

# FMR530 Series Radar Tank Gauges

Continuous and non-contact precision level measurement with an accuracy rate of  $\pm 0.5$  mm.

**Varec®**



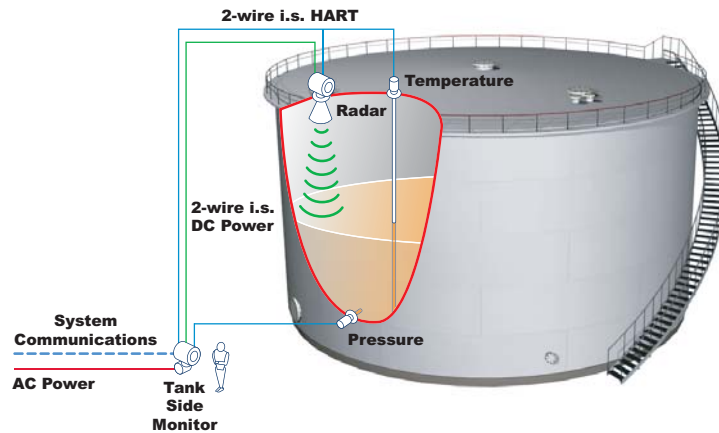
## Highlights

- Cost-effective intrinsically safe — 4-wire cable for HART and 24 VDC i.s. power.
- Easy on-site operation using built-in display.
- Easy commissioning and diagnostics using Windows® based software.
- Inventory control version with available ( $\pm 3$  mm) accuracy.
- National approvals (NMI, PTB) for custody transfer.

## FMR530 RTG with Horn Antenna

It is essential to evaluate the right antenna type for the RTG application.

The FMR530 RTG with horn antenna is suitable for free space applications that disallow the use of a parabolic antenna due to tank/nozzle geometry. It is essential that the horn extends below the nozzle. The general rule for diameter selection is "the larger, the better" as a larger aperture of the antenna generates a narrower beam and has a better gain – signal to noise (S/N) ratio.



Example Tank Gauging System

## Product Options

### Approvals & Certifications

- FM, CSA
- Contact Varec for ATEX or IECEx approved devices

### Antenna

- Various Sizes and Material Types

### Process Connections

- DN, & RF

### Output Options

- HART

### Gland Entry

- Metric, NPT, G

### Accuracy

- High Accuracy,  $\pm 0.5$  mm (2 sigma value), NMI/PTB Approval  
Inventory Control Accuracy,  $\pm 3$  mm

## Technical Specifications

**Note!** This product conforms to all applicable industry standards and approvals, such as climate class, electromagnetic (EMC), vibration and radio frequency (RF). See product installation manual.

**Note!** These specifications apply to the FMR530 RTG under reference operating conditions with no major interference reflections inside the signal beam.

<b>Maximum Measured Error</b>	Free space: $\pm 0.5$ mm Stilling well: $\pm 0.8$ mm
<b>Power Consumption</b>	Max. 330 mW at 16 V, Max. 500 mW at 24 V, Max. 600 mW at 30 V
<b>Current Consumption</b>	Max. 21 mA (50 mA inrush current)
<b>Weight</b>	7.1 kg (15 lb 7 oz) plus weight of the flange
<b>Enclosure</b>	IP 65, NEMA 4X (IP20, NEMA 1 with open housing and removed liquid crystal display) Housing T12: aluminium, seawater repellent, chromate, powder coated
<b>Antenna</b>	IP 68 (NEMA 6P)
<b>Conduit entries</b>	Cable gland: M20x1.5; Pg 13.5 (gland included) 3/4 NPT: G 3/4 internal thread
<b>Ambient Temperature</b>	-40°F and +185 °F (-40 °C and +5 °C)
<b>Approvals</b> CE approval RF approvals - R&TTE, FCC Marine certificate - GL (Germanisch Lloyd), ABS, NK Factory Mutual - IS Class I,II,III, Div 1 Groups A-G T* Class 1, Zone 0, AEx ia IIC T* DIP Class II,III, Div 1 Groups E,F,G T* NI Class I, Div 2 Groups A-D T* XP-IS Class 1, Div. 1 Groups A-D T* XP Class 1, Zone 0, IIC T* Antenna Class 1, Zone 0, AEx ia IIC T* CSA - ExnC IIC Class 1 Zone 2, Exd [ia] IIC Zone 1/0, Ex ia IIC Class 1 Zone 0	

### Note:

Please complete an Application Data Sheet for this equipment to facilitate proper selection of options for your unique application.

Contact your Varec Sales Representative for more information.

