

# Micrometer

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

## Gear Tooth Micrometers SERIES 324, 124 — Interchangeable Ball Anvil/Spindle Tip Type

**MeasurLink** ENABLED  
Data Management Software by Mitutoyo

B

- Measures over-pin diameter of gears using precision steel (or carbide) ball anvils/spindle tips.
- Series 324:** IP65 Digimatic gear tooth micrometers.
- Determination of the over-pin diameter: refer to "Quick Guide to Precision Measuring Instruments" on page B-72.
- Interchangeable ball anvils/spindle tips for various gear modules (0.5 to 5.25) are optional.
- Equipped with Ratchet Stop for constant measuring force.
- Ball anvil/spindle tips: optional.



### SPECIFICATIONS

Metric			
Order No.	Range (mm)	Resolution (mm)	Spindle feed error (μm)
Digimatic (LCD)			
324-251-30	0 - 25	0.001	3
324-252-30	25 - 50		
324-253-30	50 - 75		
324-254-30	75 - 100		

Note: For functional details of **series 324** refer to page B-8. Please note that origin setting of these models is by presetting. Optional connecting cable is available only for water-proof type (Digimatic model).

Metric			
Order No.	Range (mm)	Graduation (mm)	Spindle feed error (μm)
Analog			
124-173	0 - 25	0.01	3
124-174	25 - 50		
124-175	50 - 75		
124-176	75 - 100		
124-177	100 - 125		
124-178	125 - 150		
124-179	150 - 175		
124-180	175 - 200		
124-181	200 - 225		
124-182	225 - 250		
124-183	250 - 275		
124-195	275 - 300		

Inch / Metric			
Order No.	Range (in)	Resolution	Spindle feed error (in)
Digimatic (LCD)			
324-351-30	0 - 1	0.00005 in/ 0.001 mm	0.00015
324-352-30	1 - 2		
324-353-30	2 - 3		
324-354-30	3 - 4		

**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.



### IP Codes (series 324)

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.



### Optional Accessories

- Interchangeable ball anvil/spindle tip set

Order No.	Diameter* (mm)	Gear module	Dia. pitch
124-801	0.8	0.5 - 0.55	50
124-802	1.0	0.6 - 0.65	45
124-803	1.191 ( <sup>3</sup> / <sub>64</sub> "	0.7 - 0.8	35 - 30
124-821	1.5	0.9 - 1	28 - 26
124-804	1.588 ( <sup>1</sup> / <sub>16</sub> "	0.9 - 1	28 - 26
124-805	2.0	1.25	22
124-806	2.381 ( <sup>3</sup> / <sub>32</sub> "	1.5	17
124-822	2.5	1.5	17
124-807	3.0	1.75	15
124-808	3.175 ( <sup>1</sup> / <sub>8</sub> "	—	14
124-823	3.5	2	13
124-809	3.969 ( <sup>5</sup> / <sub>32</sub> "	2	13
124-810	4.0	2.25	11
124-824	4.5	2.5	10
124-811	4.763 ( <sup>3</sup> / <sub>16</sub> "	2.5	10
124-812	5.0	2.75	9
124-813	5.556 ( <sup>7</sup> / <sub>32</sub> "	3.0 - 3.25	8
124-814	6.0	3.5	7
124-815	6.35 ( <sup>1</sup> / <sub>4</sub> "	3.75	7
124-816	7.0	4.0	6.5
124-817	7.144 ( <sup>9</sup> / <sub>32</sub> "	4.25	6
124-818	7.938 ( <sup>5</sup> / <sub>16</sub> "	4.5	5.5
124-819	8.0	4.75	5.5
124-820	8.731 ( <sup>11</sup> / <sub>32</sub> "	5.0 - 5.25	5

\* 2 mm less for/carbide-tipped type

### Technical Data

- Battery for **series 324**  
SR44 (1 pc.), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 2.4 years under normal use (for **series 324**)
- Length standard: Electromagnetic rotary sensor (for **series 324**)
- Standard accessories: Reference bar, 1 pc. (except for measuring range 0 to 25 mm (0 to 1 in) models) Spanner (**301336**), 1 pc.

### Optional Accessories for Series 324

- Connecting cables for **series 324**  
1 m: **05CZA662** 2 m: **05CZA663**
- USB Input Tool Direct  
**USB-ITN-B** (2 m): **06AFM380B**
- U-WAVE-T** dedicated connection cable  
160 mm: **02AZD790B** For foot switch: **02AZE140B**  
Refer to page A-27 for details.

