

# Micrometer

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

## Blade Micrometers SERIES 422, 122 — Non-Rotating Spindle Type

**MeasurLink<sup>®</sup> ENABLED**  
Data Management Software by Mitutoyo

- The anvil and spindle are blade-shaped for measuring the groove diameter of shafts, keyways, and other hard-to-reach features.
- Carbide-tipped measuring faces are available.
- Non-rotating spindle type.
- Equipped with Ratchet Stop for constant measuring force.



Digimatic (LCD)  
422-230-30



Quickmike Type (LCD)  
422-411-20



122-101-10

### SPECIFICATIONS

Metric					
Order No.	Range (mm)	Resolution (mm)	Maximum permissible error $J_{MPE}$ ( $\mu$ m)	Parallelism ( $\mu$ m)	Remark
Digimatic (LCD)					
422-230-30	0 - 25	0.001	$\pm 3$	3	Type A
422-231-30	25 - 50				
422-232-30	50 - 75				
422-233-30	75 - 100				
422-260-30	0 - 25		$\pm 4$	4	Type B
422-261-30	25 - 50				
422-270-30	0 - 25		$\pm 3$	3	Type C
422-271-30	0 - 25				Type D

Metric Quickmike type					
Order No.	Range (mm)	Resolution (mm)	Maximum permissible error $J_{MPE}$ ( $\mu$ m)	Parallelism ( $\mu$ m)	Remark
Digimatic (LCD)					
422-411-20	0 - 30	0.001	$\pm 3$	3	Type A
422-412-20	25 - 55				

Metric						
Order No.	Range (mm)	Graduation (mm)	Maximum permissible error $J_{MPE}$ ( $\mu$ m)	Parallelism ( $\mu$ m)	Remark	
Analog						
122-101-10	0 - 25	0.01	$\pm 3$	3	Type A	
122-102-10	25 - 50					
122-103-10	50 - 75					
122-104-10	75 - 100					
122-105-10	100 - 125					
122-106-10	125 - 150					
122-107-10	150 - 175		$\pm 4$	4		5
122-108-10	175 - 200					
122-109-10	200 - 225		$\pm 5$	5		6
122-110-10	225 - 250					
122-115-10	250 - 275		$\pm 6$	6		3
122-116-10	275 - 300					
122-111-10	0 - 25	$\pm 3$	3	3	Type B	
122-112-10	25 - 50					
Analog (With carbide tip)						
122-161-10	0 - 25	0.01	$\pm 3$	3	Type C	
122-162-10	25 - 50				Type D	
122-141-10	0 - 25					
122-142-10	25 - 50					

Note: A heat shield is provided with Digimatic (LCD) and 122-101-10, 122-111-10, 122-125-10, 122-135-10, 122-141-10, 122-151-10 as standard.

Inch/Metric					
Order No.	Range (in)	Resolution	Maximum permissible error $J_{MPE}$ (in)	Parallelism (in)	Remark
Digimatic (LCD)					
422-330-30	0 - 1	0.00005 in/ 0.001 mm	$\pm 0.00015$	0.00015	Type A
422-331-30	1 - 2				
422-332-30	2 - 3				
422-333-30	3 - 4				
422-360-30	0 - 1		$\pm 0.0002$	0.0002	Type B
422-361-30	1 - 2				
422-370-30	0 - 1		$\pm 0.00015$	0.00015	Type C
422-371-30	0 - 1				Type D

Inch/Metric Quickmike type					
Order No.	Range (in)	Resolution	Maximum permissible error $J_{MPE}$ (in)	Parallelism (in)	Remark
Digimatic (LCD)					
422-421-20	0 - 1.2	0.00005 in/ 0.001 mm	$\pm 0.00015$	0.00015	Type A

Inch					
Order No.	Range (in)	Graduation (in)	Maximum permissible error $J_{MPE}$ (in)	Parallelism (in)	Remark
Analog					
122-125-10	0 - 1	0.0001	$\pm 0.00015$	0.00015	Type A
122-126-10	1 - 2				
122-127-10	2 - 3				
122-128-10	3 - 4				
122-135-10	0 - 1		$\pm 0.0002$	0.0002	Type B
122-129-10	1 - 2				
122-130-10	2 - 3		$\pm 0.00015$	0.00015	Type D
122-131-10	3 - 4				

Note: A heat shield is provided with Digimatic (LCD) and 122-125-10, 122-135-10, 122-151-10 as standard.

Note: For functional details of series 422 refer to page B-8. Please note that these models are not water-proof.

**MeasurLink<sup>®</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).



### IP Codes (series 422 Quickmike type)

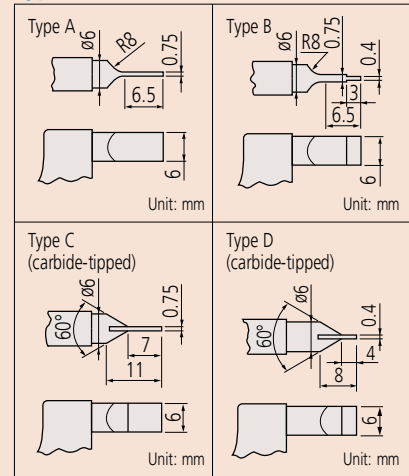
Level 6: Dust-proof.

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.

