



## Renishaw PH20 5-Axis Probe Head

Category: Renishaw Motorized Probe Head

PH20 incorporates the industry standard TP20 touch-trigger probe, affording immediate access to a range of proven probe modules and a wide selection of trigger forces, directional sensing options and extensions to meet application requirements. The detachable modules provide crash protection and can be automatically changed using the MCR20 change rack. Current users of TP20 systems will be able to upgrade to PH20 and utilise their existing modules\*. The PH20 probe head offers dramatic time savings with a unique rapid 'inferred calibration' technique which determines head orientation and probe position in a single operation, allowing subsequent measurement at any head angle. The system's design requires no air supply, and it can be mounted to the CMM quill either directly or via a shank using a range of mounting adaptors.

### Key features

Compact design – suitable for a wide range of CMMs using shank or quill mounting.  
Renishaw CMM controller – I++DME communication; wide selection of metrology software.  
Index head compatibility – no requirement to modify existing programs in the majority of cases.  
Integral TP20 probe – allows re-use of existing equipment.

Weight (excluding module and cables)	810 g (28.6 oz)		
Temperature range			
Operating	15 °C to 35 °C (59 °F to 95 °F)		
Storage	-25 °C to 70 °C (-13 °F to 158 °F)		
Maximum movement speed	3 revs/s (1281 mm/s with standard module & 10 mm stylus)		
Maximum head touch speed	50 mm/s		
Rotation angles			
A axis	-115° to 115° ∞		
B axis			
Angular resolution	0.4 µRadians		
Bearings	Mechanical		
Change rack system	MCR20 NI and MCR20		
Joystick	Multifunction MCUlite-2		
ISO 10360-5 (2001) typical performance std force module with 12 x 4 mm stylus on a CMM with ISO 10360-2 (2002) specification of 0.48+ L/1000*		CMM TOUCH	HEAD TOUCH
Size		0.0006 mm (0.00002 in)	0.0002 mm (0.00001 in)
Form		0.0026 mm (0.00010 in)	0.0024 mm (0.00009 in)
Location		0.0013 mm (0.00005 in)	0.0009 mm (0.00003 in)

\* specified with a TP7