



RENISHAW SFM-B4 Surface Finish Probe Module Installation Guide

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RENISHAW SFM-B4 Surface Finish Probe Module



SFM-B4 The surface finish probe module

Enhanced access and inspection capability for integrated surface finish measurement

The SFP2 consists of a probe and a range of SFM modules which 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 mini measuring device, incorporating Renishaw's proprietary scale and read head system, to transduce the motion of the stylus tip.

Features

The B-series of modules feature a small skid which allows the stylus to be placed close to the edge of surfaces of interest. The modules can provide access into awkward to reach features.

Typical applications

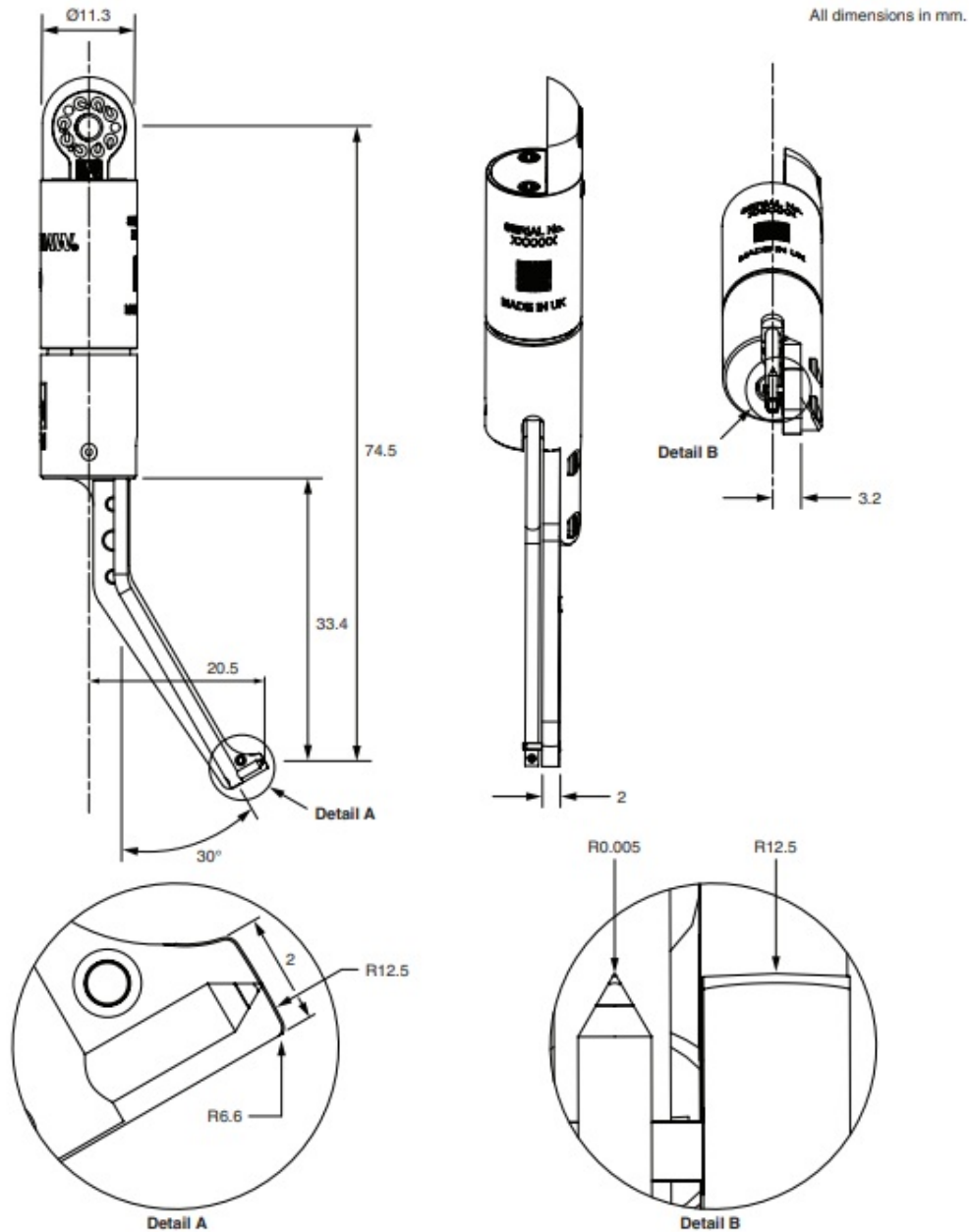
Extended reach into confined areas; integrated bladed rotors (IBRs) with small blades.

Specification

Diamond tip radius (μm)	5
Surface finish measurement range (μm)	6.3 to 0.10 Ra
Typical surface finish accuracy (of nominal Ra) *	$\pm(10\% + 35 \text{ nm})$
Skid / stylus arrangement	Side-by-side
Skid material	DLC coated stainless steel
Nominal stylus tip protrusion beyond skid (mm)	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)	0.006
SFM / SFH knuckle adjustment range	$\pm 90^\circ$
Weight (g)	13
Resolution (nm)	1
Measurement speed (mm/s)	Up to 1
Stylus holder compatibility	SFH-1, SFH-2
Lateral scanning capability	No

- Accuracy values are dependent upon a number of system variables. These include the machine size and configuration, scan orientation, condition of stylus tip, part fixturing system and environmental noise.

All dimensions in mm



www.renishaw.com/SFP2

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Documents / Resources

	<p>RENISHAW SFM-B4 Surface Finish Probe Module [pdf] Installation Guide SFM-B4, Surface Finish Probe Module, SFM-B4 Surface Finish Probe Module</p>
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References

-  [SFP2 surface finish probe for the REVOÂ® system](#)