



**ROCHESTER  
GAUGES, INC.**

## **Hall Effect Compatible Magnetel & Master Dials For LP Gas Service**



ISO 9001:2008 CERTIFIED

### **Application**

The Hall Effect Magnetel Dial is a magnetically-driven, voltage output sender. These dials 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 Rochester 4" & 8" Magnetel and Taylor 8" Master liquid-level gauges.

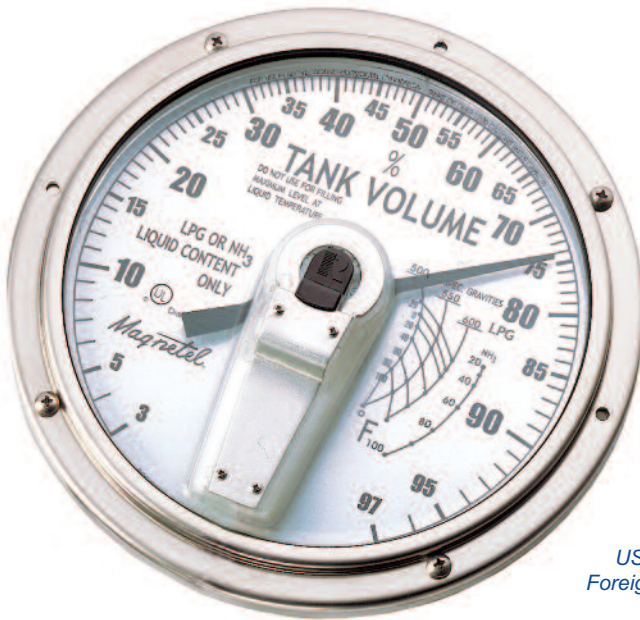
### **General Information & Features**

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 produced 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 these LP gas liquid-level gauges that 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.

The Hall Effect Magnetel Dial is advantageous in that it can be used as a retrofit on existing vessels to provide an electrical output that 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.



*US Patents Issued  
Foreign Patents Pending*

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05/01/09

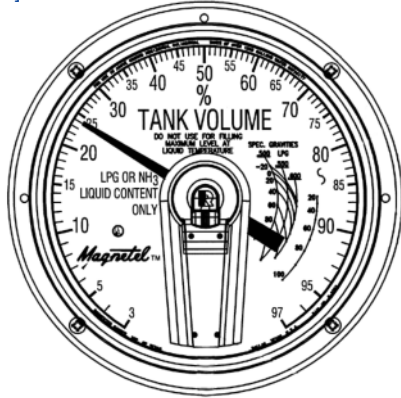
*See reverse side for dimensional data, materials of construction, performance, and advice on how to order.*

*The Measure of Excellence*

**HEMD01**

# Hall Effect Compatible Magnetel & Master Dials For LP Gas Service

[METRIC]

Dial Opening  
ø 7.8 [200]Bezel Bolt Circle  
ø 8.87 [225]

## General Specifications\*

### Operating Temperature

-40° to 80°C (-40°F to 176°F).

### Accuracy

±4% typical.

### Hysteresis

Less than 2% typical.

### Repeatability

±2%.

### Opp. Voltage Range

3.5 to 6.0 vdc/ratiometric.

### Output Voltage

1:1 ratiometric, 5-80% of input voltage @ 5-80% volume.

### Resolution

Infinite.

Hall Effect Twinsites are UL Classified as intrinsically safe for Class 1, Division 1, Groups C & D (Hazardous Locations).

See WD-566 for control drawing.

See DS-1318 for application notes.

## Materials of Construction\*

### Lens

Acrylic plastic.

### Cover

Anodized aluminum.

### Bezel

Stainless steel.

### Case

Aluminum.

### Bezel Screws

Stainless steel.

## How To Order\*\*

Hall Effect Compatible Dial Assemblies					
Part #	Size	Circuit	Fits	Dial	Wires
5ABPS02854	4"	N/A	Rochester Magnetel	LP & NH <sub>3</sub>	None
5AACS02783	8"	N/A	Rochester Magnetel	LP & NH <sub>3</sub>	None
5AADS02783	8"	N/A	Rochester/Taylor Master	LP & NH <sub>3</sub>	None
5AADS02784	8"	N/A	Taylor Master	LP & NH <sub>3</sub>	None

Hall Effect Components	
Part #	Description
5AANS02086	Hall Effect Twinsite sender with blank dial, fits above dial assemblies
0023-00502	Potting cap for Hall Effect Twinsites

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.

\*\* NOTE: This model furnished less Twinsite & wires.

