# +++ Press Release +++

**POSITAL Previews the World’s Smallest Multi-Turn Absolute Kit Encoders**

Miniaturized device features accuracy, robustness and a zero-maintenance rotation counter – all in a 22 mm diameter package

**Hamilton, New Jersey, December 2019 –** Size matters, and in the world of industrial automation, providing exceptional performance in a highly compact package can be an enormous advantage. With this in mind, encoder manufacturer POSITAL has unveiled a fully functional prototype of their new miniature multi-turn kit encoder for integrated motor feedback. With a diameter of only 22 mm and a height of 23 mm (0.87”/0.9”), the new device is the world’s smallest multi-turn kit. It features a self-powered rotation counter that does away with the need for backup batteries or complex gear systems. Showcased at automation fair SPS (held in Nuremberg/Germany, Nov 26-28) and ‘on stage’ again at the IREX robotics show in Tokyo (Dec 18-21), POSITAL’s extremely trim 22 mm magnetic Kit Encoders are designed for builders of servomotors, feedback-controlled stepper motors, microdrives, miniature robots and other machines where high-precision position feedback is required and space is at a premium.

"Our new mini kits build on the success of the kit (or modular) encoders that we introduced in 2016”, says Jim Stevens, Product Manager Kit Encoders at POSITAL North America. “By careful redesign and the introduction of smaller electronic component, we have been able to reduce the diameter of these devices from 36 mm to 22 mm.” A key achievement has been the miniaturization of the Wiegand energy harvesting system that powers the rotation counter. This system is a very important part of POSITAL’s competitive positioning since it ensures reliable absolute multi-turn position measurement without any need for high-maintenance batteries or gear systems.

Like their 'big brothers', the new 22 mm kits are reliable, accurate and simple to install. Unlike resolvers, they cover a multi-turn measurement range and provide digital output. Compared to optical kits, they are more rugged and more resistant to contamination by oil, dust or moisture. They offer 17-bit electronic resolution and a multi-turn measurement range of up to 32 bits. Vendor-neutral SSI and BiSS C interfaces are supported. Installation of the 22 mm kits is very straightforward and can be done under normal factory conditions. Integrated self-calibration simplifies commissioning. The combination of robust magnetics, high operational reliability (with an integrated temperature sensor for diagnostics), multi-turn functionality and maintenance-free operation all help to reduce the cost of ownership.

"In the coming months, we'll give our 22mm kit the finishing touch in a detailed beta testing program involving well-known motor manufacturers," says Stevens. Full product roll-out will take place after evaluation of these test runs and is expected in mid-2020. Special shaft versions of the 22 mm kits with integrated bearings, which can provide additional applications, are also being planned. “With miniaturization marking a major trend in global automation, we see great potential for our new mini kits," concludes Stevens.

**About POSITAL-FRABA**

POSITAL is a supplier of advanced industrial position sensors used in a wide variety of motion control and safety systems. The company is also an innovator in product design and manufacturing processes and a pioneer of Industry 4.0 (Industrial Internet of Things/IIoT), offering customers the benefits of built-to-order products combined with the price advantages of mass-production. POSITAL is a member of the international FRABA group, whose history dates back to 1918, when its predecessor, **Fr**anz **Ba**umgartner elektrische Apparate GmbH, was established in Cologne, Germany to manufacture relays. Since then, the company has played a trendsetting role in the development of rotary encoders, inclinometers and other sensor products. POSITAL has a global reach with subsidiaries in Europe, North America and Asia – and sales and distribution partners around the world.

###### **Further Information**

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Graphic:

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Caption: POSITAL’s new 22 mm kit is the world’s smallest Multi-Turn Absolute Kit Encoder