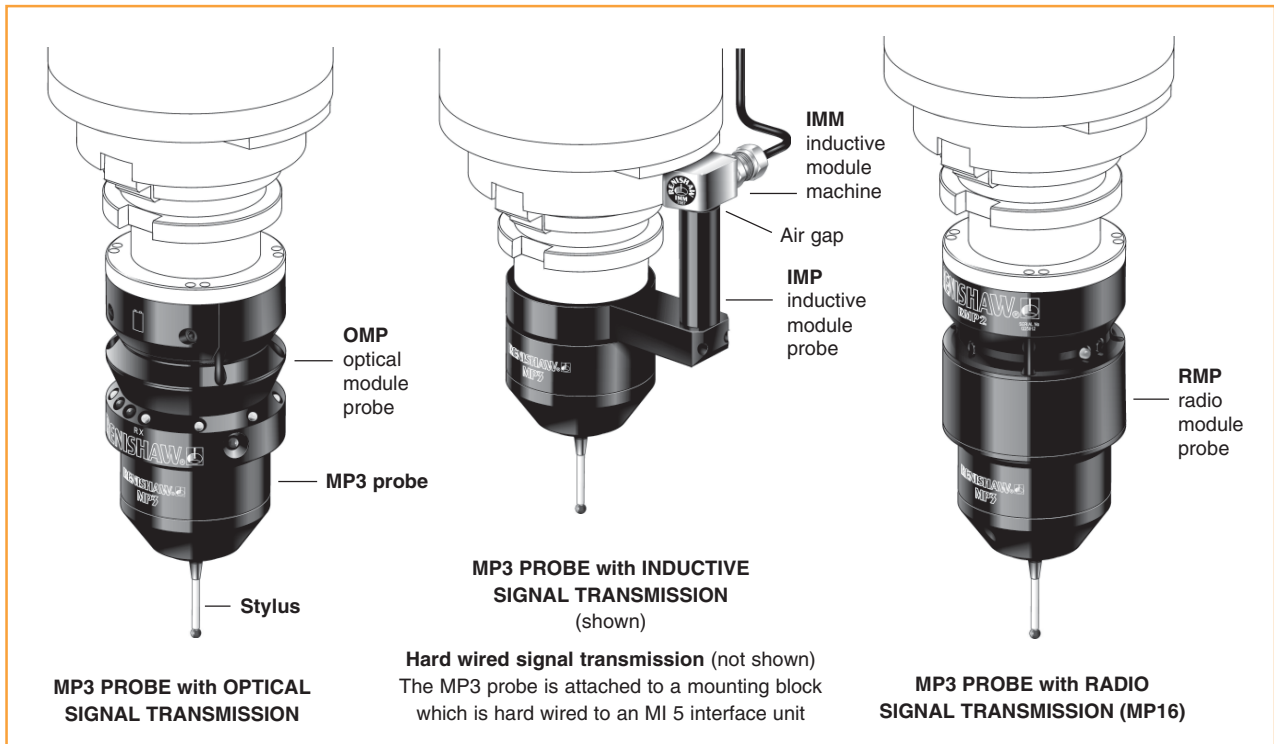


MP3 probe systems for CNC machining centres

Robust construction and generous stylus overtravel make the MP3 ideal for larger machines



MP3 PROBE

3D touch trigger probe for workpiece set-up and inspection. Sense directions are $\pm X$, $\pm Y$, $+Z$.

MP3 PROBE SYSTEMS

Probe systems are made up from modular components. The probe module is shank mounted and is selected as any other tool.

Probe signals are transmitted from a transmission module to an interface unit where the signal is processed, before passing onto the CNC machine control.

Optical transmission systems are easy to retrofit. The battery powered probe transmits signals over a 3 m (9.8 ft) range with 360° output or up to 4 m (13.1 ft) with the alternative wide angle output.

Radio transmission systems are preferred, where it is not possible to have line-of-sight between signal transmission modules. Transmission range is up to 15 m (49 ft). The probe is battery powered.

Inductive transmission systems are powered by the CNC machine and do not require a battery. Precise positioning of the transmission modules makes this system more suitable as original equipment from the machine tool builder.

ACCESSORIES

Shanks

Renishaw provide a range of probe ready shanks.

Styli

The extensive standard Renishaw stylus range satisfies most applications. In addition Renishaw provide a custom design and supply service.

Stylus weak link

The weak link stem is designed to break in the event of excessive stylus overtravel, thereby protecting the probe from damage.

Adaptors

When workpiece features are restricted, mounting adaptors allow an LP2 probe ($\varnothing 25$ mm) to replace the MP3 probe ($\varnothing 82$ mm).

