

Go cableless!

Unrestricted tool-setting and inspection for machine tools



The twin probe optical system - improve part quality and reduce set-up times!

The Renishaw twin probe system allows a *spindle probe* and a *tool setting probe* to be installed on a machine with a *single optical interface*.

The new **OMI-2T** optical interface enables two probes to be used, typically, this would be Renishaw's new **OTS** tool-setter and **OMP40-2** inspection probe.

The **OMI-2T** optical interface utilises Renishaw's modulated optical transmission, thereby offering the highest level of resistance to light interference. The **OMI-2T** is also used to activate either the spindle probe or tool-setting probe and gives visual indication of the activated device.

For broken tool detection and rapid tool length/diameter measurement use the new **OTS**, Renishaw's first tool setting probe with optical transmission. The robust, compact and cable-free design allows freedom of table movement, ideal for twin pallet or rotary table machines.

Also take advantage of the new **OMP40-2** inspection probe with modulated transmission, a truly compact probe system that can be used to automatically carry out on-machine component setting and inspection.

Or, as the **OMI-2T** can control two probes, choose any two of Renishaw's range of probes with modulated optical transmission to best suit your machining application.



Different probe combinations

Flexible twin probe system configurations, using one receiver and two probes, can provide an easily integrated solution for most on-machine inspection applications.



Cable free tool-setting

Cable free operation of the new **OTS** is ideal for easy installation and keeping a tidy machine environment - ideal for compact machining centres and rotary table or twin pallet machines.



Fast and accurate set-up/inspection

Invest in automatic on-machine component and tool inspection to save time and reduce scrap, enabling you to become more competitive in your market.

Specification - OMP40-2 spindle probe

Principal application	Very small machining centres and drill/tap machines
Dimensions	Length: 50 mm (1.97 in) Diameter: 40 mm (1.57 in)
Transmission type	360° infra-red optical transmission
Operating range	Up to 4 m (13.1 ft)
Receiver/interface	OMI-2T (OMI-2, OMM/MI12 for single installations)
Sense directions	Omni-directional: $\pm X$, $\pm Y$, $+Z$
Uni-directional repeatability	1.0 μm (0.00004 in)
Trigger force	5.85 N, 585 gf (20.6 ozf) (Z plane factory set)
Stylus overtravel	XY plane ± 11 mm (50 mm stylus) +Z direction 6 mm (0.23 in)
Battery type	1/2 AA Lithium Thionyl Chloride (3.6 V) x 2
Battery life	stand by 180 days 5% usage 80 days continuous life 140 hours
Sealing	IPX8



Specification - OTS tool setting probe

Principal application	Tool length and diameter checking on vertical machining centres
Dimensions	Length: 119 mm Height: 93 mm
Transmission type	Directable infra-red optical transmission
Operating range	4 m (13.1 ft)
Receiver/interface	OMI-2T (OMI-2 for single installations)
Sense directions	Omni-directional: $\pm X$, $\pm Y$, $+Z$
Uni-directional repeatability	1.0 μm (0.00004 in)
Stylus overtravel	XY plane ± 3.5 mm +Z direction 6 mm (0.23 in)
Battery type	1/2 AA Lithium Thionyl Chloride (3.6 V) x 2
Battery life	stand by 180 days 5% usage 100 days continuous life 300 hours
Sealing	IPX8



Specification - OMI-2T interface/receiver

Principal application	Combined optical transceiver/interface, which conveys and processes signals for two different probes sequentially
Dimensions	Depth: 46.7 mm (1.84 in) Diameter: 84 mm (3.30 in)
Power supply	12 V to 30 V d.c.
Sealing	IPX8
Turn ON/OFF control	2 pairs of 'M' code outputs to select required probe
Output	2 x status SSR (simultaneous) error SSR low battery SSR

