



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



CONTOURECORD 1710DX3



CONTOURECORD 1710SD3

Printer is optional

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)	± (1.8 + 2H /100) μm (H: Measuring height mm)							
		Resolution	0.1 μm/Full range							
	Tracing driver	X-axis Indication accuracy (horizontal)	± (1.0+L/100) μm (L: Measuring length (mm)), Measuring pitch: 0.1 μm min.							
		Resolution	0.016 μm							
Straightness accuracy			1 μm/100 mm				2 μm/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 μmR (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		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 ±10% (grounding required), 50 Hz/60 Hz, 670 VA							

★Dimensions and weight are for the DX type.