# **SHIMPO**INSTRUMENTS



FT-5000 Air Gauge Display with Mechanical Float

The Series FT-5000 column type air gauge, micrometer display is a precision, non-contact measuring instrument when combined with a customized air probe sensor. Air gauge measurement has been around for decades. It is a non-destructive testing method that utilizes air flow and the resistance created between an object under test and the air gauge's sensing probe. The air resistance or back pressure changes with distance between the air probe and device under test. This air pressure change out of the air sensor can be scaled on a display to determine dimensional analysis as well as product acceptance.

The FT-5000 column type air gauge display with separate, customized air probe sensor performs fast, easy and precise dimensional analysis on components. Column displays can also be conveniently daisy-chained with additional units to allow quick inspections of multiple dimensions with various sensors.

The air gauge technology offers sufficient magnification and reliability to measure small tolerances down to 0.5 micron. Due to its fast response, outstanding tolerance and accurate repeatability, Tosok air gauge micrometers are ideal for quality measurements on the production floor or in the lab.



#### **Features**

- In coordination with the max./min. masters and the customized air probe sensor, air adjustment knobs enable calibration of the zero and full scale.
- Possesses a light weight and slim frame allowing for placement on any bench, plus enables a small foot-print when daisy-chaining units
- Up to 6 units can be stacked allowing multiple readings to be simultaneously taken on the same part
- · Sensitivity adjustment knob allows fine tuning for more precise air control
- Simplified operation and set up compared with digital models
- Non-contact measurement eliminates the potential for damage to the test part.
- Especially effective in quickly measuring inside and outside diameters.
- Quick and stable air float micrometer is free of hysteresis error.
- High pressure air from sensor cleans off oil and dust on the test pieces, assuring accurate measurement.
- Adjustable high/low limit flag indicators aid user in determining part acceptability.



# FT-5000 Specifications

Input	1 Air Channel per column		
Measuring Range μm (mm) (see Chart A)	20 (0.0200), 40 (0.0400), 100 (0.100), 200 (0.200)		
Scale Graduation  µm (mm) (see Chart A)	0.5 (0.0005), 1 (0.001), 2 (0.002), 5 (0.005)		
Air Supply Pressure	28.4 psi (196 kPa)		
Source Pressure	42.7 psi to 99 psi (294 to 686 kPa)		
Air Supply Volume	106 cfh (50 l/min)		
Power Requirement	85 to 264 VAC, 50/60 Hz 100-VAC		
Operating Temperature	32 to 113°F (0 to 45°C)		
Dimensions	4.3" wide x 19.7"deep x 8.3" high (110 × 501 x 210 mm)		
Weight	Single: 9.9 lb (4.5 kg); Dual Stack: 16.5 lb (7.5 kg); Triple Stack 23 lb (10.5 kg); Quadruple Stack 29.8 (13.5 kg); Quintuple Stack: 36.4 lb (16.5 kg); Sextuple Stack 43 lb (19.5 kg)		
Warranty	1 year		

#### CHART A

	FT-5100	FT-5200	FT-5500	FT-5000
Standard Magnification	1,000	2,000	5,000	10,000
Indication Range	200	100	40	20
Effective Indication Range	150	70	30	15
Graduation	5	2	1	0.5
Repeatability	Max 2.0	Max 1.0	Max 0.5	Max 0.3
Response Time (sec)	Max 1.5	Max 1.5	Max 1.8	Max 2.0

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## Ordering Details

Stack Number	Scale Magnification			
	1000	2000	5000	10000
Single Type	FT-5101	FT-5201	FT-5501	FT-5001
Dual Type	FT-5102	FT-5202	FT-5502	FT-5002
Triple Type	FT-5103	FT-5203	FT-5503	FT-5003
Quadruple Type	FT-5104	FT-5204	FT-5504	FT-5004
Quintuple Type	FT-5105	FT-5205	FT-5505	FT-5005
Sextuple Type	FT-5106	FT-5206	FT-5506	FT-5006

## **Optional Accessories**

FUA-503	Air Filter & oil Separator -manual drain. For 1 to 3 Column stacks
FUA-506	Air Filter & oil Separator -manual drain. For 4 to 6 Column stacks
CAG2000-OP-AR	Precision Regulator



FT-5000 Shown Stacked in Multiple Columns

