

Level and pressure instrumentation for yachts



Application examples and products



Instrumentation for yachts

This brochure presents examples of applied level and pressure measurement technology on board a yacht. Four example applications show which sensors are the most suitable for each respective measuring task.

1	Fresh water and pool water tanks	Level measurement
2	Fuel tanks	Level measurement
3	Engine room	Level measurement Point level detection Overfill protection
4	Grey and black water tanks	Level measurement Point level detection




VEGA has over 50 years of experience in developing and manufacturing level and pressure measuring instruments.

Just give us a call. We're always happy to help and advise you on instrument selection.



For more information about our services and application solutions, visit our website at

www.vega.com


Continuous level measurement

Instrument type		Measuring range	Process fitting	Process temperature	Process pressure
VEGAFLEX 81 Guided wave radar sensor for continuous level and interface measurement of liquids		up to 75 m (246 ft)	Threads from G¾, ¾ NPT Flanges from DN 25, 1"	-40 ... +200 °C (-40 ... +392 °F)	-1 ... +40 bar (-100 ... +4000 kPa)
VEGAWELL 52 Submersible pressure transmitter with ceramic measuring cell		up to 600 m (2000 ft)	Straining clamp Screw connection	-20 ... +80 °C (-4 ... +176 °F)	0 ... +60 bar (0 ... +6000 kPa)
VEGABAR 82 Pressure transmitter with ceramic measuring cell for level and pressure measurement		up to 1000 m (3280 ft)	Threads from G½, Flanges from DN 25, 1½" Hygienic fittings	-40 ... +150 °C (-40 ... +302 °F)	-1 ... +100 bar (-100 ... +10 MPa)

Point level detection

Instrument type		Protection class	Process fitting	Process temperature	Process pressure
VEGACAP 64 Capacitive rod probe for point level detection in adhesive and conductive liquids		IP 68	Threads from G¾, ¾ NPT Flanges from DN 25, 1"	-50 ... +200 °C (-58 ... +392 °F)	-1 ... +64 bar (-100 ... +6400 kPa)
VEGASWING 51 Vibrating level switch for liquids		IP 68	Threads from G¾, ¾ NPT Hygienic fittings	-40 ... +150 °C (-40 ... +302 °F)	-1 ... +64 bar (-100 ... +6400 kPa)
VEGASWING 61 Vibrating level switch for liquids		IP 68	Threads from G¾, ¾ NPT Flanges from DN 25, 1" Hygienic fittings	-50 ... +250 °C (-58 ... +482 °F)	-1 ... +64 bar (-100 ... +6400 kPa)

Separating and protective devices

Instrument type		Protection class	Mounting	Ambient temperature	Material
VEGABOX 03 Pressure compensation housing with breather filter		IP 66	Wall DIN rail Pipe	-20 ... +70 °C (-4 ... +158 °F)	Plastic, Aluminium, stainless steel (precision cast)



Measurement of filling levels on yachts



Modern, service-proven instrumentation

VEGA is an experienced instrumentation outfitter for ships of all types and sizes. The company has decades of experience, especially with measurement technology on board yachts. VEGA sensors measure level and pressure in tanks and containers with exceptional accuracy and reliability.

Good value for money

VEGA sensors comply with the specific requirements in the shipbuilding sector and are tailor-made for yachts. Robust housing materials, high-quality FEP and PUR cable as well as shock and vibration resistant ceramic sensors guarantee long-term use.

Simple handling

VEGA sensors are really easy to connect, set up and put into operation. This makes installing and operating the instruments a breeze for the shipyard and the crew.

Classification

VEGA sensors are certified according to all major ship classifications such as ABS, BV, CCS, DNV, GL, LR and Rina.



Det Norske Veritas



German Lloyd



Bureau Veritas



Registro Italiano
Navale



China Classification
Society



Lloyd's Register



American Bureau of
Shipping

More information



Fresh water and pool water tanks

Reliable

Oil-free CERTEC® measuring cell for measurement in drinking water

Cost effective

Reliable measurement of water volume in all tanks

Convenient

Simple mounting and maintenance-free operation

Level measurement in fresh water and swimming pool water tanks

Every yacht has different tanks on board for storing hot water, pool water and drinking water. For drinking water, an especially hygienic measuring system is required.



