

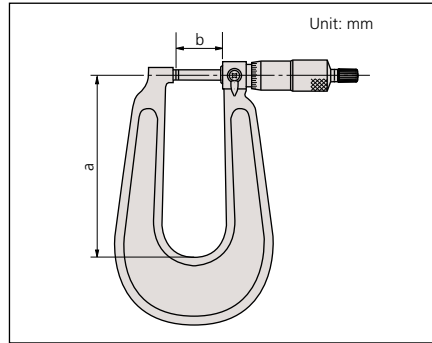
# Sheet Metal Micrometers

**SERIES 389, 119, 118**

## FEATURES

- Measures thickness of sheet metal, paper, plastic and rubber parts.
- With ratchet stop for constant force.
- With a standard bar except for 0 - 1" / 0 - 25mm model.
- IP65 water/dust protection (Series 389\*).
- \*Except for **389-514** / **389-714**.
- Supplied in fitted plastic case.
- Non-slip grip finish (digital models).

## DIMENSIONS



## SPECIFICATIONS

| Metric    |            | Digital model                   |          |            |  |
|-----------|------------|---------------------------------|----------|------------|--|
| Range     | Resolution | Order No.                       | Accuracy | a/b        |  |
| 0 - 25mm  | 0.001mm    | <b>389-251-30</b>               | ±4μm     | 160/27.5mm |  |
| 0 - 25mm  | 0.001mm    | <b>389-261-30<sup>S-F</sup></b> | ±4μm     | 160/27.5mm |  |
| 0 - 25mm  | 0.001mm    | <b>389-271-30<sup>S-S</sup></b> | ±4μm     | 160/27.5mm |  |
| 0 - 25mm  | 0.001mm    | <b>389-514</b>                  | ±5μm     | 330/35mm   |  |
| 25 - 50mm | 0.001mm    | <b>389-252-30</b>               | ±4μm     | 165/27.5mm |  |
| 25 - 50mm | 0.001mm    | <b>389-262-30<sup>S-F</sup></b> | ±4μm     | 165/27.5mm |  |
| 25 - 50mm | 0.001mm    | <b>389-272-30<sup>S-S</sup></b> | ±4μm     | 165/27.5mm |  |

S-F: Spherical anvil and flat spindle  
S-S: Spherical anvil and spherical spindle

| Metric    |            | Dial reading model           |          |            |  |
|-----------|------------|------------------------------|----------|------------|--|
| Range     | Graduation | Order No.                    | Accuracy | a/b        |  |
| 0 - 25mm  | 0.01mm     | <b>118-101</b>               | ±4μm     | 110/27.5mm |  |
| 0 - 25mm  | 0.01mm     | <b>118-102</b>               | ±4μm     | 160/27.5mm |  |
| 0 - 25mm  | 0.01mm     | <b>118-114<sup>S-F</sup></b> | ±4μm     | 160/27.5mm |  |
| 0 - 25mm  | 0.01mm     | <b>118-118<sup>S-S</sup></b> | ±4μm     | 160/27.5mm |  |
| 0 - 25mm  | 0.01mm     | <b>118-103</b>               | ±5μm     | 330/35mm   |  |
| 25 - 50mm | 0.01mm     | <b>118-110</b>               | ±4μm     | 165/27.5mm |  |

S-F: Spherical anvil and flat spindle  
S-S: Spherical anvil and spherical spindle

| Metric   |            | Dial reading model           |          |        |  |
|----------|------------|------------------------------|----------|--------|--|
| Range    | Graduation | Order No.                    | Accuracy | Throat |  |
| 0 - 25mm | 0.01mm     | <b>119-202<sup>S-F</sup></b> | ±4μm     | 50mm   |  |

