



Renishaw TP7M Probe

Category: Renishaw Probe Body & Modules

25 mm (1 inch) diameter strain-gauge touch probe with autojoint mounting, suited to high accuracy part measurement.

The TP7M probe is an electronic probe using strain gauge technology, which gives higher accuracy, eliminates lobing and reseal errors and offers a much longer life than kinematic touch-trigger probes.

Incorporating a multi-wired autojoint connection, the TP7M is compatible with the PH10M PLUS / PH10MQ PLUS motorised heads, PH6M fixed probe head, plus the range of multi-wired extension bars (PEM).

Specification summary	TP7M
Principal application	FMS and automated systems. Universal DCC and manual CMMs.
Sense direction	6-axis: $\pm X$, $\pm Y$, $\pm Z$
3D accuracy (test to ISO 10360 Pt 2)	N/A
Unidirectional repeatability (2σ μm)	Trigger level 1: 0.25 μm (0.00001 in) Trigger level 2: 0.25 μm (0.00001 in)
XY (2D) form measurement deviation	Trigger level 1: $\pm 0.25 \mu m$ (0.00001 in) Trigger level 2: $\pm 0.50 \mu m$ (0.00002 in)
XYZ (3D) form measurement deviation	Trigger level 1: $\pm 0.50 \mu m$ (0.00002 in) Trigger level 2: $\pm 1 \mu m$ (0.00004 in)
Trigger force (at stylus tip)	XY plane: 0.02 N Z-axis: 0.15 N
Overtravel force	XY plane: 0.78 N Z-axis: 11.75 N
Weight	85 g (3 oz)
Maximum extension (if on a PH10 PLUS series head)	200 mm (7.87 in)
Maximum recommended stylus length (M4 styli range)	150 mm (5.91 in) steel - 180 mm (7.09 in) GF
Mounting method	Multiwired autojoint
Suitable interface	PI 7-3
Automatic probe changing	Autochange rack
Stylus range	M4