

## Toolmakers' Microscopes TM Series

Optical Measuring





TM-505B  
176-818-11

\* Shown with optional Digimatic micrometer heads

Bright and Clear  
Field of View  
Superior Performance  
in Small-model Class

FEATURES

- Newly designed LED illuminators provide clear observation with outstanding color reproduction.



Conventional illumination



LED illumination

- A vernier scale mounted outside the eyepiece enables simple angle measurement.



Eyepiece  
protractor

- Optional LED circular illuminator available for applications requiring all-round lighting.



- Installation of optional Digimatic micrometer heads (164-163) enables easy digital measurement.

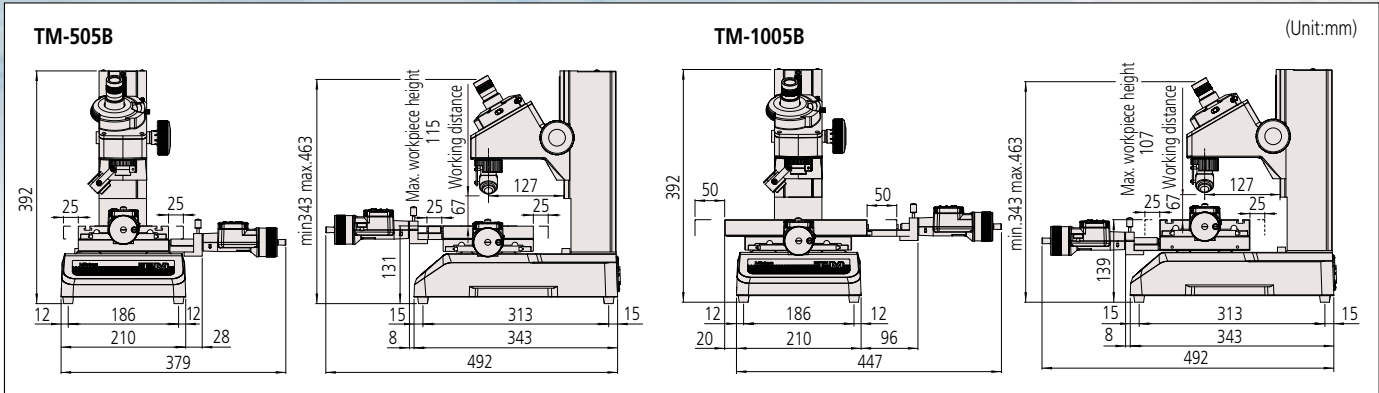


SPECIFICATIONS

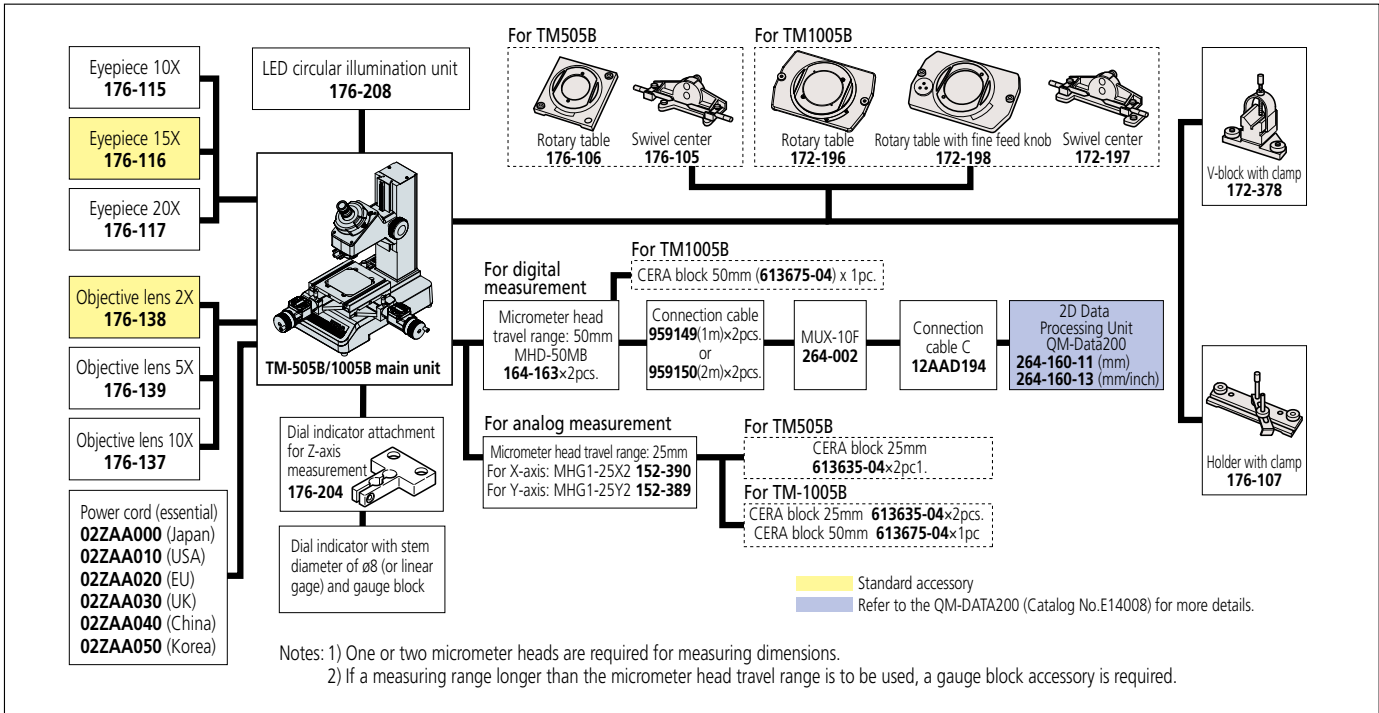
| Model No.                    | TM-505B                                                                                                   | TM-1005B                                                                  |
|------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Order No.                    | 176-818-11                                                                                                | 176-819-11                                                                |
| Optical tube                 | Monocular type (Depression angle: 60°)                                                                    |                                                                           |
| Observation image            | Erect                                                                                                     |                                                                           |
| Eyepiece protractor          | Resolution (graduation) : 1°, Rotation angle: 360°, Minimum reading by Vernier: 6', Adjustable zero point |                                                                           |
| Eyepiece                     | Standard accessory: 15X (field number: 13), Options: 10X, 20X                                             |                                                                           |
| Objective lens               | Standard accessory: 2X, Options: 5X, 10X                                                                  |                                                                           |
| Microscope head              | Maximum height of workpiece                                                                               | 115 mm                                                                    |
| Focusing method              | Manual (Coarse feed)                                                                                      |                                                                           |