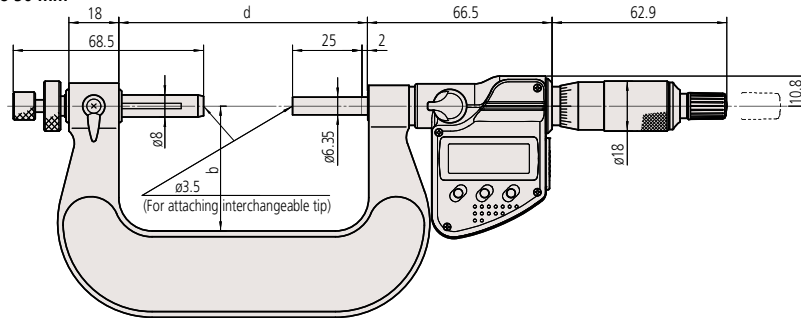
### Wireless Data Output **U-WAVE**™

- 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.

## DIMENSIONS

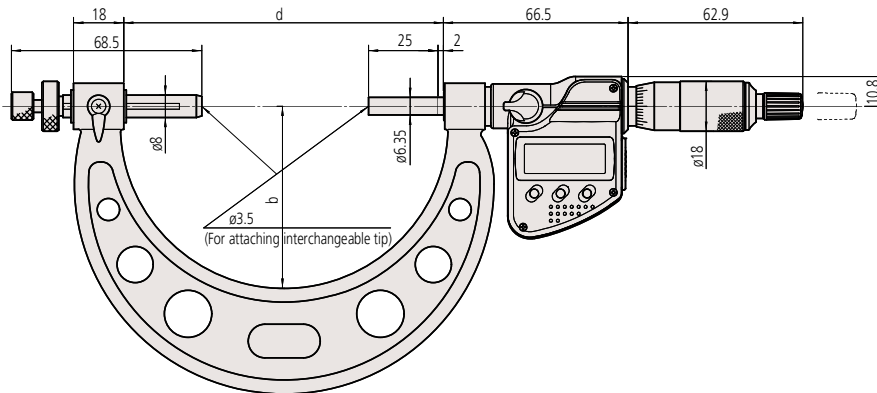
Unit: mm

### Digimatic models up to 50 mm



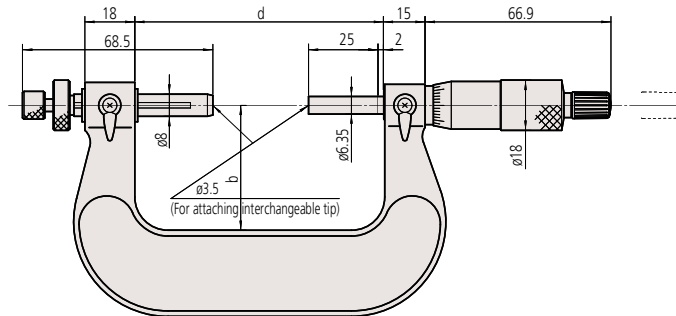
Range (mm)	b	d
0 - 25	32	64
25 - 50	45	89.5

### Digimatic models over 50 mm up to 100 mm



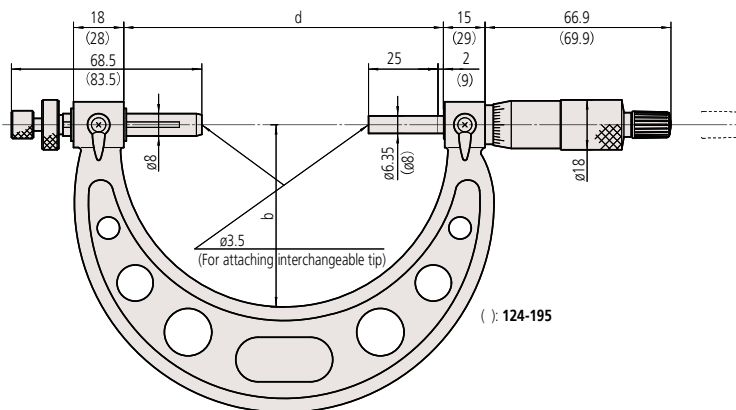
Range (mm)	b	d
50 - 75	65	115.1
75 - 100	79	140.1

### Analog models up to 50 mm



Range (mm)	b	d
0 - 25	32	64
25 - 50	45	89.5

### Analog models over 50 mm up to 300 mm



Range (mm)	b	d
50 - 75	65	115.1
75 - 100	79	140.1
100 - 125	93	165.1
125 - 150	105	190
150 - 175	118	214
175 - 200	131	240
200 - 225	144	265
225 - 250	156	290
250 - 275	169	314
275 - 300	187	352

( ) 124-195