

Level measurement

Customized Solutions

Standard Products

Level Measurement by elobau

over

40

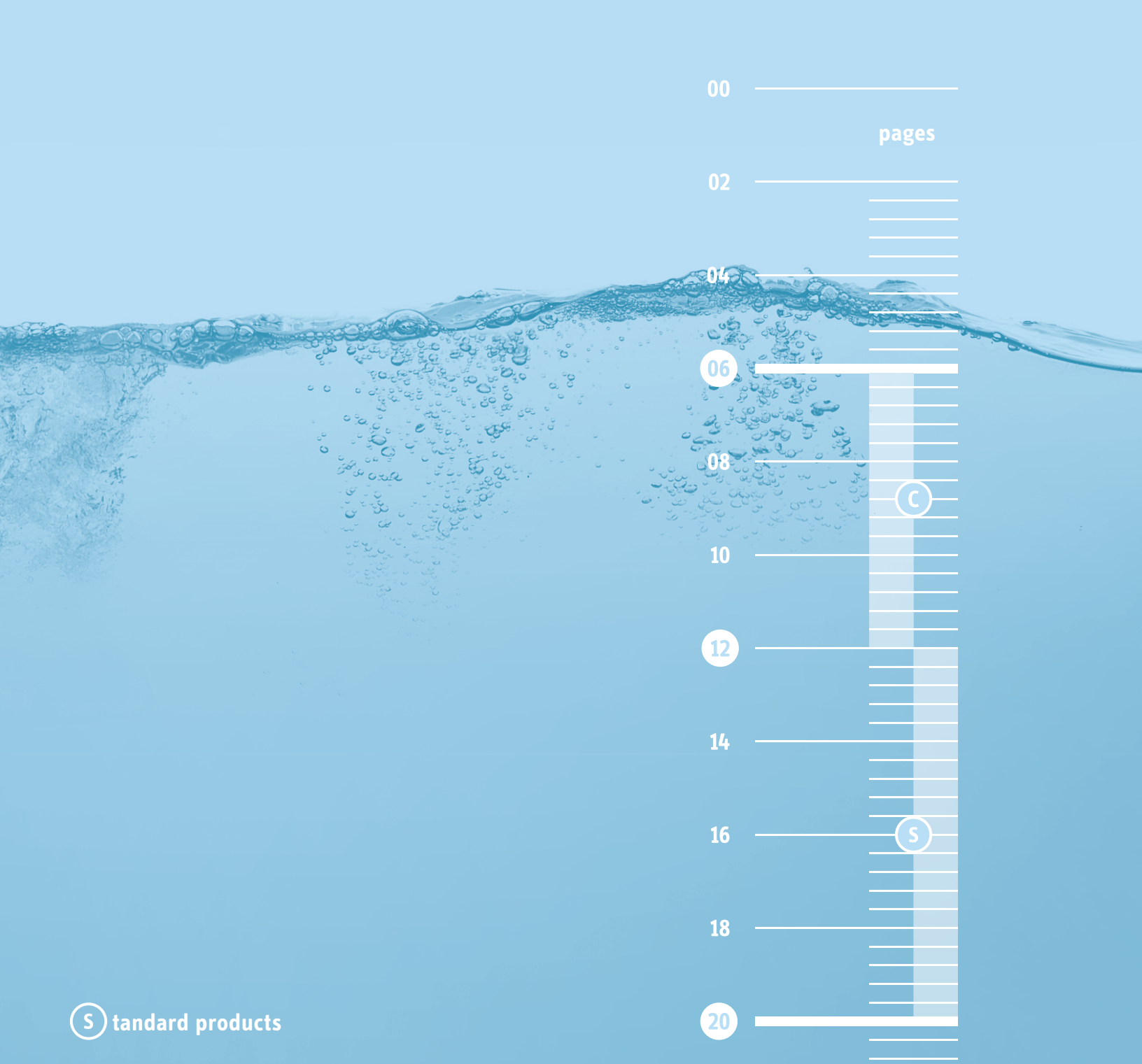
years

elobau is your partner.

elobau's innovative engineering and design processes help to utilize proven and reliable technologies. We achieve this by having the most important development areas in-house, efficient and flexible processes and highly qualified employees. Technology and high quality standards are the reason for products that operate long life cycles in challenging conditions.

