

SFM-H1

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 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 H-series of modules employ a long skid with a large radius, which is appropriate for inspecting surface finish callouts with larger cut-off values.

Typical applications

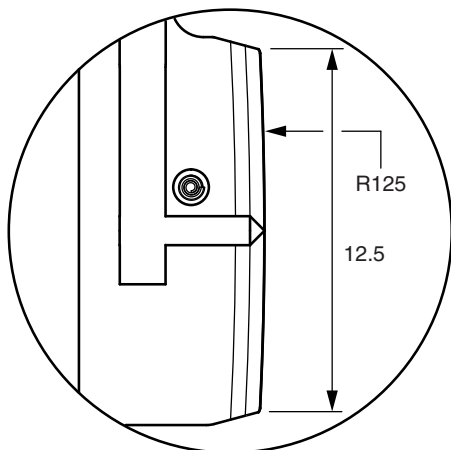
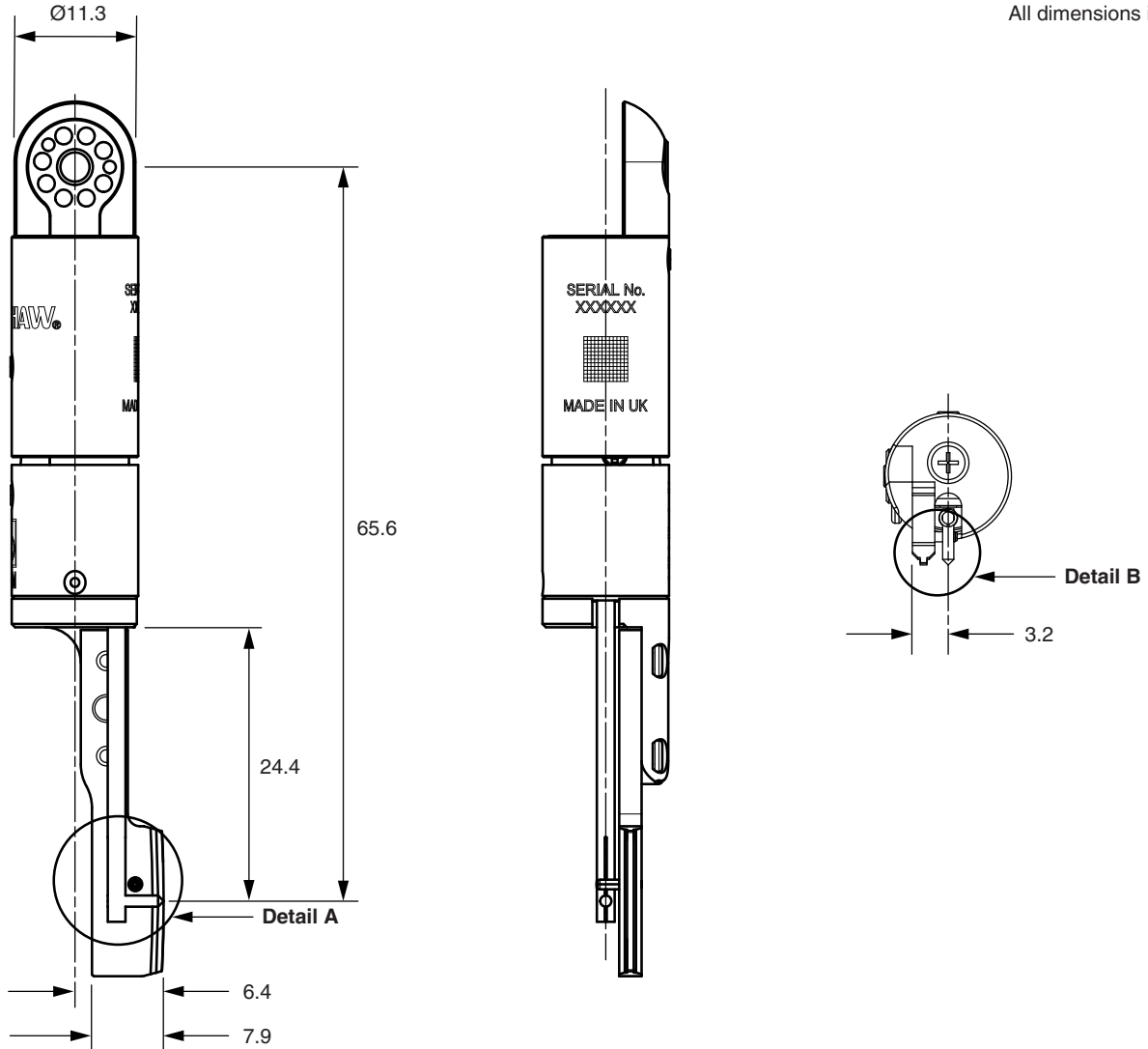
Surface finish callouts with cut-off values of 2.5 mm and above.

Specification

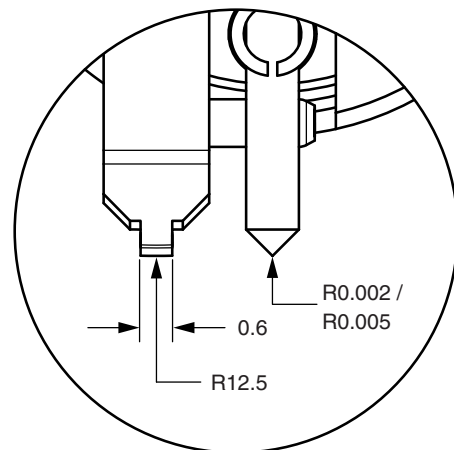
Diamond tip radius (µm)	2 or 5	
Surface finish measurement range (µm)	2 µm modules	6.3 to 0.05 Ra
	5 µm modules	6.3 to 0.10 Ra
Typical surface finish accuracy (of nominal Ra) *	±(5% + 15 nm)	
Skid / stylus arrangement	Side-by-side	
Skid material	DLC coated stainless steel	
Nominal stylus tip protrusion beyond skid (mm)	0.5	
Skid length / radius (mm)	12.5 / 125	
Skid width / radius (mm)	0.6 / 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	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.



Detail A




Detail B

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