



Linear series

# CONTOURECORD 1710DX3/SD3



## High-Accuracy Contour Detector

Laser Optical Diffraction Scale Employed

Space-Saving DX model Allows Efficient Use of a Measuring room



### High-Accuracy Contour Detector With Laser Optical Diffraction Scale

- Indication accuracy of detector:  $\pm(1.8+|2H|/100)$   $\mu\text{m}$
- Resolution: 0.1  $\mu\text{m}$  (full range)
- This detector allows high-accuracy contour measurements and evaluations of precision processing components.

### High-Speed Measurement Dramatically Enhances Productivity

- Contour Measurement: 20 mm/s max.
- Moving Speed: 60 mm/s max.
- Measurement Efficiency: 10 times better (compared to previous models)

### Linear Motor Drive (Patented)

- A linear motor drive ensures high accuracy and high-speed movement.
- Low vibration ensures more stable measurement at high magnifications.

\*See page 8 for the details of the linear drive.

## Specifications

Model		CONTOURECORD 1710DX3/SD3								
		-12	-13	-14	-15	-22	-23	-24	-25	
Measuring range	Z-axis (vertical)	50 mm								
	X-axis (horizontal)	100 mm				200 mm				
Accuracy	Detector	Z-axis indication accuracy (vertical)	$\pm(1.8 +  2H /100)$ $\mu\text{m}$ (H: Measuring height mm)							
		Resolution	0.1 $\mu\text{m}$ /Full range							
	Tracing driver	X-axis Indication accuracy (horizontal)	$\pm(1.0+L/100)$ $\mu\text{m}$ (L: Measuring length (mm)), Measuring pitch: 0.1 $\mu\text{m}$ min.							
		Resolution	0.016 $\mu\text{m}$							
Straightness accuracy		1 $\mu\text{m}/100$ mm				2 $\mu\text{m}/200$ mm				
Sensing method	Z-axis: Detector (vertical)	Laser optical diffraction scale								
	X-axis: Tracing driver (horizontal)	Linear scale								
Speed	Column up/down speed (Z-axis)	10 mm/s								
	Measuring speed (X-axis)	0.03 mm/s to 20 mm/s								
	Moving speed (X-axis)	60 mm/s max.								
Detector	Stylus, measuring force	Replaceable, 10 mN to 30 mN, and stepless(retract) function								
	Stylus radius (stylus material)	25 $\mu\text{mR}$ (24° conical carbide), one piece equipped as standard								
	Measuring direction, position	Pull/push and Up/down directions, Max. following angle: 77°								
Operation range	Tracing driver stroke	100 mm				200 mm				
	Column up/down stroke	226 mm	426 mm	626 mm	226 mm	426 mm	626 mm			
Granite table	Dimensions	600 × 317 mm		1000 × 450 mm		600 × 317 mm		1000 × 450 mm		
	Permissible loading weight★	37 kg	28 kg	93 kg	84 kg	31 kg	22 kg	87 kg	78 kg	
Other	Installation dimensions★	Width	1250 mm		1650 mm		1250 mm		1650 mm	
		Depth	800 mm				900 mm			
		Height	1480 mm	1680 mm	1880 mm	1480 mm	1680 mm	1880 mm		
	Weight★	225 kg	235 kg	420 kg	430 kg	230 kg	240 kg	425 kg	435 kg	
Power supply, frequency, consumption		Single phase AC 100 V $\pm$ 10% (grounding required), 50 Hz/60 Hz, 670 VA								

★Dimensions and weight are for the DX type.