

# RLP40 (QE) radio lathe probe



## Specification

<b>Principal application</b>	Workpiece inspection and job set-up on machining centres and lathes.	
<b>Transmission type</b>	Frequency-hopping spread spectrum (FHSS) radio Radio frequency 2400 MHz to 2483.5 MHz	
<b>Radio approval regions</b>	UK, EU, EFTA, Japan and USA (China exempt). For details about other regions, contact Renishaw.	
<b>Compatible interfaces</b>	RMI-Q or RMI-QE combined interface and receiver unit.	
<b>Operating range</b>	Up to 15 m (49.2 ft)	
<b>Recommended styli</b>	Ceramic, lengths 50 mm (1.97 in) to 150 mm (5.91 in)	
<b>Weight (without shank)</b>	including batteries	260 g (9.17 oz)
<b>Switch-on / switch-off options</b>	Radio on $\longrightarrow$ Spin on $\longrightarrow$	Radio off or timer off Spin off or timer off
<b>Battery life</b> (2 x ½AA 3.6 V lithium-thionyl chloride)	Standby life	82 months maximum, dependent on switch-on / switch-off option.
	Continuous life	2560 hours maximum, dependent on switch-on / switch-off option.
<b>Sense directions</b>	±X, ±Y, +Z	
<b>Unidirectional repeatability</b>	<b>RLP40</b> 1.00 µm (40 µin) 2σ <sup>1</sup>	<b>RLP40H</b> 2.00 µm (80 µin) 2σ <sup>1</sup>
<b>Stylus trigger force</b> <sup>2,3</sup>		
<b>XY low force</b>	0.60 N, 61 gf (2.15 ozf)	1.58 N, 161 gf (5.68 ozf)
<b>XY high force</b>	0.97 N, 99 gf (3.49 ozf)	3.17 N, 323 gf (11.40 ozf)
<b>+Z direction</b>	6.23 N, 635 gf (22.41 ozf)	10.62 N, 1083 gf (38.20 ozf)
<b>Environment</b>	IP rating	IPX8, BS EN 60529:1992+A2:2013 (IEC 60529:1989+A1:1999+A2:2013)
	IK rating	IK02 (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)

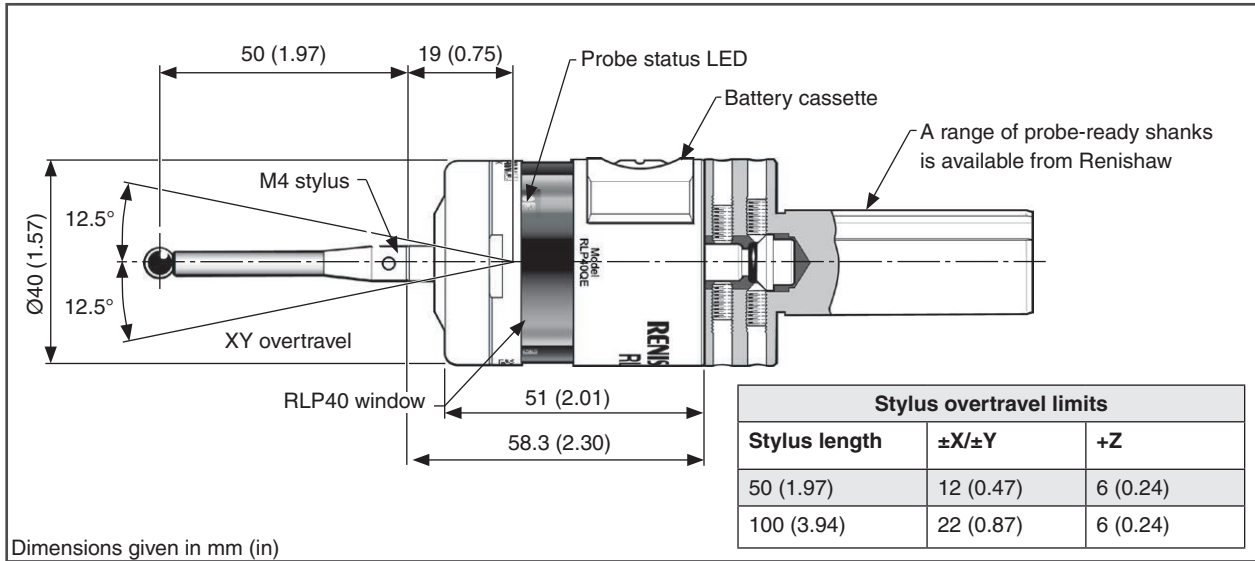
<sup>1</sup> Performance specification is tested at a standard test velocity of 480 mm/min (18.9 in/min) with a 50 mm stylus. Significantly higher velocity is possible depending on application requirements.

<sup>2</sup> 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.

