

# K-Scan MMD

## Data sheet



**METRIS**

Reliable and Innovative Metrology Solutions

K-Scan adds powerful and easy-to-use handheld scanning capabilities to the K500, K600 and K610 portable CMM systems.

Its 3D scanning data provide insights that are hard to get from touch trigger measurements. It builds on the proven ModelMaker D technology and comes in two stripe width variants giving the user the choice between accuracy and scanning speed.

K-Scan is a portable system with a measurement volume up to 17m<sup>3</sup> ideally suited for product engineering, production verification as well as dimensional problem troubleshooting at the customer site.



## KEY FEATURES AND BENEFITS

Several key features distinguish the K-scan solution from competitive solutions:

- The main component is the light carbon fiber K-scan probe that holds the MMD laser scanner. The probe features:
  - Full omni-directional tracking by the Optical CMM thanks to 40 Infra Red LEDs, allowing the user to focus on the part and not the method.
  - Ergonomic handgrip for right-hand and left-hand users (3-buttons)
  - Single hand scanning
  - Exchangeable laser scanner
    - MMD100/200
    - Prepared for next generation LC50
  - Limited weight of 650 gram with an optimized center of gravity, designed for hours of scanning.
- The MMD laser scanner itself is the most advanced laser scanner in its field, featuring:
  - The “Enhanced Sensor Performance, 2<sup>nd</sup> generation” (ESP2) automatically adapts the power in the laser stripe to the surface characteristics of the scanned object. This means that a wide variety of colors, including very dark and shiny surfaces can be scanned without any user interaction.
  - 2 models available: MMD100 and MMD200
  - No warm-up time through temperature compensation
- Dynamic Reference: floor vibration or cars on suspension no longer influence 3D measurements. Furthermore this feature can be used to add more flexibility to the scanning tasks.
- Datum alignment using SpaceProbe handheld touch trigger probe
- No scanner controller box required, the K-scan MMD probe cable connects directly to the K-series controller!!

## LASER CHARACTERISTICS

	K-Scan MMD100	K-Scan MMD200
Max. stripe length (mm)	100	200
Depth field of view (mm)	100	150
Stand-off distance (mm)	85	40
Point/stripes	1000	
Min. point spacing (mm)	0.050	0.100
Scanning speed Turbo/nominal (stripes/s)	80 / 40	
Laser class	2M	



### Single point accuracy

Typical values (1 $\sigma$ ) from sphere scan test combining scans from multiple directions

	K-scan MMD100	K-scan MMD200
K500/K600/K610 ( $\mu$ m)	50	60

### Controls and feedback

- Auxiliary laser beam spots indicates field of view
- Button to navigate through scanning software menus in KUBE
- Button to start/stop scan
- LED feedback on probe visibility
- Audio feedback

### Physical specifications

Probe weight (incl MMD)	1060 g
Probe Torque (incl MMD)*	500 Nm

Power supply	K-series controller
Working temperature range	10 to 40°C
Cable length between K-Scan and controller	12 m

(\* in mostly used positions)

### Dependencies

K-scan MMD Requires

- KUBE Scan 13 or higher
- KUBE Tools+ for datum point alignment
- K-series driver version 3.1, or higher

## TACTILE CHARACTERISTICS

The SpaceProbe is standard included in every K-series system to perform alignments and tactile probing.



## K-SCAN MMD

K-scan MMD is available as

- Complete system with K-series Optical CMM and ModelMaker laser scanner
- As add-on to an existing K-series Optical CMM system
- As add-on to an existing ModelMaker D system



DS-KSCAN MMD-1207

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