

FMR533 Series Radar Tank Gauges

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

Varec®



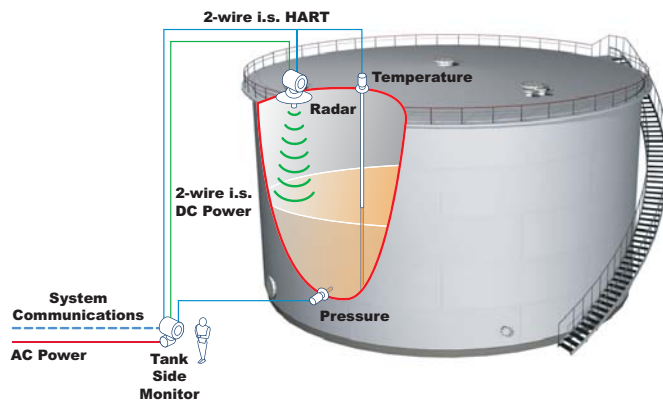
Highlights

- 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 (NMI, 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, ± 0.5 mm (2 sigma value), NMI/PTB Approval
Inventory Control Accuracy, ± 3 mm

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.

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|---|---|
| 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.

