

# Micrometer

The origin of Mitutoyo's trustworthy brand of small tool instruments

## Sheet Metal Micrometers SERIES 389, 118

**MeasurLink<sup>®</sup> ENABLED**  
Data Management Software by Mitutoyo

- Measures thickness of sheet metal.
- IP65 water/dust protection (**series 389**).
- Measuring faces: Carbide.

- Profile of measuring faces: Flat-Flat, Spherical-Flat and Spherical-Spherical.
- Equipped with Ratchet Stop for constant measuring force.



389-251-30



118-102

### SPECIFICATIONS

Metric					
Order No.	Range (mm)	Resolution (mm)	Maximum permissible error $J_{MPE}$ ( $\mu$ m)	Throat depth (mm)	Measuring surfaces
Digimatic (LCD)					
389-251-30	0 - 25	0.001	$\pm 4$	150	F-F
389-261-30					S-F
389-271-30					S-S
389-514					F-F
389-252-30	25 - 50	0.001	$\pm 4$	150	S-F
389-262-30					S-S
389-272-30					S-S

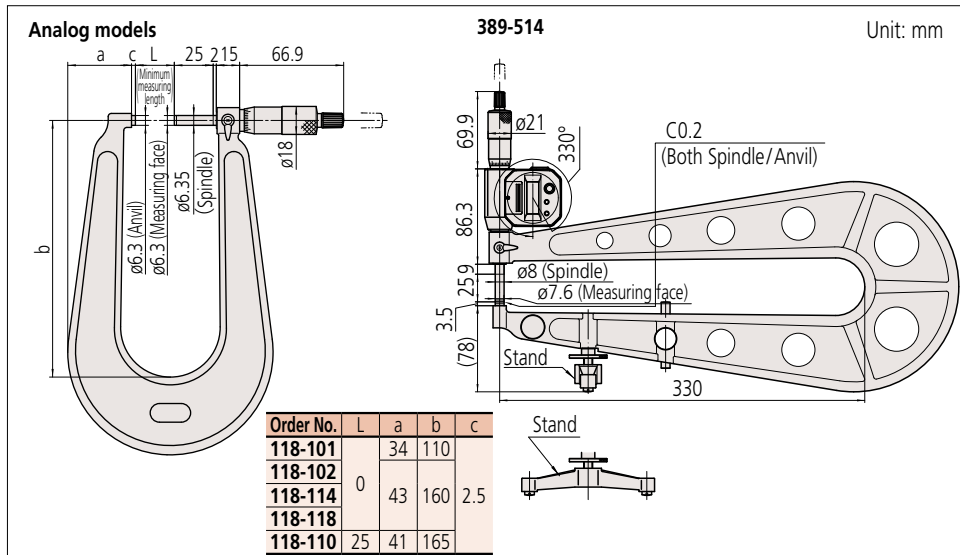
Inch / Metric					
Order No.	Range (in)	Resolution	Maximum permissible error $J_{MPE}$ (in)	Throat depth (in)	Measuring surfaces
Digimatic (LCD)					
389-351-30	0 - 1	0.00005 in / 0.001 mm	$\pm 0.0002$	6	F-F
389-361-30					S-F
389-371-30					S-S
389-714					F-F
389-352-30	1 - 2	0.001 mm	$\pm 0.0002$	6	S-F
389-362-30					S-S
389-372-30					S-S

Metric					
Order No.	Range (mm)	Graduation (mm)	Maximum permissible error $J_{MPE}$ ( $\mu$ m)	Throat depth (mm)	Measuring surfaces
Analog					
118-101	0 - 25	0.01	$\pm 4$	100	F-F
118-102				150	S-F
118-114				150	S-S
118-118				300*	F-F
118-103	25 - 50	0.01	$\pm 5$	300*	F-F
118-110				150	S-S
118-126				150	S-S