© customized solutions

elobau works directly with its customers to understand their unique needs when it comes to products. Our strength is working in coordination with your team to build a superior level of products that solve your challenging applications. elobau is able to leverage our 40 plus years of experience in the market to adapt our technology to fit your needs.



S tandard products

elobau offers the right solution for every application - whatever your fluid level measurement needs are. Our wide product range enables us to adapt a standard product to fit your needs.

Basic Technologies for Level Measurement

Technologies we use for level measurement

Our ability to solve your level sensing application is based on our comprehensive portfolio of products and the wide range of technologies behind them, **reed, capacitive and ultrasonic**.

Reed

- Measurement range up to 6 m with stainless steel housing
- Measurement resolution up to 5 mm
- Temperature range up to 120 °C with some plastics, 180 °C with stainless steel
- Programming of up to four switching points
- Integrated temperature sensor available
- Large range of materials (stainless steel, PVC, PA, PP, PVDF)
- Can be configured with multiple set points or analog output



Products work with
Reed-Technology

Capacitive

- Measurement range up to 2.5 m
- Measurement resolution 1 mm
- Calibration of the fill level by the user
- For conductive and non-conductive media
- Integrated temperature sensor available



Products work with
Capacitive-Technology

Ultrasonic

- Measurement range up to 1.8 m
- Measurement resolution 1 mm
- Extreme temperature range from -40 to +105 °C
- Wear free with no moving parts
- Reliable measurement of liquids and solid objects
- Analog output with no setup required



Products work with
Ultrasonic-Technology

Customized Solutions

Find your customized solution with elobau.

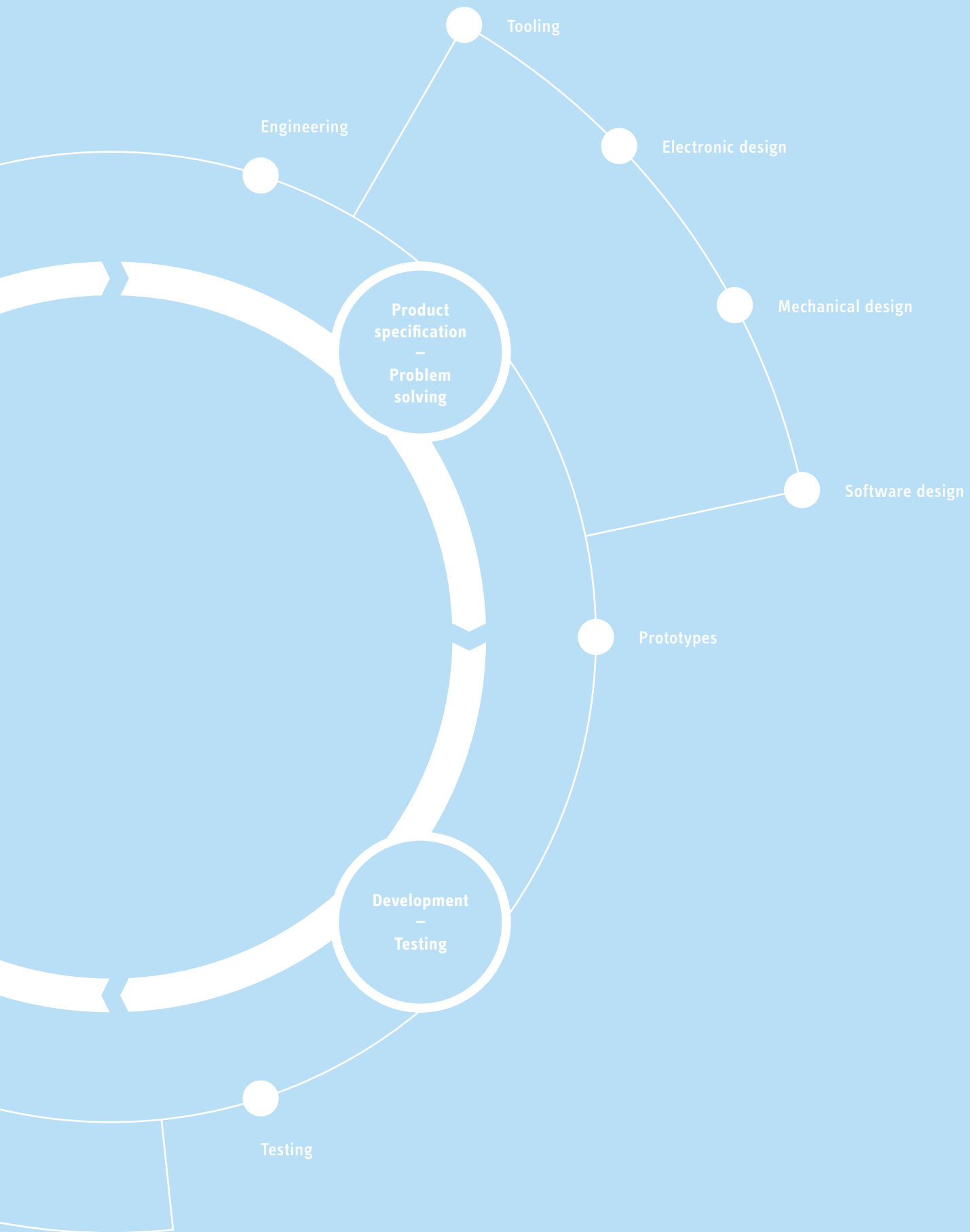
From concept to design, elobau has the unique capability of building a custom solution to fit your exact specifications. Our design and build process incorporates your feedback to produce an excellent product that is built to last in challenging applications and environments

