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RTS (QE) radio tool setter



Specification

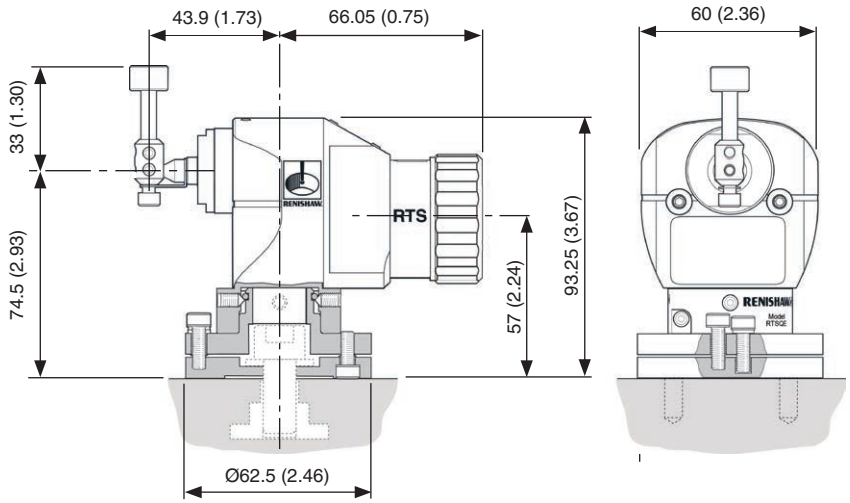
Principal application		Tool measuring and broken tool detection on vertical and horizontal machining centres and gantry machining centres.	
Weight with disc stylus (including batteries)		870 g (30.69 oz)	
Transmission type		Frequency-hopping spread spectrum (FHSS) radio Radio frequency 2400 MHz to 2483.5 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		Disc stylus (tungsten carbide, 75 Rockwell C) or Square tip stylus (ceramic tip, 75 Rockwell C)	
Switch-on / switch-off options		Radio on → Radio off	
Battery life (2 × AA 3.6 V lithium-thionyl chloride)	Standby life	99 months maximum.	
	Continuous life	4860 hours maximum.	
Sense directions		±X, ±Y, +Z	
Unidirectional repeatability		1.00 µm (40 µin) 2σ [1]	
Stylus trigger force [2] [3]		1.3 N to 2.4 N, 133 gf to 245 gf (4.7 ozf to 8.6 ozf) depending on the sense direction.	
Stylus overtravel		XY plane +Z plane	±3.5 mm (0.14 in) 6 mm (0.24 in)
Mounting		M10 / M12 T bolt (not supplied) Optional SPIROL® pins to allow accurate remounting.	
Environment		IP rating	IPX8, BS EN 60529:1992+A2:2013 (IEC 60529:1989+A1:1999+A2:2013)
		IK rating	IK01, BS EN 62262:2002+A1:2021 [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

[1] Performance specification is tested at a standard test velocity of 480 mm/min (18.9 in/min) with a 35 mm stylus. Significantly higher velocity is possible depending on application requirements.

[2] Trigger force, which is critical in some applications, is the force exerted on the stylus by the tool 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.

[3] These are the factory settings; manual adjustment is not possible.

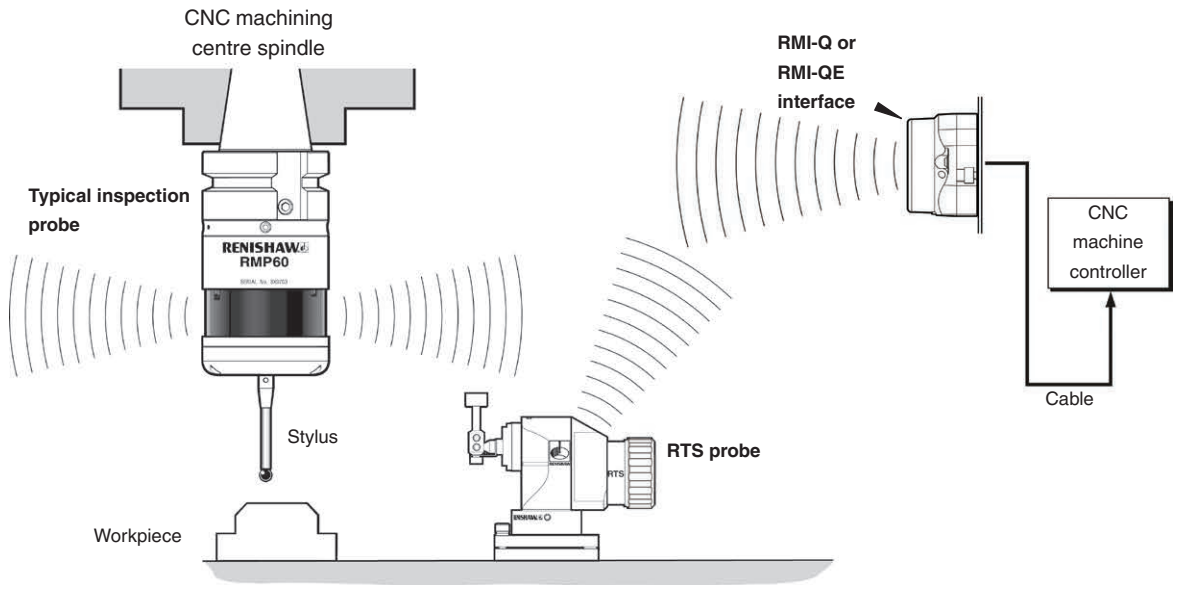
RTS dimensions



Stylus overtravel limits	
±X/±Y	**+Z**
±3.5 (0.14)	6 (0.24)

