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RSP3-1 to RSP3-4 probes

REVO 3-D scanning probes

The RSP3 range of probes gives REVO-2 the ability to carry cranked stylus arrangements while maintaining optimum metrology performance.

The probes can be used for both 3-D scanning (X, Y, Z) and touch-trigger applications. They enable accurate scanning measurement with effective stylus lengths ranging from 20 mm to 394 mm.

The RSP3 range is used for 3-axis scanning with fixed REVO-2 head angles during measurement. Each probe is designed to provide optimised accuracy and contact force over a specified stylus range. Consequently, the RSH3 stylus holders are intended for use only with their respective RSP3 probe.





Key benefits

Workpiece access

REVO's infinite positioning and crank stylus carrying capabilities provide better part access. Each RSP3 probe has been optimised for maximun performance over their specific stylus range and crank carrying capabilities.

High accuracy 3-D scanning

RSP3 probes can be used with both straight and cranked styli for high accuracy 3-D scanning.

Part of the REVO 5-axis multisensor system

RSP3 probes are automatically interchangeable with all other probes available for REVO-2, including surface finish analysis and non-contact inspection probes. As a result, the system provides the optimum tool to measure multiple features all on one CMM platform.

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Specification

Probe attributes	Scanning with 3-axis measurement (X, Y, Z) and 3-axis touch-trigger	
Measurement range	±0.5 mm deflection in all directions in all orientations	
Overtravel range	X, Y	2 mm
	+Z	1.7 mm
	-Z	1.2 mm
Resolution	Capable of <0.1 µm	
Spring rate	Nominally 0.6 N/mm - when using shortest specified stylus Nominally 0.2 N/mm - when using longest specified stylus	
Weight	RSP3-1	86 g (3.03 oz) (excluding stylus holder and stylus)
	RSP3-2	90 g (3.17 oz) (excluding stylus holder and stylus)
	RSP3-3	94 g (3.32 oz) (excluding stylus holder and stylus)
	RSP3-4	101 g (3.56 oz) (excluding stylus holder and stylus)
Effective stylus length range **Always observe the specified stylus range for the scanning module being used.** **Stylus holders incorporate M3 thread.**	RSP3-1 + RSH3-1	EWL 20 mm - 50 mm (0.79 in - 1.97 in) using 20 mm - 50 mm stylus
	RSP3-2 + RSH3-2	EWL 44 mm - 99 mm (1.73 in - 3.90 in) using 20 mm - 75 mm stylus
	RSP3-3 + RSH3-3	EWL 114 mm - 194 mm (4.49 in - 7.64 in) using 20 mm - 100 mm stylus
	RSP3-4 + RSH3-4	EWL 214 mm - 394 mm (7.64 in - 15.51 in) using 20 mm - 200 mm stylus
Mounting	Magnetised kinematic coupling	
Crash protection	±X, ±Y, Z	Via break out of probe or stylus holder
	+Z	Via integral bump-stop design
Change rack options	RCP TC-2	Thermally controlled change port used for RSP3 probe changing (only). This port mounts to the MRS or MRS2.
	FCR25 with FCR25 front spacer kit	Triple port unit which mounts on MRS. Used for changing RSH3-1/2/3/4 stylus holders.

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