PRODUCT INFORMATION

Saab TankRadar® REX

Still-pipe array antenna gauge RTG 3950

The RTG 3950 gauge measures level with outstanding reliability and accuracy by transmitting radar waves towards the liquid surface inside the tank's still-pipe.

All electronics are located in the explosion proof housing, easily accessible from the outside.

RTG 3950 is made for mounting on existing still-pipes.

Typical RTG 3950 applications are crude oil tanks with floating roofs and gasoline/product tanks with or without inner floating roofs.

Accuracy with rusty and oil covered still-pipes

The gauge features the patented Low Loss Mode radar propagation which virtually eliminates the influence of the still-pipe condition. Measurement is made with highest accuracy, even when the pipe is old, rusty and covered with deposits. This is often the case with e.g. crude oil tanks.
The Low Loss Mode improves the accuracy in pipes with deposits in the order of 100 times.

RTG 3950 also uses state-of-the-art FMCW radar technology with digital reference and temperature control for further accuracy enhancement.

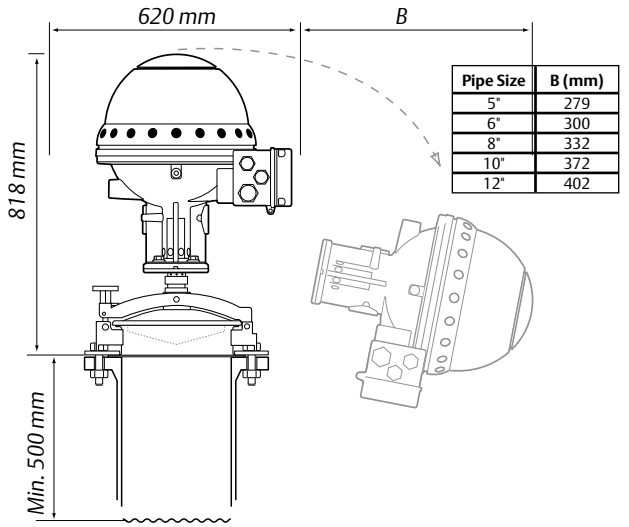
Features

- Low Loss Mode gives custody transfer accuracy.
- Option with hatch for product sampling and verification hand-dips in the same still pipe.
- Highest Reliablility
- Using existing stillpipes.
- Antennas for 5-, 6-, 8-, 10- and 12-inch pipes as standard.
- Can emulate other vendor's field buses.
- Pending TÜV approval
- Integrated in TankRadar Rex inventory tank gauging system.

A variety of communication possibilities

The gauge has inputs for temperature sensors, HART® based pressure sensors and other analog inputs, as well as analog and relay outputs.

The gauge uses the standard 2-wire TRL/2 field bus for field data transmission. It can also communicate on other field buses such as Profibus DP or Tiway and emulate other vendor's buses.



Pipe Size	B (mm)
5"	279
6"	300
8"	332
10"	372
12"	402

Free space requirements for REX 3950 with hinged hatch.

Specification RTG 3950	
Measuring principle	FMCW radar with digital reference and temperature control.
Antenna type	Still-pipe Array antenna using Low Loss Mode.
Instrument accuracy	± 0.5 mm (± 5/256 in.) [2σ value]. Maximum deviation: ±0.8 mm (1/32 in.) Meets the requirements in the OIML R85 standard.
Measuring range	0 to 40 m (0 to 130 ft) from antenna end
Temperature	Ambient -40° C to +120° C (-40° F to +248° F)
Pressure	Fixed installation: 5- to 12- inch pipe: 2 bar (29 psi) at 20° C Hinged hatch installation: 5- to 8 inch pipe: 0,5 bar (7,2 psi) 10 and 12 inch pipe: 0,25 bar (3,6 psi)
Material exposed to tank atmosphere	Acid proof steel EN 1.4436 (AISI 316L), PPS, Floursilicon
Supply voltage	100-240 VAC, 50-60 Hz, optional 34-70 VAC or 48-100 VDC
Outputs / inputs	Outputs: TRL/2 field bus, 1 pcs 4-20 mA, HART®, Profibus DP, Tiway, 2 pcs relays, other vendor's field buses Inputs: Temp (Pt 100), 2 pcs 4-20 mA (of which one HART® Master)
Display	On separate DAU, RDU or remotely in control room
Still-pipe dimensions (standard)	5" SCH 10-60, 6" SCH 10-60, 8" SCH 20-80, 10" SCH 10-60, 12" SCH 10-40
Housing	Aluminium, designed for IP 66 & 67
Weight	Approx. 20 kg (44 lbs)
Hazardous locations certifications	ATEX: CE 0575 Ex II 1/2 G, CENELEC: EEx d[ia] IIB T6 UL: Class I, Div I, Groups C and D

SAAB ROSEMOUNT Tank Control

Emerson Process Management

Saab Rosemount Tank Control
Box 130 45, SE-402 51 Göteborg, SWEDEN
Tel: int. +46 31 337 00 00. Fax: int. +46 31 25 30 22
E-mail: sales.srt@emersonprocess.com
www.saabrosemount.com

EMERSON™ Process Management

Copyright © Saab Marine Electronics AB. First Edition. November 2003. Ref.no: 109532E