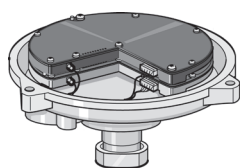


# Overfill Alarm Tank Gauge - OTG 51

## Function

The centerpiece of the Rosemount TankRadar® OFC system is the Overfill Alarm Tank Gauge. The intrinsically safe gauge comprises the antenna with sensor that transmit and receive radar signals and the electronic box that processes the signals.



The electronic box can be equipped with up to two modules, one module per level alarm channel. The electrical parts in each module are separated (galvanically isolated) from each other. Each module processes the signals independently from each other and hence the High Level and Overfill Alarm systems are integrated in one single unit, yet functionally separated. This intelligent and autonomous electronic box sends the processed data to the Overfill Alarm Cabinet that distributes the status to be displayed on the Overfill Alarm Panel.

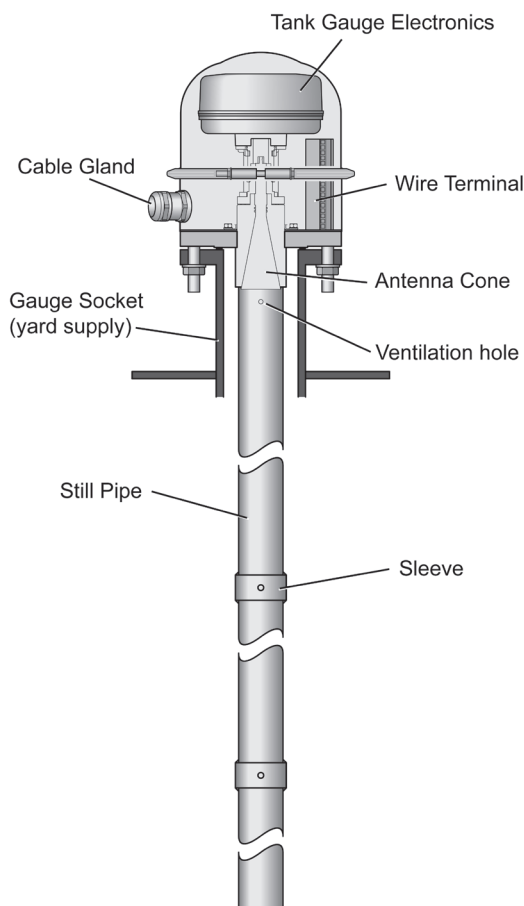
## Overfill Alarm Still Pipe

Radar level gauging in still pipes requires special considerations. The still pipe acts as a waveguide, guiding the radar waves to the liquid surface and back up to the Tank Gauge Electronics. This requires very high quality of the still pipe, it must be smooth without disturbances such as weld joints, to obtain high accuracy over the range.

Outside the still pipe from gauge flange and down a protection pipe is mounted. The length of this protection pipe can vary depending on tank type and design.

## Mechanical Installation

The still pipes are positioned so that the radar beam guided by the still pipe can pass unobstructed through




the still pipe and a given distance below. The still pipe are supported by support brackets to an internal structure, e.g. pipetower platforms, alternatively with finger springs in a protection pipe. Free space are required for maintenance and service purposes.

## Electrical Connection

The High Level Alarm function and the Overfill Alarm function are two separate functions. A tanker that is equipped with both functions requires two sets of cables.

## Rosemount TankRadar® OFC

## Technical Specification

Overfill Alarm Tank Gauge, OTG 51	
Operating accuracy	±10 mm
Instrument accuracy	±5 mm
FMCW Center frequency	10 GHz
Distance to alarm point	max. 15 m
Operating temperature	-40 to +70° C
Operating pressure	-0.2 to 8 Bar
No. of independent channels using a common pipe	Up to two (High Level and Overfill)
Cable to control room	Two twisted pairs with common shield per channel. Max. length is 400 m
Number of cable inlets	Up to 2 inlets
Material facing tank atmosphere	Stainless steel 304L, PTFE
Material facing deck	Stainless steel 316L
Tank Gauge Socket (yard supply)	ANSI 3" (standard) ANSI 6", DN80, JIS5 (optional)
Weight	20 kg (Gauge Socket excluded)
Product range	Liquefied natural gas
Sealing	IP56
Explosion protection	Intrinsically safe: ATEX  II 1 G, EEx ia IIC T4 CSA (IEC) Ex ia IIC T4

Overfill Alarm Still Pipe, OSP 51	
Dimension	2" outer diameter
Material	Stainless steel 304L

Cable from Gauge to Cabinet	
Cable type	Multicore, 2 x 2 twisted wire cable with common screen to each measurement channel (2 channels for dual alarm system).
Lead area	0.50 - 1.5 mm <sup>2</sup>
Outer diameter	Ø10 to 25 mm

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