

# NEX Series SURFCOM

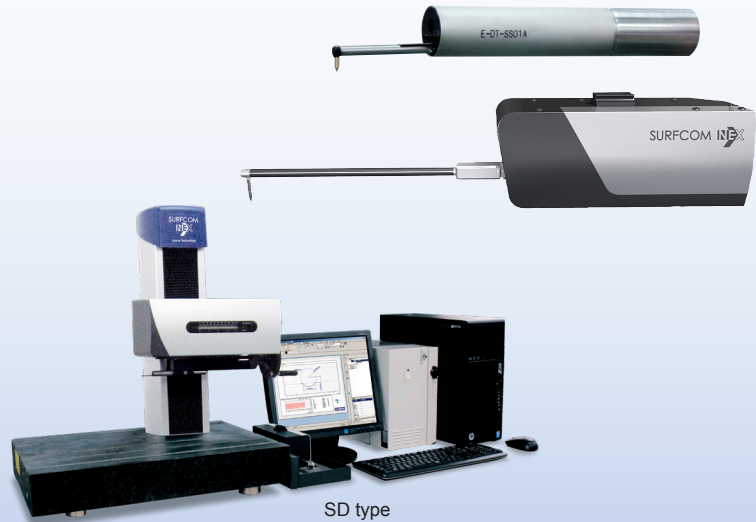
Dedicated catalog is available.

## NEX 041 DX/SD

A complex measuring instrument that enables surface roughness measurement and high accuracy contour measurement



DX type



SD type

NEX 041 is a complex model capable of surface roughness measurement and high accuracy contour measurement. (Necessary to replace detector)

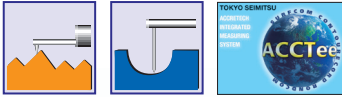
\*Tracing driver tilting device is optional. Please refer to page 22 to 23 for surface roughness measurement and page 18 to 21 for contour profile measurement.

### Measurement unit

Model				SURFCOM NEX								
				12	13	14	15	22	23	24	25	
Tracing driver	X-axis (L: Measuring length mm)	Sensing method		Linear scale								
		Straightness accuracy	High accuracy detector for contour measurement (μm/mm)	1.0/100				2.0/200				
			Pick up for roughness measurement (μm)	(0.05 + 1.0L/1000)								
		X-axis indication accuracy: Lateral	High accuracy detector for contour measurement (μm)		±(1.0 + 1.0L/100) * 100 mm Contour measurement with tracing driver							
			Resolution (μm)		0.016							
		Speed (mm/s)	Travel speed		0.03 to 60							
			Measuring speed		0.03 to 20							
Tilt angle (°)		High-accuracy detector for contour measurement, pickup for Roughness measurement		±15 (optional tilting device)								
Measuring stand	Column	Speed (mm/s)	Travel speed	Max. 10								
	Base	Material		Gabbro								

### Detector

High precision detector for contour measurement (E-DT-CH19B)	Measuring range	Z-axis (mm): Vertical direction		60.0								
	Contour measurement (H: Measuring height mm)	Sensing method		Laser optical diffraction scale								
		Measuring range (mm)		60.0								
		Measuring resolution (μm)		0.02 (Full range)								
		Indication accuracy (μm): Vertical direction		±(0.8 +  2H /100)								
		Functions		Up/downward measurement, Safety stop function by contact, Retract function								
	Stylus	Contour	Model		DM45505							
			Replace method		Replaceable							
Measuring force (mN)			2 to 30 (Set up by ACCTee)									
Stylus material			Cemented carbide									
Stylus form			Rtip 25 μm/24° Cone									
Pick up for roughness measurement (E-DT-SS01B)	Measuring range	Z-axis (μm): Vertical direction		1000								
	Roughness measurement	Sensing method		Differential inductance								
		Measuring range (μm)		6.4 to 1000								
		Measuring resolution (nm)		0.1 to 20								
		Function		Up/downward measurement, Upside limit detection safety function								
	Stylus	Roughness	Model		DM43801							
			Replace method		Replaceable							
			Measuring force (mN)		0.75							
Stylus material			Diamond									
Stylus form			Rtip 2 μm/60° Cone									



NEX Series  
**SURFCOM**

Dedicated catalog is available.

# NEX 031 DX/SD

A standard model of complex measuring instrument that enables measurement for surface roughness and contour profile



DX type



SD type

NEX 031 is a complex model capable of surface roughness and contour profile measurement. (Necessary to replace detector)

\*Tracing driver tilting device is optional. Please refer to page 22 to 23 for surface roughness measurement and page 18 to 21 for contour profile measurement.

## Measurement unit

Model				SURFCOM NEX									
				12	13	14	15	22	23	24	25		
Tracing driver	X-axis (L: Measuring length mm)	Sensing method		Linear scale									
		Straightness accuracy	General purpose detector for contour measurement (μm/mm)		1.0/100				2.0/200				
			Pick up for roughness measurement (μm)		(0.05 + 1.0L/1000)								
		X-axis indication accuracy: Lateral	General purpose detector for contour measurement (μm)		±(1.0 + 1.0L/100) *100 mm Contour measurement with tracing driver								
		Resolution (μm)				0.016							
		Speed (mm/s)	Travel speed		0.03 to 60								
Measuring speed			0.03 to 20										
Tilt angle (°)		General purpose detector for contour measurement, pickup for roughness measurement		±15 (optional tilting device)									
Measuring stand	Column	Speed (mm/s)	Travel speed	Max. 10									
	Base	Material		Gabbro									

## Detector

General purpose detector for contour measurement (E-DT-CH18B)	Measuring range	Z-axis (mm): Vertical direction		60.0								
	Contour measurement (H: Measuring height mm)	Sensing method		High accuracy scale								
		Measuring range (mm)		60.0								
		Measuring resolution (μm)		0.04 (Full range)								
		Indication accuracy (μm): Vertical direction		±(1.5 +  2H /100)								
		Functions		Up/downward measurement, Safety stop function by contact, Retract function								
	Stylus	Contour	Model		DM45505							
			Replace method		Replaceable							
			Measuring force (mN)		10 to 30 (Manual adjustment)							
			Stylus material		Cemented carbide							
Stylus form			Rtip 25 μm/24° Cone									
Pick up for roughness measurement (E-DT-SS01B)	Measuring range	Z-axis (μm): Vertical direction		1000								
	Roughness measurement	Sensing method		Differential inductance								
		Measuring range (μm)		6.4 to 1000								
		Measuring resolution (nm)		0.1 to 20								
		Function		Up/downward measurement, Upside limit detection safety function								
	Stylus	Roughness	Model		DM43801							
			Replace method		Replaceable							
			Measuring force (mN)		0.75							
			Stylus material		Diamond							
			Stylus form		Rtip 2 μm/60° Cone							