

# Magnetic Liquid-Level Gauges



## Applications

Model HD6993 gauges are designed for extended life and accurate readings of fuel levels in tanks aboard diesel locomotives and rail cars.

## General Information & Features

Model HD6993 gauges are for side or angle mounting. Tank drawings and strapping tables should be submitted with all inquiries.

These gauges feature an easy-to-read 4" [100mm] fractional dial, or calibrated in gallons as an option, with an accuracy of  $\pm 2.5\%$ . A special calibration and functional check is performed on each gauge. A special close-tolerance pinion gear is included for minimum gear lash.

Stainless-steel materials have been selected for many components to ensure reliable service and maximum strength. Hard nickel coated gears and bearings minimize vibration-induced wear, and special construction reduces the amount of care necessary to prevent calibration changes during shipment, installation and service.

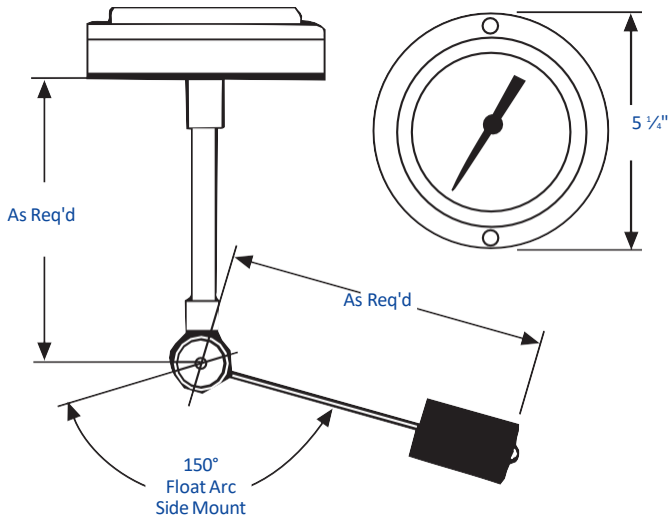
An optional support collar is available for gauges with unusually long supports and support pipes extending into the tank interior.



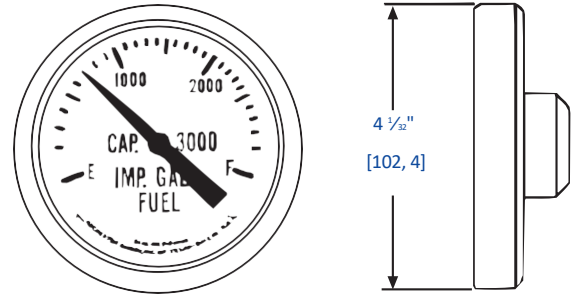
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Since the suitability of these products depends upon a wide range of factors not in our control, Rochester Sensors expects and understands that you will conduct the testing and evaluation necessary to determine that these products are suitable for your application. Whilst every effort is made to ensure the above details are correct at the time of printing, Rochester Sensors reserves the right to make material changes, and or technical changes without notification.

## Dimensional Data



## Typical Gallonage Dial Chamber



## General Specifications\*

### Mounting

Side or angle

### Dial Data

Dials are hermetically sealed and tested in a 8" Hg vacuum. Fractional calibration is standard with gallonage calibration optional. Dial angles, computer generated, from customer supplied strapping tables are also an option. Fluorescent dials optional.

### Accuracy

Depends on proper sizing of gauge and tank configuration. Direct accuracy is  $\pm 2.5\%$ . Maximum parallax error = 1.5%. Repeatability direct=1%. Sensitivity = 1%. Hysteresis is 2% including gear and pointer lag. Frictional loss = 1%. 100% conformity inspection optional.

### Temperature

Standard range is -50°F to 200°F, -45 to 93C

### Shock

Tested per MIL-S-901B, naval std. (Similar gauge)

### Vibration

Tested per MIL-STD-167, naval std. (Similar gauge)

### Tank Pressure

0 to 50 PSI, [0 to 3,4 Bar]

### Approvals

U.L. listed for flammable liquids

**Note:** For installation instructions see MS-501/502 (Mounting standards).

## Materials of Construction\*

### Head

Diecast aluminum. 4 1/4" [107, 9] B.C.

### Gasket

Buna"N" 0015-00422

### Dial Chamber

Aluminum w/ tempered glass crystal. Polycarbonate crystal optional.

### Drive Magnet

Alnico

### Centershaft, Cross Stud, Gear Housing, Support and Float Arm

Stainless spring steel

### Gear and Bearings

Hard nickel-coated stainless steel

### Float

Closed cell hard nitrile rubber

### Gear Housing

Stainless steel

### Material trim for water service

Optional

## When ordering, specify:

All options desired. Always furnish tank drawing and strapping table.

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