

# Specifications

Model No.	(Type of detector)	Standard drive unit type		Retractable drive unit type		Transverse tracing drive unit type	
		SJ-210 (0.75mN type)	SJ-210 (4mN type)	SJ-210 (0.75mN type)	SJ-210 (4mN type)	SJ-210 (0.75mN type)	SJ-210 (4mN type)
Order No.	mm	<b>178-560-01</b>	<b>178-560-02</b>	<b>178-562-01</b>	<b>178-562-02</b>	<b>178-564-01</b>	<b>178-564-02</b>
	inch/mm	<b>178-561-01</b>	<b>178-561-02</b>	<b>178-563-01</b>	<b>178-563-02</b>	<b>178-565-01</b>	<b>178-565-02</b>
Measuring range	X axis	17.5mm				5.6mm	
	Z axis	360µm (-200µm to +160µm)					
Measuring speed	Range	360µm / 0.02µm, 100µm / 0.006µm, 25µm / 0.002µm					
	(Detector) Range / Resolution	Measuring: 0.25mm/s, 0.5mm/s, 0.75mm/s Returning: 1mm/s					
Measuring force / Stylus tip		0.75mN type: 0.75mN / 2µmR 60°, 4mN type: 4mN / 5µmR 90°					
Skid force		Less than 400mN					
Applicable standards		JIS '82 / JIS '94 / JIS '01 / ISO '97 / ANSI / VDA					
Assessed profiles		Primary profile / Roughness profile / DF profile / Roughness profile-Motif					
Evaluation parameters		Ra, Rc, Ry, Rz, Rq, Rt, Rmax, Rp, Rv, R3z, Rsk, Rku, Rc, RPC, Rsm, Rz1max, S, HSC, RzJIS, Rppi, RΔa, RΔq, Rlr, Rmr, Rmr(c), Rδc, Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, Vo, Rpm, tp, Htp, R, Rx, AR, Possible Customize					
Analysis graphs		Bearing area curve / Amplitude distribution curve					
Filters		Gaussian, 2CR75, PC75					
Cut off length	$\lambda c$	0.08, 0.25, 0.8, 2.5mm					
	$\lambda s$	2.5, 8µm					
Sampling length		0.08, 0.25, 0.8, 2.5mm					
Number of Sampling lengths (×n)		×1, ×2, ×3, ×4, ×5, ×6, ×7, ×8, ×9, ×10, arbitrary length (0.3 to 16.0mm: 0.01mm interval)				×1, ×2, ×3, ×4, ×5, ×6, ×7, ×8, ×9, ×10, arbitrary length (0.3 to 5.6mm: 0.01mm interval)	
LCD dimensions		36.7 × 48.9 mm					
Display languages		Japanese, English, German, French, Italian, Spanish, Portuguese, Korean, Traditional Chinese, Simplified Chinese, Czech, Polish, Hungarian Turkish, Swedish, Dutch					
Calculation result display		Vertical display: 1 parameter / 3 parameter / trace to measurements Horizontal display: 1 parameter / 4 parameter / trace to measurements (Horizontal display is invertable)					
Printing function *1 (Dedicated printer is required separately.)		Measurement conditions / Calculation results / Calculation results for each sampling length / Assessed profile / Bearing area curve / Amplitude distribution curve / Environment setting information					
External I/O		USB I/F, Digimatic Output, Printer Output, RS-232C I/F, Foot SW I/F					
Functions	Customization	Desired parameters can be selected for calculation and display					
	GO/NG judgment *2	By max value / 16% / Standard deviation					
	Storage of measurement condition	Save the conditions at power OFF					
Storage		Internal memory: Measurement condition (10sets), Measured profile (1set) Memory card (Option): 500 measurement conditions, 10000 measured profiles, 500 display images Text file (Measurement conditions / Measured profile / Assessed profile / Bearing area curve / Amplitude distribution curve)					
	Calibration	Auto-calibration with the entry of numerical value / Average calibration with multiple measurement (Max.5 times) is available					
Power-saving function		Auto-sleep off function (10-600sec) *3					
Power supply		Two-way power supply: battery (rechargeable Ni-MH battery) and AC adapter *Charging time: about 4 hours (may vary due to ambient temperature) *Endurance: about 1000 measurements (differs slightly due to use conditions / environment)					
Size (W×D×H)	Display unit	52.1 × 65.8 × 160mm					
	Drive unit	115 × 23 × 26mm					
Mass		About 500g (Display unit + Drive unit + Standard detector)					
Standard accessories		<b>12BAA303</b> Connecting cable *4 <b>178-601</b> Roughness specimen <b>12BAK699</b> Carrying case <b>12BAK700</b> Calibration stage Protective sheets for display AC Adapter Operation manual Quick reference manual Warranty				<b>12BAA303</b> Connecting cable *4 <b>178-605</b> Roughness specimen <b>12AAE643</b> Point-contact adapter <b>12AAE644</b> V-type adapter <b>12BAK699</b> Carrying case <b>12BAK700</b> Calibration stage Protective sheets for display AC Adapter, Operation manual Quick reference manual, Warranty	

\*1: Order the SJ-210 printer (No.178-421, optional accessory) separately. See page 10 for details about the SJ-210 printer.

\*2: Standard deviation only can be selected in ANSI. 16% rule cannot be selected in VDA.

\*3: Auto-sleep function is invalid when AC adaptor is used.

\*4: For connecting the calculation display unit and drive unit.

To denote your AC line voltage add the following suffixes (e.g. 178-560-01A).

A for 120V, C for 100V, D for 230V, E for 230V(for UK), DC for 220V(for China), K for 220V(for Korea)