

# Micrometer

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

## Sheet Metal Micrometers SERIES 389, 118

**MeasurLink<sup>1</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

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					S-F
118-114					S-S
118-118					S-S
118-103	25 - 50	0.01	$\pm 5$	300*	F-F
118-110					S-F
118-126					S-S

Inch / Metric					
Order No.	Range (in)	Resolution (in)	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	0.00005 in / 0.001 mm	$\pm 0.00025$	12*	F-F
389-362-30					S-F
389-372-30					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					S-S
118-112	1 - 2	0.001	$\pm 0.00025$	12*	F-F
			$\pm 0.0002$	6	F-F

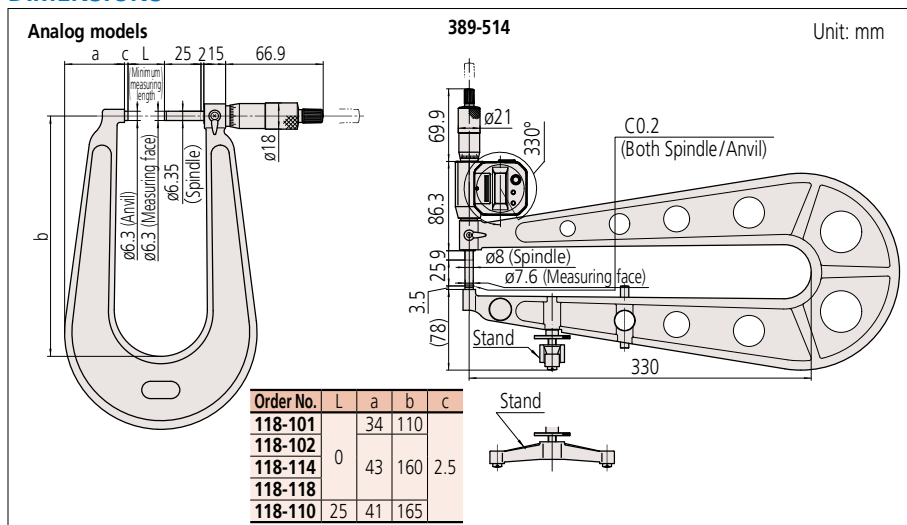
\* Models with a 300 mm (12 in) throat are equipped with a stand for convenience of measurement in the horizontal orientation as standard.

Note1: For functional details of 389-251-30/389-252-30/389-351-30/389-352-30 refer to page B-8.

Note2: For functional details of 389-514/389-714 refer to page B-9.

Note3: In spherical-flat anvil type micrometers, the measuring face on the anvil side is spherical.

### DIMENSIONS



**MeasurLink<sup>1</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.



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ID 0000040191

### IP Codes (series 389)

Level 6: Dust-proof. No ingress of dust allowed.

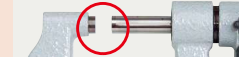
Level 5: Protected against water jets.

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

### Standard, Flat-Flat (F-F)



### Spherical-Flat (S-F)



### Spherical-Spherical (S-S)

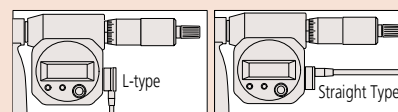


### Technical Data

- 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<sup>fit</sup>

- **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.