Specification

Your requirement
—
Our solution

Release

Adjustments



Design and Build Products

elobau adapts the standard products to fit your custom tank

elobau has been developing and manufacturing thousands of customized solutions for OEM's for over 40 years. Our customers include manufacturers in the medical, dental, semiconductor, printing, food/packaging, mobile equipment and consumer products. elobau uses a variety of non-contact technology including, reed, hall, capacitive and ultrasonic. This allows our designs to be flexible and fit a large number of applications. A wide market knowledge ensures our engineers will create a solution that fits your unique requirements.

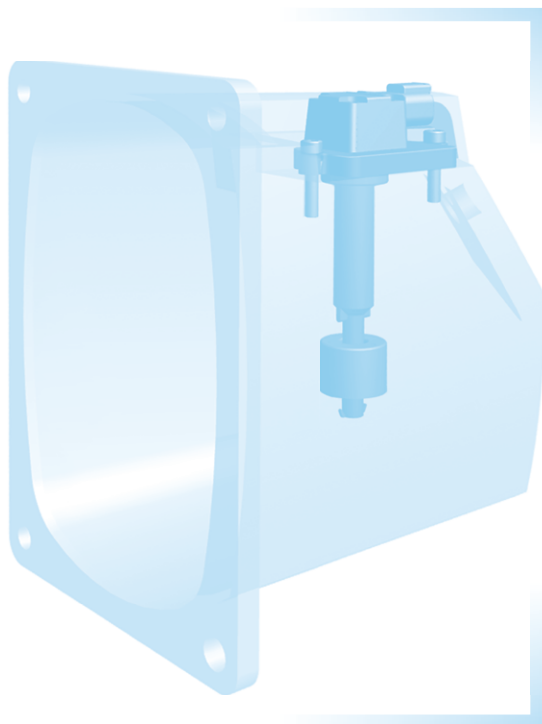
Our manufacturing facilities are located in Germany and feature injection molding, encapsulation, automated/manual manufacturing cells, environmental/life cycle testing, automated soldering, and SMT pick-and-place.

The upper right model shows a sensor developed for gear box oil control for the power generation and truck market. Due to space constraints the customer required the lowest possible mounting height in addition to a very narrow flange space. Additional needs were a long life and robust construction as well as a rigorous internal testing.

The lower right model was a sensor developed for industrial ink-jet printers. This was a challenging project, because an accurate analog measurement without having an additional opening for the sensor was required. The solution was a custom hall module on the outside of the reservoir with an internal magnet float system. elobau's knowledge with multiple technologies helped the customer optimize their production process and greatly reduce failure rates.