VEGAWELL 52

Hydrostatic level measurement in the water tank for continuous monitoring of water volume

- Oil-free, ceramic-capacitive CERTEC® measuring cell
- Installation from the top or side
- High overload resistance
- Double seal withstands cleaning with chemical agents



VEGABOX 03

Junction box with wiring and ventilation for pressure transmitters

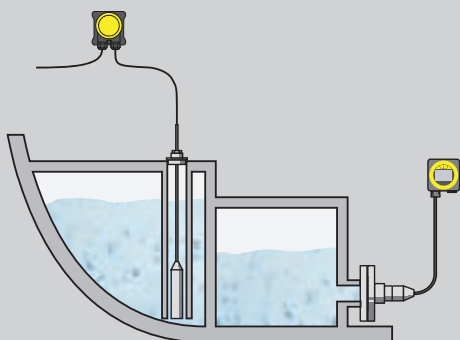
- Simple connection
- Fully protected against moisture thanks to high-quality breather filter
- Rugged housing material



VEGABAR 82

Hydrostatic level measurement in the water tank for continuous monitoring of water volume

- On-site adjustment and display in one housing
- Oil-free, ceramic-capacitive CERTEC® measuring cell
- Side mounting





Fuel tanks

Reliable

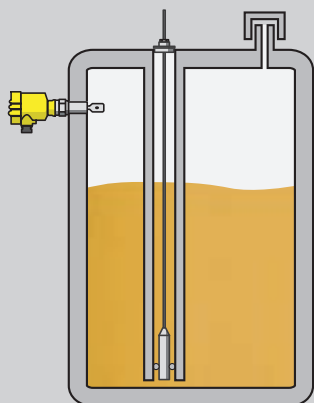
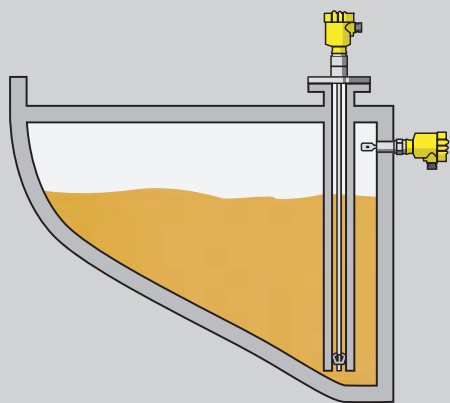
Maximum safety for humans and the environment

Cost effective

Precise measurement in all fuel tanks

Convenient

Maintenance-free, reliable operation



Level measurement in fuel tanks

The fuel tanks are some of the most important on board. They store a variety of fuels; diesel for the main engine and power generators, petrol for jet skis and dinghies, even aviation fuel for the helicopter. An additional overfill protection system also guarantees maximum safety for the environment.



VEGAFLEX 81

Continuous level measurement in all fuel tanks, independent of ambient conditions such as pressure or fuel vapour

- Universally applicable for all media
- Precise level measurement under all process conditions
- Rod or cable design allows for easy installation



VEGAWELL 52

Hydrostatic level measurement in atmospheric and ventilated tanks

- Rugged ceramic-capacitive CERTEC® measuring cell
- Simple installation from the top or side
- Highly chemically resistant FEP cable



VEGASWING 61

Redundant measuring system as overfill protection on tanks containing water-hazardous media

- Reliable detection of the level, regardless of media properties
- Simple side mounting
- Adjustment and maintenance free operation



Engine room

Reliable

Reliable measurement of tank contents regardless of medium and degree of contamination

Cost effective

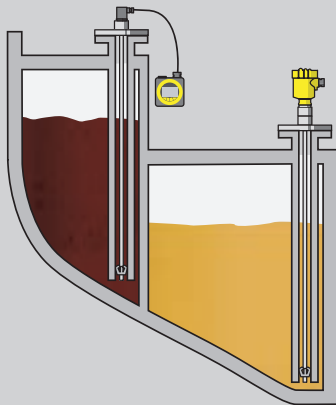
Simple project planning

Convenient

High-quality, exclusive looking electro-polished stainless steel housing

Level measurement and leakage detection in the engine room

In the engine room, the very heart of the yacht, there are many built-in tanks, including those for sludge, hydraulic oil and lubricating oil. Beside that there are oil pans and bilge compartments under the main engine, which, for safety and environmental reasons, are also monitored for leakage.



