RENISHAW
apply innovation™

RMP600 (QE) high-accuracy radio machine probe

Specification

Principal application		Workpiece inspection and job set-up on multi-tasking machines, machining centres and gantry machining centres.
Weight without shank (including batteries)		1010 g (35.65 oz)
Transmission type		Frequency-hopping spread spectrum (FHSS) radio Radio frequency 2400 MHz to 2483.5 MHz
Radio approval regions		UK, EU, EFTA, Japan and USA (China exempt). For details about other regions, contact Renishaw.
Compatible interfaces		RMI-Q or RMI-QE combined interface and receiver unit.
Operating range		Up to 15 m (49.2 ft)
Recommended styli		High modulus carbon fibre, lengths 50 mm (1.97 in) to 200 mm (7.88 in)
Switch-on / switch-off options		Radio on → Radio off or timer off Spin on → Spin off or timer off Shank switch on → Shank switch off
Probe feedrate (minimum)		3 mm/min (0.12 in/min) [1]
Battery life (2 × AA 3.6 V lithium-thionyl chloride)	Standby life	116 months maximum, dependent on switch-on / switch-off option.
	Continuous life	540 hours maximum, dependent on switch-on / switch-off option.
Sense directions		±X, ±Y, +Z
Unidirectional repeatability		0.25 µm (10 µin) 2σ – 50 mm stylus length [2] 0.35 µm (14 µin) 2σ – 100 mm stylus length
X, Y (2D) form measurement deviation		±0.25 µm (10 µin) – 50 mm stylus length [2] ±0.25 µm (10 µin) – 100 mm stylus length
X, Y, Z (3D) form measurement deviation		±1.00 µm (40 µin) – 50 mm stylus length [2] ±1.75 µm (70 µin) – 100 mm stylus length
Stylus trigger force [3] XY plane (typical minimum) +Z plane (typical minimum)		 0.10 N, 10 gf (0.36 ozf). Trigger filter (Level 2) 1.22 N, 124 gf (4.39 ozf). Trigger filter (Level 3)
Stylus overtravel force XY plane (typical minimum) +Z plane (typical minimum)		 2.8 N, 285 gf (10.07 ozf) typical minimum [4] 9.8 N, 999 gf (35.25 ozf) typical minimum [5]
Stylus overtravel	XY plane +Z plane	±15° 11 mm (0.43 in)

[1] Speeds below 3 mm/min commonly occur when manually moving the probe using the handwheel with a very fine feedrate.

[2] Performance specification is tested at a standard test velocity of 240 mm/min (9.45 in/min) with a 50 mm stylus. Significantly higher velocity is possible depending on application requirements.

[3] Trigger force, which is critical in some applications, is the force exerted on the component by the stylus when the probe triggers. The maximum force applied will occur after the trigger point (overtravel). The force value depends on related variables, including measuring speed, machine deceleration and system latency. RENGAGE equipped probes offer ultra-low trigger forces when probing at low feedrates. Tested at the lowest recommended feedrate of 3 mm/min (minimum).

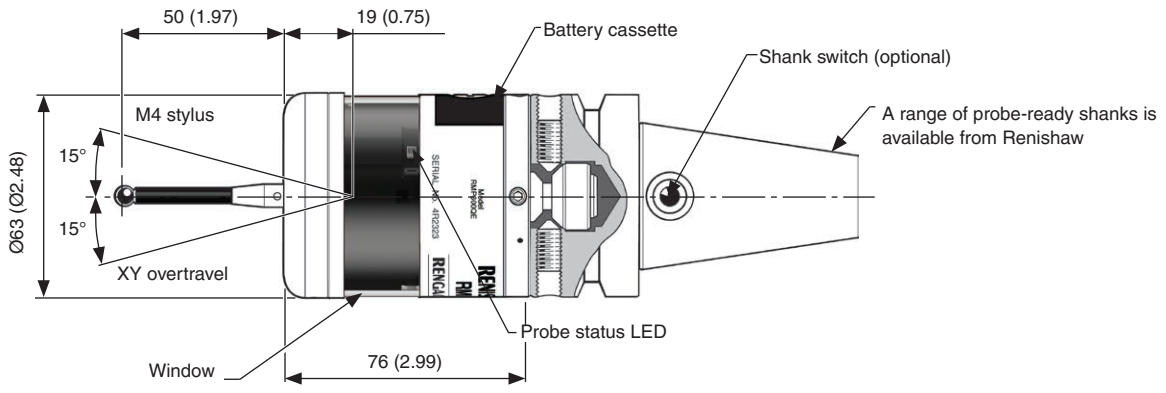
[4] Stylus overtravel force in the XY plane occurs 80 µm (3149.61 µin) after the trigger point and rises by 0.35 N/mm,36 gf/mm (32 ozf/in) until the machine tool stops (in the high force direction and using a 50 mm (1.97 in) carbon fibre stylus).

