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SENSORS FOR FOOD AND BEVERAGE
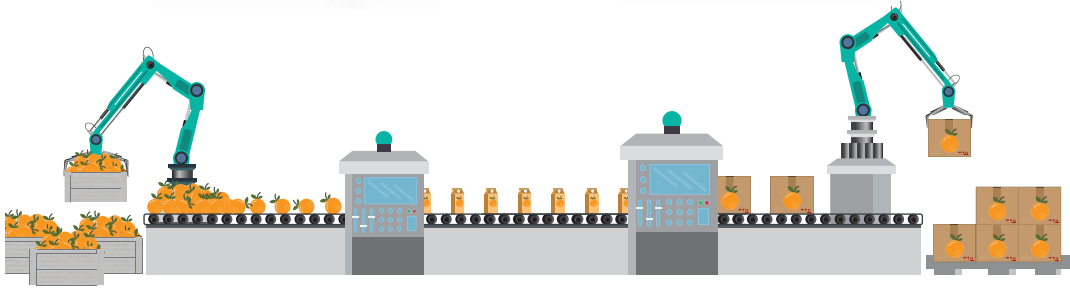
At Your
Fingertips
1,000,000
Sensors

The One Stop Encoder Shop

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BENEFITS

High Precision

IXARC rotary encoders are designed to provide up to 16 Bit resolution in both magnetic and optical sensing technologies; up to 16384 PPR for incremental encoders; and over a wide temperature range as well. With accuracy specifications of up to 0.02° IXARC rotary encoders are a performance match for the precision measurement and control required of today's food, beverage and packaging machinery.

> **Absolute Encoders with 16 Bit Resolution**
> **Incremental Encoders with Any PPR**
>   **up to 16384**
> **Electrical Interface Available in:**
>   **Analog, Ethernet, Fieldbus, Parallel, Serial**

Programmability

The UBIFAST configuration tool enables the user to easily and quickly program these functions in all IXARC magnetic-based incremental encoders: HTL or TTL output driver, counting direction, Index pulse, pulses per revolution. Any Wi-Fi enabled device – such as laptop, tablets, pads or cell phones – can access the configuration interface via internet browser; no special software required. In addition to incremental, IXARC single- and multiturn SSI absolute plus analog output types can also be programed with the UBIFAST configuration tool.

> **All Electrical Parameters Programmable**
> **Easy to Configure**
> **Retrievable Configuration**

Robust Design

IXARC magnetic technology based rotary encoders are proven to be considerably less susceptible to dust, oil and moisture related failure. Heightened shock and vibration applications also benefit from the magnetic based sensing technology. Enclosure ratings of IP67/68/69k, bundled together with a stainless steel housing and magnetic sensing technology make for a highly reliable rotary encoder solution. Elongated service life can be expected even in the harshest washdown environments as are commonly found in food & beverage and mobile equipment cleaning applications.

> **Stainless Steel Version Available**
> **High Protection up to IP68/IP69K**
> **Up to 300 N Load and up to 300g Shock**

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PRODUCTS

IXARC Absolute Encoders

Absolute rotary encoders are designed to provide unique position values from the moment they are switched on. This is accomplished by detecting the presence of a coded element, which corresponds to a unique position. 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**
> **Optical and Magnetic Measuring Principle**

IXARC Incremental Encoders

Incremental encoders generate an output signal each time the shaft rotates. The number of signals (pulses) per revolution (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 when-ever power to the encoder has been interrupted.

> **A, B, Z, and Inverted Signals as HTL (PushPull) or TTL (RS422)**
> **Programmable for Flexibility**

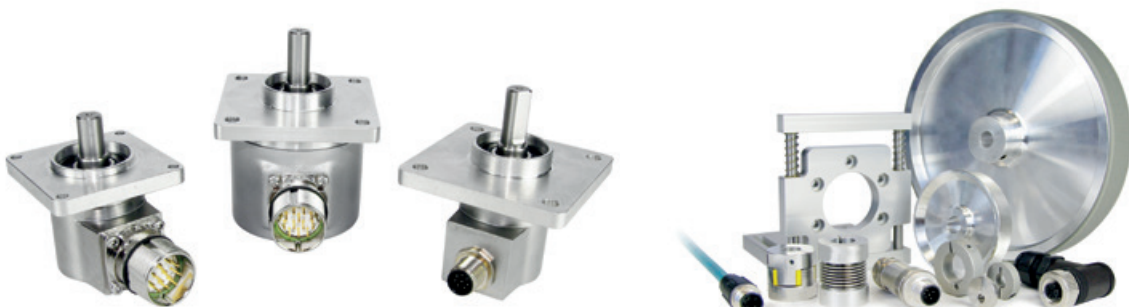## Multiturn Kit Encoders Without Battery

POSITAL's kit encoders offer a wide multiturn range without the need for a battery or gear system. They are very compact, cost efficient and available with open source electrical interfaces like BiSS-C or BiSS Line (RS485) and SSI. One Cable Technology is supported. An integrated auto-calibration function eliminates the need for complex production equipment. They are less sensitive to dust and moisture and can be assembled in a normal factory setting.

