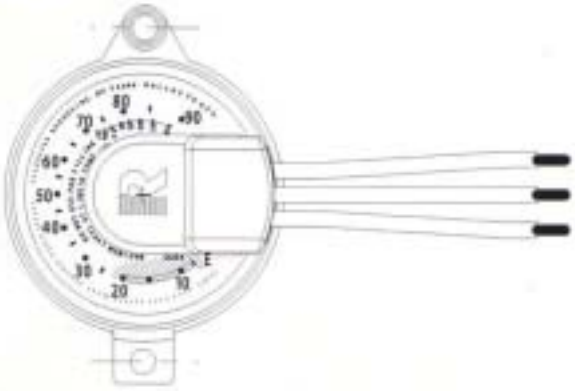
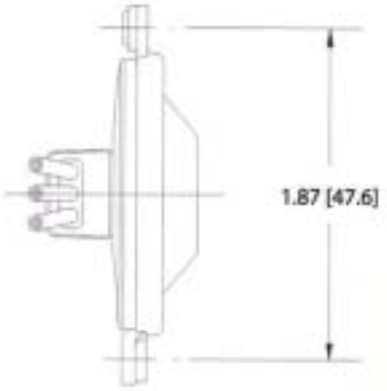
TS012 Hall Effect TwinSite™ For LP Gas Service

[METRIC]





Standard screw-on mount

General Specifications*

Operating Temperature
-40° to 80°C (-40°F to 176°F).

Accuracy
±4% for all types.

Hysteresis
Less than 1% typical.

Repeatability
±2%.

Opp. Voltage Range
3.5 to 6.0 vdc/ratiometric.
Can be made compliant with alternative operating voltages.

Output Voltage with 5.0 Volt Input
Ratiometric 8-80% of input voltage @ 8-80% volume.
Ratiometreic: Empty is 0.4 volt or 8% of input voltage.
Full is 4.0 volt or 80% of input voltage.

Resolution
Infinite.

When ordering, specify:

1. Junior™ or Senior™ or Snap-On.
2. Or part number.

* Specifications subject to change without notice.
Ratings subject to change due to temperature and other environmental considerations.

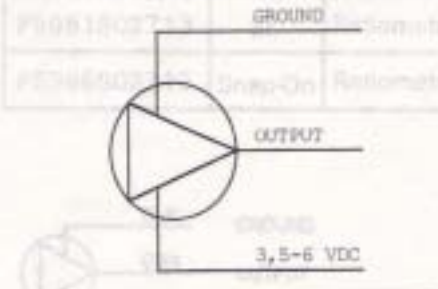
Materials of Construction

Crystal & Case
Polycarbonate, ultrasonically sealed.

Dial
Painted aluminum.

How To Order**

P/N	Size	Circuit
6320S81072E	JR	ratiometric
6320S91072E	SR	ratiometric



Ground	Black	or	Brown	or	Blue
Output	Green		Green		Black
Power	Red		White		Brown

09/04/01

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ROCHESTER GAUGES, INC.

ISO 9001 AND QS-9000 REGISTERED

Hall Effect TwinSite™ For LP Gas Service

TS012

Application

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

Patents Pending

General Information & Features

In the area of LP gas measurement, a magnetic drive feature is important because the fluid is stored under pressure. 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 LP liquid-level gauges which would provide an electrical output related to the liquid level in the vessel.

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 position. The magnetic connection of the Hall effect sensor is more reliable than systems that depend on the sliding contact of variable resistor devices.

Many existing home and small business LPG storage tanks are equipped with gauges with weak drive magnets suited for low friction direct-indicating dial assemblies. 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 vessels to provide an electrical output which can be utilized for remote monitoring of tank levels. With remote monitoring of tank levels, distributors of LP gas will be able to more efficiently plan deliveries to various consumers.

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 percentage 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 and features a back-up o-ring seal. 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, UV stabilized 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.

The sender is mounted onto the Rochester Junior™ gauge with #0040-00416 stainless steel dial screws (6 — 32 x 5/16"). An additional item available to ensure weatherproof connections from the TwinSite™ to the receiver is heat shrink solder sleeves part number 0025-00495.

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