Extensions

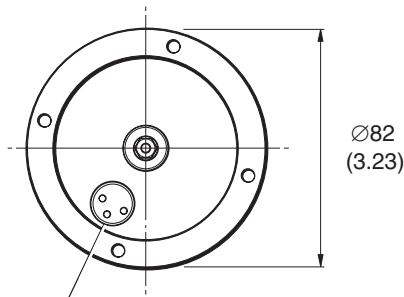
Extensions provide deeper access into workpiece features.

PSU3 power supply

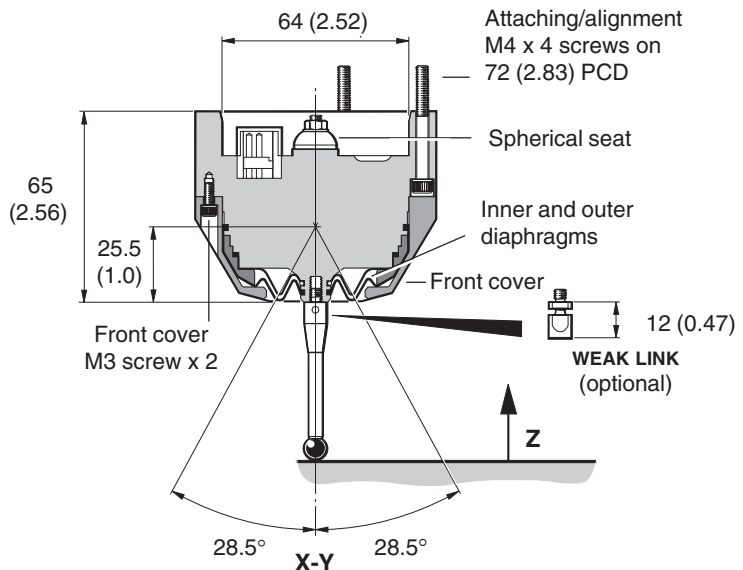
The PSU3 provides +24 V supply for Renishaw interface units when a power supply is not available from the CNC control.

Specification

dimensions mm (in)



Electrical connections are automatically made when mounting the probe.



Unidirectional repeatability
 Max 2 Sigma (2 σ) value.

Repeatability of 1.0 μ m (40 μ in) is valid for test velocity of 480 mm/min (1.57 ft/min) at stylus tip. Using a stylus 50 mm (1.97 in) long.

Stylus trigger force

X and Y directions.

X and Y trigger forces vary around the stylus seating. 0.75 to 1.5 N
 75 to 150 gf
 2.47 to 5.29 ozf

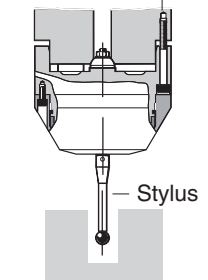
Z direction.

4.90 N
 490 gf
 17.3 ozf

Stylus overtravel

Stylus length	Sense direction	
	X-Y	Z
50 mm (1.96 in)	36 mm (1.4 in)	17 mm (0.67 in)
100 mm (3.93 in)	60 mm (2.6 in)	17 mm (0.67 in)

Stylus alignment adjusting screw(s)



Stylus on centre adjustment

In some circumstances the stylus must be aligned with the spindle centre line. The probe head can be adjusted in its mounting to achieve this setting.

Parts List - Please quote the Part No. when ordering equipment

A-2053-5358	MP3 probe complete with holding screws and TK1 tool kit.	Radio	H-2000-2027	Data Sheet	MP3 probe with radio transmission system.
A-2053-8156	DK3 outer diaphragm replacement kit.	Optical	H-2000-2210	Data Sheet	MP3 probe with 360° optical transmission.
A-2053-7531	TK1 probe head tool kit.	Optical	H-2000-2230	Data Sheet	MP3 probe with wide angle optical transmission.
A-5000-3709	Ceramic stylus 50mm long with Ø6mm ball.	OMM	H-2000-2275	Data Sheet	OMM optical module machine.
M-2085-0068	Stylus weak link kit - safety protection.	MI 12	H-2000-2195	Data Sheet	MI 12 interface unit used with OMM.
ASSOCIATED EQUIPMENT INFORMATION		O-M-I	H-2000-2285	Data Sheet	O-M-I optical machine interface.
Catalogue	H-2000-3020	Technical specifications	PSU3	H-2000-2200	Data Sheet
Styli guide	H-1000-3200	Styli and accessories.	Software	H-2000-2289	Data Sheet
Shanks	H-2000-2011	Data Sheet			PSU3 power supply unit.
Mounting	H-2000-2120	Data Sheet			Probe software for machine tools.
		Adaptors, extensions and holders.			
Inductive	H-2000-2140	Data Sheet			
		Mk IV inductive transmission.			
MI 5	H-2000-2180	Data Sheet			
		MI 5 interface for inductive/hard wired transmission.			

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