

RENISHAW SFM-B1 Surface Finish Probe Module Instructions

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SFM-B1 Surface finish probe module

Enhanced access and inspection capability for integrated surface finish measurement

The SFP2 system consists of a probe and a range of SFM modules that have been designed to suit the demands of specific parts and features encountered in a precision manufacturing environment. The probe and modules can be automatically interchanged with all other REVO® probe options, providing the flexibility to easily select the optimum tool to inspect a wide range of features.

Each SFM module is its own miniature measuring device, incorporating Renishaw's proprietary encoder system to transduce the motion of the stylus tip.



Features

The B-series of modules features a small skid which allows the stylus to be placed close to the edge of surfaces of interest. The range of skid-arm designs provides access to awkward-to-reach features and parts with surface form and curvature.

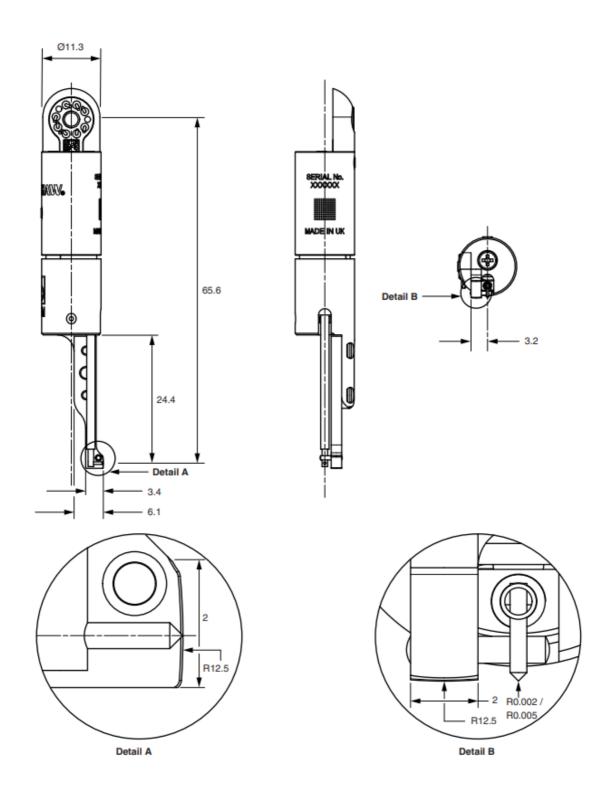
Typical applications

Scanning close to obstructive faces.

Specification

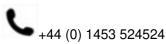
Diamond tip radius (pm)		2 or 5
Surface finish measurem ent range (pm)	2 pm modules	6.3 to 0.05 Ra
	5 pm modules	6.3 to 0.10 Ra
Typical surface finish accuracy (of nominal Ra		-±(5% + 15 nm)
Skid / stylus arrangement		Side-by-side
Skid material		DLC coated stainless steel
Nominal stylus tip protrusion beyond skid (m m)		0.5
Skid length / radius (mm)		2 / 12.5
Skid width / radius (mm)		2 / 12.5
Skid contact force (N)		0.2
Stylus contact force (N)		0.003
SFM / SFH knuckle adjustment range		-AO°
Weight (g)		12
Resolution (nm)		1
Measurement speed (mm/s)		Up to 1
Stylus holder compatibility		SFH-1, SFH-2
Lateral scanning capability		Yes

^{*} Accuracy values are dependent upon a number of system variables. These include the machine size and configuration, scan orientation, condition of the stylus tip, part fixturing system, and environmental noise. **All dimensions in mm.**



www.renishaw.com/SFP2







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Documents / Resources



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References

• **SFP2** surface finish probe for the REVO® system

Manuals+,