



RENISHAW SFM-A2 Surface Finish Probe Module Installation Guide

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**SFM-A2 Surface Finish Probe Module
Installation Guide**



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SFM-A2 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 A-series of modules is designed to deliver high performance with a good level of capability to access part features. The cranked skid arm design of the A2 module provides additional clearance around part features.

Typical applications

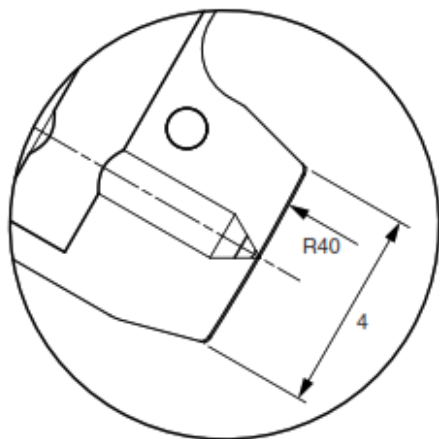
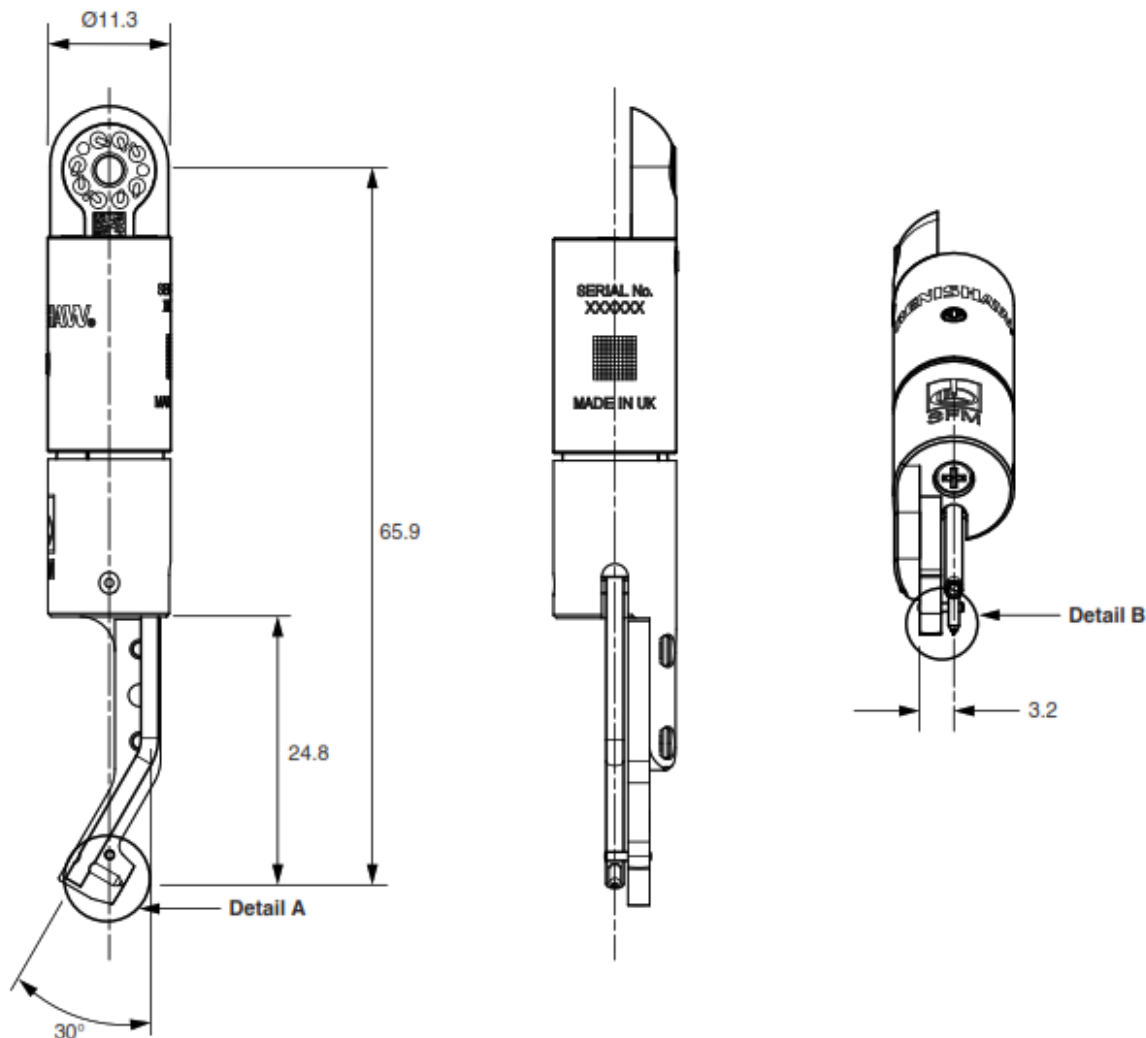
General purpose; engine block gasket face, lateral scanning of crankshaft bearing journals.

Specification

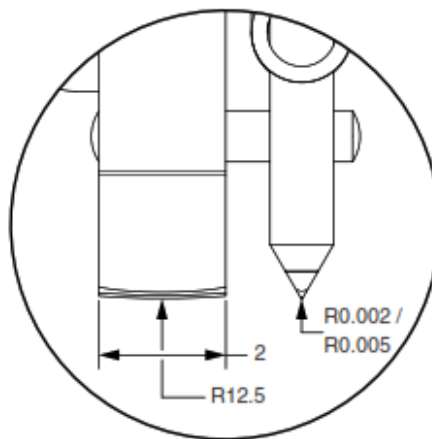
Diamond tip radius (pm)		2 or 5
Surface finish measurement range (pm)	2 pm modules	6.3 to 0.05 Ra
	5 pm modules	6.3 to 0.10 Ra
Typical surface finish accuracy (of nominal Ra) *		±(5% + 15 nm)
Skid / stylus arrangement		Side-by-side
Skid material		DLC coated stainless steel
Nominal stylus tip protrusion beyond skid (mm)		0.5
Skid length / radius (mm)		4/ 40
Skid width / radius (mm)		2 / 12.5
Skid contact force (N)		0.2
Stylus contact force (N)		0.003
SFM / SFH knuckle adjustment range		±90°
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 stylus tip, part fixturing system, and environmental noise.

All dimensions in mm.



Detail A



Detail B

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Documents / Resources

	RENISHAW SFM-A2 Surface Finish Probe Module [pdf] Installation Guide SFM-A2, Surface Finish Probe Module, SFM-A2 Surface Finish Probe Module, Finish Probe Module, Probe Module
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References

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