



HIGH SPEED, HIGH RESOLUTION MERCURY II™ 1600 ENCODER USES CUT TO LENGTH TAPE SCALES FOR ECONOMICAL MOTION CONTROL SYSTEMS

Inmoco's new Mercury II 1600 encoder from MicroE Systems provides a breakthrough in both cost and operational performance from digital encoders. Offering high speed (7.2m/s), high resolution (0.5µm) and small sensor size (8.7mm height), the digital Mercury II 1600 uses simple, cut to length tape scales to achieve high performance motion control systems at lower cost.

The Mercury II 1600 can reduce the size and cost of virtually any motion system, at the same time optimising performance by operating at speeds up to three times faster than competitive encoders. With a sensor height of just 8.7mm, the Mercury II 1600 delivers a 58% saving in system height, compared to competitive encoders, when the encoder is used with MicroE's laser tape scale. This reduction means that Mercury II 1600 is not only easier to integrate into OEM designs, but also helps to reduce the weight and cost of motion systems, by allowing the use of smaller motors and stages.

In addition, all electronics are integrated in the Mercury II 1600 sensor, including interpolation up to x40. Users benefit from digital 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 1600 also offers the time saving benefit of being easier to install and align than any other competitive encoder. Using the Mercury's patented PurePrecision™ optics, advanced SmartPrecision II™ electronics and LED alignment indicators; fussy alignment is a thing of the past. It is eliminated with a simple procedure where the user positions the sensor against a reference surface, tightens 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.

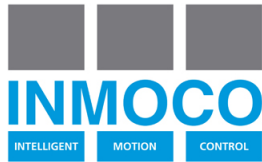
Also contributing to ease of system set-up is the Mercury II's laser tape scale. Supplied in continuous lengths for cut-to-length convenience and inventory savings, it provides excellent accuracy and offers the advantage of mounting onto virtually any surface - metals, granite, glass, composites, or ceramics. In addition, the bi-directional, stick- on optical index marker makes installation or customisation very easy to achieve.

Designed to operate reliably and consistently in the toughest environments, the Mercury II 1900 features 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.

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.



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