

RENGAGE™ technology:

The ultimate in 5-axis machine tool measurement



Why choose RENGAGE™ technology?

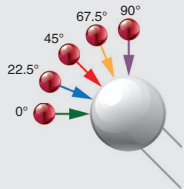
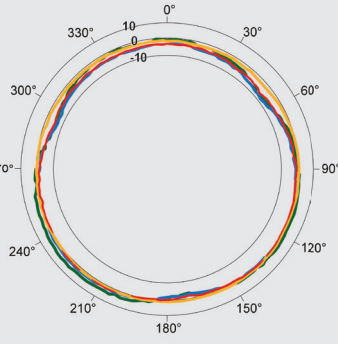
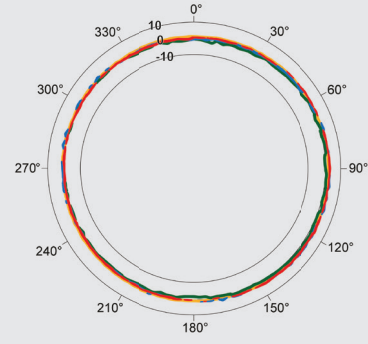
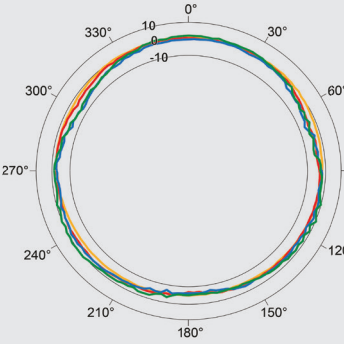
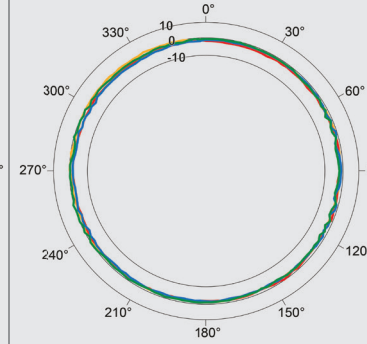
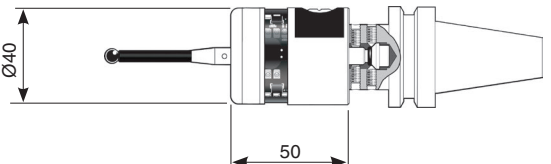
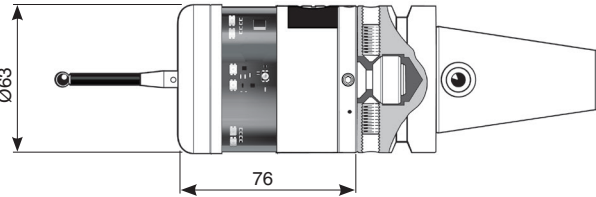
Engineered for over a decade and patented by Renishaw, probes with RENGAGE™ technology combine proven silicon strain gauge technology and ultra-compact electronics to deliver unparalleled 3D measurement performance and capability.

Excelling in the measurement of complex 3D shapes and contours, machine tool probes with RENGAGE technology are ideally suited to 5-axis machining applications found throughout the mould and die and aerospace industries.

- Better repeatability – High precision components with tight tolerances can be measured with greater repeatability
- Lower 2D and 3D form error – Lower pre-travel variation in all directions enables 3D features to be measured more accurately
- Lower trigger force – Helps eliminate surface and form damage when inspecting soft metal components
- Higher accuracy measurement – Even with very small, long or custom styli configurations

For more information regarding the unrivalled 3D performance of probes with RENGAGE technology, visit www.renishaw.com/rengage

Technical comparison

Product	PowerProbe 40 <i>optical</i>	PowerProbe 400 <i>optical</i>	PowerProbe 60 <i>optical</i>	PowerProbe 600 <i>optical</i>
Technology	Kinematic resistive	RENGAGE™	Kinematic resistive	RENGAGE™
Transmission type	360° infrared (optical)	360° infrared (optical)	360° infrared (optical)	360° infrared (optical)
Performance accuracy	Standard	High	Standard	High
Maximum recommended stylus length	150 mm	200 mm	150 mm	200 mm
Stylus trigger force XY plane +Z direction	0.50 N, (low force)/0.90 N (high force) 5.85 N	0.06 N 2.55 N	0.75 N (low force)/1.40 N (high force) 5.30 N	0.15 N 1.75 N
Unidirectional repeatability	1 µm 2σ – 50 mm stylus length	0.25 µm 2σ – 50 mm stylus length	1 µm 2σ – 50 mm stylus length	0.25 µm 2σ – 50 mm stylus length
3D form error (µm)	    			
Dimensions (mm)	 			

Note 1 Siemens measurement cycles are compatible with both probes. No changes required if upgrading to **PowerProbe 400** or **600 optical**

Note 2 To download full product specifications, visit www.renishaw.com/omp40-2, www.renishaw.com/omp400, www.renishaw.com/omp60 and www.renishaw.com/omp600

For worldwide contact details, visit www.renishaw.com/contact

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