> **Multiturn Without Battery or Gear**
> **Multiple Open Source Interfaces: BiSS-C, BiSS Line, RS485, SSI**

Wide Selection of Accessories

POSITAL offers a wide selection of accessories that simplify sensor installation and help ensure long and reliable service life; for both the 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
> **Configuration and Interface Module**

APPLICATIONS

Accurate Monitoring with IXARC Rotary Encoder

- ▶ Incremental Signal with HTL or TTL Output
- ▶ Many Common Flange Designs for Global Market
- ▶ IP68/69K, Operation Temperature -40 to +85 °C

IXARC Absolute Rotary Encoder Designed to Withstand Harsh Working Environments

- ▶ Ethernet Based Interface
- ▶ V2A (1.4305, 303) or V4A (1.4404, 316 L) Stainless Steel Designs
- ▶ Up to 0.02 Accuracy, Fast Response

Adding Measuring Wheels & Spring Mounts to IXARC Encoders Provides Direct Measurement

- ▶ Programmable Incremental Output (16384 PPR)
- ▶ Pivot Arm & Spring Loaded Mounting Fixtures Available
- ▶ Measuring Wheel of Many Surface Materials

Slicing Machine, Cheese Handling, Baking Machine

- ▶ Stringent Hygiene Requirement
- ▶ Constant Speed and Position Feedback
- ▶ Cut To Length

Blow Stretch Machine, Bottling Machine, Capping Machine

- ▶ Synchronization of Different Carousal Systems
- ▶ Exposure to Liquid, Particulates and Extreme Temperature
- ▶ Rotating Table Position Control

Labelling Machine, Printing, Marking Machine, Inkjet Printers

- ▶ Synchronization of Conveyor Belt & Label Dispenser
- ▶ Accurate Measuring Required
- ▶ Programmability Enables Selection of Optimal Line Count
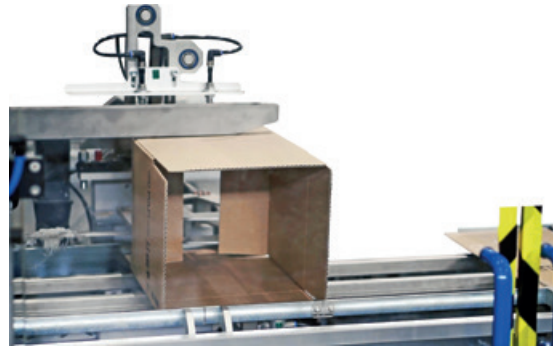
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APPLICATIONS

Thru-bore Geared Design Solves Difficult Mounting- or Space-constrained Applications

- Geared Hollow Solution
- Up to 40 mm Inner Diameter
- Applicable with both Absolute & Incremental Encoders

Advanced Ethernet Based Interfaces Available in IXARC Rotary Encoder

- Up to 16 bit Resolution per Revolution
- Gearless and Batteryless Multiturn Technology
- EtherCAT Interface Available

High Reliability and Robustness in Compact IXARC Package Size

- Compact and Robust Design
- 180 N Axial / Radial Shaft Load
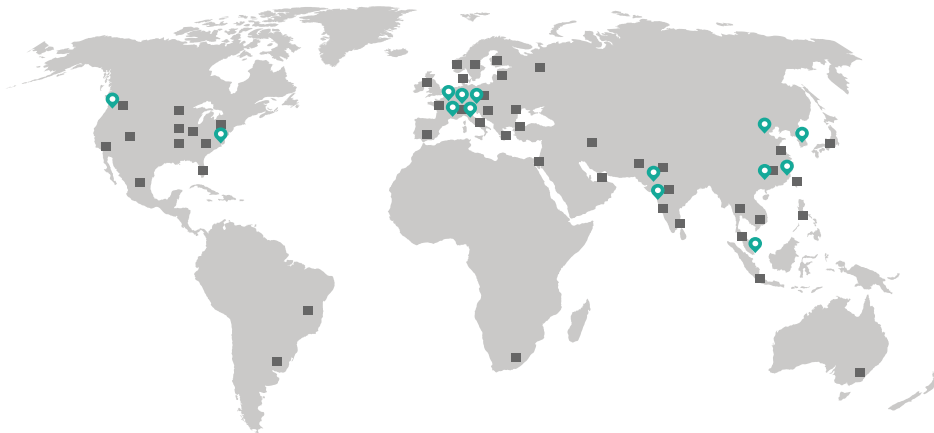- Absolute and Incremental Encoders Available

Carton Erector, Case Packer, Sealing Machine

- Close-Loop Position Feedback
- Constant Speed of Conveyor Belt Monitoring
- No Constraints to Orientation or Mounting

Pick and Place Machine

- Synchronization of Conveyor Belt & Delta Picker
- High Precision Absolute Position Feedback
- Interface Certification Assures Trouble-free Integration

Stretch Wrapper

- Winding Speed Feedback
- Number of Windings Detection
- Shock, Vibration, Contamination Resilience

ANALOG PROFINET IO-Link PROFIBUS SSI ETHERNET POWERLINK EtherCAT EtherNet/IP BiSS INTERFACE

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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 has expanded its business to include 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, absolute Multiturn encoders. Since then, the company has played a trend-setting 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 highly automated, fully ERP-integrated production system tracks each device from order, through assembly and testing, to final delivery.

Stand Alone Encoder Business

POSITAL's unique online product finder provides access to a huge variety of solutions without the need for specialized knowledge. Thousands of easy-to-browse datasheets are available in 11 languages. The traditional practice of customization has been replaced by this new approach. Even with one million unique configurations, standard products are ready to ship within 5 working days.

Join Our Network!

www.posital.com

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