

## Toolmakers' Microscopes TM Series



# Bright and Clear Field of View. Best Performance in Small-model Class.



TM-505B  
176-818

(Micrometer heads shown are optional accessories)



TM-1005B  
176-819

## FEATURES

- Newly designed LED illuminators provide enhanced observation for higher accuracy and resolution.

Conventional illumination



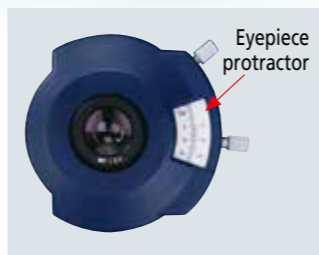
Newly designed LED illumination



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



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



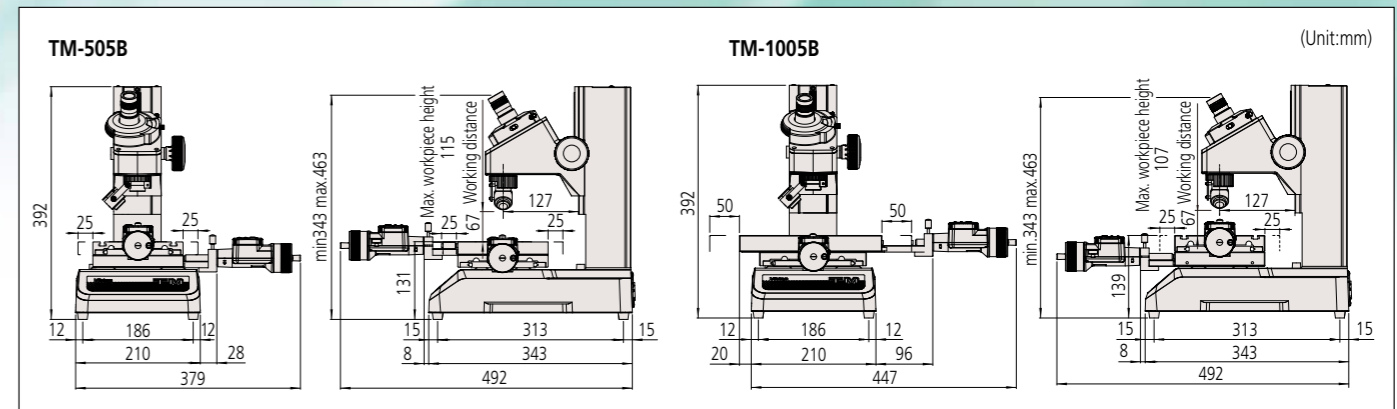
- Installation of optional Digimatic micrometer heads (164-163, optional) enables easy digital measurement.

## SPECIFICATIONS

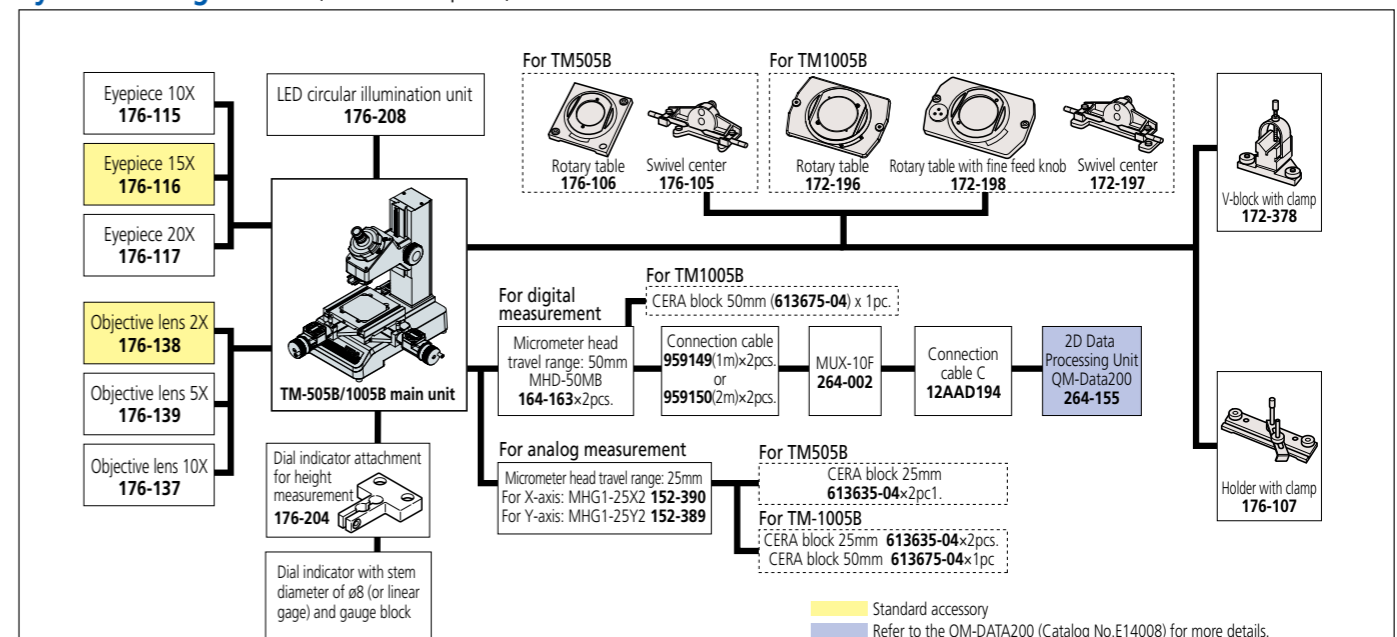
Model No.	TM-505B	TM-1005B
Order No.	176-818	176-819
Optical tube	Monocular type (Vertical tilt angle: 60°)	
Observation image	Erect	
Eyepiece protractor	Resolution (graduation) : 1°, Rotation angle: 360°, Resolution (angle): 6', Adjustable zero point	
Eyepiece	Standard accessory: 15X (field number: 13), Options: 10X, 20X	
Objective lens	Standard accessory: 2X, Options: 5X, 10X	
Microscope head	Maximum height of workpiece 115mm	107mm
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	50x50mm (An optional 50mm gauge block is required to cover full range. A CERA block is recommended.)
	Table size	152x152mm
	Usable area of the stage glass	96x96mm
	Maximum stage glass loading	5kg
Linear measurement method	Micrometer head*	
Resolution	Depends on the micrometer head specifications* (for MHD-50MB (164-163): 0.001mm)	
Micrometer head travel range	for MHD-50MB (164-163): 50mm	
Power supply	100 to 240VAC 50/60Hz Maximum power consumption: 4.2W	
Main unit mass	14kg	15kg

\* Micrometer heads are optional for TM-505B and TM-1005B.  
Note: The main unit with Digimatic micrometer head (164-164) is provided in the TM series.  
TM-A505B (176-820A)  
TM-A1005B (176-821A)  
Other specifications are the same as the other TM Series.

## DIMENSIONS (including digital micrometer heads)



## System configuration (accessories are optional)



Notes: 1) One or two micrometer heads are required for linear dimension measurement.  
2) If a measuring range longer than the micrometer head travel range is to be used, a gauge block accessory is required.  
3) Some order numbers differ depending on the connector form.



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

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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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