RENISHAW ON P400

Optical Machine Probe



The **Renishaw OMP400** High Accuracy Probe features an ultra compact design with optical transmission for compact to small machining centers and mill-turn centers.

Benefits

- Reduced set-up & calibration routines provide more time for machining cycles
- Improved process control and quality
- Reduced, rework, concessions and scrap
- Less operator intervention
- Long service life
- Fast to install & easy to use
- Used with automatic tool changers

Features

- Proven Rengage Strain Gage Technology offering .025μm repeatability at 2σ
- Modulated Transmission for exceptional Resistance to light interference
- Sealed to IPX8 for use in the harshest machining environments
- Ultra-compact probe design (40mm Ø x 50mm long)
- Unrivalled performance on complex 3D shapes, ideal for 5-Axis machine tools
- Wide variety of shanks to fit nearly all machining centers





Specifications

Primary application	Inspection probe for machining centers.	
Sense directions	±X ±Y +Z	
Trigger force	XY 0.065 N / 6 gf (0.22 ozf) Z 2.55 N / 260 gf (9.17 ozf)	
Stylus overtravel force XY plane (typical minimum) +Z direction (typical minimum)	1.04 N, 106 gf (3.74 ozf) 5.50 N, 561 gf (19.78 ozf)	
Sealing	IPX8 (EN/IEC 60529)	
Unidirectional repeatability	0.25 μm (10 μin) 2σ is valid for test velocity of 240 mm/min (9.45 ft/min) at stylus 50 mm (1.97 in) long.	
	0.35 μm (14 μin) 2σ is valid for test velocity of 240 mm/min (9.45 ft/min) at stylus 100 mm (3.94 in) long.	

Battery Life (2 x AA 3.6 V lithiumthionyl chloride)

Stand-by Life	Continuous use	Continuous use
Typical (days)	Modulated	Legacy
Dependent on switch-on/switch-off option	Dependent on switch-on/switch-off option	Dependent on switch-on/switch-off option
1 year max	105 hours	110 hours

Renishaw Inspection Plus Software Cycles

- X or Y or Z single surface measure
- Web/pocket measure
- 4 point bore/boss measure
- Internal/external corner
- 3 point bore/boss vector measure
- Angled XY surface measure
- Holes on a pitch circle diameter (PCD) ie: Bolt hole patterns
- 4th axis measure. Can be modified for 4th and 5th axis applications
- Stock allowance
- Multi-stylus calibration with option to run multiple probes with different stylus angles
- Calibration on a ring or sphere available
- XYZ single surface vector measurement
- Optional software available for true 3D and form measurement

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