

Micrometer

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

Sheet Metal Micrometers SERIES 389, 118

MeasurLink[®] 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 | Resolution | Accuracy* | Throat depth | Measuring surfaces |
| Digimatic (LCD) | 0 - 25 mm | 0.001 mm | ±4 μm | 150 mm | F-F |
| 389-251-30 | | | | | S-F |
| 389-261-30 | | | | | S-S |
| 389-271-30 | | | | | S-S |
| 389-514 | 25 - 50 mm | 0.001 mm | ±5 μm | 300 mm*1 | F-F |
| 389-252-30 | | | | | S-F |
| 389-262-30 | | | | | S-S |
| 389-272-30 | | | | | S-S |

* Excluding quantizing error of ±1 count

| Metric | | | | | |
|-----------|------------|------------|----------|--------------|--------------------|
| Order No. | Range | Graduation | Accuracy | Throat depth | Measuring surfaces |
| Analog | | | | | |
| 118-101 | 0 - 25 mm | 0.01 mm | ±4 μm | 100 mm | F-F |
| 118-102 | | | | 150 mm | S-F |
| 118-114 | | | | 150 mm | S-S |
| 118-118 | | | | 300 mm*1 | S-S |
| 118-103 | 25 - 50 mm | 0.01 mm | ±5 μm | 300 mm*1 | F-F |
| 118-110 | | | | 150 mm | S-F |
| 118-111 | | | | 150 mm | S-S |
| 118-126 | | | | 150 mm | S-S |

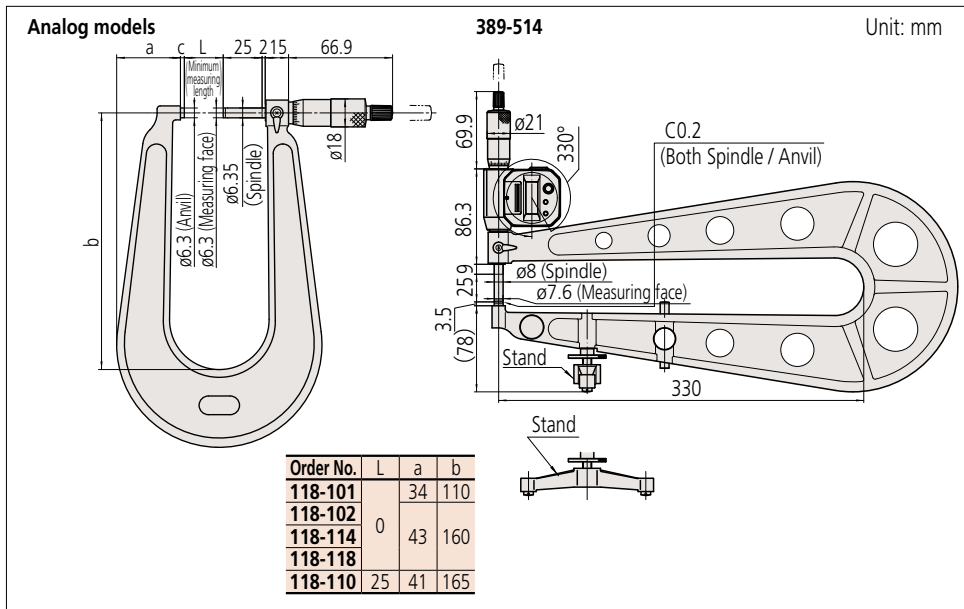
*1 Models with a 300 mm (12 in) throat are equipped with a stand for convenience of measurement in the horizontal orientation as standard.

| Inch/Metric | | | | | |
|-----------------|----------|-------------------------|------------|--------------|--------------------|
| Order No. | Range | Resolution | Accuracy* | Throat depth | Measuring surfaces |
| Digimatic (LCD) | | | | | |
| 389-351-30 | 0 - 1 in | 0.00005 in/ 0.001 mm | ±0.0002 in | 6 in | F-F |
| 389-361-30 | | | | | S-F |
| 389-371-30 | | | | | S-S |
| 389-714 | | | | | S-S |
| 389-352-30 | 1 - 2 in | 0.00005 in/ 0.001 mm | ±0.0002 in | 12 in*1 | F-F |
| 389-362-30 | | | | | S-F |
| 389-372-30 | | | | | S-S |
| 389-372-30 | | | | | S-S |

* Excluding quantizing error of ±1 count

| Inch | | | | | |
|-----------|----------|------------|---------------------------|-----------------|--------------------|
| Order No. | Range | Graduation | Accuracy | Throat depth | Measuring surfaces |
| Analog | | | | | |
| 118-129 | 0 - 1 in | 0.0001 in | ±0.0002 in | 6 in | F-F |
| 118-116 | | | | | S-F |
| 118-120 | | | | | S-S |
| 118-107 | | | | | S-S |
| 118-112 | 1 - 2 in | 0.001 in | ±0.00025 in ±0.0002 in | 12 in*1 6 in | F-F |

DIMENSIONS



MeasurLink[®] 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.



(Refer to page X for details.)

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.

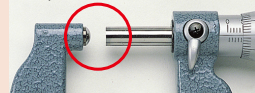
Technical Data

Flatness: 0.6 μm/0.000024 in for models with 150 mm/6 in throat
1 μm/0.00004 in for models with 300 mm/12 in throat
Parallelism: 3 μm/0.00012 in
Quantizing error (series 389): excluding ±1 count

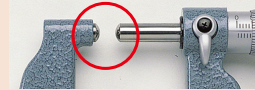
Standard, Flat-Flat (F-F)



Spherical-Flat (S-F)



Spherical-Spherical (S-S)



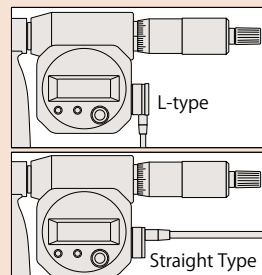
Battery for Series 389

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 0-25 mm (0-1 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
- SPC cables for **U-WAVE**, series 389 (excluding 389-514 and 389-714)
Wireless data output **U-WAVE/fit**
U-WAVE-TM 264-622 (IP67 type)
264-623 (Buzzer type)
Connecting unit for U-WAVE-TM
02AZF310 (IP67 type)
- Refer to page A-15 for details
- 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 B-68 for detailed information about recommended cables.