[5] Stylus overtravel force in +Z direction occurs 7 µm to 8 µm (275.59 µin to 314.96 µin) after the trigger point and rises by 1.5 N/mm, 153 gf/mm (137 oz/in) until the machine tool stops.

Specification (continued)

Environment	IP rating	IPX8, BS EN 60529:1992+A2:2013 (IEC 60529:1989+A1:1999+A2:2013)
	IK rating	IK01 (EN/IEC 62262: 2002) [for glass window]
	Storage temperature	–25 °C to +70 °C (–13 °F to +158 °F)
	Operating temperature	+5 °C to +55 °C (+41 °F to +131 °F)
	Indoor/outdoor use	Indoor use
	Altitude	<3000 m
	Relative humidity	5% to 95%
	Wet location	Yes, water/oil/coolant
	Pollution degree	Level 2

RMP600 dimensions

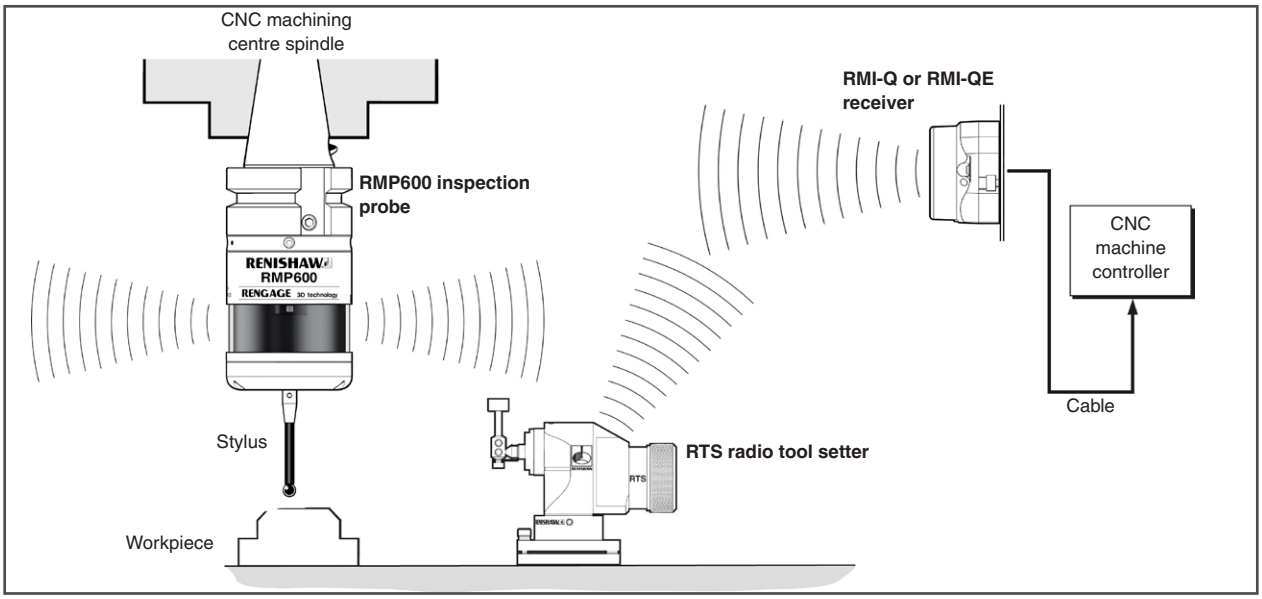


Stylus overtravel limits		
Stylus length	**±X/±Y**	**+Z**
50 (1.97)	18 (0.70)	11 (0.43)
100 (3.94)	31 (1.22)	11 (0.43)

