

NEW MERCURY II™ 1900 ENCODER CAN REDUCE SYSTEM SIZE & COST WHILE IMPROVING SYSTEM PERFORMANCE WITH HIGH SIGNAL QUALITY & SPEED

Inmoco's new Mercury II 1900 analogue encoder from MicroE Systems opens up new application possibilities by enabling smaller, lighter equipment designs that deliver higher speed (up to 7.2m/s) and greater throughput. The Mercury II 1900 provides industry leading- resolution (5µm to 1.2nm, depending on customer electronics) and accuracy ($\pm 1\mu\text{m}$ to $\pm 5\mu\text{m}$), unmatched versatility and easy installation. It integrates a miniaturised sensor – which fits where others won't - and offers the flexibility for use with cut-to-length tape scales for easy customisation and installation, or glass scales for the highest accuracy applications ($\pm 1\mu\text{m}$).

Mercury II 1900 can reduce the size and cost of virtually any motion system; at the same time improving system performance in high speed, high resolution applications. The encoder sensor - offering analogue 1Vpp sin/cos and index pulse outputs - measures just 8.7mm high. The benefit of this reduced height is amplified when the Mercury II 1900 is used with a tape scale; the resulting system being 58% shorter than competitive encoders. Consequently, the Mercury II 1900 is easier to integrate into OEM designs. Moreover, the reduced dimensions of the overall system also help to reduce the weight and cost of motion systems, by allowing the use of smaller motors and stages.

In addition to high performance, all electronics are integrated in the Mercury II 1900 sensor. Users benefit from high-fidelity analog output right from the sensor, including higher system reliability, smaller footprint and a variety of connector options – including customer specific connectors or no connector at all. The integrated, low-power design results in power consumption of only 48mA at 5V – the lowest in its class.

The Mercury II 1900 is also easier to install and align than any other analogue encoder. Using the Mercury's patented PurePrecision™ optics, advanced SmartPrecision II™ electronics and LED alignment indicators, all that is required is for the user to position the sensor against a reference surface, tighten the screws and the process is complete. This is possible thanks to relaxed alignment tolerances, particularly in the Theta Z axis. Mercury II offers a $\pm 2^\circ$ "sweet spot" – that's a 300% improvement over the best competitive encoder.

Also optimising system set-up, the Mercury II's PurePrecision laser tape scale is fast and easy to install; it provides excellent accuracy and takes less space than any encoder in its class. The laser tape mounts using a permanent pressure-sensitive adhesive; any thermal expansion of the substrate being accounted for by anchoring the ends of the tape scale using epoxy and end caps. It is supplied in a convenient dispenser, in lengths up to 30m, enabling it to be cut any required length – minimising inventory costs.

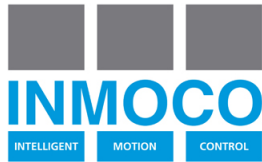
Designed to operate reliably and consistently in the toughest EMI environments, the Mercury II 1900 features include all differential outputs, and double- shielded cabling for superior EMI/RFI immunity. In addition, scale contamination resistance ensures dependable encoder operation even against fingerprints, oil, dust, and other forms of contamination.

Supporting Mercury II is SmartPrecision™ II, the most advanced software in the industry. Supplied as an option with Mercury II encoders, SmartPrecision II adds unique functionality. It enables fast encoder set-up, alarms and analysis using a variety of data plots. In addition, the ability to email screen captures of data plots enables users to get rapid diagnostic support from MicroE Systems, no matter where their equipment is located.

Photo Caption: New Mercury II™ 1900 Encoder

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.

Editor Contact

DMA Europa Ltd. : Brett Davies

Tel: +44 (0)1299 405454

Fax: +44 (0)1299 403092

Web: www.dmaeuropa.com

Email: admin@dmaeuropa.com

Company Contact

INMOCO : Gerard Bush

Tel: +44 (0)1327 307600

Fax: +44 (0)1327 300319

Web: www.inmoco.co.uk

Email: GerardB@inmoco.co.uk