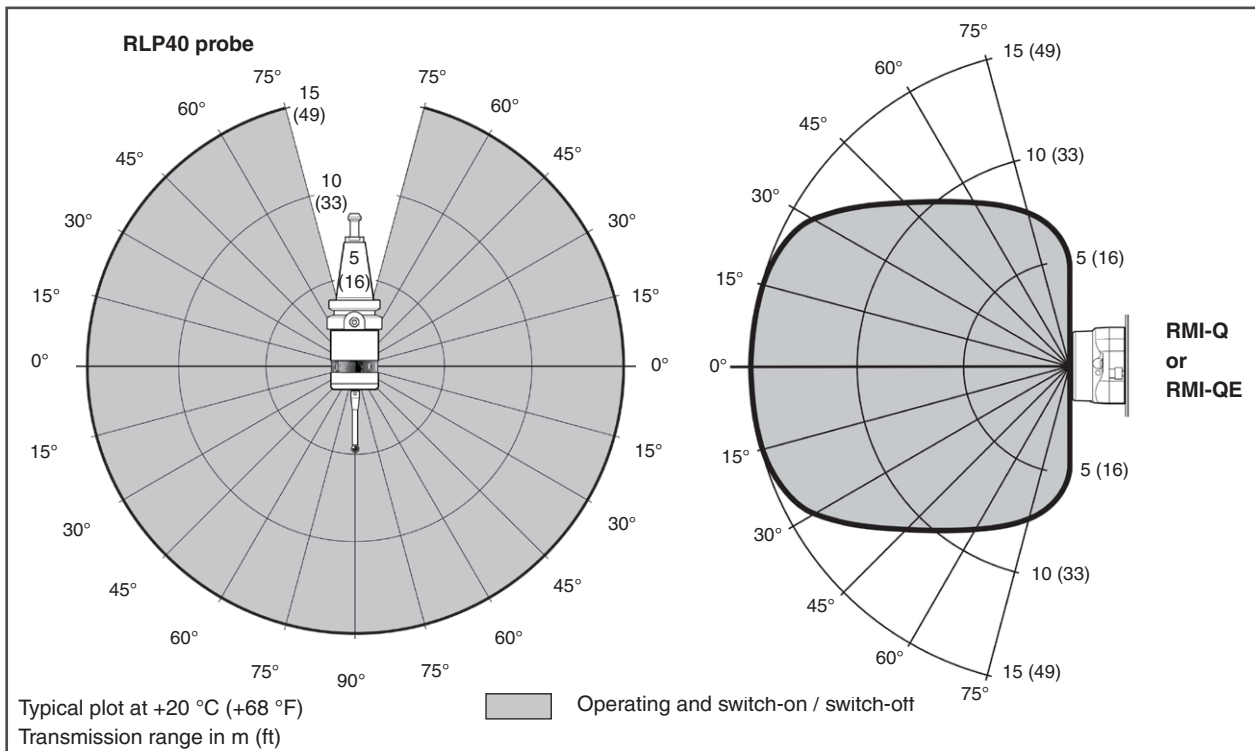
<sup>3</sup> These are the factory settings; manual adjustment is not possible on the RLP40H.

For further information and the best possible application and performance support, contact Renishaw or visit [www.renishaw.com/rlp40](http://www.renishaw.com/rlp40)

## RLP40 dimensions



## RLP40 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/rlp40](http://www.renishaw.com/rlp40)

#renishaw

+44 (0) 1453 524524

uk@renishaw.com

© 2022 Renishaw plc. All rights reserved. This document may not be copied or reproduced in whole or in part, or transferred to any other media or language by any means, without the prior written permission of Renishaw.

RENISHAW® and the probe symbol are registered trade marks of Renishaw plc. Renishaw product names, designations and the mark 'apply innovation' are trade marks of Renishaw plc or its subsidiaries. Other brand, product or company names are trade marks of their respective owners.

WHILE CONSIDERABLE EFFORT WAS MADE TO VERIFY THE ACCURACY OF THIS DOCUMENT AT PUBLICATION, ALL WARRANTIES, CONDITIONS, REPRESENTATIONS AND LIABILITY, HOWSOEVER ARISING, ARE EXCLUDED TO THE EXTENT PERMITTED BY LAW. RENISHAW RESERVES THE RIGHT TO MAKE CHANGES TO THIS DOCUMENT AND TO THE EQUIPMENT, AND/OR SOFTWARE AND THE SPECIFICATION DESCRIBED HEREIN WITHOUT OBLIGATION TO PROVIDE NOTICE OF SUCH CHANGES.

Renishaw plc. Registered in England and Wales. Company no: 1106260. Registered office: New Mills, Wotton-under-Edge, Glos, GL12 8JR, UK.

Part no.: H-6717-8200-01-A  
Issued: 05.2022