

Celera increases size of its reliable and accurate inductive encoder

5 March 2024

Celera Motion has launched a new, larger-size version of its ultra-lightweight IncOder CORE inductive encoder series. The new 70 mm outside diameter (OD) feedback sensor is a frameless design, ideally suited to OEM integration projects including robotics. The new addition to the IncOder CORE series also increases resolution to 20 bits and raises positional accuracy to 0.035°. The device is supported in the UK by motion specialist, INMOCO.

The new 70 mm OD IncOder CORE inductive encoder adds to Celera Motion's existing 44 mm OD design. With a hollow bore, and based on a PCB, the encoder is intended for use within rotary actuators. With an inside diameter of 30.3 mm, a total height of just 13.4 mm, and weighing just 24g, the compact and lightweight encoder is designed for OEMs requiring precise feedback for demanding applications.

Precision for diverse applications

The IncOder CORE's through-bore design is ideal for robotic joints, enabling the installation of cabling and components through its hollow centre. Its inductive, non-contact operation also makes the encoder insensitive to contamination. This gives a precision feedback capability even in harsh environments, from surgical robotics to automated agricultural machinery. The IncOder CORE can also be used in applications such as industrial and collaborative robotic systems, automated guided vehicles (AGVs), autonomous mobile robots (AMRs) and gimbals.

The new encoder also offers improved measurement for absolute position feedback. Boosting resolution to 20 bits provides high-resolution sensor performance, combined with accuracy down to 0.035°. The IncOder CORE can be configured to output digital rotary position data in a range of digital protocol options, including BiSS-C, SSI, SPI and Asynchronous Serial Interface (ASI).

Simple integration

The Celera Motion encoder also achieves greater measurement repeatability and reliability thanks to improved immunity to external magnetic fields. Through its field-proven, inductive technique, the sensor also ensures temperature-stable performance.

As well as compact dimensions, the frameless rotor and stator combination is easy to install with simple screw mounting and no precision tolerances to follow, saving time for installation into host mechanics. Calibration-free commissioning also simplifies the set-up process for OEM integration.

Celera Motion can also provide OEMs with customisation options including additional sizes for optimised system design, with prototype units stocked to speed up development. INMOCO assists in this process for UK-based OEMs and can integrate the Celera Motion IncOder CORE within wider motion system designs. INMOCO offers Celera's Omni+ motors, as well as larger motor types and sizes and the motion specialist also provides a range of controllers to suit.

For more information, visit: <https://www.celeramotion.com/incoder-core/>

About Celera Motion

Celera Motion, headquartered in Bedford, Massachusetts, is a market-leading provider of motion-control components and subsystems for OEMs serving a variety of medical and advanced industrial markets. Celera Motion offers precision encoders, motors, and customized mechatronic solutions that help customers solve challenging motion-control problems. For more information, visit www.celeramotion.com

About Novanta

Novanta is a trusted technology partner to OEMs in the medical and advanced industrial technology markets, with deep proprietary expertise in photonics, vision, and precision motion technologies. For more information, visit www.novanta.com

Image Captions:



Image 1 - Newly introduced IncOder CORE 70mm Lightweight Inductive Encoder



Image 2 - Original IncOder CORE 44mm Lightweight Inductive Encoder

The image(s) distributed with this press release are for Editorial use only and are subject to copyright. The image(s) may only be used to accompany the press release mentioned here, no other use is permitted.

About INMOCO

Established in 1987, INMOCO now offers an extensive range of motion control equipment including: compact servo amplifiers, position controllers, stepper motors, PLC controllers, linear motors, sensors, electric actuators and gearheads. INMOCO's product portfolio is supported by extensive applications and technical expertise, in addition to customer-specified electro-mechanical development and sub-assembly services; including calibrating and testing in a class 10,000 clean room facility.

Press contact:

INMOCO

Gerard Bush

Tel: +44 (0)1327 307600

GerardB@inmoco.co.uk

PR agency:

DMA Europa

Elizabeth Patrick

Progress House, Great Western Avenue, Worcester,
WR5 1AQ, UK

Tel: +44 (0) 1905 917477

liz@dmaeuropa.com

news.dmaeuropa.com