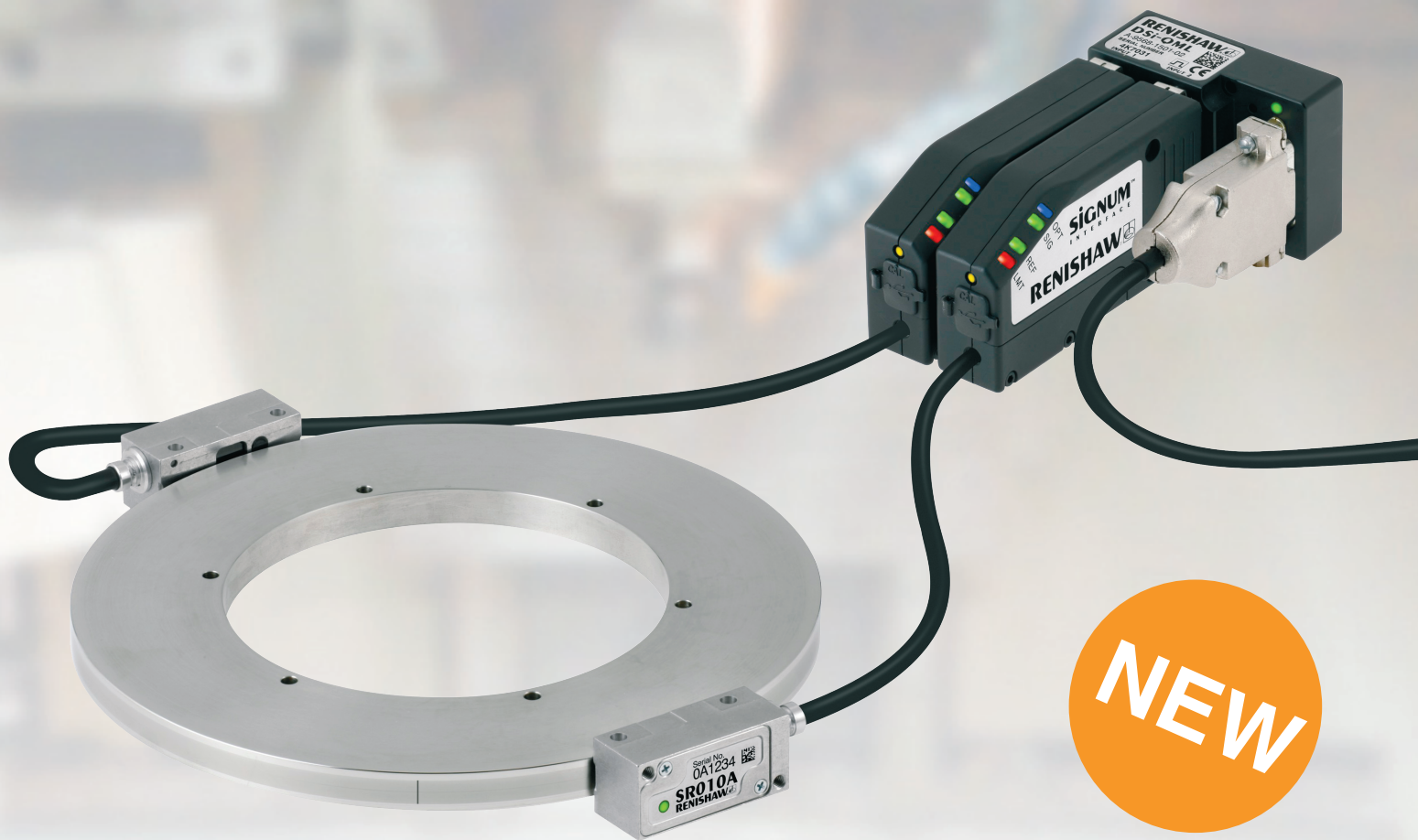
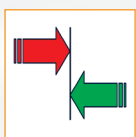


SIGNUM™ REXM ultra-high accuracy encoder



Better than ± 1 arc second total installed accuracy

± 0.03 arc second sub divisional (cyclic) error for optimum velocity control



Eliminates mechanical 'reversal errors' for the ultimate metrology

Zero mechanical hysteresis



Operates up to 85 °C and 4,500 rev/min

Suitable for high-shock, high-vibration and high-temperature operation

For applications that require the highest angular accuracy, the REXM angle encoder offers new levels of performance - better than ± 1 arc second total installed accuracy, zero coupling losses and exceptional repeatability.

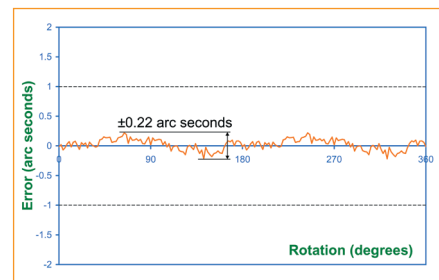
Like the RESM, the REXM stainless steel ring has graduations marked directly onto the periphery. However, it features a thicker cross-section to minimise all installation errors except eccentricity, which is easily corrected using Renishaw's new DSi (Dual **SiGNUM**™ interface).

The DSi blends the output of two readheads whilst providing a repeatable and customer located reference mark position (known as **propoZ**™). The patented **propoZ**™ reference pulse output is locked to any customer selected angle simply by pressing a button when commissioning. Complete angular repeatability of incremental and reference mark signals is then maintained regardless of bearing wander or power cycling.

Once the DSi has eliminated the effects of eccentricity, the only errors remaining are graduation and cyclic error (sub-divisional error - SDE) both of which are exceedingly small. When REXM is used with the DSi, it is possible to achieve a total installed accuracy of better than ± 1 arc second. A 183 mm REXM ring with DSi can typically achieve a total installed accuracy of below ± 0.25 arc seconds.

As a non-contact system, REXM rings are directly locked to the rotor, eliminating coupling losses, oscillation, shaft torsion and other hysteresis errors that plague enclosed encoders.

- Use two **SiGNUM**™ SR readheads for ultra-high accuracy on rotary axes
- ± 1 arc second total installed accuracy with dual SR readheads
- Customer located and angularly repeatable patented **propoZ**™ reference position
- Non-contact configuration ensures superior metrology and dynamic performance
- Resolution to 0.005 arc second
- Repeatability to 0.008 arc second
- Sub-divisional error to ± 0.03 arc second
- Wide range of standard sizes from Ø52 mm to Ø417 mm
- Large internal diameter for ease of integration
- Use with DSi (Dual **SiGNUM**™ interface), or combine the signals from two readheads inside the controller



For worldwide contact details, please visit our main website at www.renishaw.com/contact

