

FMR533 Series Radar Tank Gauges

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

Varec®

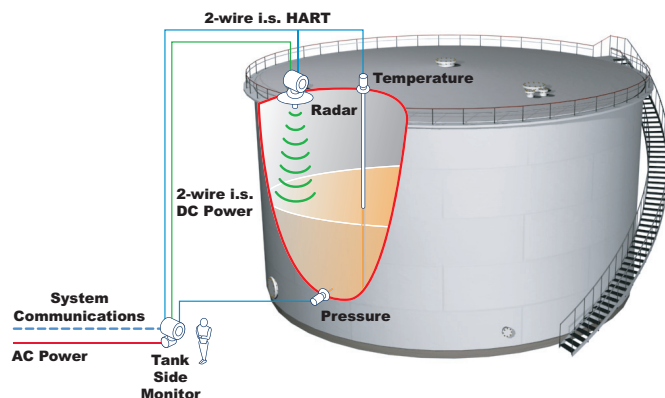
Highlights

- 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 (± 3 mm) accuracy.
- National approvals (MNI, PTB) for custody transfer.

Application

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

The FMR533 RTG with parabolic antenna is excellently suited for free space applications up to 40 m (131 ft). The parabolic antenna is the largest free space antenna with the smallest beam angle. It is ideal for applications close to tank walls, where a manway cover is available. The parabolic antenna is also an excellent choice on products with a low reflectivity, such as asphalts and bitumens.



Example Tank Gauging System



Product Options

Approvals & Certifications

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

Antenna

- DN450/20"

Process Connections

- DN, RF & UNI-flange

Output Options

- HART

Gland Entry

- Metric, NPT

Accuracy

- High Accuracy, Inventory Control or NMI/PTB Approved

Technical Specifications

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.

These specifications apply to the FMR533 RTG under reference operating conditions with no major interference reflections inside the signal beam.

Weight	13 kg (28.7 lbs) + weight of flange
Power consumption	Max. 330 mW at 16 V, max. 500 mW at 24 V, max. 600 mW at 30 V.
Current consumption	Max. 21 mA (50 mA inrush current).
Ambient temperature Parabolic antenna	-40 °F to +185 °F (-40 °C and +85 °C) -40 °F to +392 °F (-40 °C to + 200 °C)
Enclosure	IP 65, NEMA 4X (IP20, NEMA 1 with open housing and removed liquid crystal display) Housing T12: separate terminal compartment for increased safety respectively explosion proof. Material: aluminium, seawater repellent, chromate, powder coated
Antenna	IP 68 (NEMA 6P)
Conduit entries	M20x1.5; Pg 13.5 (gland included); ¾ NPT; G ¾ internal thread
Approvals 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.