

# OMP60 OMI-2 optical transmission system

## Next generation optical system

Following in the footsteps of Renishaw's RMP60 radio probe, OMP60 is a next generation optical probe suitable for medium to large machining and mill-turn centres.

The OMP60 probe can be combined with the new OMI-2 integrated receiver and interface. Utilising a revised state-of-the-art modulated optical transmission method, the system offers the highest level of resistance to light interference.

The OMP60 probe is also compatible with existing OMM/MI12 and OMI receivers, enabling current MP7, MP8, MP9 and MP10 system users to benefit from some of its innovative features.

By using Renishaw's proven trigger logic, multiple turn on/off options are available to optimise the probe to specific machine applications, without accessing probe internals. Using readily available AA batteries, users can expect a battery life in excess of 6 months, minimising machine downtime and maintenance costs. As always, probe and interface are built to withstand the harshest shock and vibration conditions which make the OMP60 highly resistant to false triggering.

Further to Renishaw's commitment to the support of legacy systems, the OMP60 can be programmed to replace the various activation methods developed for customers over many years.



## Key benefits

### Compact design

Measuring 63 mm in diameter and 76 mm in length, the OMP60 is ideal for use on a wide range of machining centres and allows the user to probe surfaces that are cut using the shortest tools in the machine's carousel.

### 360 degree infra-red transmission

With a range of up to 6 metres, the OMP60 is easily installed on medium to large machining centres, and is ideal for retrofitting to upgrade the performance of existing machines.

### Robust and reliable

Both the OMP60 and OMI-2 are sealed to IPX8 and are built to withstand the harshest machine tool environments and have improved resistance to shock and vibration.

## Innovations

### Increased resistance to light interference

The OMP60 probe and OMI-2 combined interface and receiver unit feature increased resistance to light interference.

### Multiple functions in one single unit

Multiple turn on/off methods are available, combining functionality of existing proven Renishaw technology into one single unit.

### Simple installation and programming

Trigger logic can be set without accessing probe internals. The new OMI-2 provides an integral interface and receiver unit for simple installation.

## Specification - OMP60 probe

<b>Principal application</b>	Medium to large machining and mill-turn centres	
<b>Dimensions</b>	Length: 76 mm (2.99 in). Diameter: 63 mm (2.48 in)	
<b>Weight (without shank in g)</b>	<b>with batteries</b>	<b>without batteries</b>
	878 g (30.79 oz)	834 g (29.42 oz)
<b>Transmission type</b>	360° infra-red optical transmission	
<b>Turn ON control</b>	Optical 'M' code, spin, shank switch	
<b>Turn OFF control</b>	Optical 'M' code, time-out, spin, shank switch	
<b>Operating range</b>	Up to 6 m (19.7 ft)	
<b>Suitable Interface</b>	OMM/MI12, OMI or OMI-2	
<b>Sense directions</b>	Omni-directional: ± X, ± Y, +Z	
<b>Uni-directional repeatability</b>	1.0 µm 0.00004 in (2σ)	
<b>Trigger force (XY plane factory set)</b>	<b>lowest force</b>	<b>highest force</b>
	0.75 N (75 gf) 2.64 ozf	1.4 N (140 gf) 4.92 ozf
<b>Trigger force (Z plane factory set)</b>	5.2 N (520 gf) 18.34 ozf	
<b>Max. acceleration:</b>	150 m/s <sup>2</sup> with 50 mm stylus	
<b>Stylus overtravel</b>	<b>XY plane</b>	<b>+Z direction</b>
	±18°	11 mm (0.43 in)
<b>Test conditions :</b>	<b>stylus length</b>	50 mm (1.97 in)
	<b>stylus velocity</b>	480 mm/min (18.90 in/min)
	<b>stylus force</b>	Factory set
<b>Battery type</b>	2 x AA Alkaline or Lithium Thionyl Chloride (LTC)	
<b>Battery life (using LTC in low power mode)</b>	<b>stand by</b>	Up to 1019 days
	<b>5% usage</b>	Up to 339 days
	<b>continuous life</b>	Up to 595 hrs
<b>Sealing</b>	IPX8	



## Specification - OMI-2 interface/receiver

<b>Principal application</b>	Combined optical transceiver/interface, which conveys and processes signals between an inspection probe and the CNC machine control
<b>Dimensions</b>	Depth: 46.7 mm (1.84 in) Diameter: 84 mm (3.30 in)
<b>Power supply</b>	12 V to 30 V d.c.
<b>Sealing</b>	IPX8



## More information

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