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**Renishaw’s pioneering RESOLUTE™ encoder family is now compatible with Yaskawa serial communications protocol.**

Renishaw's RESOLUTE absolute optical encoder is now compatible with the Yaskawa serial communications protocol in linear and rotary (angle) encoder formats. This allows RESOLUTE to be used with Yaskawa’s drives and controllers such as the Sigma 7 range of servo-products. Yaskawa equipment is regularly used in electronics assembly, Flat Panel Display (FPD) manufacturing, factory automation and general motion control applications.

A priority for many motion control applications is to increase throughput, accuracy and machine performance. The choice of a dependable, accurate and low-latency encoder for position feedback is vital for servomotors. RESOLUTE true-absolute encoders allow both linear and rotary axes to be run harder and for longer – providing maximum up-time, throughput and yield. RESOLUTE's unique operating principle is analogous to a high speed digital camera, capturing images of the scale, and enables resolutions as low as 1 nm (30-bit on rotary scales) even at linear speeds of up to 100 m/s (36 000 rev/min on a rotary scale of diameter 52 mm). An advanced optical detection scheme produces intrinsically low Sub-Divisional Error (SDE) and low signal noise (jitter) - giving end users the benefit of exceptional dirt immunity, lower velocity ripple and rock-solid positional stability.

RESOLUTE encoders allow improved process performance, such as: higher numbers of components placed per hour (CPH) for surface mount technology (SMT), faster drilling operations for printed circuit board (PCB) drilling machines and reduced inspection times for other electronic assembly machinery. Furthermore, RESOLUTE is a true-absolute encoder which accurately reports the position of axes immediately upon switch-on. This eliminates the need for a datum homing cycle and provides instant commutation for linear motors, so machines can be restarted more quickly and in a secure, controlled manner. Absolute encoders are essential for certain types of robots, such as hexapods and wafer-handling robot arms, that risk damage to either themselves or their payload if forced to home after a power outage, for example.

Customers can choose from a comprehensive range of scale types including: FASTRACK™ RTLA tape scale with long length options up to 21 m, RELA ZeroMet™ spar scale offering 'zero' thermal expansion, RSLA stainless-steel spar, RESA low-profile rotary ring and REXA high-accuracy rotary ring. RESOLUTE encoders are also available with other serial communication protocol including: FANUC, Panasonic, Siemens DRIVE-CLiQ, Mitsubishi and *BiSS*®.

The RESOLUTE series of absolute encoders has CE approval, is manufactured by Renishaw using strict quality controlled processes that are certified to ISO 9001:2008; and, like all Renishaw encoders, is backed by a truly responsive global sales and support network.

*BiSS*® is a registered trademark of iC-Haus GmbH.

DRIVE-CLiQ is a registered trademark of Siemens Aktiengesellschaft

For further information on RESOLUTE encoders, visit www.renishaw.com/resolute.

**-ENDS-**

Notes to editors

UK-based Renishaw is a world leading engineering technologies company, supplying products used for applications as diverse as jet engine and wind turbine manufacture, through to dentistry and brain surgery. It has over 4,000 employees located in the 35 countries where it has wholly owned subsidiary operations.

For the year ended June 2016 Renishaw recorded sales of £436.6 million of which 95% was due to exports. The company’s largest markets are China, the USA, Japan and Germany.

Throughout its history Renishaw has made a significant commitment to research and development, with historically between 14 and 18% of annual sales invested in R&D and engineering. The majority of this R&D and manufacturing of the company’s products is carried out in the UK.

The Company’s success has been recognised with numerous international awards, including eighteen Queen’s Awards recognising achievements in technology, export and innovation.

Renishaw is listed on the London Stock Exchange (LSE: RSW) where it is a constituent of the FTSE 250, with a current valuation of around £1.8 billion.

Further information at [www.renishaw.com](http://www.renishaw.com)