

**Garant**
**Video measuring microscope MM1 with TP20 probe system, Type: 300CMZ/TP**

**Order data**

Order number	492560 300CMZ/TP
GTIN	4062406160296
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.

**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

Camera	6.4 megapixels, autofocus
Length measurement variation $E_{UXY, MPE}$ optically (2D)	$2.9 + L / 100$ (L in mm) at $20\text{ °C} \pm 1\text{ K}$ $\mu\text{m}$
Lens (times)	0.3 – 3.5
Field of view	24×16 – 2×1 mm
Working distance	80 mm
maximum component height	200 mm
Height	950 mm
Length measurement variation $E_{1, Z\text{ axis}}$ tactile (1D)	$4.0 + L/75$ (L in mm) $\mu\text{m}$
Measuring range Z	200 mm
Length	730 mm
maximum component weight	20 kg
Measuring range X	300 mm
Width	900 mm
Magnification at the screen (times)	10 - 162
Measuring range Y	200 mm
Weight	115 kg
Nominal voltage	240 V
Power supply	Mains operated

Type of product CNC video measuring microscope

## Accessories

Accessories for video measuring microscopes Type FEDER 491917 FEDER

Base cabinet for measuring microscopes width×depth  
1800X900 mm 491914 1800X900

Software option for MM1 Type PROFIL 491913 PROFIL

Dust cover Type 300 491919 300

Software option for MM1 Type DXF 491913 DXF

Lens for measuring microscopes MM1/MM2 Type 3 491912 3

Spare glass plate for video measuring microscope MM1  
Type 300 491948 300