**Get your 100%
customized solution.**



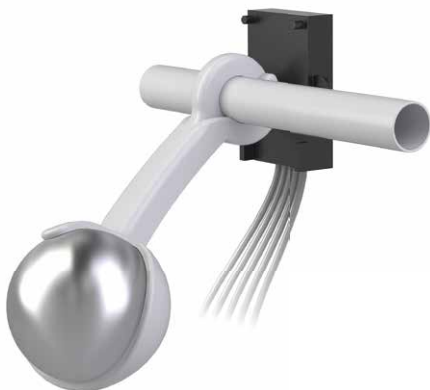
limited space.

in the tank.

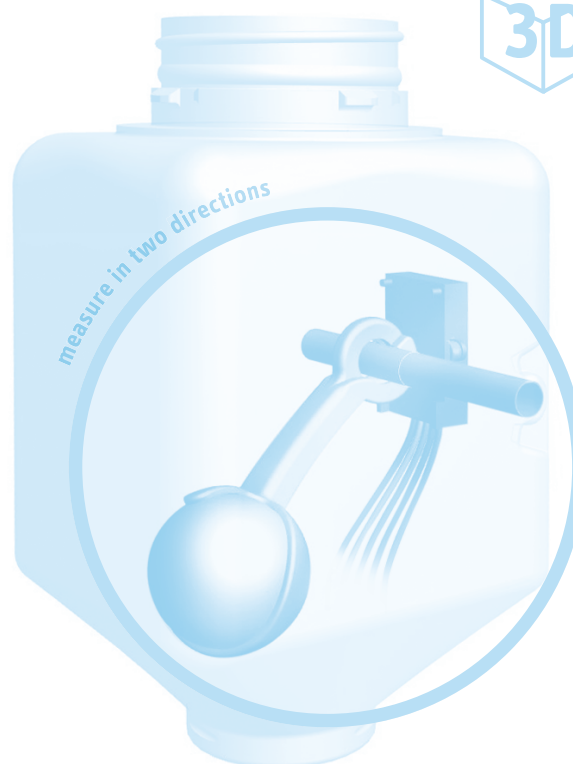


The elobau solution. A level sensor developed for space constraints without losing the advantages of a robust construction.

The elobau solution. A hall module on the outside of the reservoir with an internal magnet float system.



Hall



Semi-customized Products

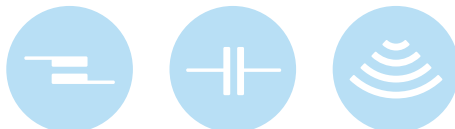
elobau offers over one million ways to suit your application

Flexibility is the key component to the success of elobau. We can modify existing products to solve a wide range of applications.

Thus we can supply customized products to small and mid-sized OEM's without requiring upfront investment in engineering and tooling. Typical modifications include special machining, special encapsulation, materials for high temperature sensors, and various connectors.

elobau's semi-customized products offer the following features:

- Various materials available (1)
- Material mixes possible
- NPT and G threads available (2)
- Various flanges available
- 1 to 20 switching points or analog signal
- Up to 250 V, 3 A and 100 W
- Up to 33 bar available
- Temperature ranges from -40 to +180 °C
- Many connector options, e.g. M8, M12, AMP, Deutsch (3)
- Low installation depth enables a safe leakage detection
- Connection boxes for self wiring
- Up to IP69K



Semi-customize your level sensor.

