

LP2 modular probe system for tool setting and workpiece inspection



Specification

| Variants | | LP2 / LP2DD | LP2H / LP2HDD | | |
|--|-----------------------|---|--|---|----------------------------|
| Principal application | | Workpiece inspection and job set-up on all sizes of lathes, machining centres and CNC grinders. | | | |
| Transmission type | | Hard-wired, or in conjunction with optical or radio transceiver modules | | | |
| Compatible interfaces | Hard-wired | HSI, HSI-C, MI 8-4, FS1i or FS2i | | | |
| | Optical | OMI-2 / OMI-2T / OMI-2H / OSI or OSI-D with OMM-2 or OMM-2C | | | |
| | Radio | RMI-Q / RMI-QE | | | |
| Recommended styli | | 50 mm (1.97 in) to 100 mm (3.94 in) Stylus material depends on application. | 50 mm (1.97 in) to 150 mm (5.91 in) Stylus material depends on application. | | |
| Weight | | 65 g (2.29 oz) | | | |
| Sense directions | | ±X, ±Y, +Z | | | |
| Unidirectional repeatability | | 1.00 µm (40 µin) 2σ ¹ | 2.00 µm (80 µin) 2σ ¹ | | |
| Stylus trigger force ^{2,3} | | | | | |
| XY low force | | 0.50 N, 51 gf (1.80 ozf) | 2.00 N, 204 gf (7.19 ozf) | | |
| XY high force | | 0.90 N, 92 gf (3.24 ozf) | 4.00 N, 408 gf (14.39 ozf) | | |
| +Z direction | | 5.85 N, 597 gf (21.04 ozf) | 30.00 N, 3059 gf (107.91 ozf) | | |
| Maximum setting: | | | | | |
| XY low force | | 1.00 N, 102 gf (3.59 ozf) | Not applicable | | |
| XY high force | | 1.85 N, 188 gf (6.65 ozf) | | | |
| +Z | | 7.40 N, 754 gf (26.61 ozf) | | | |
| Minimum setting: | | | | | |
| XY low force | | 0.25 N, 25 gf (0.90 ozf) | Not applicable | | |
| XY high force | | 0.50 N, 51 gf (1.80 ozf) | | | |
| +Z | | 2.35 N, 239 gf (8.45 ozf) | | | |
| Stylus overtravel limits | Variant | LP2 | LP2DD | LP2H | LP2HDD |
| | XY plane | 14.87 mm (0.55 in) ±12.5° | 19.06 mm (0.73 in) ±15° | 14.87 mm (0.55 in) ±12.5° | 19.06 mm (0.73 in) ±15° |
| | +Z plane | 6.5 mm (0.26 in) 4.5 mm (0.18 in) when fitted with a swarf deflector | | 5.0 mm (0.20 in) 4.5 mm (0.18 in) when fitted with a swarf deflector | |
| Mounting | | M16 thread, for LPE extension bars and adaptors. | | | |
| Environment | IP rating | IPX8, BS EN 60529:1992+A2:2013 | | | |
| | Storage temperature | -25 °C to +70 °C (-13 °F to +158 °F) | | | |
| | Operating temperature | +5 °C to +55 °C (+41 °F to +131 °F) | | | |