Inch					
Order No.	Range (in)	Graduation (in)	Maximum permissible error $J_{MPE}$ (in)	Throat depth (in)	Measuring surfaces
Analog					
118-129	0 - 1	0.0001	$\pm 0.0002$	6	F-F
118-116					S-F
118-120					S-S
118-107					F-F
118-112	1 - 2	0.001	$\pm 0.00025$	12*	F-F
			$\pm 0.0002$	6	F-F

\* Models with a 300 mm (12 in) throat are equipped with a stand for convenience of measurement in the horizontal orientation as standard.  
Note 1: For functional details of 389-251-30/389-252-30/389-351-30/389-352-30 refer to page B-8.  
Note 2: For functional details of 389-514/389-714 refer to page B-9.  
Note 3: In spherical-flat anvil type micrometers, the measuring face on the anvil side is spherical.

### DIMENSIONS



MeasurLink<sup>®</sup> ENABLED  
Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).



These marks indicate that a product has successfully passed IP65-level testing, which is carried out by the independent German certification organization TÜV Rheinland.

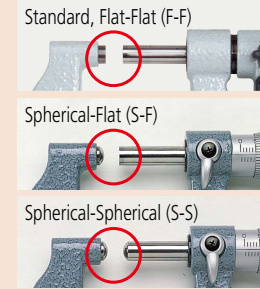


### IP Codes (series 389)

Level 6: Dust-proof. No ingress of dust allowed.  
Level 5: Protected against water jets.  
Water projected in jets against the enclosure from any direction shall have no harmful effects.

### Technical Data

- Flatness: 0.6  $\mu$ m for models with 150 mm / 6 in throat  
1  $\mu$ m for models with 300 mm / 12 in throat
- Parallelism: 3  $\mu$ m

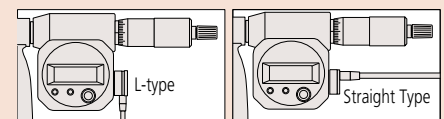


### Technical Data

- Battery for **series 389**  
SR44 (1 pc.), 938882, 2 pcs.: 389-514, 389-714 for initial operational checks (standard accessory)
- Battery life: Approx. 2.4 years under normal use (for **series 389-2XX, 3XX**)  
Approx. 1.8 years under normal use (for **series 389-514, 714**)
- Length standard: Electromagnetic rotary sensor (for **series 389**)
- Standard accessories: Reference bar, 1 pc. (except for measuring range 0 to 25 mm (0 to 1 in) models)  
Spanner (200877), 1 pc. (for **series 118-1XX**)  
Spanner (301336), 1 pc. (for **series 389-2XX, 3XX**)  
Spanner (200154), 1 pc. (for **series 118-103/107, 389-514/714**)

### Optional Accessories for Series 389

- Connecting cables for **series 389** (excluding 389-514 and 389-714)  
1 m: 05CZA662 2 m: 05CZA663
- USB Input Tool Direct  
USB-ITN-B (2 m): 06AFM380B
- U-WAVE-T dedicated connection cable for **series 389** (excluding 389-514 and 389-714)  
160 mm: 02AZD790B  
For foot switch: 02AZE140B
- SPC cables for **series 389** (excluding 389-514 and 389-714)
- Connecting cables for 389-514, 389-714
- Recommended cables: L-Type (does not interfere with operating the thimble.)  
1 m: 04AZB512 2 m: 04AZB513
- Straight type (may interfere with operating the thimble.)  
1 m: 959149 2 m: 959150



Refer to page A-27 for detailed information about recommended cables.

### Wireless Data Output\* U-WAVE™

- U-WAVE-TM 264-622 (IP67 type)  
264-623 (Buzzer type)
- U-WAVE-TMB Transmitter  
Mitutoyo Bluetooth® U-WAVE  
264-626 (IP type) 264-627 (Buzzer type)  
Refer to page A-16 for details.
- Connecting unit for U-WAVE-TM/TMB  
02AZF310 (IP67/buzzer type common specification)  
Refer to pages A-16 and A-18 for details.  
\* Only **series 389** (except for 389-514 and 389-714) can be attached.