(1) Available Materials



- PVC
- PP
- PA
- PVDF
- PPS
- NBR
- Stainless steel
- Aluminium
- Brass

from
25 mm

up
to
6000 mm

(2) Mechanical Connection

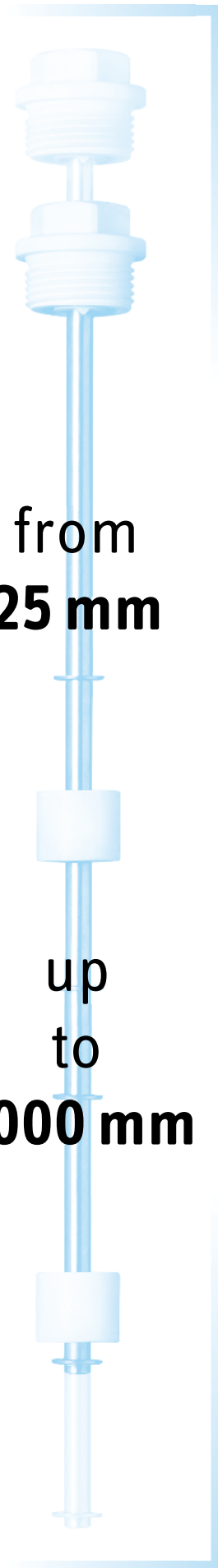


- Metric
- NPT
- Whitworth
- Flanges
- Customized

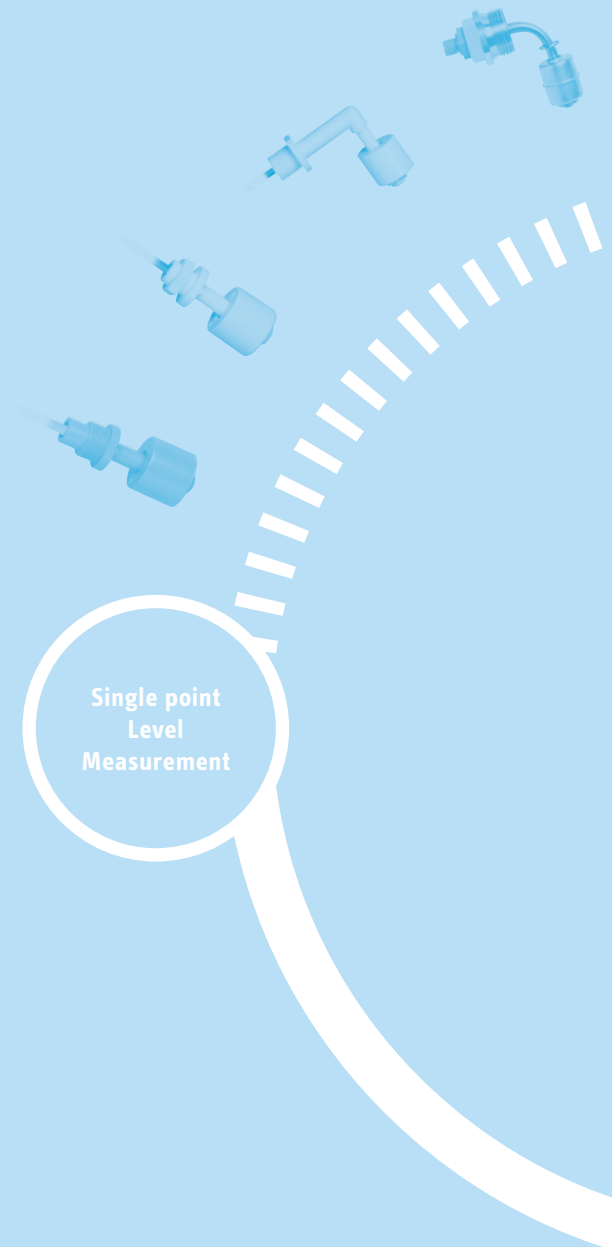
(3) Electrical Connection



- Cable
- Plug
- Box
- Pigtail



Standard Products

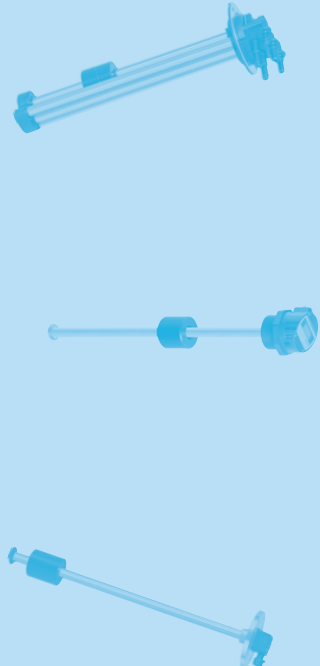


Find your cost efficient solution with elobau.