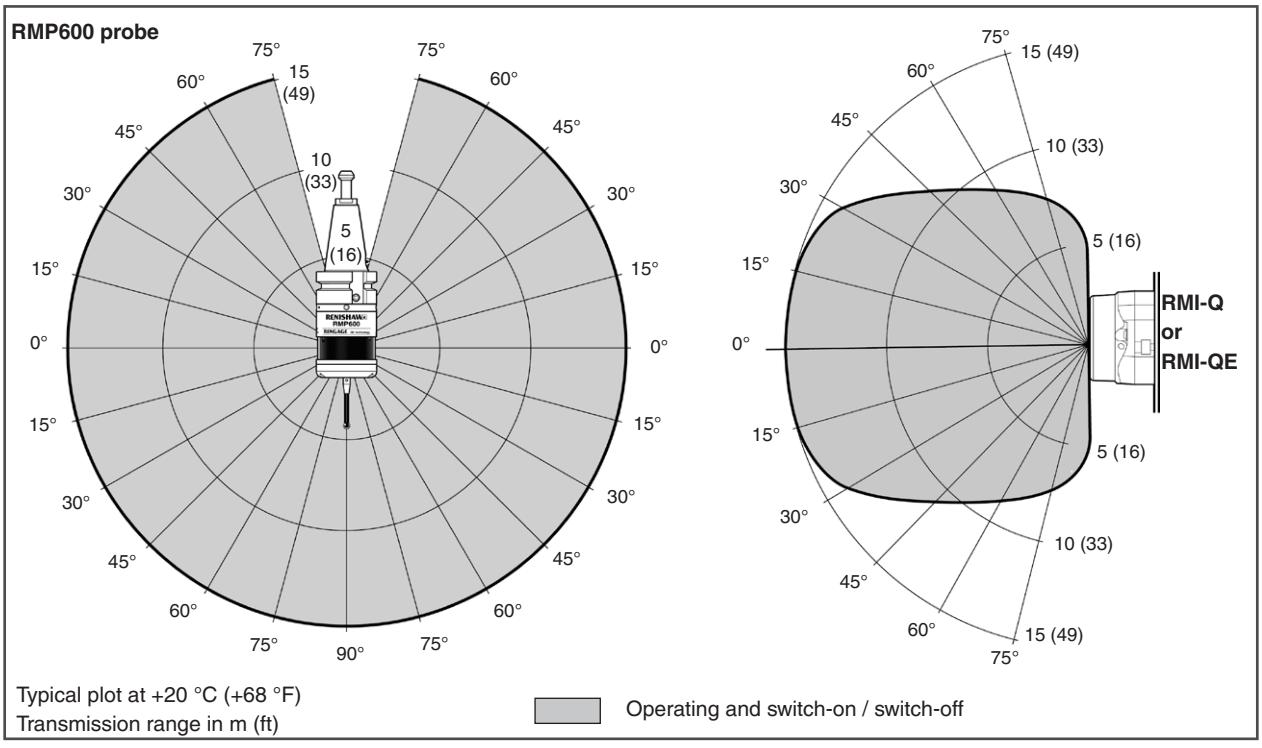
Dimensions given in mm (in)

RENISHAW
apply innovation™

Installing the RMP600 with a RMI-Q or RMI-QE



RMP600 performance envelope



Spare parts and accessories

A full range of spare parts and accessories is available. Contact Renishaw for a full list.

www.renishaw.com/rmp600

#renishaw

+44 (0) 1453 524524 **uk@renishaw.com**

Part no.: H-6554-8200-01-B
Issued: 04.2025