



**ROCHESTER
GAUGES, INC.**

ISO 9001:2008 CERTIFIED

Hall Effect TwinSite™ For Industrial Liquid Level Gauges

TS014

Application

The TwinSite™ is a magnetically-driven, Hall Effect, voltage output sender with potted lead wires. Senders are utilized on stationary and mobile applications where direct reading plus an electrical signal to a remote fuel level monitor are required. Models are available to fit most Rochester Junior™, Senior™ and Twinsite™ applications.

General Information & Features

A magnetic drive allows a signal from the float mechanism inside the tank to be transmitted through a solid, non-magnetic bulkhead without the necessity of dynamic seals or pressure-type conductors.

Previous designs of liquid level gauges for magnetically driven dials which produce an electrical output signal had the disadvantages inherent in using variable resistors with a wiper arm contact. There has been a need for a more reliable and simplified design for liquid level gauges which would provide an electrical output related to the liquid level in the tank.

Hall effect is a solid state technology with no moving contacts. It counts on the fact that a magnet bends the path of electrons moving through a semiconductor. The bending of the electrons can be detected and converted into ratiometric voltage output.

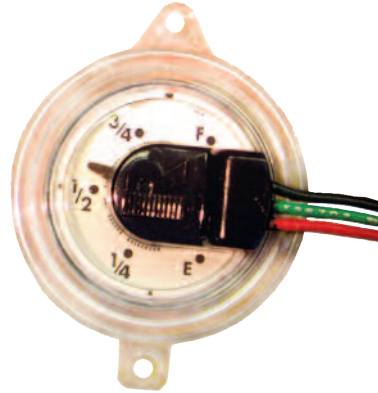
Hall effect sensors have been employed in various automotive applications such as for detecting throttle, fly wheel, and wheel positions. The magnetic connection of the Hall effect sensor is more reliable than systems that depend on the sliding contact of variable resistor devices. There is no sliding wiper contact, and is compatible with existing gauges equipped with weak drive magnets within the tank. The Hall Effect Twinsite™ is advantageous in that it can be used as a retrofit on these tanks to provide an electrical output which can be utilized for remote monitoring of tank levels. With remote monitoring of tank levels, customers will be able to more efficiently monitor their liquid level usage.

The TwinSite™ also provides the easiest to read local indication of any TwinSite™ sender Rochester has produced. The bright, user friendly dial face is divided into fractional units.

The case is hermetically sealed by ultrasonic welding to melt and fuse the case into one solid piece. This keeps weather out, ensuring “no-fog” readability while greatly extending mechanical life. This Ultra Sonic weld process is highly reliable. The plastic case is capable of withstanding vibration and shock that would render comparable metal designs useless.

The plastic case is far more resistant to corrosion than any metal-cased version and is capable of withstanding broad variations in temperature. The plastic lens (and the rest of the case) is a special, chemical resistant material.

Electrical connections are sealed with redundant epoxy chambers. The connecting wires are also sealed behind this epoxy barrier. This sealing process presents an impervious barrier to water.



Patents Pending

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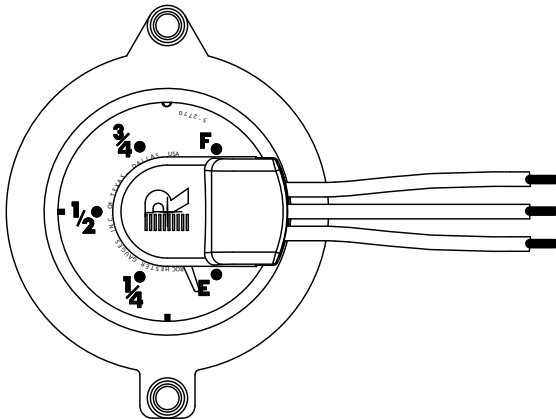
See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

The Measure of Excellence

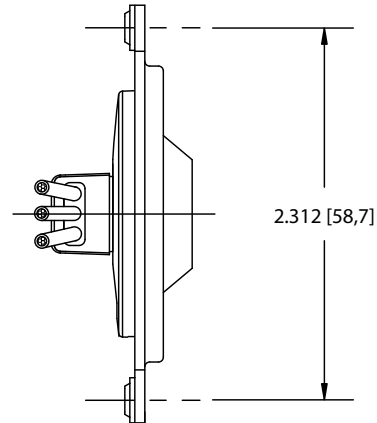
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[METRIC]



Standard screw-on mount



General Specifications*

Operating Temperature

-40° to 80°C (-40°F to 176°F).

Accuracy

±1½% at E, ±2% at 20%, and ±3% at higher graduations.

See DS-1371.

Hysteresis

Less than 1% typical.

Repeatability

±1%.

Opp. Range

8-32 vdc.

Output Voltage

E=0.5 V

F=4.5 V

Resolution

Infinite.

When ordering, specify:

1. Junior™ or Senior™.
2. Or part number.

Materials of Construction*

Crystal & Case

Proprietary copolymer, ultrasonically sealed.

Dial

Painted aluminum.

* Materials and specifications are subject to change without notice.
Pressure ratings subject to change due to temperature and other environmental considerations.

How To Order

P/N	Style	Circuit
P5971S02770	Jr.	Internal Voltage Regulator
P5AAKS02770	Sr.	Internal Voltage Regulator

