

# WM | MMA

7 AXIS MEASURING ARMS



# WM | MMA SERIES

## MOBILE MEASUREMENT IN THE PRODUCTION ENVIRONMENT

Mobile measuring arms from WENZEL are characterized by great flexibility, enabling use in both production and quality assurance processes. By combining a portable 7-axis measuring arm with a high-resolution line scanner, which captures every detail contact-free, the measuring arms represent a useful complement to your established classical coordinate measuring systems. The use of the latest materials makes the measuring arm a lightweight unit that delivers highly accurate

and reproducible measurement results in mobile applications. The measuring arm can be used directly on the component - both with optical and tactile sensors - without any warm-up time and without sticking markers to the component. The measurement results obtained can then be transmitted via a WiFi interface for further use. The capacity and low consumption of the integrated battery ensure reliable operation of the measuring arm over a long period of time.

## FEATURES

- Freedom of movement due to 7 axes with axis limit detection
- Automatic button recognition
- WiFi
- Battery operation
- Temperature compensated
- Stable resting position
- Internal weight compensation with damping element

## MEASURING ARM PROFILES

The measuring arm is available in different versions - suitable for individual measuring requirements and tasks.

	Axis	Arm length	Tactile (with Scanning)		Optical		
			Single point repeatability	Accuracy	WM   MLS 100P	WM   MLS 200	WM   MLS 100
WM   MMA 2.0	7	2,0 m	0,022 mm	0,032 mm	0,038 mm	0,042 mm	0,047 mm
WM   MMA 2.5	7	2,5 m	0,027 mm	0,038 mm	0,044mm	0,048 mm	0,053 mm
WM   MMA 3.0	7	3,0 m	0,042 mm	0,051 mm	0,057 mm	0,061 mm	0,066 mm
WM   MMA 3.5	7	3,5 m	0,054 mm	0,062 mm	0,068 mm	0,072 mm	0,077 mm
WM   MMA 4.0	7	4,0 m	0,069 mm	0,074 mm	0,080 mm	0,084 mm	0,089 mm
WM   MMA 4.5	7	4,5 m	0,078 mm	0,089 mm	0,095 mm	0,099 mm	0,104 mm



## YOUR ADVANTAGES AT A GLANCE

### ■ High flexibility

7 axes for freedom of movement | Can be used with tactile and optical sensors | Axis limit detection

### ■ Mobile use

Suitable for industrial use | Portable light weight | Integrated battery & WiFi

### ■ High process efficiency

No marker sticking | No warm-up time | Automatic button recognition

### ■ Accurate and reproducible measurement results

Temperature compensation | Stable rest position | Internal weight compensation with damping element

### ■ Data evaluation and security

Integrated WiFi interface |  
Evaluation with QM I Quartis Mobile

	Axis	Arm length	Tactile (without Scanning)		Optical
			Single point repeatability	Accuracy	WM   MMA + WM   LS70
WM   MMA 2.0	7	2,0 m	0,022 mm	0,032 mm	0,039 mm
WM   MMA 2.5	7	2,5 m	0,027 mm	0,038 mm	0,045 mm
WM   MMA 3.0	7	3,0 m	0,042 mm	0,051 mm	0,058 mm
WM   MMA 3.5	7	3,5 m	0,054 mm	0,062 mm	0,069 mm
WM   MMA 4.0	7	4,0 m	0,069 mm	0,074 mm	0,081 mm
WM   MMA 4.5	7	4,5 m	0,078 mm	0,089 mm	0,096 mm

### Magnetic MOUNTS 6" und 8"

An excellent way to attach a measuring arm to an iron surface such as a steel plate or a table is to use a magnetic mount. Some customers use it as a flexible mounting solution on a large steel table or even mount them directly on the bed of a machine tool. They can easily be turned on and off, allowing the user to quickly change the position while he measures a large part on a table. The magnets are switched on and off with an Allen key. In some cases, customers even use a magnetic mount, to attach the measuring arm directly to the part to be measured. This creates a desirable situation in which the part does not move relative to your measuring device. Our magnetic fasteners include a universal 3-1/2"-8 stainless steel mounting ring. The magnetic brackets are delivered in a hard foam case to a simple to ensure transport to the workplace



### TRIPOD-HDP

Portable tripod for measuring arms with universal 3-1/2"-8 threaded ring. The measuring stand is suitable for measuring arms up to a length of 3 m. The portable aluminum tripod is a lightweight and can be folded in our optional plastic case.



