

POSITAL

FRABA

POSITION AND MOTION SENSORS



At Your
Fingertips
1,000,000
Sensors

The One Stop Encoder Shop

POSITAL

FRABA

REVOLUTIONS



Mass Customization

POSITAL encoders are based on a modular architecture that makes it possible for the company to offer an extremely wide range of configuration options. Using POSITAL's online product finder tool, customers can "build" the devices that they need, specifying the performance characteristics, mechanical features, communications interfaces and so on.

Once customers have identified exactly what they require, 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!

Magnetic Technology to a New Level

Magnetic encoders are typically more compact and rugged, but until now, have offered lower levels of precision and dynamic response. POSITAL has eliminated the need for compromise by developing a new generation of magnetic absolute and incremental encoders that match the performance of optical shaft-mounted encoders in all but the most demanding applications. The core element of POSITAL's series of magnetic encoders is an advanced Hall-effect sensor system, combined with a powerful 32-bit microprocessor and carefully optimized signal processing software. This combination results in levels of resolution, accuracy and dynamic response that rival the performance level of optical encoders.



36 Month Warranty

All products sold under the POSITAL brand name will include a warranty extending 36 months (3 years) from the date of shipping. This is an industry leading timeframe, supported by decades of experience with rotary encoders.



Partner Network

POSITAL is evolving and growing, entering new markets and increasing distribution. Our global distribution network includes sales partners and system integrators who can provide expert guidance and technical support.



24 Hours Delivery

POSITAL's standard production is typically 72 hours. Thanks to the mass customization approach and state-of-the-art production facility, POSITAL can easily offer a 24h expedited production for a wide range of products (which comes with a modest surcharge).



Contact us!

Feel free to contact us for any questions or requests regarding POSITAL

sensors.

Europe: info@posital.eu

Asia: info@posital.sg

Americas: info@posital.com

POSITAL

FRABA

PRODUCTS



High Precision Rotary Encoders

Motion control applications – ranging from factory automation to mobile machinery – require accurate, realtime information about the location of mechanical components. The IXaRC line of rotary encoders provide precise and reliable measurement of the angular positions of joints, drive shafts, pulleys, etc... available electronic connections range from simple analog outputs to sophisticated Fieldbus and Industrial Ethernet interfaces.

Robust and Programmable Kit Encoders

POSITAL's kit encoders offer a unique combination of accuracy, reliability and cost efficiency. Absolute measurement versions provide 16 bit resolution and multiturn position measurements with a range of more than one million revolutions. a second version provides a combined incremental+UVw output with a resolution of up to 16384 PPR. Kit encoder components include an electronics package mounted on a compact 35 mm diameter PCB and a small permanent magnet, designed to be mounted on the end of the motor's shaft.

Absolute Encoders

Absolute rotary encoders are capable of providing unique position values from the moment they are switched on. This is accomplished by detecting the position of a coded element. all positions in these systems correspond to a unique code. Even movements that occur while the system is without power are translated into accurate position values once the encoder is powered up again.

- Singleturn and Multiturn Revolution
- Optical and Magnetic Measuring Principle

Incremental Encoders

Incremental encoders generate an output signal each time the shaft rotates a certain angle. The number of signals (pulses) per turn (PPR defines the resolution of the device. Each time the encoder is powered on it begins counting from zero, regardless of where the shaft is. Initial homing to a reference point is therefore inevitable in all positioning tasks, both upon start up of the control system and whenever power to the encoder has been interrupted.

- A, B, Z, and Inverted Signals as HTL (Push-Pull) or TTL (RS422)
- Programmable for Flexibility



POSITAL

FRABA

PRODUCTS



Versatile LINARIX Linear Sensors

Many applications require linear motion to be monitored for system control or to ensure safety. With lengths ranging from 1 m to 30 m [3 to 98 ft], LINARIX draw wire sensors are available in many configurations to meet an application's requirements. Options include a wide variety of outputs (including analog, incremental, Fieldbus and Ethernet variants), heavy duty housings and compact designs.

- > **Position Measurement with Resolutions up to 2 μ m**
- > **Variety of Materials**

Compact Industrial TILTIX Inclinometers

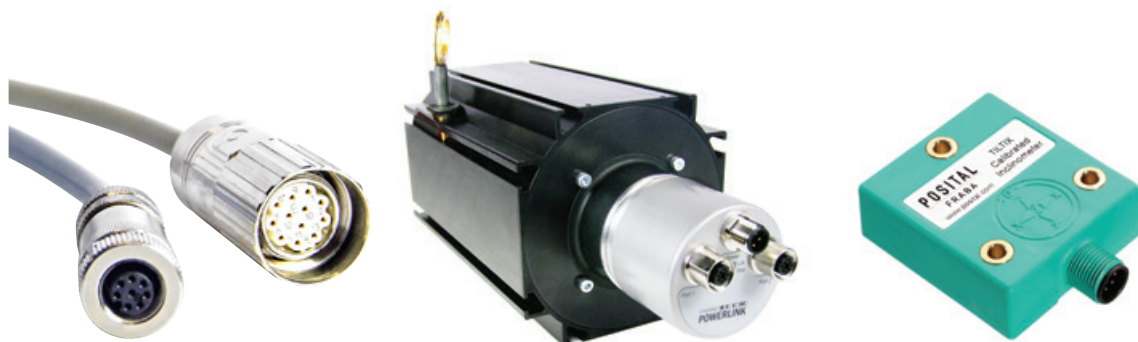
Accurate measurement of tilt or inclination is very important for motion control and safety systems. Inclinometers provide single or dual-axis angle measurement in an economical package. Relying on gravity for their measurement, these sensors have no exposed moving parts, resulting in easy installation and high environmental protection.

