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Comparison of probes OMP400 / OMP600

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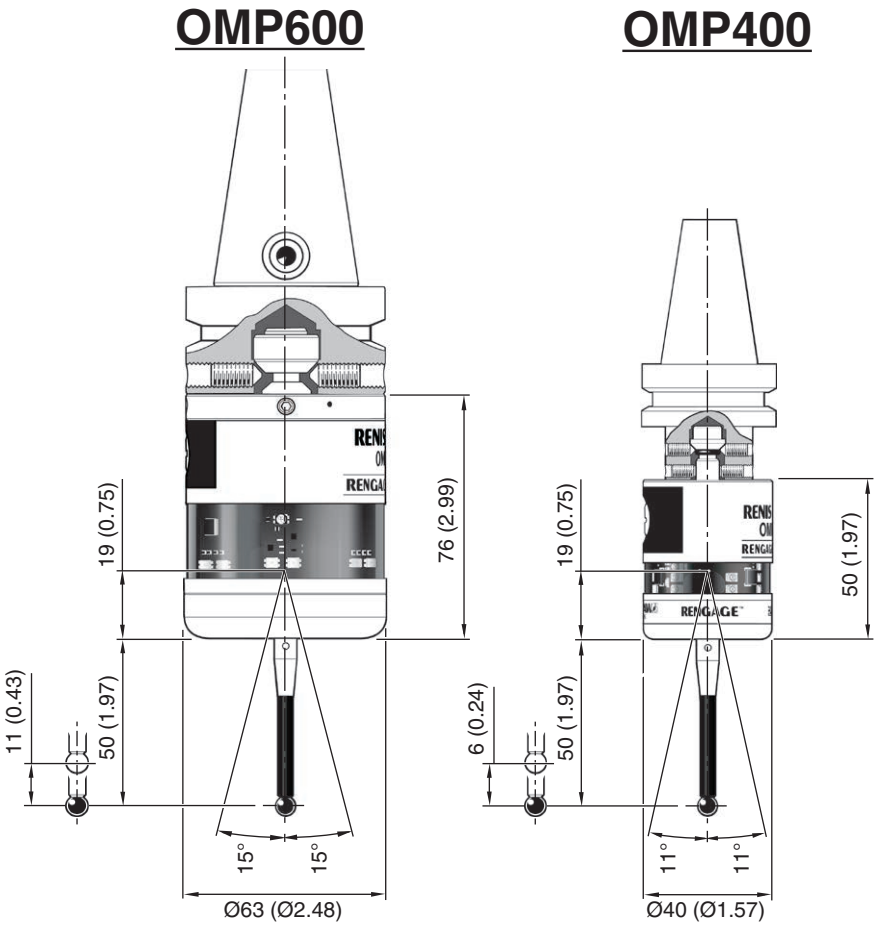

The OMP400 and OMP600 probes are the latest generation of optical transmission machine probes to use strain gauge technology and are compatible with all Renishaw's optical receivers (both "legacy" and new generation "modulated").

The OMP400 probe has been designed specifically to meet the demands of small machining centres and the growing family of high-speed machines fitted with small HSK and small taper spindles. The OMP600 probe has been designed principally for medium to large machining and multi-tasking machines.

Main advantages of the OMP400 / OMP600

	OMP400	OMP600
• Compact size		✓
• Ultra compact design	✓	
• Twin probe support	✓	✓
• Multiprobe support (P3)		✓
• Reorientation compensation circuity		✓
• Shank and spin, switch on / switch off options		✓
• Uses AA batteries		✓
• Uses ½AA batteries	✓	
• Legacy and modulated transmission	✓	✓
• User visible diagnostic LEDs	✓	✓

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		OMP400	OMP600
Principal application		Workpiece inspection and job set-up on small to medium machining centres and small multi-tasking machines.	Workpiece inspection and job set-up on all sizes of machining centres and small to medium multi-tasking machines.
Transmission type		360° infrared optical transmission (modulated or legacy)	
Compatible interfaces		OMM-2 with OSI, OMI-2, OMI-2T, OMI-2H, OMI-2C, OMM with MI 12 or OMI	
Operating range		Up to 5 m (16.4 ft)	Up to 6 m (19.7 ft)
Recommended styli		High modulus carbon fibre, lengths 50 mm (1.97 in) to 200 mm (7.88 in)	
Weight without shank (including batteries)		256 g (9.03 oz)	1029 g (36.30 oz)
Switch on / switch off options		Optical on / optical off Optical on / timer off	Optical on / optical off Optical on / timer off Shank on / shank off Spin on / spin off Spin on / timer off Delayed optical on (3 sec) / timer off
Battery type and life	Type	2 x ½AA lithium-thionyl chloride	2 x AA lithium-thionyl chloride
	Standby life	One year maximum	800 days maximum
	Continuous use	105 hrs maximum	380 hrs maximum
Sense directions		±X, ±Y, +Z	
Unidirectional repeatability		0.25 µm (10 µin) 2σ – 50 mm stylus length 0.35 µm (14 µin) 2σ – 100 mm stylus length	
X, Y (2D) form measurement deviation		±0.25 µm (10 µin) – 50 mm (1.97 in) stylus length ±0.25 µm (10 µin) – 100 mm (3.94 in) stylus length	
X, Y, Z (3D) form measurement deviation		±1.00 µm (40 µin) – 50 mm (1.97 in) stylus length ±1.75 µm (70 µin) – 100 mm (3.94 in) stylus length	
Stylus trigger force			
XY plane (typical minimum)		0.06 N, 6 gf (0.22 ozf)	0.15 N, 15 gf (0.54 ozf)
+Z direction (typical minimum)		2.55 N, 260 gf (9.17 ozf)	1.75 N, 178 gf (6.03 ozf)
Stylus overtravel			
XY plane (typical minimum)		±11°	±15°
+Z direction (typical minimum)		6 mm (0.24 in)	11 mm (0.43 in)
Sealing		IPX8 (EN/IEC 60529)	
Operating temperature		+5 °C to +50 °C (+41 °F to +122 °F)	+5 °C to +55 °C (+41 °F to +131 °F)
Quick-start guide		A-5069-8500	A-5180-8500
Data sheet		H-5069-8200	H-5180-8200

For further information please refer to the relevant data sheet.

For worldwide contact details, visit
www.renishaw.com/contact

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