

Ratchet Thimble type that has improved operability with one hand



SPECIFICATIONS

| Metric | Order No. | Range | Accuracy | Parallelism | Measuring force | constant-force device | Mass |
|-------------------------|------------|------------|----------|-------------|-------------------|-----------------------|------|
| With SPC data output | 293-230-30 | 0 - 25mm | ±1µm | 1µm | 5 - 10N | With ratchet stop | 270g |
| | 293-231-30 | 25 - 50mm | | 2µm | | | 330g |
| | 293-232-30 | 50 - 75mm | ±2µm | 2µm | 7 - 12N* | With ratchet thimble | 470g |
| | 293-233-30 | 75 - 100mm | | | | | 625g |
| | 293-234-30 | 0 - 25mm | ±1µm | 1µm | With ratchet stop | 280g | |
| | 293-235-30 | 25 - 50mm | | 340g | | | |
| | 293-236-30 | 50-75mm | ±2µm | 2µm | 7 - 12N* | With ratchet thimble | 480g |
| 293-237-30 | 75-100mm | 635g | | | | | |
| Without SPC data output | 293-240-30 | 0 - 25mm | ±1µm | 1µm | 5 - 10N | With ratchet stop | 270g |
| | 293-241-30 | 25 - 50mm | | 2µm | | | 330g |
| | 293-242-30 | 50 - 75mm | ±2µm | 2µm | 7 - 12N* | With ratchet thimble | 470g |
| | 293-243-30 | 75 - 100mm | | | | | 625g |
| | 293-244-30 | 0 - 25mm | ±1µm | 1µm | With ratchet stop | 280g | |
| | 293-245-30 | 25 - 50mm | | 340g | | | |
| | 293-246-30 | 50-75mm | ±2µm | 2µm | 7 - 12N* | With ratchet thimble | 480g |
| 293-247-30 | 75-100mm | 635g | | | | | |

| Metric | Micrometer Set |
|---------------------|--|
| Range | Order No. Included in set |
| 0-50mm (2pcs. Set) | 293-966-30 293-230-30, 293-231-30, 25mm CERA block, plastic case |
| 0-75mm (3pcs. Set) | 293-962-30 293-230-30, 293-231-30, 293-232-30, 2 standard bars, plastic case |
| 0-100mm (4pcs. Set) | 293-963-30 293-230-30, 293-231-30, 293-232-30, 293-233-30, 3 standard bars, wooden box |

| Inch/Metric | Order No. | Range | Accuracy | Parallelism | Measuring force | constant-force device | Mass |
|-------------------------|------------|----------|----------|-------------|----------------------|-----------------------|---------|
| With SPC data output | 293-330-30 | 0-1" | ±.00005" | .00004" | 5-10N | With ratchet stop | 270g |
| | 293-331-30 | 1-2" | | .00008" | | | 330g |
| | 293-332-30 | 2-3" | ±.0001" | .00008" | 7-12N* | With ratchet thimble | 470g |
| | 293-333-30 | 3-4" | | | | | 625g |
| | 293-334-30 | 0-1" | ±.00005" | .00004" | 5-10N | With friction thimble | 280g |
| | 293-335-30 | 0-1" | | | | | 275g |
| | 293-336-30 | 1-2" | ±.00005" | .00004" | 5-10N | With ratchet stop | 335g |
| 293-340-30 | 0-1" | 270g | | | | | |
| Without SPC data output | 293-341-30 | 1-2" | ±.00005" | .00004" | 5-10N | With ratchet stop | 330g |
| | 293-342-30 | 2-3" | | | | | .00008" |
| | 293-343-30 | 3-4" | ±.0001" | .00008" | 7-12N* | With ratchet thimble | 625g |
| | 293-344-30 | 0-1" | | | | | 280g |
| | 293-345-30 | 1-2" | ±.00005" | .00004" | 7-12N* | With ratchet thimble | 340g |
| | 293-346-30 | 2-3" | | | | | .00008" |
| | 293-347-30 | 3-4" | ±.0001" | .00008" | 5 - 10N | With friction thimble | 635g |
| 293-348-30 | 0-1" | ±.00005" | | | | | 275g |
| 293-349-30 | 0-1" | ±.0001" | .00004" | 7 - 12N* | With ratchet thimble | 280g | |

* Measuring force in the case of using the Speeder ratchet
Prior to measurement, apply a measuring force in the same condition to align the index line with the thimble zero line.

| Inch/Metric | Micrometer Set .00005" / 0.001mm graduation model |
|-----------------------------------|--|
| Range | Order No. Included in set |
| 0 - 3" / 0 - 76.2mm (3 pcs. set) | 293-960-30 293-330-30, 293-331-30, 293-332-30, 2 standard bars, plastic case |
| 0 - 4" / 0 - 101.6mm (4 pcs. set) | 293-961-30 293-330-30, 293-331-30, 293-332-30, 293-333-30, 3 standard bars, wooden box |



An inspection certificate is supplied as standard. (50mm/2" or less range model)



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

IP Codes

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

- **Resolution:** .00005"/0.001mm
- **Quantizing error:** ±1 is not included.
- **Flatness:** .000012"/0.3µm
- **Dust/water protection level:** IP65 (IEC60529) *2
- **Measuring system:** Electromagnetic induction type rotary sensor
- **Battery:** SR44 (1 pc), 938882, for initial operational checks (standard accessory)
- **Battery life:** Approx. 2.4 years under normal use
- **Standard accessories:** Reference bar, 1 pc (except for 0-25mm (0-1") models) Spanner (301336), 1 pc

*2 Rustproofing shall be applied after use.