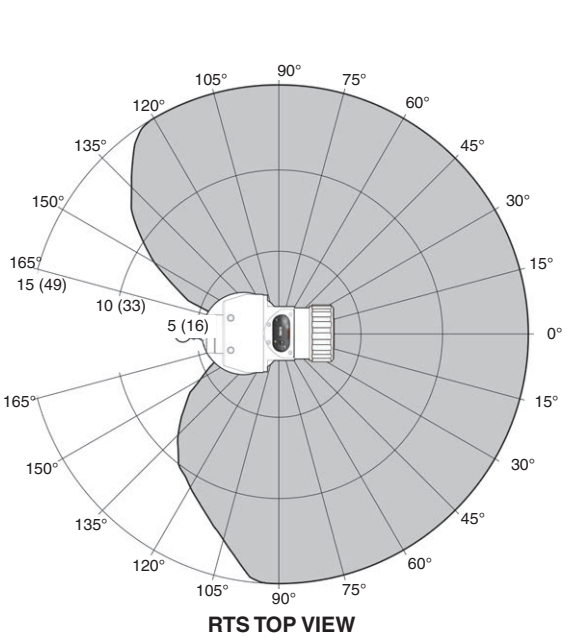
Dimensions given in mm (in)

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

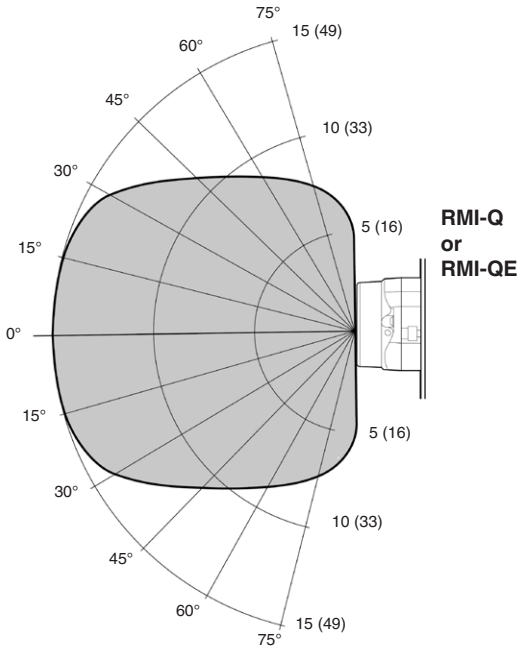


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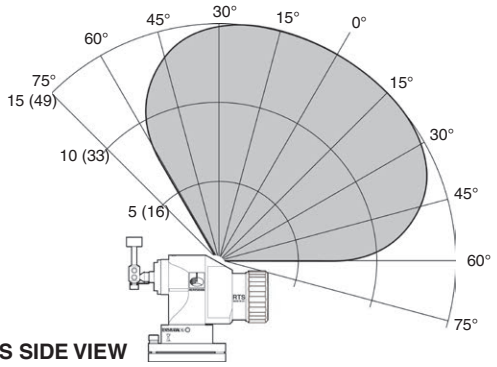
RTS performance envelope



RTS TOP VIEW



RMI-Q
or
RMI-QE



RTS SIDE VIEW

Operating and switch-on / switch-off

Typical plot at +20 °C (+68 °F)
Transmission range in m (ft)

Spare parts and accessories

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

www.renishaw.com/rts

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RTS radio transmission tool setter



www.renishaw.com/rts

Specification

Principal application	Tool setting on CNC machining centres
Transmission type	Frequency hopping spread spectrum (FHSS) radio Radio frequency 2400 MHz – 2483.5 MHz
Radio approval regions	China, Europe (all countries within the European Union), Japan and USA For details about other regions, please contact Renishaw.
Compatible interfaces	RMI-Q
Operating range	Up to 15 m (49.2 ft)
Recommended styli	Disc stylus (tungsten carbide, 75 Rockwell C) or Square tip stylus (ceramic tip, 75 Rockwell C)
Weight with disc stylus (including batteries)	870 g (30.69 oz)
Switch-on / switch-off options	Radio on → Radio off
Typical battery life with 2 × AA 3.6 V Lithium-thionyl chloride	
Stand-by life	600 days
Continuous	1600 hours
Sense directions	±X, ±Y, +Z
Unidirectional repeatability	1.00 µm (40 µin) 2σ (see note 1)
Stylus trigger force (see notes 2 and 3)	1.30 N to 2.40 N, 133 gf to 245 gf (4.68 ozf to 8.63 ozf) depending on sense direction
Sealing	IPX8 (EN/IEC 60529)
Mounting	M12 (1/2 in) T bolt (not supplied) Optional Spirol® pins to allow accurate remounting
Operating temperature	+5 °C to +55 °C (+41 °F to +131 °F)

Note 1 Performance specification is tested at a standard velocity of 480 mm/min (18.9 in/min). Significantly higher velocity is possible depending on application requirements.

