Product information

Dimensional Metrology Mar4D PLQ 4200-T2

Product features
Speed:
Measuring processes in production should be fast above all else. A newly developed control architecture on the Mar4D PLQ 4200 device series therefore ensures that its axes move at a unique speed, such as the C-axis at up to 120 rpm. Fast measurement is also guaranteed by the built-in sensors: the modern, high-resolution matrix camera records the measurement data optically at top speed. The tactile probes - Mahr T7W for form features and Renishaw SP25M for 3D features - also impress with their speed. Particularly with the Mar4D PLQ 4200-T4 variant with automatic centering and tilting table, you also benefit from extremely fast alignment thanks to mathematical-mechanical combination technology. Finally, the user-friendly MarWin software platform evaluates all measurement data reliably and as required. The operator can carry out several measurements in just one clamping operation, which also significantly speeds up inspections and therefore reliable quality statements.

Productivity:
An investment in a Mar4D PLQ 4200 is long-term and future-proof. The device saves costs, time and space in production, as it offers up to five measuring functions in one unit, meaning that our customers can use it to replace up to five other measuring systems. In addition, thanks to its multi-sensor technology, the Mar4D PLQ 4200 can handle a wide range of different measuring tasks, including internal measurement, extremely flexibly, quickly and precisely. Rotationally symmetrical workpieces with a diameter of up to 200 mm, a length of 1,000 mm and a weight of 50 kg can be inspected. Overall, users increase their measuring capacities while waiting times are reduced. In addition, waste is significantly reduced as several integrated environmental controls ensure consistently reliable measuring conditions.

Precision:

Item no.: **5554252**

Technical data

Verfahr-/Messweg X1-Achse	200 mm
Verfahr-/Messweg X2-Achse	200 mm
Verfahr-/Messweg Y-Achse	40 mm
Pos.-/Meas. path Z-axis	1000 mm
Positioniergeschwindigkeit C-Achse	0.2 - 15 1/min
Positioniergeschwindigkeit X1-Achse	0.5 - 200 mm/s
Positioniergeschwindigkeit X2-Achse	0.5 - 200 mm/s
Positioniergeschwindigkeit Y-Achse	0.5 - 50 mm/s
Positioniergeschwindigkeit Z-Achse	0.5 - 200 mm/s
Messwertauflösung Länge	0.01 - 0.0001 mm
Messwertauflösung Durchmesser	0.01 - 0.0001 mm
Winkelauflösung	0.01 - 0.0001 °
Table load max.	50 kg
Fehlergrenze Länge	MPE ≤ (2.4 + l/200) µm with 'l' in mm
Fehlergrenze Durchmesser	MPE ≤ (1.3 + d/150) µm with 'd' in mm
Werkstücklänge max.	1000 mm
Workpiece diameter max.	210 mm
Netzspannung	90 – 240 V
Netzfrequenz	50/60 Hz
Power consumption max.	850 W
Sensorik	optical tactile
Optisches System	Telecentric precision optics, image field approx. 15 x 10 mm (W x H)
Kamerasystem	CMOS matrix camera
Probe system	Mahr T7W and/or RENISHAW SP25M
Messrechner	All-in-one PC or industrial all-in-one PC with UPS (each incl. Microsoft Windows 10 IoT LTSC)
Besondere Ausstattung	Motorized tailstock
Operating temperature	10 °C to 35 °C
Storage and transport temperature	5 °C to 60 °C

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Schalldruckpegel	<75 dB(A)
Permissible humidity	max. 70 %; nicht kondensierend
Transportmöglichkeiten	suitable for air freight
Scope of delivery	PC holder and two 60° centering tips (2 – 44 mm)

Accessories

Order no.	Designation	Product type
Rel_Mar4D	MarWin	MarWin Mar4D