

MF-U Microscope

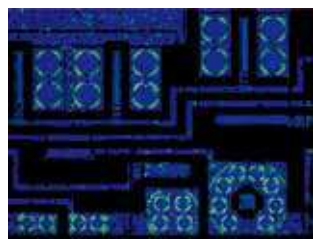
SERIES 176 – High-Power Multi-Function Measuring Microscopes

- Observation with a clear and flare-free erect image and a wide field of view.
- Measuring accuracy that is the highest in its class (and conforms to JIS B 7153).
- Proven high-NA objectives from the FS optical system (long working distance type).
- Integration of metallurgical and measurement microscope functions provides high-resolution observation and a high-accuracy measurement solution.
- Illumination unit (reflected/transmitted) selectable from a high-intensity LED or halogen bulb (required).
- Variable aperture diaphragm (reflected/transmitted) allows observation measurement while suppressing light diffraction.
- Variety of standardized stages in sizes to suit practically any application.
- Quick-release mechanism useful for moving the stage quickly when measuring workpieces that are large in size or quantity.
- High-magnification eyepiece observation up to 4000X.
- Low-noise design.



MF-UB3017C

XY stage travel range: 300 x 170 mm
(with optional turret, objective and fibre-optic illumination)



Polarized light observation

Used for observing materials with special optical characteristics, such as minerals and liquid crystals.



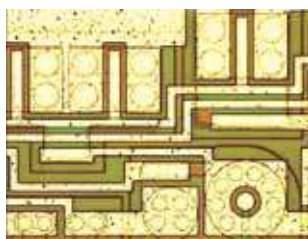
Differential interference contrast (DIC) observation

Effective in detecting fine scratches and steps on the surface of metals, liquid crystals and semiconductors.



Dark Field (DF) observation

Scratches and dust that cannot be viewed in bright field observation can be observed by this method and in high contrast.



Bright Field (BF) observation

Directly views the light scattered from the surface of the workpiece. This is the commonest method of observation.

Technical Data

Observation image:	Erect image
Optical tube:	Siedentoph type (pupil distance adjustment: 51-76 mm), 1X tube lens, Binocular tube (depression: 30°), Reticle projection method, with TV mount, Optical path ratio (eyepiece/TV mount: 50/50)
Eyepiece lens:	10X (field No.: 24 mm), Optional: 15X, 20X
Turret (optional):	Manual or power
Objective (optional):	M/BD Plan Apo objective from 1X to 100X
Transmitted illumination	
Light source:	Halogen bulb (12V, 50W)
Optical system:	Telecentric illumination with adjustable aperture diaphragms
Functions:	Light intensity adjustable, Non-stepped brightness adjustment
Surface illumination	
Light source:	Optional halogen illumination unit (fibre-optic cold light illumination)
Optical system:	Koehler illumination with adjustable aperture diaphragms
Functions:	Light intensity adjustable, Non-stepped brightness adjustment
Display unit	
No. of axes:	2 or 3
Resolution:	0.001 mm / 0.0005 mm / 0.0001 mm / .0001" / .00005" / .00001"
Functions:	Zero-setting, Direction switching, Data output (via RS-232C interface)
Power supply:	100/110/120/220/240V AC, 50/60 Hz
Mass:	65.5 kg (1010C) / 69.5 kg (2010C) / 130 kg (2017C) / 138 kg (3017C) / 144 kg (4020C)

Optional Accessories

378-856-5:	10X eyepiece set (view field dia.: 24 mm) £282.00
378-857-5:	15X eyepiece set (view field dia.: 16 mm) £313.00
378-858-5:	20X eyepiece set (view field dia.: 12 mm) £326.00
378-018:	Adjustable manual BF turret £822.00
378-116:	Adjustable power BF turret £POA
176-211:	Adjustable manual BF/DF turret £534.00
378-210:	Adjustable power BF/DF turret £POA
—:	Reticles (See page J-21.)
178-092:	Polarization unit £POA
378-076:	DIC unit for 100X, SL80X, SL50X objective £1590.00
378-078:	DIC unit for 50X, SL20X objective £1590.00
378-079:	DIC unit for 20X objective £1590.00
378-080:	DIC unit for 10X, 5X objective £1590.00
12AAA643:	ND2 filter £56.90
12AAA644:	ND8 filter £30.00
12AAA645:	GIF filter £60.40
12AAA646:	LB80 light-balancing filter £30.00