- > **High Accuracy of 0.1° and Resolution of 0.01°**
- > **Measurement Range $\pm 90^\circ$ (Dual Axis) or 360° (Single Axis)**

Wide Selection of Accessories

POSITAL offers a wide selection of accessories that simplify sensor installation and help ensure a long and reliable service lives for both for sensors and the machinery they are monitoring.

- > **Connectors and Cables:**
Robust, with up to IP67 or IP69K Protection
- > **Measuring Wheels:**
Turn an Encoder into Linear Position Sensor
- > **Counters & Display Modules:**
On-site Position or Speed Measurement
- > **Adapter Flanges:**
Rugged Adapter Flanges for Easy Installation
- > **Clamping Rings:**
Mechanical adapters for Hollow Shafts
- > **Draw Wire Adapters:**
Combined with encoders for linear motion measurement
- > **Clamp Discs:**
Robust & Versatile Clamp Discs
- > **Couplings:**
Large Variety of Couplings for all Applications
- > **Torque Support:**
Robust Torque Support for Hollow Shafts
- > **Configuration and Interface Module**



POSITAL

FRABA

INDUSTRIES



Mobile Machinery

In mobile machinery success is only possible when safety, efficiency and reliability are combined. POSITAL position and motion sensors can be used in a variety of applications to accomplish these goals such as monitoring the stability of a platform and the careful positioning of boom arms and blasting equipment. To be effective, sensors must withstand years of impact, shock, vibration, extreme temperatures and inclement weather.

- > IP69K Sensors, Pressure & Temperature Resistant

- > Certified Sensors for Explosive Environments

Renewable Energy

With rising energy prices and the prospect of dwindling resources, solar and wind energy are some of the most popular alternatives. High resolution encoders are also ideal for yaw control ensuring optimal positioning of the nacelle with respect to wind direction. Encoders and inclinometers can be installed in single or dual axis systems and precisely position the drive of the panels or reflectors.

- > Increased Efficiency in Extreme Environments
- > Optimized Solar Panel Orientation

Material Handling

Whether it's in a warehouse, a logistics center, a factory or an airport, material handling needs to be efficient, accurate and safe. POSITAL has expertise with diverse material handling equipment over many years. The sensors are designed to provide accurate rotation, tilt and length measurement in different applications; automated warehousing, forklifts, conveyors, cranes, aerial work platforms and scissor lifts.

- > SIL2, SIL3 Certified for Safe Operation
- > Diagnostics LED, Reduced System Installation

Healthcare

Modern devices used in the healthcare industry demand advanced technology for precise positioning. TILTIX inclinometers provide accurate measurements and are built to last the life of the equipment. LINARIX linear sensors offer a solution for tracking the position of patient tables. For complex applications, such as fluoroscopy or radiography tables or surgical C-arms, that require coordinated positioning of several components, IXARC absolute rotary encoders are an excellent option.

- > Precise Positioning of Patient & Scanner
- > Simple Installation, Easier Calibration



POSITAL

FRABA

OVER 50 YEARS EXPERIENCE WITH POSITION SENSORS



FRABA Group

FRABA is a group of enterprises focused on providing advanced products for the motion control and industrial automation markets. POSITAL has been a leading manufacturer of industrial rotary encoders for over 50 years and recently has expanded its business to tilt and linear motion sensors. Other FRABA Group subsidiaries include VITECTOR which focuses on protection sensors to guard doors and production machine covers. FRABA group is also an innovator in product design and manufacturing processes and a pioneer of Industry 4.0.

History

FRABA Group dates back to 1918, when its predecessor, Franz Baumgartner elektrische Apparate GmbH, was established in Cologne/Germany to manufacture relays. In 1973 FRABA introduced one of the first non-contact, optical absolute rotary encoders. Since then, the company has played a trendsetting role in the development of rotary encoders and other sensor products.

Service and Production

POSITAL has a global reach with subsidiaries in Europe, North America and Asia – and sales and distribution partners around the world. 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.

Stand Alone Encoder Business

POSITAL's unique online product finder is providing access to a huge variety of solutions without requiring specialized knowledge. Many hundred thousand specific datasheets are available in 11 languages and easy to browse. The traditional practice of customization has been replaced by this new approach to a large extent. Even with hundred thousands of unique configurations available, standard products are ready to ship within 5 working days.

Join Our Network!



www.posital.com

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