

**RENISHAW** 

# OMP40-2

Optical Machine Probe



The **Renishaw OMP40-2** features a compact design with optical transmission for small machining centers and machines fitted with small HSK and small taper spindles.

## 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

- Touch trigger probe with proven kinematic design offering 1.00  $\mu\text{m}$   $2\sigma$  repeatability
- Modulated transmission for exceptional resistance to light interference
- Sealed to IPX8 for use in the harshest machining environments
- Ultra-compact probe design (40mm  $\varnothing$  x 50mm long)
- 360° transmission envelope for maximum configurability
- Wide variety of shanks to fit nearly all machining centers



## Specifications

### Specifications

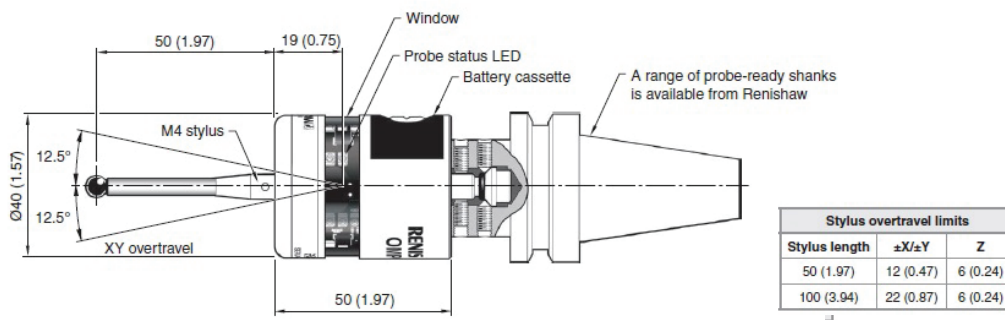
<b>Primary application</b>	Inspection probe for machining centers.
<b>Sense directions</b>	$\pm X \pm Y + Z$
<b>Trigger force</b> using 50 mm (1.97 in) stylus low force direction	<b>XY</b> 0.5 N / 50 gf (1.76 ozf) <b>Z</b> 5.85 N / 585 gf (20.62 ozf)
<b>Trigger force</b> using 50 mm (1.97 in) stylus high force direction	<b>XY</b> .09 N / 90 gf (3.17 ozf) <b>Z</b> 5.85 N / 585 gf (20.62 ozf)
<b>Overtravel</b>	<b>XY</b> 12.5° <b>Z</b> 6 mm (0.24 in)
<b>Sealing</b>	IPX8 (BS 5490, IEC 529) 1 atmosphere
<b>Repeatability</b> maximum $2\sigma$ value in any direction	1.0 $\mu\text{m}$ (0.00004 in) is valid for test velocity of 480 mm/min (1.57 ft/min) at stylus 50 mm (1.97 in) long.

### Battery Life (2 x AA 3.6 V lithiumthionyl chloride)

Stand-by Life	5% usage - 72 min/day	Continuous use
Typical (days)	Typical (days)	Typical (days)
Standard power mode	Standard power mode	Standard power mode
1900	115	170

### 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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