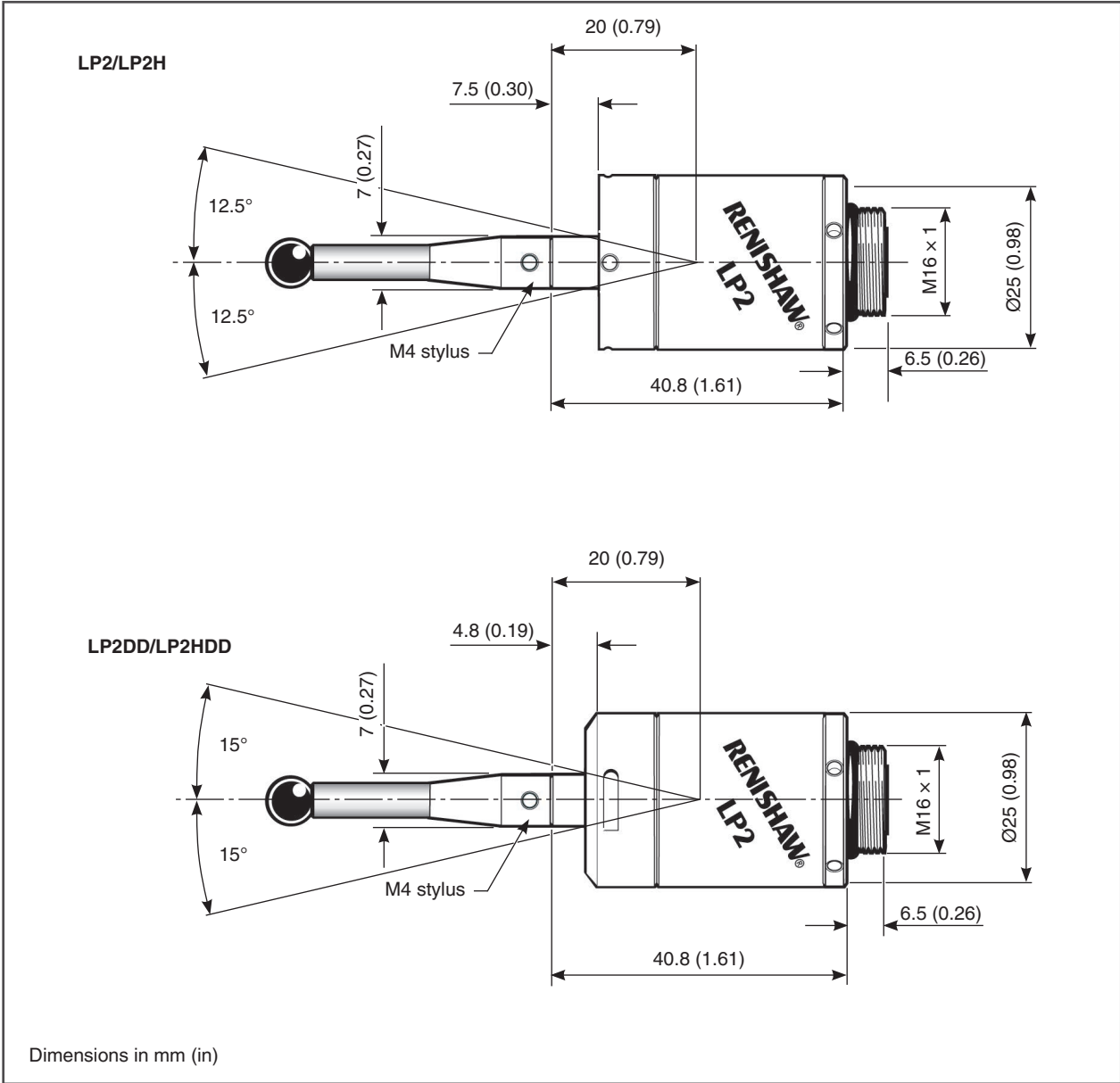
¹ Performance specification is tested at a standard test velocity of 480 mm/min (18.9 in/min) with a 35 mm stylus. Significantly higher velocity is possible depending on application requirements.

² Trigger force, which is critical in some applications, is the force exerted on the 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 latency.

