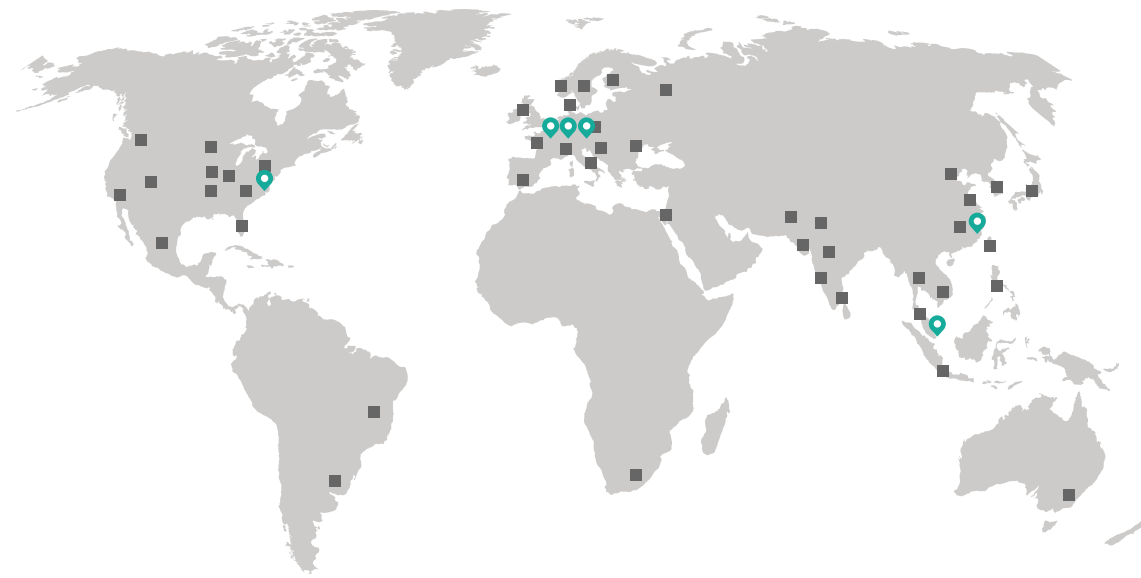


FRABA

FRABA WORLDWIDE

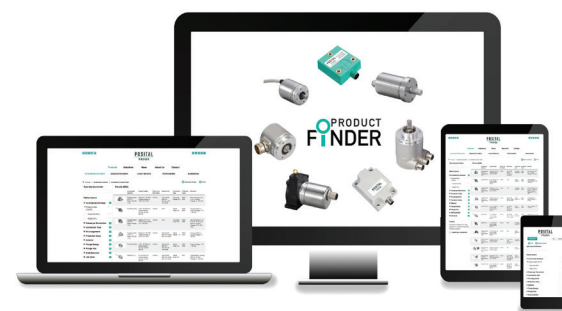
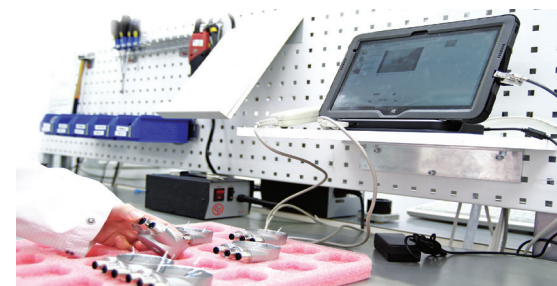


- FRABA Holding**
FRABA B.V.
Heerlen, Netherlands
- FRABA America**
FRABA Inc.
Hamilton, NJ, USA
- FRABA Asia**
FRABA Pte. Ltd.
Singapore
- FRABA Europe**
FRABA GmbH
Cologne, Germany
- Manufacturing**
CONISTICS Sp. z o.o.
Slubice, Poland
- Manufacturing**
CONISTICS Inc.
Hamilton, NJ, USA
- R&D Center**
CENTITECH GmbH
Aachen, Germany
- FRABA China**
新加坡弗瑞柏公司上海代表处
Shanghai, China

Innovative Service and Production

FRABA products are manufactured in advanced production facilities. The computer-guided semi-automated production system tracks each device from order, through assembly and testing, to final delivery. FRABA also implements the unique idea of mass customization which makes it possible to offer over one million configuration options with short lead times. Devices are custom-assembled through a computer-controlled manufacturing system that ensures quality, traceability and rapid delivery of the final product at prices comparable to standardized mass-produced items. This approach makes

the vision of "MOQ-1" (minimum order quantity – one) a practical reality! FRABA also offers unique online product finders which provide access to a huge variety of solutions without requiring specialized knowledge. Over a hundred thousand specific datasheets are available in 11 languages and easy to browse. FRABA is always evolving and growing, entering new markets and increasing distribution. With numerous global locations and a large distribution network that includes sales partners and system integrators, FRABA can provide expert guidance and technical support at any time, anywhere.



www.fraba.com

FRABA

FRABA BRANDS



POSITAL – Position and Motion Sensors

POSITAL designs and markets sensors for motion control and safety assurance systems. Products include rotary encoders, inclinometers, linear position sensors and a large variety of accessories. These products are used in a wide range of settings, from manufacturing to mining, agriculture to energy. POSITAL's innovative product design has mastered magnetic technology and eliminated the need for compromise by developing a new generation of magnetic absolute and incremental encoders that match the performance of optical encoders.

