*Nov 2017 – for immediate release Further information: Chris Pockett, +44 1453 524133*

**See the latest Renishaw and RLS products as well as live demonstrations at SPS Drives and Controls 2017**

Renishaw, the global engineering technologies firm, and associate company RLS will be exhibiting at the **2017 SPS Drives and Controls** trade show from 28—30 November 2017 in the Nuremberg Exhibition Centre, Germany. Visitors will discover the latest Renishaw and RLS products on stand 231 in Hall 4A. A range of live demos and static exhibits will show an array of products including the RESOLUTE™ FS encoder, VIONiC™ digital encoder and the new 2nd generation AksIM™ off-axis rotary encoder. The live demonstrations will include a collaborative robot arm, functionally safe DDR motor with a laser safety barrier and Renishaw’s Advanced Diagnostic Tool (ADT) for set-up and calibration.

**RESOLUTE FS - Renishaw’s first functionally safe absolute encoder**

On display will be a live demonstration of Renishaw’s first functionally safe absolute encoder, RESOLUTE FS. The functionally safe encoder system addresses one of the major issues associated with modern manufacturing: making workflows more flexible including closer interaction between humans and machines. This is part of the Industry 4.0 framework and is essential for its realisation.

The demonstration comprises a housed DDR motor surrounded by a safety light curtain enclosure. Any attempt to enter the enclosure will immediately stop the machinery, thus, demonstrating ‘Safety Stop’ 1 and 2.

[The RESOLUTE FS system is certified as:

* A Category 3 PLd rated part against ISO 13849:2015
* Being suitable for use in a SIL2 application against IEC 61508:2010 and IEC 61800-5-2:2007
* Appropriate for power drive system (PDS) use as defined by IEC 61800-5-2:2007
* Suitable for PLd-rated robot control safety systems against ISO 13849:2015, ISO 13482:2014 and ISO 18646-1:2016]

**VIONiC - All-in-one digital incremental encoder**

Designed for the world's most demanding motion control applications, the VIONiC encoder series combines Renishaw's renowned filtering optics with a new custom interpolation and monitoring ASIC (Application-Specific Integrated Circuit) that enhances dynamic signal processing and improves signal stability. All necessary interpolation and digital signal processing has been integrated inside the readhead to eliminate the requirement for additional external interfaces. The VIONiC range has been designed to reduce overall system size to the minimum achievable for a high-performance system, whilst delivering class-leading performance in terms of cyclic error, jitter, speed, resolution and accuracy.

**ADT - Unrivalled ease of set-up and calibration**

A live demonstration of Renishaw’s Advanced Diagnostic Tool (ADT) will be exhibited. ADT offers unrivalled ease of set-up and calibration. The software allows for the control and monitoring of VIONiC's set-up and calibration routines. New software features include: enhanced graphics, automatically generated plots of signal strength vs position, Lissajous plots, DRO output, and readhead pitch indication. This set-up tool is ideal for factory production-line installation as it allows remote, advanced calibration features.

**AksIM rotary encoder from RLS**

AksIM™ is a non-contact high performance off-axis absolute rotary encoder designed for applications with limited installation space. The compact, low profile readhead detects and evaluates the magnetic field of a thin, axially magnetized ring. An interactive demo rig will show an application where several AksIM encoders have been integrated into a collaborative robot arm by Demark-based Universal Robots (UR). This robot consists of a main body or skeleton, a servo-driven system, a reducer and a control system. Encoders are required for real-time position tracking of each rotating joint and are critical for robot accuracy. Furthermore, the AksIM encoder has multiple self-monitoring functions, which support the UR robot’s operational safety.

**Responsive service and support**

Renishaw and RLS staff will be on stand 231 to answer any questions regarding motion control and its challenges. Visitors are invited to explore each exhibit to gain an appreciation of the scope of potential encoder applications.

For further information on Renishaw encoders, visit [www.renishaw.com/encoders](http://www.renishaw.com/encoders)

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