

Garant**Video measuring microscope MM1 with TP20 probe system, Type: 200CMZ/TP****Order data**

Order number	492560 200CMZ/TP
GTIN	4062406574307
Item class	41P

Description**Version:**

CNC-controlled video measuring microscope with quicker image processing, high-resolution colour camera, and a multi-touch panel based on a PC, easy to operate, suitable for the workshop environment.

Incident light: 56 white LEDs in 2 concentric rings. 1 ring and 4 segments can each be separately switched and dimmed.

Transillumination: Long-life LEDs, telecentric, can be switched and dimmed. **Solid granite base** with surface-hardened indexing table and high-precision guides.

- **Easy installation and use of measurement programmes.**
- **Practical automation of measuring processes, for example pallet measurements.**
- **Modern user-friendly measurement software for intuitive operation.**

Optical measurement system with additional Renishaw TP20 type tactile measurement system for measuring regular geometries that cannot be measured optically.

- **Quick and simple tactile measurement.**
- **Creation of automated measurement procedures (optical and tactile)**

With motorised zoom lens, magnification from 0.3× to 3.5 and coaxial light for uniform illumination of components.

Supplied with:

All-in-One PC, wireless mouse and keyboard, dust cover, power supply unit, test certificate, and multi-lingual user manual.

Optional extras:

Lens No. 491912, software option No. 491913, cutting edge cleaner No. 354788.

Attention:

German version. Order free UK adapter plug No. 08 1174_GB.

Note:

Length measurement variation $E_{UXY, MPE}$ according to DIN EN ISO 10360-7, measured with magnification factor = 0.5.

Length measurement variation $E_{OZ, MPE}$ according to DIN EN ISO 10360-2, measured with a straight edge finder ($\varnothing = 2.5$ mm, length 20 mm).

Permissible ambient conditions: $20\text{ °C} \pm 1\text{ K}$, temperature gradient $\Delta_{th} = 0.5\text{ K/h}$, $\Delta_{td} = 4.0\text{ K/d}$, measured with a calibrated standard.

We reserve the right to make technical changes and to change the touch panel version.

Technical description

Length measurement variation $E_{1, Z\text{ axis}}$ tactile (1D)	$4.0 + L/75$ (L in mm) μm
Camera	6.4 megapixels, autofocus
Measuring range Y	100 mm
Length	500 mm
Width	600 mm
Power supply	Mains operated
Weight	60 kg
Nominal voltage	240 V
Working distance	80 mm
Measuring range X	200 mm
Magnification at the screen (times)	10 - 162
maximum component height	100 mm
Lens (times)	0.3 – 3.5
Height	770 mm
Field of view	$24 \times 16 - 2 \times 1$ mm
Length measurement variation $E_{UXY, MPE}$ optically (2D)	$2.9 + L / 100$ (L in mm) at $20\text{ °C} \pm 1\text{ K}$ μm
Measuring range Z	100 mm

maximum component weight	20 kg
Type of product	CNC video measuring microscope

Accessories

Software option for MM1 Type PROFIL	491913 PROFIL
Lens for measuring microscopes MM1/MM2 Type 3	491912 3
Base cabinet for measuring microscopes width×depth 1800X900 mm	491914 1800X900
Software option for MM1 Type DXF	491913 DXF
Dust cover Type 300	491919 300
Accessories for video measuring microscopes Type FEDER	491917 FEDER
Spare glass plate for video measuring microscope MM1 Type 200	491948 200