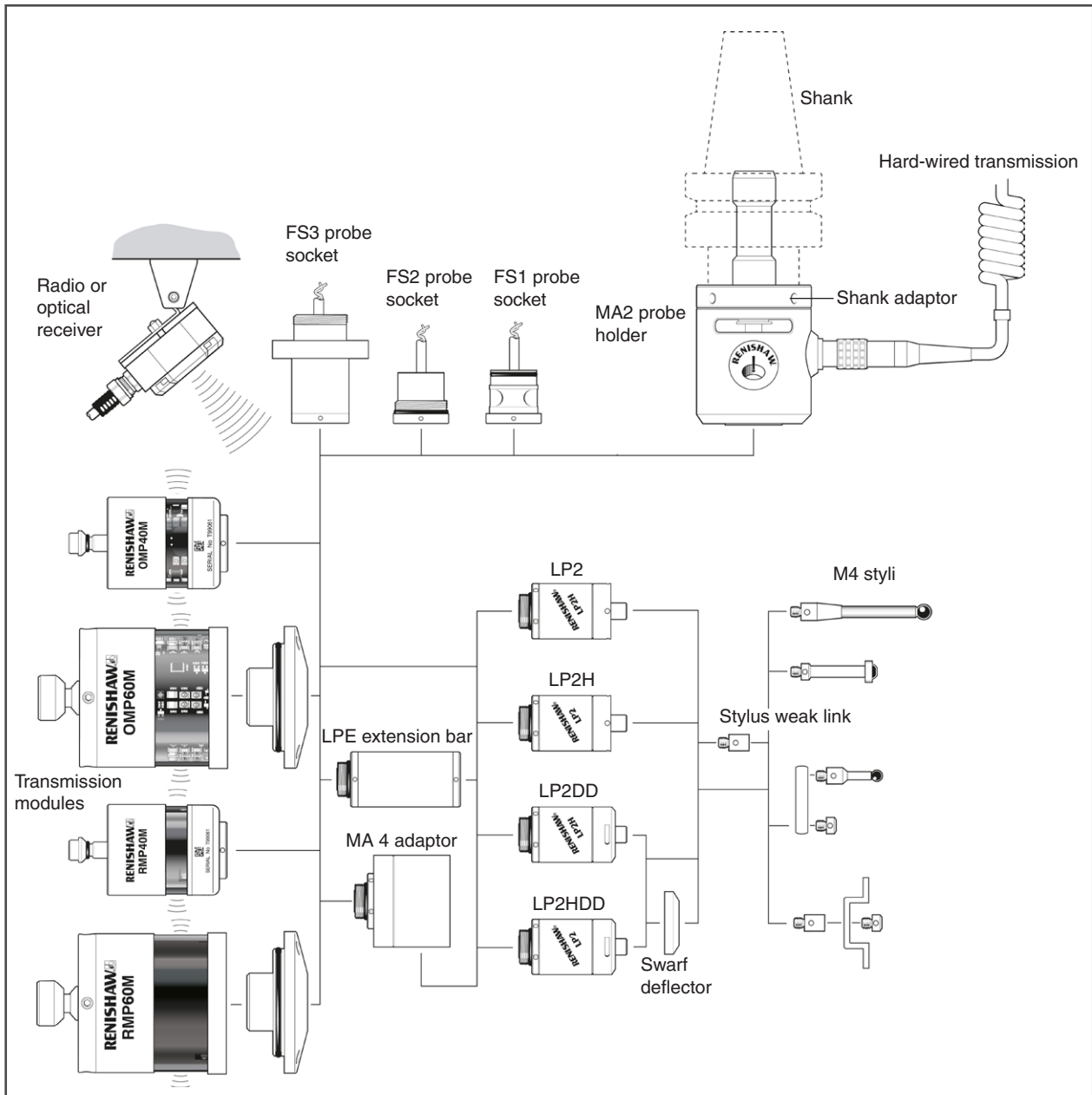
³ These are the factory settings, manual adjustment of the LP2/LP2DD is possible, but not possible on LP2H/LP2HDD.

For further information and the best possible application and performance support, contact Renishaw or visit www.renishaw.com/lp2

LP2 dimensions



LP2 modular system



Spare parts and accessories

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

www.renishaw.com/lp2

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