# 製品情報

## 「CNCテーブルと心押台を備えた光学-触覚装置 Mar4D PLQ 4200-T4 (Z=450/20 kg)

#### 製品の特徴

- Speed:
- Extremely fast, mechanicaloptical workpiece alignment by means of a fully automatic centering and tilting table in combination with the matrix camera
- Axis movements with a unique speed of up to 200 mm/s
- Very fast and highresolution matrix camera with a large field of view of 15x10 mm (WxH) in effective combination with innovative probe systems
- Mahr T7W with motorized axis of rotation and thus fastest stylus change on the market or RENISHAW SP25M 3D scanning probe system
- Joint evaluation of all collected measurement data via MarWin
- Productivity:
- Workpieces that were not manufactured between tips are simply clamped in the chuck
- Many different measuring functions combined in one device
- Flexible workpieces with up to D=210 mm, L=450 mm and 20 kg measured directly in production next to the production machines
- Increased measuring capacities and reduced waiting time
- Precision:
- $\bullet$  Compensation of eccentrics of several millimeters to 1  $\mu m$  in less than 30 seconds
- Integrated environmental controls, such as active temperature compensation of the device, ensure consistent measurement quality and significantly reduce waste
- The motorized tailstock with clamping force monitoring prevents operator influences and increases the reproducibility of the measurement results
- User-friendliness:
- The ergonomic housing and interior design enables



品目番号 5554204

### 技術データ

Travel/measuring path X1 axis	200 mm
Travel/measuring path X2 axis	200 mm
Travel/measuring path Y-axis	40 mm
Pos/Meas. path Z-axis	450 mm
Positioning speed C-axis	0.2 - 60 1/min
Positioning speed X1 axis	0.5 - 200 mm/s
Positioning speed X2 axis	0.5 - 200 mm/s
Positioning speed Y-axis	0.5 - 50 mm/s
Positioning speed Z-axis	0.5 - 200 mm/s
Workpiece length max.	450 mm
Workpiece diameter max.	210 mm
Table load max.	20 kg
Error limit Length	MPE $\leq$ (2.4 + I/200) µm; 'l' in mm
Error limit diameter	MPE $\leq$ (1.3 + d/150) µm; 'd' in mm
Measured value resolution Length	0.01 - 0.0001 mm
Measured value resolution diameter	0.01 - 0.0001 mm
Angular resolution	0.01 - 0.0001 °
作業温度	20 °C
Sensors	optical tactile
Optical system	telecentric precision optics, image field approx. 15 x 10 mm (W x H)
Camera system	CMOS matrix camera
プローブシステムタイプ	Mahr T7W and/or RENISHAW SP25M
Special equipment	CNC table and motorized tailstock
Measuring computer	AIO PC or industrial AIO PC with UPS (each incl. Microsoft Windows 10 IoT LTSC)
動作温度	10 ℃ 終点 35 ℃
保管および輸送温度	5 ℃ 終点 60 ℃
Sound pressure level	<75 dB(A)
湿度(テキスト)	max. 70 %; non-condensing
Mains voltage	90 – 240 V
Mains frequency	50/60 Hz
消費電力	850 W



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convenient and gentle operation for many hours

技術データ

 Light curtains and interior monitoring protect people and measuring devices

• All devices are "robotready" and automation solutions, such as robot loading, can be implemented quickly and directly via our specialized MES department Transportation options 付属品 suitable for air freight PC holder and two 60° centering tips (# 2 – 44 mm)