### TRIPOD-HDP-PRO

The measuring stand is suitable for measuring arms with up to a length of 5 m. The portable measuring stand made of lightweight aluminium and can be folded in our optional plastic case.



### Workshop trolley with granite plate 600 x 920 mm

Our workshop trolley with a dimension of approx. 600 x 920 mm is provided with a granite slab. The cart is narrow enough to pass through a doorway to fit in standard size and contains two 3-1/2"-8 mounting rings. It has lockable cupboard doors and handles at both ends to ensure easy manoeuvrability of the cart. The interior of the case stays open to all devices, Power supplies, printers or computers.



### Workshop trolley with granite plate 720 x 1220 mm

Our workshop trolley with a dimension of approx. 720 x 1220 mm is provided with a granite plate. The car is still narrow enough to go through one Door opening in standard size to fit, and contains three 3-1 / 2 "-8 mounting rings. It has lockable cupboard doors and handles at both ends to ensure easy manoeuvrability of the trolley. The interior of the case remains open to accommodate all devices, power supplies, printers or computers.

# WM | Quartis Mobile

## THE UNIVERSAL STANDARD MEASURING SOFTWARE

WM | Quartis Mobile is the product for applications with mobile measuring instruments. The following measuring arms can be operated with the product without an additional module: WENZEL WM | MMA. With additional module DME-MAN the measuring arms Hexagon RDS, FARO USB FaroArm and Kreon ACE are also supported. The use of other measuring instruments is not possible with this product.

### User Interface

Suitable for every task

The easy-to-use, task-oriented and individually configurable graphical user interface is suitable for every measuring task. The measuring programs can be invoked quickly and simply with just one click over the quick dial panel or by means of a barcode scanner. The relational database also ensures traceable measurement results. The integrated statistics package guarantees a rapid Assessment of manufacturing processes. The CAD functionality of WM | Quartis Mobile is the basis for efficient measurement. The integrated live preview secures a correct application of the standard-compliant evaluation according to ISO GPS and ASME.

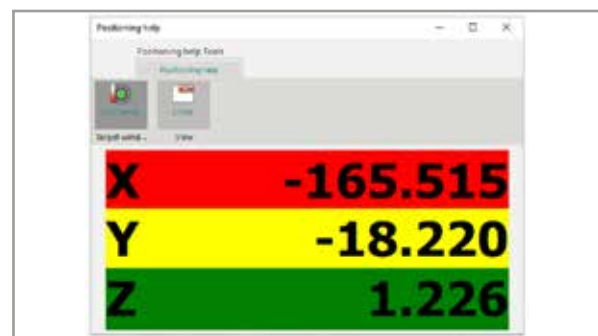
### Positioning aid

The new working window "Positioning aid" is used to position the touch points of the elements as accurately as possible during the execution of measuring programs with manual measuring instruments. The target window of the positioning aid is defined by the measuring distance and can be found under the current probe radius taking into account the normal direction of the point to be scanned. The target point is thus identical to the touch point of the stylus on the material (for actual = nominal). The "Positioning aid" working window can be displayed via "Quartis button / Working window / Positioning aid" and edit" will be displayed. When the "Positioning aid" working window is switched on and the active manual measurement of an element during the execution of a measuring program, the X, Y and Z values are displayed numerically in the working window.

### Clear measurement reports

Everything at a glance

The integrated report generator allows a free design of the measurement reports (table and graphic views with freely configurable data and statistics boxes). Deviations can be displayed color-coded. WM | Quartis Mobile also offers a wide range of Export options (PDF, ASCII, Excel).



## MEASURING SOFTWARE

	WM   Quartis Mobile	Metrolog	Polyworks
Tactile measurement	X	X	X
Optical measurement of surfaces	From 10/19	X	X
Optical measurement of features	From 10/19	X	X