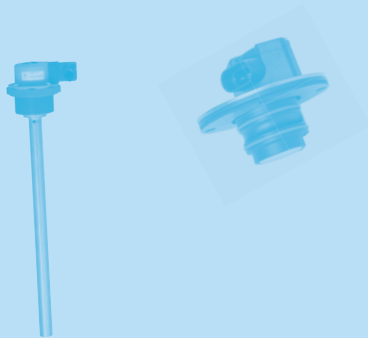
Looking for something off the shelf? elobau offers a wide range of standard solutions.



Continuous
Level
Measurement



Analog
Level
Measurement



Standard Solutions for every Application

elobau's effective, reliable and low cost solutions.

Whatever your fluid level measurement needs – elobau offers the right solution for every application. We have a wide range of standard products with off the shelf level measurement to suction pipes. Various on-line configurators enable a free selection from countless components. This gives the ability to configure a level sensor to “their” application and receive products with a short lead time.



Configure your product at www.elobau.com



Level detection

A low cost way to reliably measure level in your tank. elobau offers a highly reliable product due to the integrated circuit board inside. We can modify the float material to work in just about any environment.



Continuous level measurement

elobau's unique range of continuous level sensors offers the users real-time analog feedback to adapt their process. Our platform of technologies also offers a variety of ways to achieve this with capacitive, ultrasonic or reed technology.



Supply and return with level measurement

Suction pipes offer a unique way to feed fluid in from a tank and monitor the amount of fluid left in the tank. Versions with feed and return offer solutions for additional filling options with only one tank opening.



Ultrasonic Level Measurement

Reliable measurement down to bottom of the tank

The ultrasonic fuel level sensor was specially developed for use in diesel and biodiesel, but can also be used in many other media. Due to its wear-free transmitter/receiver principle, this sensor has a long service life. It can also be used in harsh environmental conditions thanks to its IP67 protection class. With measurement lengths of up to 1,800 mm, this level sensor is suitable for applications with large capacity tanks. The ultrasonic fuel level sensor is mounted in the tank from above meaning the measurement takes place on the fluid through the air.

elobau's ultrasonic level measurement offers the following features:

- Space saving design
- No moving parts
- High reliability and long service life thanks to the contactless ultrasonic technology
- Analog current / voltage output signal
- Extreme operating temperature range from -40 to +105 °C
- No more inaccurate readings thanks to precise ultrasonic measurement
- Available with and without focus tube



Ultrasonic level sensor

IP 67



10° \angle

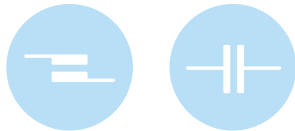
Programmable Level Measurement

Temperature and level in one display

elobau's new level sensor offers a LCD display option with push button for programming. This allows the user to configure up to three discrete switching points with temperature output, four discrete switching points, or an analog signal of 4 to 20 mA for continuous measurement. Through the use of the standard stainless steel pipe with a rotating head, the sensor can be used nearly universally in various types of media. For applications with less aggressive liquids, a non-rotating head with plastic pipe can be applied for a lower cost.

elobau's solutions for accurate level measurement offer the following features:

- Various types of plastics, stainless steel or material combinations (1)
- Output signals digital and analog (2)
- Individual selected switching points to analog output signals with a resolution of 5 to 35 mm are possible
- NPT or Withworth threads (3)
- Various cables or connectors available
- Many standard components to choose from, optimized for various liquids (4)



Float switch discrete / analog output



(1) Available Materials



- PVC
- PP
- PA
- PVDF
- Stainless steel

(2) Output signals



- Analog
- Digital
- Analog + Digital

from
100 mm

up
to
2000 mm

(3) Electrical Connection



- Cable
- Plug
- Box
- Pigtail

(4) Optimized for different aggressive media



- Oil
- Gasoline
- Water
- Chemicals
- Detergent



elobau sensor technology.

The company.

As an expanding, globally active, medium-sized family business with more than 630 employees, we develop and manufacture sensor technology and operator interface controls for the industrial machine and off highway vehicle sectors. Our high-quality products are characterised by a high vertical range of manufacture and are manufactured in a carbon-neutral manner in Germany. With our innovative, non-contact sensor products, we support our customers worldwide in manufacturing industrial machines and vehicles that set standards in terms of performance, operator comfort, safety and quality.

Your global partner.

Select your region under
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