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OMP40-2 ultra compact probe

Bringing the benefits of automated part set-up and in-cycle gauging to small machining centres and high speed cutting machines

- **Set-up time reduction of up to 90%**
- **Less setting errors; reduced scrap**
- **Reduced fixture costs**
- **Improved process control**
- **Well-proven Renishaw technology, miniaturised electronics**
- **Improved resistance to light and electromagnetic interference**
- **Now capable of working in twin probe systems**

The OMP40-2 from Renishaw is the upgraded version of the multiple award winning OMP40. It meets the demand for probing on small machining centres and the growing family of high-speed machines fitted with small HSK and small taper spindles. The length of the OMP40-2 matches that of typical tooling, bringing the significant advantages of probing to this range of machines.

Key benefits and innovations

Improved transmission protocol
The OMP40-2 now includes modulated transmission for increased resistance to light interference when using OMI-2T or OMI-2 receivers. OMI-2T also allows the OMP40-2 to work in Twin probe applications, where typically it would be used in conjunction with Renishaw's new OTS, a tool setter with optical transmission.

Miniaturisation without compromise in performance
While miniaturisation of electronics has allowed the development of an ultra-compact probe measuring only 40 mm diameter and 50 mm length, the OMP40-2 can use Renishaw's legacy or modulated optical signal transmission systems without any compromise in metrology performance.

Simplified installation, ideal for retrofitting
The OMP40-2 features a 360-degree optical transmission system with a range of up to 4.5 metres, allowing probe operation in any spindle orientation. The result is simplified system installation and set-up on machine tools, making the OMP40-2 ideal for retrofitting.

Long battery life, minimal downtime, industry-leading economy
Renishaw technology gives industry-leading economy. At typical levels of probe use, a battery-life in excess of 6 months can be expected, minimising machine downtime and maintenance costs.

Simple, safe programming
User programmable parameters make the OMP40-2 simple to optimise for specific machine applications. Using Trigger Logic™, a unique and simple programming method, users are able to program probe options without accessing probe internals, eliminating the risk of subsequent damage due to coolant and debris ingress.

Shock and vibration resistant, sealed against harsh environments
Sealed to withstand harsh machine tool environments and being highly resistant to false triggering induced by shock and vibration, the OMP40-2 is fully compatible with existing and future Renishaw optical systems and can be used with high-speed, single touch or double touch probing routines.

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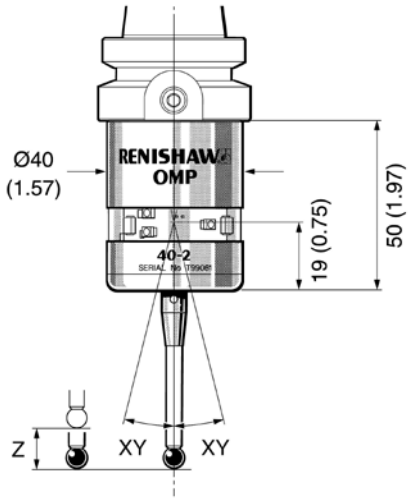
Specification - OMP40-2 probe

Principal application	Very small machining centres and drill/tap machines
Dimensions	Length: 50 mm (1.97 in) Diameter: 40 mm (1.57 in)
Weight (without shank in g)	**with batteries** 262 g (9.24 oz) **without batteries** 242 g (8.53 oz)
Transmission type	360° infra-red optical transmission
Turn ON control	Machine 'M' code or Auto start
Turn OFF control	Machine 'M' code or timer
Operating range	Up to 5 m (13.1 ft)
Receiver/interface	OMI-2T, OMI-2, OMI, OMM/MI12
Sense directions	Omni-directional: ± X, ± Y, +Z
Uni-directional repeatability	1.0 µm (0.00004 in)
Trigger force (Z plane factory set)	5.85 N, 585 gf (20.6 ozf)
Test conditions :	**stylus length** 50 mm (1.97 in) **stylus velocity** 480 mm/min (1.57 ft/min)
Max recommended stylus length	100 mm (3.94 in)
Battery type	1/2 AA Lithium Thionyl Chloride (3.6 V) x 2
Battery life (standard power)	**stand by** 500 days **5% usage** 110 days **continuous life** 130 hours
Sealing	IPX8



STYLUS OVERTRAVEL LIMITS		
Stylus length mm (in)	± X / ± Y mm (in)	Z mm (in)
50 (1.97)	12 (0.47)	6 (0.24)
100 (3.94)	22 (0.87)	6 (0.24)

More information

For further details on the products mentioned in this flyer, please visit
www.renishaw.com/mtp

For worldwide contact details please visit our main website at
www.renishaw.com/contact

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