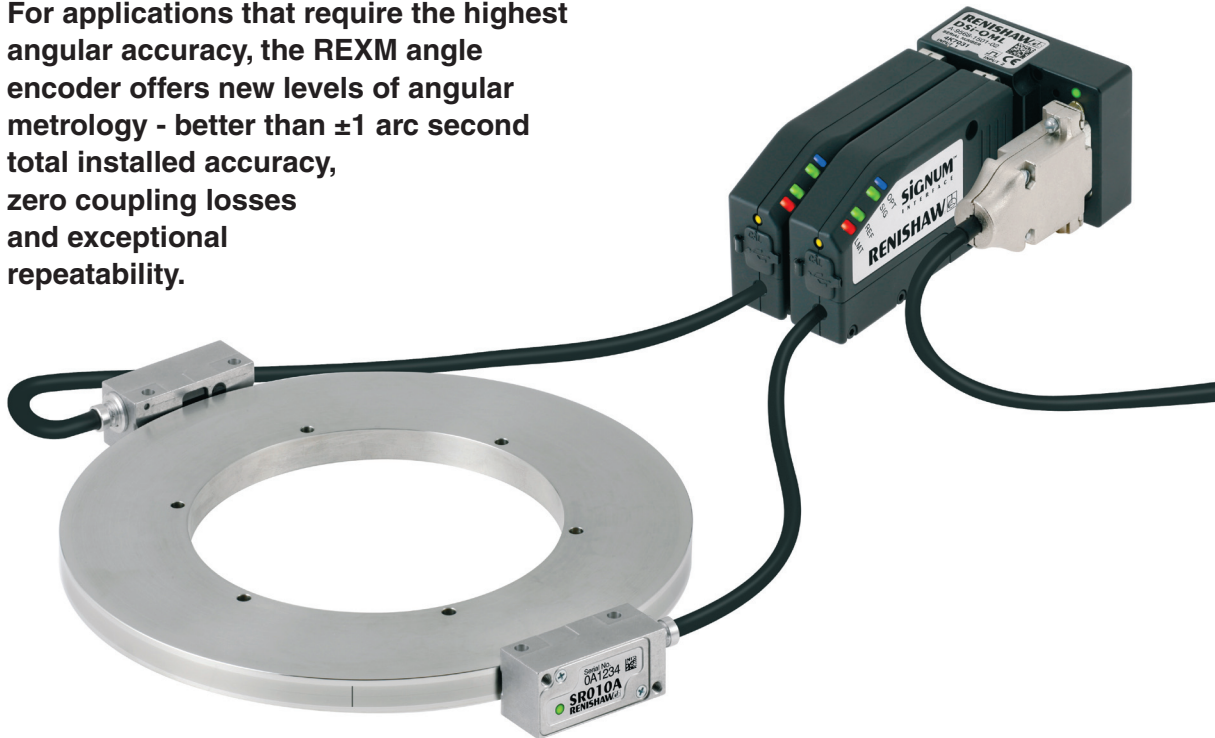


Renishaw's new REXM high accuracy angle encoder offers the ultimate angular metrology...

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

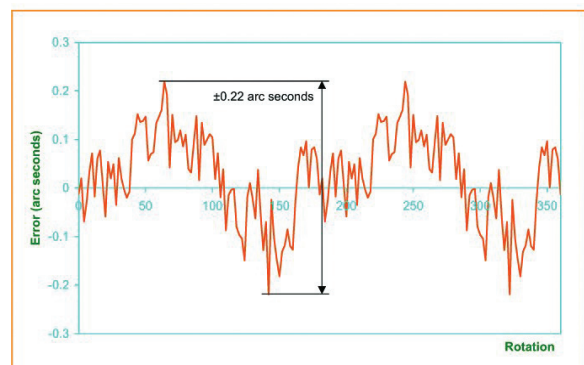


Like the RESM, the REXM stainless steel ring has graduations marked directly onto the periphery. However, it features a thicker cross-section designed to minimise all installation errors except eccentricity.

The remaining eccentricity is easily corrected using the combined output of two readheads. Renishaw's new DSi (Dual **SIGNUM**™ Interface) blends the output of two readheads whilst providing a repeatable and customer programmable reference mark **propoZ**™ position. Once the DSi has eliminated eccentricity, the only other 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. Tests on a 183mm REXM ring have achieved an impressive total installed accuracy of ± 0.22 arc seconds.

Furthermore, REXM maintains the dynamic performance advantages of **SIGNUM**™ encoders. 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.



The total installed accuracy of a typical REXM system is ± 0.22 arc second, determined by analysis of sequentially rotated installations.