



OPTIFLEX 4300 C Marine Technical Datasheet

Guided Level Radar (TDR)

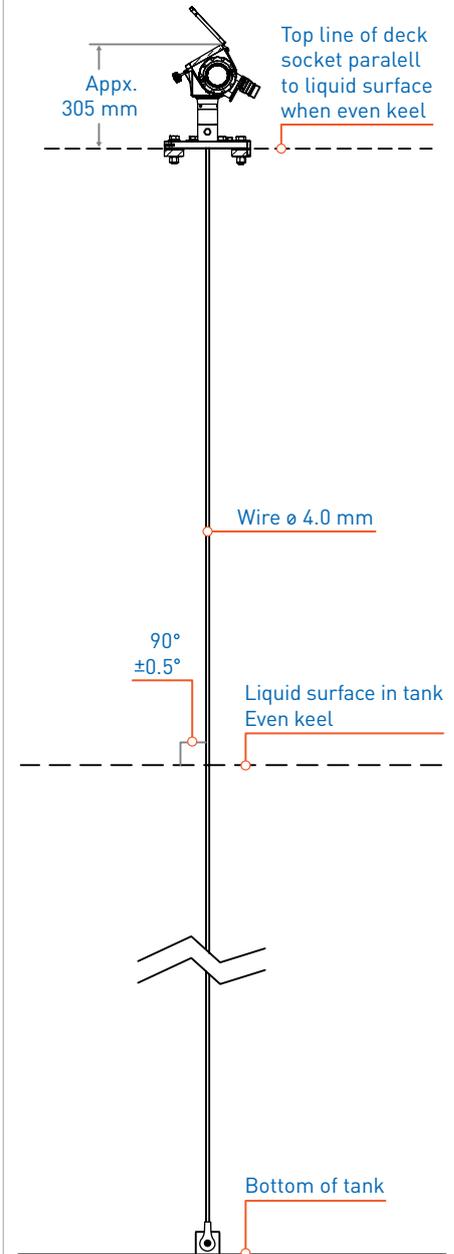
- Alternative to level radar in slop-, deck-, LPG- and ballast tanks
- Measurement of level and oil/water interface
- Redundant ullage indication
- Fully stand alone unit with touch screen
- Closed tank service
- Designed to operate in extremely rough conditions on ships



Technical data

Measuring system	
Measuring principle	Time Domain Reflectometry (TDR)
Application range	Level measurement of liquids, pastes, slurries, granulates, powders and liquid interface
Measuring range	20 m / 65 ft
Measuring accuracy	
Accuracy (at reference conditions)	up to 10 m / 33 ft \leq 3 mm / 0.12" 10...20 m / 33...65 ft \pm 0.03% of distance
Repeatability	+/- 1 mm / 0.04"
Measured value resolution	1 mm / 0.04"
Ambient conditions	
Hazardous locations	Intrinsically safe, zone 0, 1, 2; Temperature classes: T6...T4 Explosion groups: IIA...IIC
Ambient temperature	-40...+80 °C / -40...+175 °F (signal converter)
Flange temperature	-40...+200 °C / -40...+390 °F
Ingress protection	IP 66/67 (signal converter)
Product conditions	
Physical properties	No effect on measurement results
Dielectric constant (ϵ_r)	Mono cable: $\epsilon_r > 1.5$ / Coax: $\epsilon_r > 1.2$
Process temperature	Unrestricted (but beware ambient and flange temperatures)
Materials	
Signal converter	Stainless steel 316L
Flange system and cable	Stainless steel 316L (1.4404)
Gaskets	FPM (Viton), Karlez 6375 (others optional)
Process connection	Flange: DN 50 / PN 40
Power supply and output	
Powered by	4-20 mA 24VDC
Protocols	HART®
Current output	4-20 mA passive
Certificates and approvals	
Ex approvals	Intrinsically safe according to ATEX and IECEx
IACS approvals	DNV, ABS, GL, LR, BV, CCS, NK, KR

Standard installation



OPTIFLEX 4300 C Marine Guided Level Radar

The OPTIFLEX 4300 C Marine offers accurate and reliable level gauging in various applications not fully covered by standard cargo level radars.

Based on Time Domain Reflectometry (TDR) measuring principle, the instrument signal is guided by a stainless steel wire, reducing the requirement for free space.

Measurement of oil/water interface

The OPTIFLEX measures level and can detect two levels from the same wire installation. Consequently both oil and water level can be measured in a tank using only one instrument.

For further technical details, please contact:

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