



SURFCOM 2900DX3/SD3



The detector is equipped with the device for measuring the surface roughness and high accuracy contour profile. Two tasks including the measurement of surface roughness and contour profile is achieved in one unit that provides high efficiency and high accurate evaluation. For the space-saving design of the DX3 model, the measurement room can be utilized efficiently.



SURFCOM 2900DX3

SURFCOM 2900SD3

*Printer is optional.

2-in-1 High-accuracy Measuring Instrument

Indication accuracy of contour detectors : $\pm(0.8+|2H|/100)\mu\text{m}$, Resolution : $0.025\mu\text{m}$ (the entire range). Measuring magnification of roughness pickup : 50,000 times Max. The system can measured and evaluated the roughness and contour of a precision manufacturing component at high accuracy.

New Linear Motor Drive (Patent Pending)

The new linear motor enables the fastest measurement speeds in the world and low vibration for stable, high-magnification measurement.

A simple configuration (no feed screw or gear box) and non-contact driver also maintains stability over long term operation.

High-speed Measurement for Dramatically Improved Productivity

Roughness Measurement: 3mm/s max.; Contour Measurement: 20mm/s max.; Moving Speed: 60mm/s max.
Measurement Efficiency: 10 times better (compared with previous models)

Specifications

Model		SURFCOM 2900DX3/SD3								
		-12	-13	-14	-15	-22	-23	-24	-25	
Measuring Range	Z-axis (vertical)	50mm								
	X-axis (horizontal)	100mm				200mm				
Accuracy	Roughness	Detectors	0.01 μm /1000 μm range ~0.0001 μm /6.4 μm range							
		Tracing driver	X-axis Resolution 0.04 μm or 32,000 points (300,000 data uptake points)							
	Contour	Detectors	Z-axis indication accuracy (vertical) $\pm(0.8+ 2H /100)\mu\text{m}$ (H: Measuring Height mm)							
			Resolution 0.025 μm /Full range							
		X-axis	Indication accuracy (horizontal) / Min Pitch $\pm(1.0+1L/100)\mu\text{m}$ (L: Measuring length mm) / Min 0.1 μm							
	Tracing driver	Scale Resolution 0.016 μm								
Straightness accuracy		Roughness System: (0.05+1.0L/1000) μm (L: Measuring length mm), Contour System: 1 μm /100mm, 2 μm /200mm								
Sensing method	X-axis (horizontal)	Linear scale								
	Z-axis (vertical)	Roughness Detector Differential transducer (trans) Contour Detector Laser optical diffraction scale								
Speed	Column up/down speed (Z-axis)	3~10mm/s								
	Speed (X-axis)	Measuring: 0.03~20mm/s, Movement: 60mm/s max.								
Detectors	Roughness	Stylus, Measuring Force	Changeable, 0.75mN							
		Stylus radius (Stylus material)	2 μmR (60°conical diamond), one equipped as standard							
	Contour	Stylus, Measuring Force	Changeable, 30mN, Retract function							
		Stylus radius (Stylus material)	25 μm (24°conical super-solder), two equipped as standard							
Moving range		Measuring Direction, Orientation Pull/push and Up/down directions, Maximum following angle : 77°								
Stone table dimensions and weight	Pickup movement drive distance	100mm				200mm				
	Column up/down stroke	226mm	426mm	626mm	226mm	426mm	626mm			
	Dimensions	600x320mm		1000x450mm		600x320mm		1000x450mm		
Dimensions and weight**	Installation dimensions	Max. load★	37kg	28kg	93kg	84kg	31kg	22kg	87kg	78kg
		Width	1250mm		1650mm		1250mm		1650mm	
		Depth	800mm		900mm		800mm		900mm	
	Weight	Height	1480mm	1680mm	1880mm	1480mm	1680mm	1880mm		
		Power source/power consumption	225kg	235kg	420kg	430kg	230kg	240kg	425kg	435kg
		Single phase AC100~240V \pm 10% grounding required., 50/60Hz/670VA								

★ Dimensions and weight are for the DX type.



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