| Illumination unit            | Transmitted illumination                                                                                  | Stepless brightness adjustment, White LED light source, With green filter |
| Surface illumination         | Oblique single-source type, Stepless brightness adjustment, White LED light source                        |                                                                           |
| Cross-travel stage           | Measuring range                                                                                           | 50×50 mm                                                                  |
|                              | Table size                                                                                                | 152×152 mm                                                                |
|                              | Usable area of the stage glass                                                                            | 96×96 mm                                                                  |
|                              | Maximum stage glass loading                                                                               | 5 kg                                                                      |
| Linear measurement method    | Micrometer head*                                                                                          |                                                                           |
| Resolution                   | Depends on the micrometer head specifications* (for MHD-50MB (164-163): 0.001 mm)                         |                                                                           |
| Micrometer head travel range | for MHD-50MB (164-163): 50 mm                                                                             |                                                                           |
| Power source                 | 100 to 240 VAC 50/60 Hz Maximum power consumption: 4.2 W                                                  |                                                                           |
| Main unit mass               | 14 kg                                                                                                     | 15 kg                                                                     |

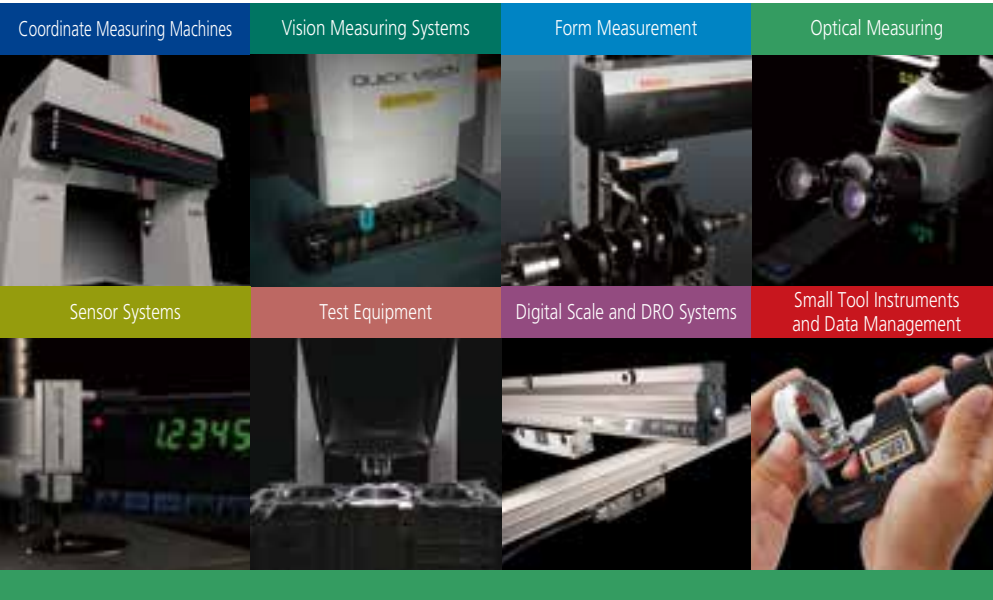
\* Micrometer heads and gauge blocks (CERA blocks) are optional.

DIMENSIONS



SYSTEM DIAGRAM





**Whatever your challenges are, Mitutoyo supports you from start to finish.**

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



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Note: Product illustrations are without obligation. Product descriptions, in particular any and all technical specifications, are only binding when explicitly agreed upon.

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