Note 2 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 i.e. overtravel. The force value depends on related variables including measuring speed and machine deceleration.

Note 3 These are the factory settings, manual adjustment is not possible.

For further information and the best possible application and performance support please contact Renishaw or visit **www.renishaw.com/rts**

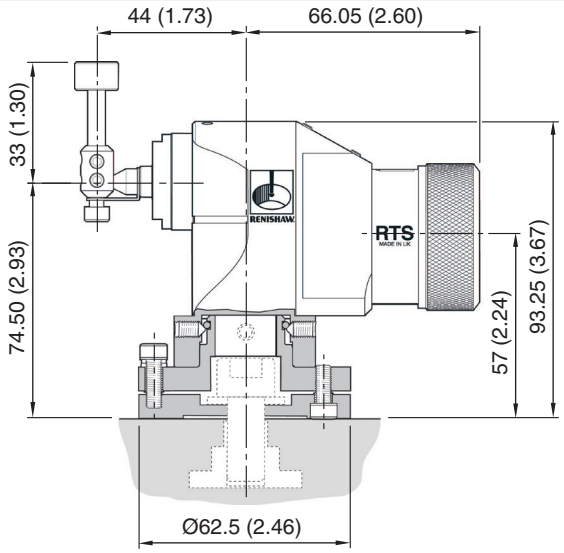
Renishaw plc
New Mills, Wotton-under-Edge,
Gloucestershire, GL12 8JR
United Kingdom

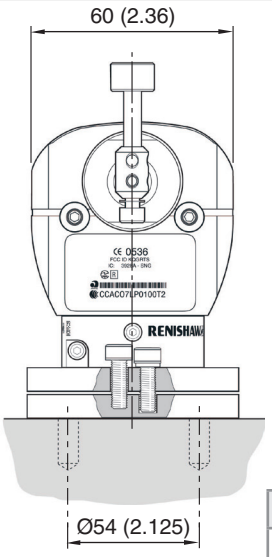
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Dimensions

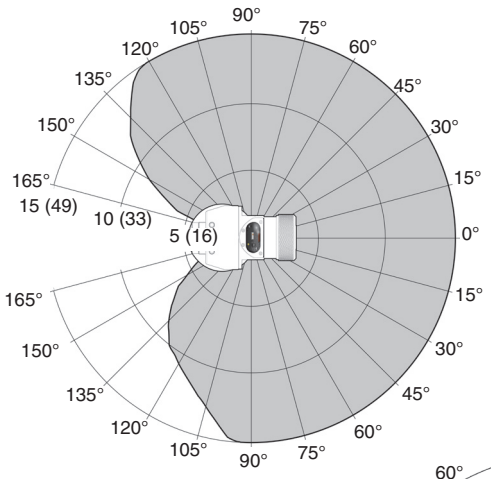


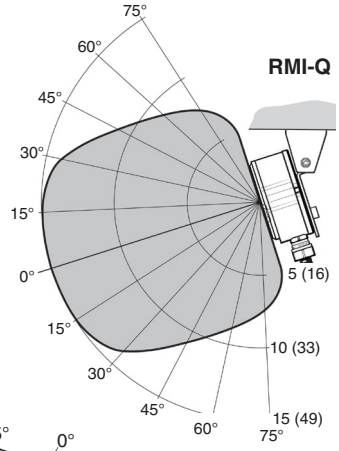


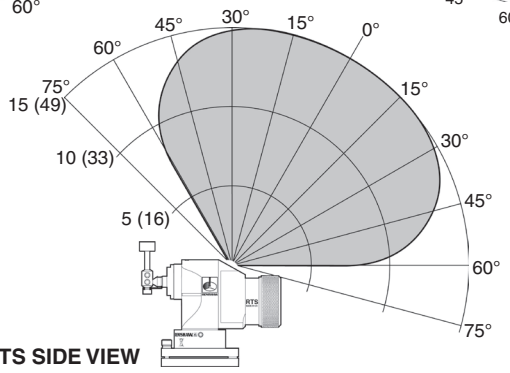
Stylus overtravel limits	
XY	**+Z**
±3.5 (0.14)	6 (0.24)

Dimensions given in mm (in)

Performance envelope







Operating and switch-on / switch-off

Typical plot at +20 °C (+68 °F)
Transmission range in m (ft)

For worldwide contact details, please visit our main web site at www.renishaw.com/contact

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