



## RENISHAW SFM-G1 Surface Finish Probe Module Instructions

[Home](#) » [RENISHAW](#) » RENISHAW SFM-G1 Surface Finish Probe Module Instructions 

RENISHAW SFM-G1 Surface Finish Probe Module



## Contents

- [1 Enhanced access and inspection capability for integrated surface finish measurement](#)
- [2 Features](#)
- [3 Typical applications](#)
- [4 Specification](#)
- [5 Dimensions](#)
- [6 Documents / Resources](#)
  - [6.1 References](#)
- [7 Related Posts](#)

## Enhanced access and inspection capability for integrated surface finish measurement

The SFP2 system 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 miniature measuring device, incorporating Renishaw's proprietary encoder system to transduce the motion of the stylus tip.

## Features

The G-series of modules is designed for the measurement of small grooves and geometrical features. Feature depth, width, spacing etc. are reported instead of roughness parameter values.

## Typical applications

Grooved engine bores prepared for PTWA coating.

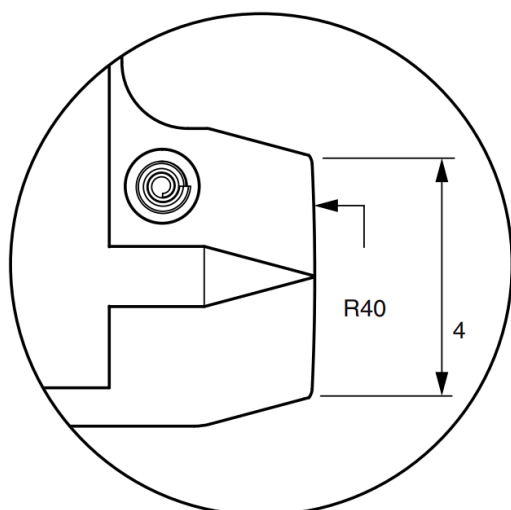
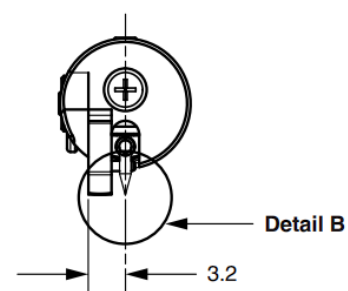
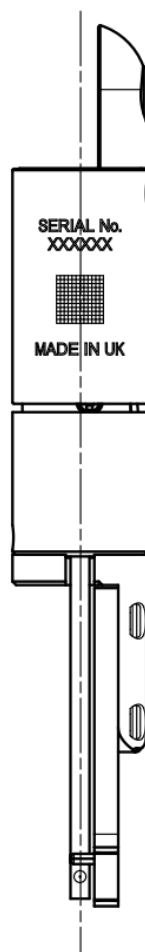
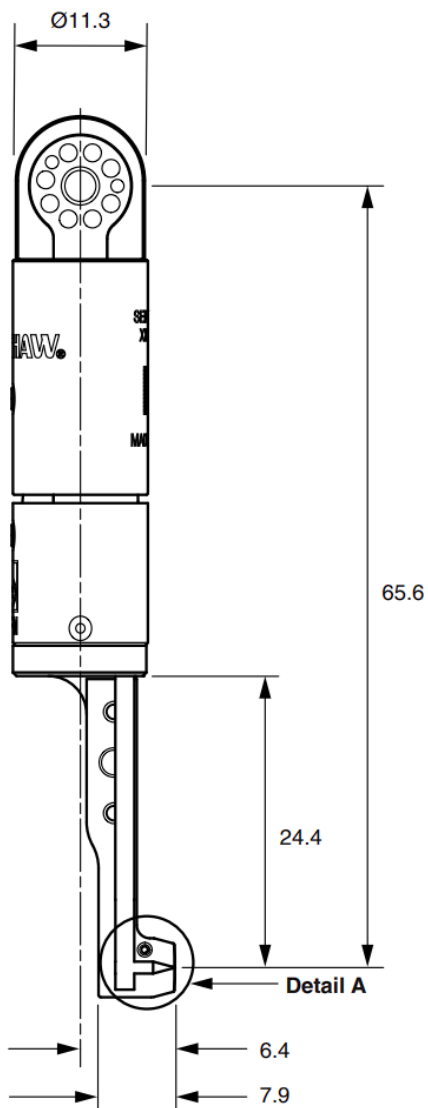
## Specification

<b>Stylus tip radius (µm)</b>	10
<b>Typical groove feature measurement accuracy *</b>	±10%
<b>Feature depth range (mm)</b>	0.02 – 0.3
<b>Skid / stylus arrangement</b>	Side-by-side
<b>Skid material</b>	DLC coated stainless steel
<b>Nominal stylus tip protrusion beyond skid (mm)</b>	0.5
<b>Skid length / radius (mm)</b>	4 / 40
<b>Skid width / radius (mm)</b>	2 / 12.5
<b>Skid contact force (N)</b>	0.2
<b>Stylus contact force (N)</b>	0.003
<b>SFM / SFH knuckle adjustment range</b>	±90°
<b>Weight (g)</b>	12
<b>Resolution (nm)</b>	1
<b>Measurement speed (mm/s)</b>	Up to 1
<b>Stylus holder compatibility</b>	SFH-1, SFH-2
<b>Lateral scanning capability</b>	No

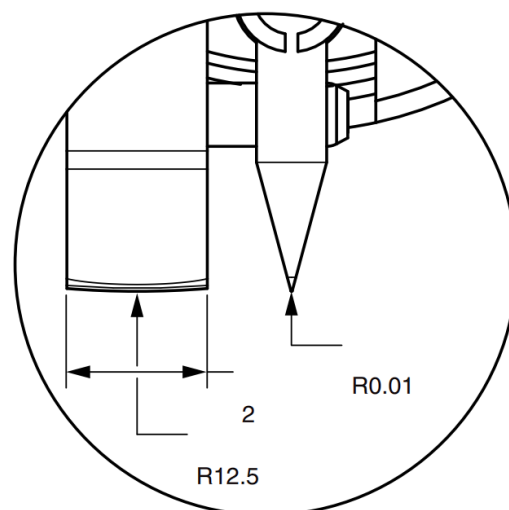
\* Accuracy values are dependent upon a number of system variables. These include the machine size and configuration, scan orientation, condition of stylus tip, part fixturing system and environmental noise.

## Dimensions

All dimensions in mm.



Detail A



Detail B

[www.renishaw.com/SFP2](http://www.renishaw.com/SFP2)

+44 (0) 1453 524524

[uk@renishaw.com](mailto:uk@renishaw.com)

Renishaw product names, designations and the mark 'apply innovation' are trade marks of Renishaw plc or its subsidiaries.


Other brand, product or company names are trade marks of their respective owners.

Renishaw plc. Registered in England and Wales. Company no: 1106260. Registered office: New Mills, Wotton-under-Edge, Glos, GL12 8JR, UK.

WHILE CONSIDERABLE EFFORT WAS MADE TO VERIFY THE ACCURACY OF THIS DOCUMENT AT PUBLICATION, ALL WARRANTIES, CONDITIONS, REPRESENTATIONS AND LIABILITY, HOWSOEVER ARISING, ARE EXCLUDED TO THE EXTENT PERMITTED BY LAW.



## Documents / Resources

	<a href="#">RENISHAW SFM-G1 Surface Finish Probe Module</a> [pdf] Instructions SFM-G1, Surface Finish Probe Module, Finish Probe Module, Probe Module, SFM-G1, Module
-----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## References

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