PRODUCT INFORMATION

Saab LoopRadar™

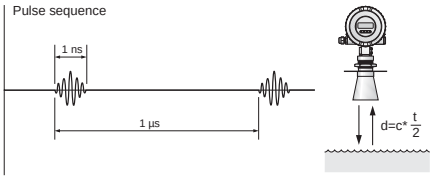
Loop-powered radar level gauge

Saab LoopRadar is a loop-powered radar level gauge for standard tanks without agitators or other internal structures. It uses the same two wires for both power supply and output signal. Use it on storage- and buffer tanks in chemical and petro-chemical industry, pharma-ceutical plants, food and beverage industry, water and sewage treatment and hydro-electric dams. The radar non-contact concept ensures low maintenance.

Measuring technique

The level of the liquid is measured by short radar pulses that are transmitted from the antenna at the tank top towards the tank contents. After the radar pulses are reflected by the liquid surface the antenna picks them up again.

The distance from the gauge to the liquid surface is proportional to the time it takes for the pulse to travel to the surface and back.



Saab LoopRadar has an accuracy of ±10 mm and a measuring range of 0-20 meters.

Reliable measurement

The Saab LoopRadar level gauge uses a frequency of 5,8 GHz (6,3 GHz in the US) which gives high immunity against condensation and antenna contamination. The self-calibrating gauge has software for intelligent signal handling which gives accurate and reliable measurements.

The gauge provides good measurement stability, because microwaves are virtually unaffected by temperature, pressure and gas characteristics in the tank.

Saab LoopRadar is suitable for applications in which products often change or where vapour is present.

Features

- Non-contact measurement ensures low maintenance costs.
- 2-wire operation.
- Analog 4-20mA and digital HART outputs.
- High sensitivity.
- Intrinsically safe.
- Interactive Windows-based setup software.
- Volume calculation function.
- LCD display.
- Self-monitoring.

Easy configuration

Data is displayed on an easy to use LCD display mounted in the gauge. It offers configuration as well as service capabilities and includes functions for presentation of the measurement data like level, ullage, amplitude or volume. Configuration can also be done with a PC using a Windows-based Set-up software package or using a HART communicator.

No maintenance

The radar gauge has no moving parts and is not in physical contact with the liquid. This makes the system maintenance-free and reliable. The antenna is the only part exposed in the tank.

Specification Saab LoopRadar	
Measuring principle	Micropower Impulse Radar (MIR)
Radar frequency	5,8 GHz (6,3 GHz in USA)
Antennas	4", 6" and 8" inch Cone antennas, Rod antennas (in preparation)
Accuracy	±10 mm
Supply voltage	18-36 VDC, Loop powered (18-30 VDC when Ex applications)
Output signal	4-20mA, HART
Housing	Aluminium, designed for IP 67, NEMA 4 ingress protection
Temperature	Ambient temperature -40° C to +70° C (-40° F to +158° F) Process temperature -40° C to +150° C (-40° F to +302° F)
Pressure	10 bar (145 psi)
Display	5 digit LCD display for level, ullage, amplitude or volume (%) readout
Configuration	Directly on the gauge using input keys, PC set-up software, HART communicator (DD in preparation)
Ex classification	ATEX II 1G EEx ia IIC T4 (in preparation) FM CL.1, Div 1, Group A-D (in preparation)

Quality and Environmental system certified by DNV - ISO 9001 - ISO 14001

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