### Type and Dimensions





### Technical Data

- Battery for **series 422**  
SR44 (1 pc.), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 2.4 years under normal use (for **series 422-2XX, 3XX**)  
Approx. 5 year under normal use (for **series 422-4XX**)
- Length standard: Electromagnetic rotary sensor (for **series 422-2XX, 3XX**)  
Electrostatic capacity absolute sensor (for **series 422-4XX**)
- Standard accessories: Reference bar, 1 pc. (except for measuring range 0 to 25 mm/0 to 30 mm (0 to 1 in/0 to 1.2 in) models)  
Spanner (**301336**), 1 pc. (for **series 122-1XX, 422-2XX, 3XX**)

### Optional Accessories

- Connecting cables for Digimatic models  
1 m: **05CZA662**  
2 m: **05CZA663**
- USB Input Tool Direct  
**USB-ITN-B** (2 m): **06AFM380B**
- Connecting for **422-230-30** to **422-271-30**, **422-330-30** to **422-371-30**
- **U-WAVE-T** dedicated connection cable (for **series 422**)  
160 mm: **02AZD790B**  
For foot switch: **02AZE140B**

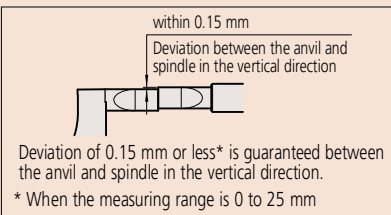
### Wireless Data Output\* **U-WAVE™**

- **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.  
\* Only **series 422** (except for Quickmike type) can be attached.

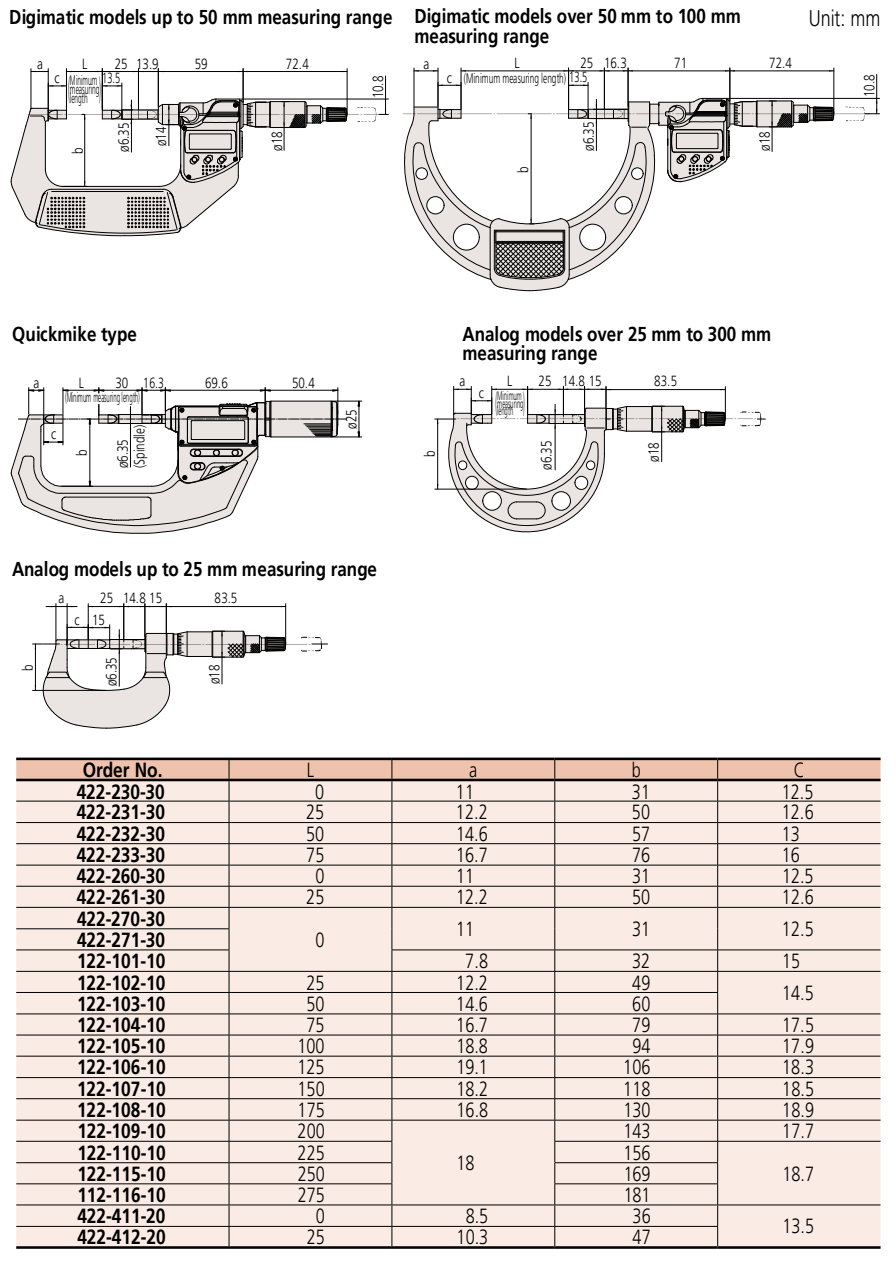
### Quickmike

- Provides a speedy spindle feed of 10 mm per thimble rotation which enables widely differently sized features to be measured quickly.

### Deviation Between the Anvil and Spindle in the Vertical Direction



## DIMENSIONS



B