VEGAFLEX 81

Continuous level measurement in all tanks, independent of ambient conditions such as pressure or gases

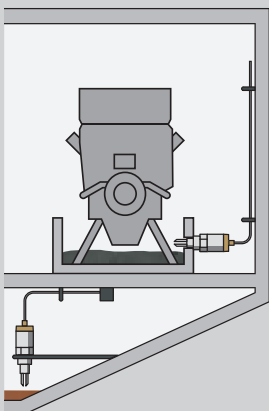
- Universal level measurement
- Sure measurement, independent of the medium
- Measurement in a bypass or standpipe, or integrated coax tube configuration
- Remote version for installations with limited space



VEGASWING 51

Monitoring of leakage pans in the engine room, as well as overfill protection in the sludge and bilge tanks

- Reliable, millimetre-accurate switching point regardless of medium
- No moving parts and no wear
- Small dimensions allow mounting in virtually any position





Grey water and black water tanks

Reliable

Precise level measurement in abrasive and adhesive media

Cost effective

Low installation and integration costs

Convenient

Maintenance-free operation

Level measurement and point level detection in grey and black water tanks

Wastewater accumulated on board is stored in grey or black water tanks up until its final disposal on land. The tanks are equipped with continuous level monitoring as well as point level detection to ensure against overfilling.



VEGAWELL 52

Hydrostatic level measurement in media with solids in atmospheric and ventilated tanks

- Abrasion resistant ceramic-capacitive CERTEC® measuring cell
- Measures reliably even with heavy soiling
- Simple mounting via threaded/flange fitting



VEGASON 61

Non-contact level measurement of media with solids in atmospheric and ventilated tanks

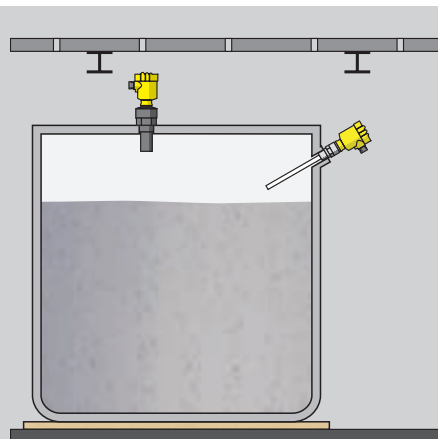
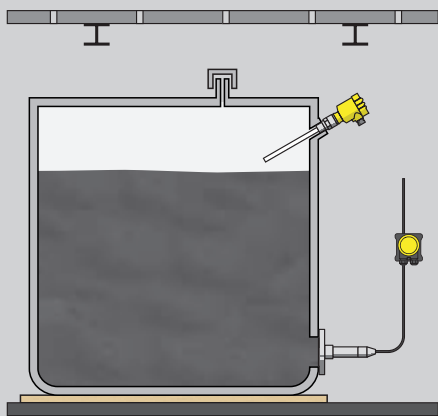
- Reliable measurement in virtually all media
- Simple mounting from above
- Maintenance-free, as there is no contact with the medium



VEGACAP 64

Protection against overfilling in grey and black water tanks

- Probe fully insulated and immune to buildup, for adhesive and chemically aggressive media
- Reliable switching point, even with changing media
- Simple installation and setup





plics® – easy is better



Instrument platform plics®

The plics® idea is simple: Each instrument is assembled from prefabricated components when the order is received. This modular design allows full flexibility when selecting the required sensor features and you receive your customised, user-friendly instrument within an amazingly short time. The best part: throughout their life cycle - these instruments are more cost-effective and advantageous in every way.

Display and adjustment

The display and adjustment module PLICSCOM is used for measured value indication, adjustment and diagnosis of the sensor. Its simple menu structure enables a quick and easy setup. Status messages are displayed in plain text.



Connection

The VEGACONNECT connects your instrument to a PC via the USB interface. Setup of the instruments is carried out with the tried and trusted adjustment software, PACTware and the appropriate DTM. Within the control system environment, we can also offer a graphics-driven, EDD based adjustment.

Asset management and maintenance

The integrated self-monitoring function of plics® instruments provides continuous information on device. Status messages allow proactive and cost-effective maintenance. All diagnostic data can be called up easily and quickly in plain text via the built-in memory functions.





46825-EN-140813

VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

Phone +49 7836 50-0
Fax +49 7836 50-201
E-mail info.de@vega.com
www.vega.com

Looking Forward **VEGA**