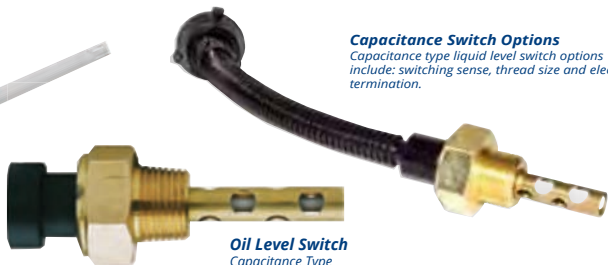
Expertise in capacitance and hydrostatic technologies enables Rochester Sensors to produce accurate, reliable and durable sensors and switches with no moving parts.

Coolant Level Switch
Capacitance Type



Capacitance Switch Options
Capacitance type liquid level switch options include: switching sense, thread size and electrical termination.

Oil Level Switch
Capacitance Type



Electronic Liquid Level Sensors

FEATURED PRODUCT

Oil Level Sensor/Switch

A range of sensors and switches designed for extreme temperature.

- 0-10VDC output
- -40°C to 125 °C operating range
- High accuracy
- Engine, transmission or hydraulic oils.
- Integrated level alarm



Hydrostatic Level Sensor
High accuracy for tanks of up to 4m deep



Cut-to-length
User calibration feature

Capacitance Technology
No moving parts - accurate and reliable



Electro - Mechanical Devices

Rochester Sensors traditional float switches set the industry standard and are designed to meet customer's specific switching requirements. Continuous output devices offer the ultimate flexibility and are ideal for retrofitting.



Vertical Float Switches
Industry leading float switches - highly configurable to suit a wide variety of applications.

Reed Chain Level Sensor
Configurable to virtually any resistive match.



Auto-compensating
Multi-liquid level sensor adapts to change in liquid without user intervention.



AdBlue Level Sensor
Reed chain device with feed, return and heater options.



Temperature Sensors and Switches

FEATURED PRODUCT

Voltage Output Temperature Sensor

A range of precision temperature sensors that provide a voltage output.

- 0-5-VDC output
- -40°C to 150°C operating range
- Connection options include military grade connectors

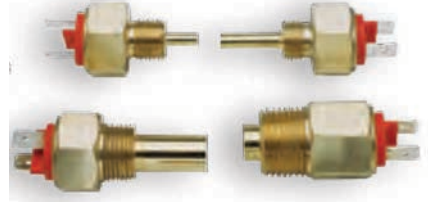


Bespoke requirements

If our comprehensive range does not include the temperature switch or sensor you require, we can design one to suit your application.

Options Include:

- Temperature switch point
- Temperature range and output curves (sensors)
- Body styles
- Thread sizes
- Electrical connector type



Bespoke Sensors and Switches

Most of our product range offer a high degree of customisation however, some applications call for an entirely bespoke solutions. often employing the technology we've developed across our standard products, our engineers are able to produce custom switches and sensors quickly and cost effectively. Examples include level sensors with integrated temperature measurement for defence vehicle hydraulics, solid-state electronic sensors to replace failing legacy hardware without the need for a control system upgrade and sensor for unusual liquids such as printer ink or hydraulic acid.

- **Industry specific connectors**
- **Overcome packaging constraints**
- **Integrated fuel feed and return**
- **Extreme conditions and non-standard liquids**
- **Legacy equipment replacement**
- **Combined level and temperature**
- **Custom outputs/logic to avoid control system upgrades**





Research, Development & Engineering Capabilities

- ❖ 3D modeling, Stress Strain, Vibration, Fatigue, Thermal, Mold Flow and RF/Electromagnetic Simulation — SolidWorks, AutoDesk Inventor, AutoCAD
- ❖ Schematic Capture, Simulation and PCB Layout — Proteus Design Suite
- ❖ Customization and Application Configuration
- ❖ Prototyping — 3D printing, 5-axis CNC machining, Stamping, Milling, Welding, Soldering, Brazing, PCB fabrication, Through hole and SMT assembly
- ❖ Testing — EMI, Thermal, Vibration, Shock, Pressure, Vacuum, Electrical, Functional life cycle, HALT, IPX6K/IPX9K, IK (impact), Salt fog/spray, and Chemical compatibility

Manufacturing Capabilities

- ❖ Assembly
- ❖ Ultrasonic Welding
- ❖ TIG, Plasma, Resistance & Spin Welding
- ❖ Machining
- ❖ Stamping
- ❖ Soldering
- ❖ Laser Etching and Marking
- ❖ Specialized Metal Working
- ❖ Electrical and Mechanical Product Calibrating
- ❖ Vacuum Leak Testing
- ❖ High Pressure Leak Testing
- ❖ Cleaning for Cryogenic Applications
- ❖ Overmolding
- ❖ Surface Mount and Through-hole Assembly/Test

Certifications

- ❖ All Facilities are ISO 9001:2015 Certified
- ❖ IATF 16949:2016 Certification in process
- ❖ Dallas: ISO 9001:2015 and ISO/IEC 80079-34:2018 (i.e. ATEX)
- ❖ Mexico City: ISO 9001:2015 and ISO/IEC 80079-34:2018 (i.e. ATEX)
- ❖ Warwick: ISO 9001:2015 and ISO 14001:2015
- ❖ Brussels: ISO 9001:2015

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