



**ROCHESTER
GAUGES, INC.**

Rochester Remote Ready Dial & Reed Switch Module



ISO 9001:2008 CERTIFIED

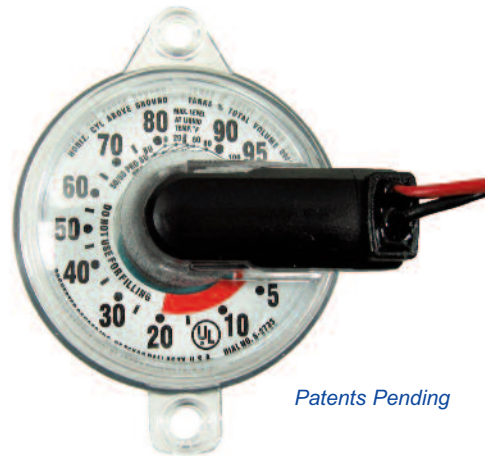
Application

The Rochester Remote Ready Dial, R³D, is a magnetically-driven, Reed Switch 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 most Rochester liquid-level gauges.

Once installed, the module can provide a switch closure at a predetermined low level.

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.



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 Reed Switch 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 Reed Switch sensor is more reliable than systems that depend on the sliding contact of variable resistor devices.

A magnetic Reed Switch consists of two electrical contacts made of “soft” magnetic material. When exposed to a magnetic field of sufficient strength, the contacts are magnetized and are attracted to each other. This causes the switch to close. When the magnetic field is removed, spring tension causes the switch to open. A bias magnet is used to obtain unipolar, normally closed operation.

All Reed Switches exhibit hysteresis. This is due to the fact that the magnetic force required to close the switch is greater than the force required to hold the switch closed. This property prevents contact chatter due to small variations in the position of the pointer. The switch will normally only operate once for each E-F or F-E cycle. Since Reed Switches are rated for millions of operations, a long service life can be expected.

The R³D and Reed Switch 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.

Remote Ready Gauge

New Rochester gauges with Rochester’s Remote Ready Dials (R³D) can be upgraded anytime, anywhere with a Hall-Effect or Reed Switch Module.

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& Reed Switch Module**

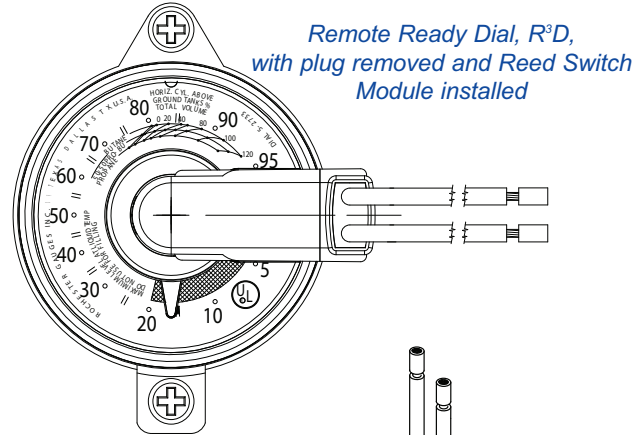
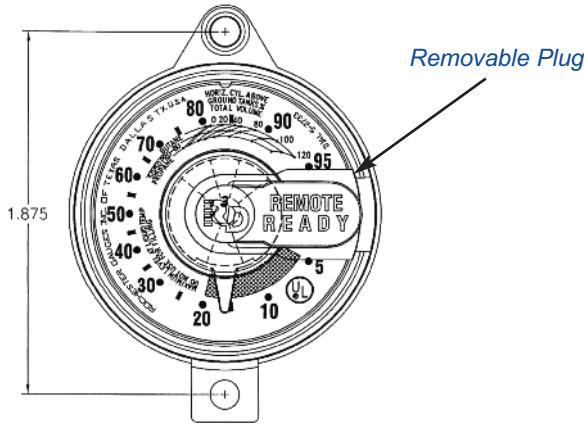
See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

The Measure of Excellence

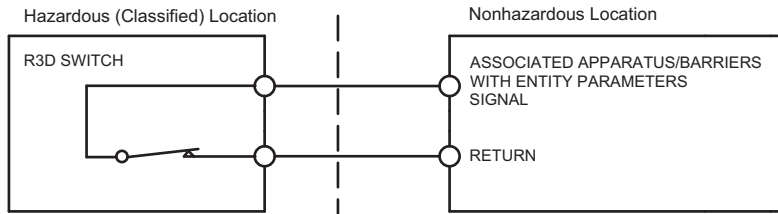
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R³D
Reed Switch

Rochester Remote Ready Dial & Reed Switch Module



Remote Ready Dial, R³D,
with plug removed and Reed Switch
Module installed



See WD-573 control drawing for hazardous locations.

NOTE: This is a simple apparatus as defined in ANSI.US 913, standard for Intrinsically Safe Apparatus and Associated Apparatus. Separate certification is not needed when used with Single Channel Associated Apparatus.

General Specifications*

Operating Temperature

-40° to 80°C (-40°F to 176°F).

Accuracy

Set point is ±10%.

Repeatability

±3%.

Opp. Voltage

200 vdc/peakac.

Output

Normally closed switch to open at 25% (on 5-95° dial) when withdrawing.

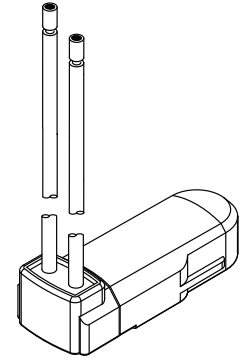
Operating Current

1.0 amp. maximum.

When ordering, specify:

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

See DS-1422 for installation instructions.



Reed Switch Module
Available through remote monitor OEM's
and distributors.

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

Reed Switch Module		
Model	Wire Length	Wire Style
9750-00003	6 ½ ft.	Tray Cable

* 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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