S-F: Spherical anvil and flat spindle



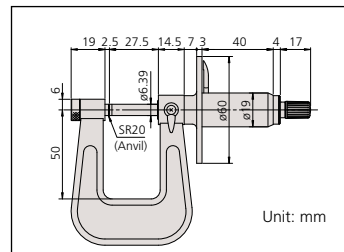
| Inch/Metric            |                   | Digital model                   |          |            |  |
|------------------------|-------------------|---------------------------------|----------|------------|--|
| Range                  | Resolution        | Order No.                       | Accuracy | a/b        |  |
| 0 - 1" / 0 - 25.4mm    | .00005" / 0.001mm | <b>389-351-30</b>               | ±.0002"  | 6.3"/1.08" |  |
|                        |                   | <b>389-361-30<sup>S-F</sup></b> | ±.0002"  | 6.3"/1.08" |  |
|                        |                   | <b>389-371-30<sup>S-S</sup></b> | ±.0002"  | 6.3"/1.08" |  |
|                        |                   | <b>389-714</b>                  | ±.00025" | 13"/1.38"  |  |
| 1 - 2" / 25.4 - 50.8mm | .00005" / 0.001mm | <b>389-352-30</b>               | ±.0002"  | 6.5"/1.08" |  |
|                        |                   | <b>389-362-30<sup>S-F</sup></b> | ±.0002"  | 6.5"/1.08" |  |
|                        |                   | <b>389-372-30<sup>S-S</sup></b> | ±.0002"  | 6.5"/1.08" |  |

S-F: Spherical anvil and flat spindle  
S-S: Spherical anvil and spherical spindle

| Inch    |            | Dial reading model           |          |            |  |
|---------|------------|------------------------------|----------|------------|--|
| Range   | Graduation | Order No.                    | Accuracy | a/b        |  |
| 0 - 1"  | .0001"     | <b>118-129</b>               | ±.0002"  | 6.3"/1.08" |  |
|         |            | <b>118-116<sup>S-F</sup></b> | ±.0002"  | 6.3"/1.08" |  |
|         |            | <b>118-120<sup>S-S</sup></b> | ±.0002"  | 6.3"/1.08" |  |
|         | .001"      | <b>118-107</b>               | ±.00025" | 13"/1.38"  |  |
| 1" - 2" | .001"      | <b>118-112</b>               | ±.0002"  | 6.5"/1.08" |  |

S-F: Spherical anvil and flat spindle  
S-S: Spherical anvil and spherical spindle  
\*.0001" reading is obtained with vernier.

## DIMENSIONS AND MASS



## Technical Data

Accuracy: Refer to the list of specifications  
Resolution\*: .00005"/0.001mm or 0.001mm  
Graduation\*\*: 0.01mm, .001" or .0001"  
Flatness: .000024" / 0.6μm for models with 6" / 150mm throat  
.00004" / 1μm for models with 12" / 300mm throat  
Parallelism: .00012" / 3μm  
Measuring faces: Carbide tipped  
Display\*: LCD  
Battery\*: SR44 [1 pc. (2 pcs.: **389-514** and **389-714**)], **938882**  
Battery life\*: Approx. 2.4 years under normal use  
(1.8 years: **389-514** and **389-714**)  
Dust/Water protection level\*: IP65  
\*Digital models \*\*Analog models

## Function of Digital Model

Origin-set, Zero-setting, Data hold, Data output, inch/mm conversion (on inch/metric models only)  
Function lock  
Alarm: Low voltage, Counting value composition error

## Optional Accessories for Digital Model

**05CZA662**: SPC cable with data switch (40" / 1m)  
**05CZA663**: SPC cable with data switch (80" / 2m)  
**04AZB512**: SPC cable for **389-514/389-714** (40" / 1m)  
**04AZB513**: SPC cable for **389-514/389-714** (80" / 2m)

## Anvil-Spindle Combinations



Standard, Flat-Flat



Spherical-Flat (S-F)



Spherical-Spherical (S-S)

The Series 119 is provided with a dial for making easy and quick readings.

