

Linear encoder provides accuracy and reliability in tough environments

18 May 2022

Celera Motion has launched an inductive linear encoder for accurate and reliable position sensing in harsh environments. Distributed in the UK by INMOCO, Celera's Lintran linear position transducer is designed for applications where electrical contacts or optical transducers would prove unreliable. The highly durable, maintenance-free linear encoder provides full scale measurement from 200mm to 800mm, with customisation available for OEMs.

Inductive feedback measurement isn't impacted by liquid or debris, meaning the device reliably maintains position accuracy even in contamination-prone environments. Full scale measurement ranges from 200mm to 800mm in 100mm increments.

Absolute encoder measurement includes 12-bit resolution at 0.025% accuracy across the full scale of measurement, with repeatability at 0.050% or +/-1LSB. Linearity of +/-0.25% measurement across the full scale is also achieved, with finer linearity available as a customised option for OEMs. The measurement update rate is 1,000Hz.

Durability for harsh environments is enhanced with IP67 protection against liquids and particles, and the encoder can operate in temperatures ranging from -40°C up to 85°C. The inductive feedback device is also free from bearings, bushes or fine wires, meaning a rugged design in a sealed, maintenance-free and long-life package.

The encoder is simple to set up and is field programmable without needing to connect a PC. Precision mounting isn't necessary, making installation faster and easier to handle. The linear encoder also offers a cost effective alternative to LVDTs, which can require costly electrical controls, as well as magnetostrictive devices and precision potentiometers.

The device comprises a target and a stator, powered with an electrical supply, with the output of the stator displaying the relative position of the target. Both the target and stator can be moving or stationary. The output signal is provided by 4 - 20mA or 0 - 10VDC connection, while the device is powered by 24VDC +/-20% with <50mA max.

“Celera’s Lintran linear encoder is well suited to designers developing applications for tough environments, where measurement accuracy and repeatability are still required,” says INMOCO’s Gerard Bush. “The encoder’s capabilities make it ideal for military use, as well as environments where high levels of contaminants rule out the use of optical devices.”

INMOCO can support OEM designers developing applications with Celera Motion, with a wide range of customisable options available, including measurement scale, accuracy, mounting, and device protection.

Image captions:



Image 1: Celera Motion linear encoder for accurate and reliable position sensing in harsh environments

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