POSITAL FRABA

POSITAL's ground breaking Wiegand technology has been successfully implemented in our multiturn encoders. This energy harvesting system generates short, powerful voltage pulses sufficient to power the rotation-counting electronic circuit, even when the speed of rotation is very low. This solution enables the reliable measurement of multiturn absolute positions without requiring access to an external power supply.

VITECTOR – Safety Sensors for Doors

VITECTOR is a leading manufacturer and supplier of safety systems for the door and gate market in the USA, Europe, and around the world. The product portfolio includes optical and pneumatic sensing edges, bumpers, and photo-eye sensors which meet international standards for safety devices. These products have applications in commercial, bus, and train doors as well as production machines. VITECTOR's inventive sensing edges are used wherever moving edges jeopardize the safety of persons or objects.

VITECTOR FRABA

VITECTOR is also founder of the joint project "Internet of Doors" which is the consequent application of the internet of things and the door industry. The wireless connection of sensors, door control and periphery via Bluetooth Smart offers access to smartphones and IT infrastructure and makes it possible to connect the door to the cloud. Using intelligent web services provides major advantages for manufacturers, installers and end users.



www.fraba.com

Cologne (EMEA) – Hamilton (Americas) – Singapore (APAC) – Shanghai (China)

FRABA

100 YEARS FRABA GROUP



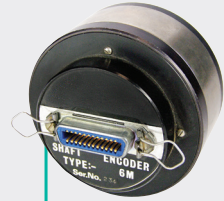
FRABA

100 YEARS OF INNOVATION

Founded by Franz Baumgartner in Cologne, Germany and originally specialized in mechanical relays.



1918



FRABA starts selling "brush" absolute rotary encoders.

1963

FRABA manufactures one of the first encoders based on optical measurement technology.



1973

The first Optical Safety Edges (OSE) are launched.



1994

The first foreign subsidiary opens up in Princeton, New Jersey, USA.



2000



POSITAL product portfolio expands to include industrial inclinometers.

2002

CONISTICS, FRABA's advanced manufacturing plant opens in Slubice, Poland. CONISTICS is tailored to produce small lot sizes in a wide range of configurations.

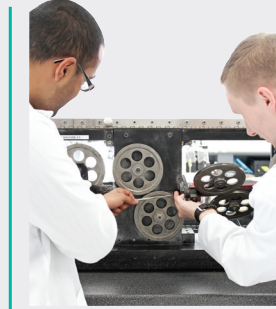


2006



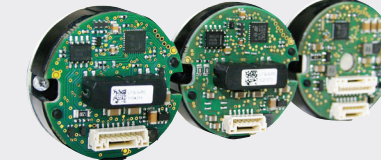
FRABA's holding office opens in Heerlen, NL and product development cell, CENTITECH, moves to Aachen.

2011



We acquire wire-conditioning machinery and intellectual property from the Wiegand estate. This leads to a reliable supply of Wiegand wire which improves the manufacturing process and exceptional product quality.

2014



VITECTOR debuts their project "Internet of Doors" which uses wireless connection of sensors, door control and periphery via Bluetooth Smart thereby providing major advantages to all.

2016



POSITAL launches the innovative magnetic kit encoders which are a battery free, built in solution for servomotors for real-time measurement of rotary position or speed.

1928



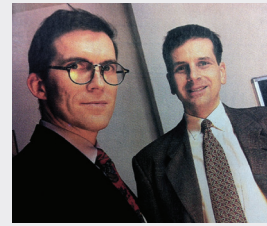
Being a pioneer in electric control systems, Mr. Baumgartner was able to grow to employ 90 highly trained specialists, producing relays for all of Europe.

1968



FRABA celebrates its 50-Year Anniversary. Mr. Baumgartner retires at the age of eighty, two nephews take over. FRABA employs 400 people now.

1993

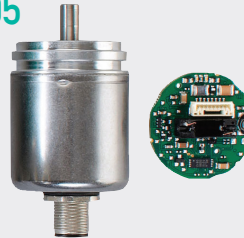


Dr. Achim Leiser, Christian Leiser and Axel Wiemann take over the company. They restructure the company into a group of independent companies combined by a common Mission and Guiding Principles.

2001

FRABA introduces 2 new business units, **POSITAL** FRABA and **VITECTOR** FRABA. **POSITAL** which continues the encoder and position sensor business and **VITECTOR** which focuses on safety systems for the door and gate market.

