



**ROCHESTER
GAUGES, INC.**

ISO 9001:2008 CERTIFIED

Rochester Remote Ready Dial & Hall Effect Module



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& Hall Effect Module**

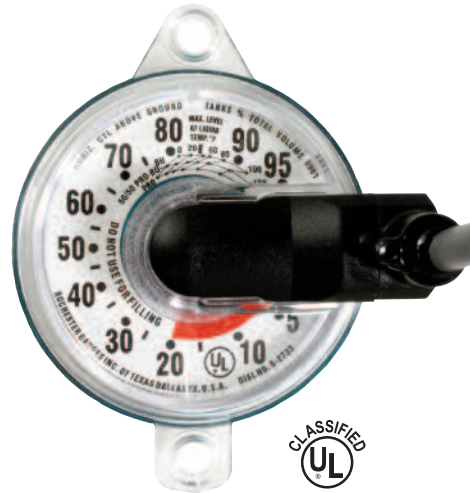
Application

The Rochester Remote Ready Dial, R³D, is a magnetically-driven, Hall Effect compatible dial. Dials are utilized on stationary applications where direct reading plus an electrical signal to a remote fuel level monitor may be required. Models are available to fit all Rochester Junior, Senior and Snap-On liquid-level gauges.

Rochester's Hall Effect Module is designed to snap-fit into the recess in the Remote Ready Dial lens. Once installed, the module can provide ratiometric voltage output proportional to the liquid volume inside the tank.

General Information & Features

In the area of LP gas measurement, a magnetic drive feature is important because a magnetic drive allows a signal from the float mechanism inside the tank to be transmitted through a solid bulkhead.



*US Patents Issued
Foreign Patents Pending*

The R³D dial is designed to allow a second magnetic coupling. This is a coupling from the R³D pointer magnet, through the sealed lens and into the Hall Effect Module.

Previous designs of magnetically driven dials that produce an electrical output signal had the disadvantages inherent in using variable resistors with a wiper arm contact. The magnetic connection of the Hall effect sensor is more reliable than systems that depend on the sliding contact of variable resistor devices.

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 an electrical signal.

The R³D and Hall Effect Module can be used as a retrofit on existing LP tank gauges 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 R³D 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. The seal is a high reliability, no-gasket design.

The plastic case is far more resistant to corrosion than any metal-cased version and is capable of withstanding broad variations in temperature. The lens and case are a special, UV stabilized plastic material.

The R³D dial is mounted onto Rochester Junior or Senior gauges with #0040-00416 stainless steel dial screws (6 — 32 x 3/8"). An additional item available to ensure weatherproof connections from the module to the remote monitor is heat shrink solder sleeve part number 0025-00495.

Remote Ready Gauge

If you specify new Rochester gauges with R³D, Rochester Remote Ready Dials, Hall Effect Modules can be ordered and installed anytime, anywhere.

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

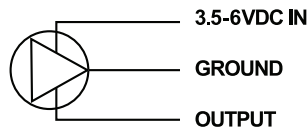
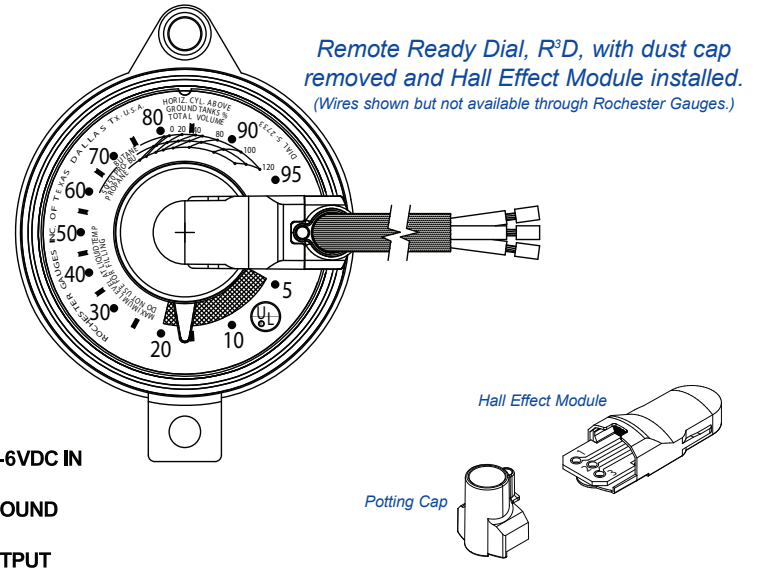
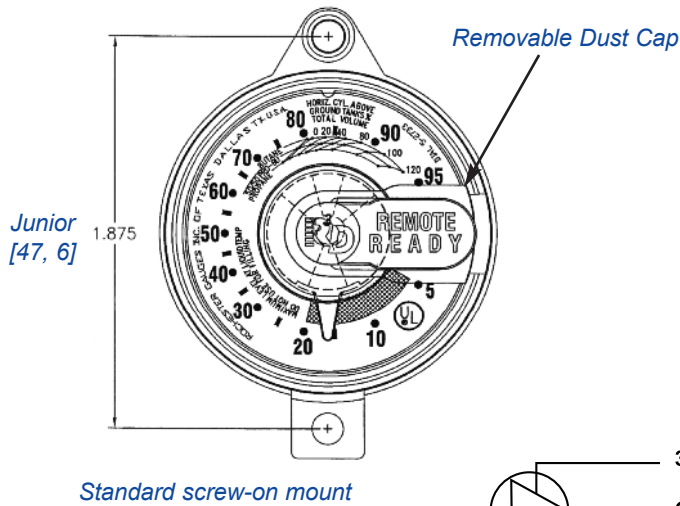
The Measure of Excellence

12/08/10

R³D

Rochester Remote Ready Dial & Hall Effect Module

[METRIC]



General Specifications*

Operating Temperature

-40° to 80°C (-40°F to 176°F).

Accuracy

±4% of full scale (not including float gauge errors).

Repeatability

±1%.

Opp. Voltage Range

3.5 to 6.0 vdc/ratiometric.

Output Voltage

Ratiometric 5-80% of input voltage @ 5-80% volume.

Resolution

Infinite.

Operating Current

4.5 mA.

Output Current

± 1 mA.

Hall Effect modules are UL Classified as intrinsically safe for Class 1, Division 1, Groups C & D (Hazardous Locations). See WD-570 for control drawing.

When ordering, specify:

1. Junior, Senior or Snap-On, Horizontal Tank, Vertical Tank or Below Ground Tank.
2. Or part number.

See DS-1318 for Application Notes.

See DS-1349 for module installation instructions.

Materials of Construction*

Crystal & Case

Polycarbonate.

How To Order

Remote Ready Dial (R ³ D)		
P/N	Style	Tank
5909S02733	Jr.	Horizontal
5986S02733	Sr.	Horizontal
5AAAS02733	Snap-On	Horizontal
5909S02772	Jr.	Vertical DOT
5909S02799	Jr.	Below Ground

Hall Effect Components		
Model	Style	Wires
9700-00005	Hall Effect Module Kit: Housing, PCB, Vertical Potting Cap	N/A
9701-00014	Hall Effect Module Potted (Vertical)	6 Feet
0023-00537	Straight Potting Cap	N/A
0023-00535	Vertical Potting Cap	N/A

Hall Effect components only available through remote monitor OEM's.

* Materials and specifications are subject to change without notice.

Pressure ratings subject to change due to temperature and other environmental considerations.

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