# Informacje o produktach

200 mm

## Optical-tactile devices with CNC table Mar4D PLQ 4200-T3

### Właściwości produktu 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 builtin sensors: the modern, highresolution 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 futureproof. 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.



## Nr art.: **5554203**

w osi X1

Dane	e tec	hni	czne
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Przesuw/droga pomiarowa

WOJIAI		
Przesuw/droga pomiarowa w osi X2	200 mm	
Przesuw/droga pomiarowa w osi Y	40 mm	
Przesuw/droga pomiarowa w osi Z	730 mm	
Prędkość pozycjonowania w osi C	0.2 - 60 1/min	
Prędkość pozycjonowania w osi X1	0.5 - 200 mm/s	
Prędkość pozycjonowania w osi X2	0.5 - 200 mm/s	
Prędkość pozycjonowania w osi Y	0.5 - 50 mm/s	
Prędkość pozycjonowania w osi Z	0.5 - 200 mm/s	
Długość mierzonego elementu maks.	730 mm	
Średnica mierzonego elementu maks.	210 mm	
Maks. obciążenie stołu	20 kg	
Błąd graniczny długości	MPE $\leq$ (2.4 + I/200) $\mu$ m; 'l' in mm	
Błąd graniczny średnicy	MPE $\leq$ (1.3 + d/150) $\mu$ m; 'd' in mm	
Rozdzielczość wartości pomiarowych długości	0.01 - 0.0001 mm	
Rozdzielczość wartości pomiarowych – średnica	0.01 - 0.0001 mm	
Rozdzielczość kątowa	0.01 - 0.0001 °	
Temperatura odniesienia	20 °C	
Czujniki	optical tactile	
System optyczny	telecentric precision optics, image field approx. 15 x 10 mm (W x H)	
System kamer	CMOS matrix camera	
Zespół głowicy pomiarowej	Mahr T7W and/or RENISHAW SP25M	
Wyposażenie specjalne	CNC table	
Komputer pomiarowy	AIO PC or industrial AIO PC with UPS (each incl. Microsoft Windows 10 IoT LTSC)	

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#### Precision:

The Mar4D PLQ 4200 device series guarantees exact measuring results and their reliable repeatability. For example, integrated environmental controls for temperature and vibrations in real time ensure that external influences on the measurement results are reduced or even completely eliminated. In addition, a motorized abutment with configurable clamping force monitoring minimizes operator intervention and thus influences and, in turn, increases accuracy. The measuring technologies also work with maximum precision: the modern high-resolution matrix camera and the tried-andtested Mahr T7W tactile probes for form features and Renishaw SP25M for 3D features. Finally. the tried-and-tested MarWin software reliably evaluates the measurement data and thus ensures reproducible quality statements.

### User-friendliness:

Ergonomics and safety were at the heart of the development of the Mar4D PLQ 4200; both are implemented far higher than the market's standard. This ensures a spacious device layout for convenient loading and unloading, even by smaller people. If the operator uses a manipulator, he can operate the device in a way that is particularly effortless and body-friendly. A large number of processes are automated, such as clamping, aligning and measuring. Furthermore the Mar4D PLQ 4200 device series is robot-ready, i.e. prepared for automatic prepared for automatic loading by a robot. An interior monitoring system protects the system and prevents service calls. The light grid in front of the loading space and functional LEDs that indicate the status of the measurement status ensure the safety of operator and device.

#### Dane techniczne

Temperatura eksploatacji	10 °C do 35 °C
Temperatura przechowywania i transportu	5 °C do 60 °C
Poziom ciśnienia akustycznego	<75 dB(A)
Wilgotność powietrza (tekst)	max. 70 %; non-condensing
Napięcie zasilania	90 – 240 V
Częstotliwość sieci	50/60 Hz
Pobór mocy maks.	850 W
Możliwości transportu	suitable for air freight
Zakres dostawy (tekst)	PC holder