



OPTIFLEX 4300 C Marine Technical Datasheet

Guided Radar (TDR) Level Meter

- Measurement of cargo tank level
- Measurement of oil/water interface
- Redundant ullage indication
- Closed service
- Designed to operate in extremely rough conditions on ships

Technical data

Measuring data

Measuring range	35 m / 115 ft
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Measuring accuracy

Accuracy (at reference conditions)	up to 10 m / 33 ft \leq 3 mm / 0.12" 10...35 m / 33...115 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 (signal converter)	-40...+80 °C / -40...+175 °F
Flange temperature	-40...+200 °C / -40...+390 °F
Ingress protection (signal converter)	IP 66/67

Product conditions

Media	Measures all liquids, liquid interface and solids
Physical properties	No effect on measurement results
Dielectric constant	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

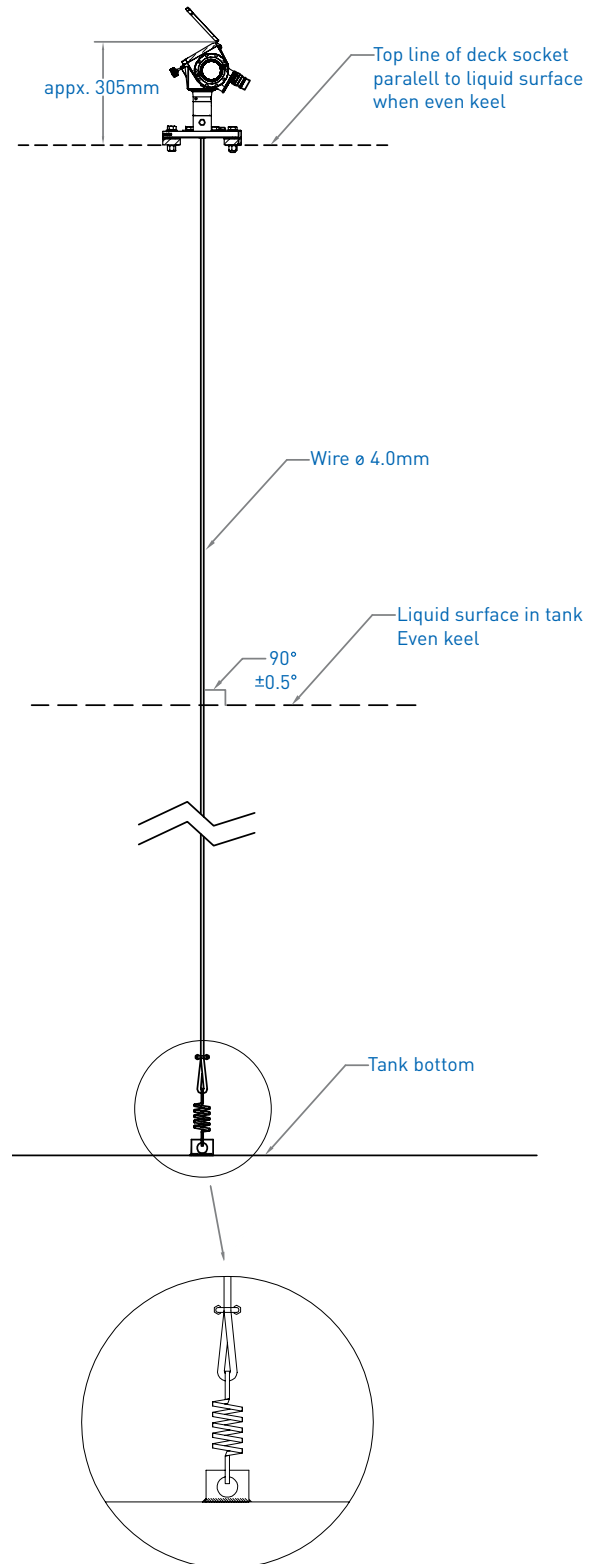
Power supply and output

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

Typical arrangement



Measurement of level and oil/water interface

The OPTIFLEX 4300 C Marine (TDR) offers accurate and reliable level gauging in various applications not fully covered by tank level radars. The instrument signal is guided by a stainless steel wire, reducing the requirement for free space. Where a traditional radar would require a still well for guiding the beam, the OPTIFLEX 4300 C offers an open and easy to clean solution. In slop tanks, the OPTIFLEX 4300 C will even indicate the oil/water interface.

Measurement of low reflecting cargoes

Without the need for a costly still well or fragile float installation, the OPTIFLEX 4300 C offers reliable and accurate level measurements in low reflecting cargoes like LPG.

For further technical details, please contact KROHNE Skarpenord.