2005

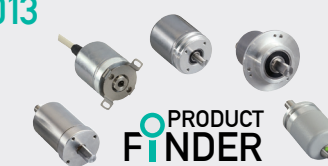


POSITAL launches a new line of magnetic multiturn encoders based on a Wiegand Wire Energy Harvesting Technology.

2009

The first Asian subsidiary opens in Singapore.

2013



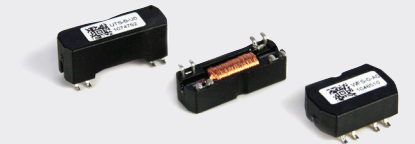
High precision magnetic absolute and incremental encoders offered by POSITAL. POSITAL introduces a unique online product finder where users can select from more than 1 million sensors.

2015

The first Chinese subsidiary opens in Shanghai.



2017



0.5 Million Wiegand Components have been produced and shipped to customers all over the world.

2018

FRABA celebrates its 100-Year Anniversary. We have expanded to over 220 employees, 7 locations, and millions of product varieties available.



Dedicated to Excellence

The international FRABA group marks its 100th anniversary with significant growth and technological advancements. "Our success has been the result of hard work and careful planning," states CEO Christian Leiser. From a small company in Cologne, FRABA has developed into an international business with an expanding range of advanced products and facilities.

FRABA, The Early Years

FRABA Group dates back to 1918, when its founder, Franz Baumgartner, established the company in Cologne, Germany. Within the first year, Franz became a pioneer in electric control systems and received his first patent for a "Petri Switch." The company specialized in manufacturing mechanical relays which, back then, were as technologically important as today's microprocessors. Continuing development, FRABA became a forerunner in

remote-control and relay systems. And in 1962, the company was responsible for engineering the entire city of Haifa's traffic control light system. Soon after, FRABA launches their first (brush) absolute rotary encoder – a product which to this day has remained central to the business. In 1968 FRABA celebrates 50 years in operation and is a thriving company with over 400 employees. This same celebratory year, Franz Baumgartner retires at the age of 80 and the company is taken over by his two nephews. Developing the first non-contact, optical absolute rotary encoder in 1973, FRABA expands its portfolio of encoders by adding new mechanical designs and electrical interfaces.

FRABA, The New Beginning

In 1993, the Leiser brothers, Christian and Achim, acquire FRABA. At this time the company was on the verge of bankruptcy. The brothers had to reduce the workforce dramatically and discontinue or di-

vest businesses. Within four years, the turnaround into a new business venture was completed. The company began focusing on and investing in highly educated individuals- trained technical specialists or those with masters' degrees in electronics, physics, or mechanical engineering. FRABA is restructured into a group of independent companies united by a common mission and guiding principles. Since 1997, FRABA has grown on average by 10 percent yearly. It has branched into two main brands – POSITAL industrial encoders and VITECTOR door safety sensors. Subsidiaries continue to open, and a global reach is maintained with locations expanding to the USA, Singapore, and the Netherlands. In 2007, FRABA opened its manufacturing plant CONISTICS in Slubice, Poland. This advanced facility uses computer-guided semi-automated production system. FRABA today has over 120 employees, 500 sales partners, and over 1 million variant products available.

FRABA, Mission and Values

Since its restructuring, FRABA has been working with the "FRABA Star" as the basis of our values. This star begins with the idea that:



"Together we achieve excellent results, without sacrificing our human qualities. Open and honestly, we stand by each other, always treating others respectfully. And we enjoy exceeding ourselves." From this mission statement, FRABA delineates four main points to reach the highest ethical standards:

Competence: Ideas, knowledge, energy, and risk taking are our drivers. Anybody who has them, has the right to decide. We are not a democracy, where everybody has a say in every decision, but a high performing team, where everybody has the right and the obligation to do what he is best at.

Total Information: We are an open book company. Our employees have access to all business information. Every decision is published immediately. We openly share information with all our business partners.

Fair Sharing: In the long run only balanced relationships can be successful. Therefore we always seek to share evenly, material things as well as feedback. With our business partners we deal in a way that we do not take advantage in situations where they are dependent on us and expect the same from our partners.

Dynamic Development: In contrast to the common Tayloristic view of "stable functioning" we believe that everything is on the move. Every team member has to teach someone else his current task requirements to make himself dispensable and ready for the next task. All our relationships as well as our thinking habits are subject to improvements, all the time.

We have formulated numerous operational principles to provide our employees with landmarks for their decisions. At FRABA, all of our locations are open large rooms void of any dividing walls. White walls allow for any impurities to be directly visible; nothing is covered up or shadowed. Since 2007, FRABA has instituted the "hotel concept" in which every employee, including our CEO, seeks out a different workspace for the day. The experience of our employees and visitors is thus consistently aligning with our values and the open digital strategy.