

# 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

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

For further details on the products mentioned in this flyer, please visit [www.renishaw.com](http://www.renishaw.com) and choose Machine tool products.

**SALES & SERVICE:**  
**A Tech Authority, Inc.**  
13745 Stockton Ave.  
Chino CA 91710  
909-614-4522  
[sales@atechauthority.com](mailto:sales@atechauthority.com)

**For worldwide contact details please visit our main website at**  
**[www.renishaw.com/contact](http://www.renishaw.com/contact)**