

SJ-210 Series Specifications

Specifications

Type of detector		Standard drive unit type		Retractable drive unit type		Transverse tracing drive unit type	
Model No.		SJ-210 (0.75 mN type)	SJ-210 (4 mN type)	SJ-210 (0.75 mN type)	SJ-210 (4 mN type)	SJ-210 (0.75 mN type)	SJ-210 (4 mN type)
Order No.	mm	178-560-11	178-560-12	178-562-11	178-562-12	178-564-11	178-564-12
	inch/mm	178-561-11	178-561-12	178-563-11	178-563-12	178-565-11	178-565-12
Measuring range	X axis	16.0 mm				5.6 mm	
	Z axis (Detector)	360 μm (-200 μm to +160 μm)					
Measuring speed	Range	360 μm/0.02 μm, 100 μm/0.006 μm, 25 μm/0.002 μm					
	Range/Resolution	360 μm/0.02 μm, 100 μm/0.006 μm, 25 μm/0.002 μm					
Measuring force/Stylus tip		When measuring: 0.25 mm/s, 0.5 mm/s, 0.75 mm/s When returning: 1 mm/s					
Skid force		0.75 mN type: 0.75 mN / 2 μmR 60°, 4 mN type: 4 mN / 5 μmR 90°					
Applicable standards		Less than 400 mN					
Assessed profiles		JIS '82/JIS '94/JIS '01/ISO '97/ANSI/VDA					
Parameters		Primary profile, Roughness profile, DF profile, Roughness profile-Motif					
Graph analysis		Ra, Rc, Ry, Rz, Rq, Rt, Rmax ^{*1} , Rp, Rv, R3z, Rsk, Rku, Rc, Rpc, Rsm, Rz1max ^{*2} , S, HSC, RzJIS ^{*3} , Rppi, RΔa, RΔq, Rlr, Rmr, Rmr(c), RΔc, Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, Vo, Rpm, tp ^{*4} , Htp ^{*4} , R, Rx, AR, Possible Customize					
Filters		Bearing area curve/Amplitude distribution curve					
Cut off length		Gaussian, 2CR75, PC75					
Sampling length		0.08, 0.25, 0.8, 2.5 mm					
Number of sampling lengths (xn)		λ c				λ s ^{*5}	
LCD dimensions		0.08, 0.25, 0.8, 2.5 mm					
Display languages		x1, x2, x3, x4, x5, x6, x7, x8, x9, x10, arbitrary length (0.3 to 16.0 mm: 0.01 mm interval)					
Measurement result display		x1, x2, x3, x4, x5, x6, x7, x8, x9, x10, arbitrary length (0.3 to 5.6 mm: 0.01 mm interval)					
Printing function ^{*6} (Dedicated printer is required separately.)		Japanese, English, German, French, Italian, Spanish, Portuguese, Korean, Traditional Chinese, Simplified Chinese, Czech, Polish, Hungarian, Turkish, Swedish, Dutch					
External I/O		Vertical display: 1-parameter display/3-parameter display/Trace display Horizontal display: 1-parameter display/4-parameter display/Trace display (Horizontal display is invertable)					
Functions		Measurement conditions/Calculation results/GO/NG judgement result/Calculation results for each sampling length/Assessed profile/Bearing area curve/Amplitude distribution curve/Environment setting information					
Power-saving function		USB I/F, Digimatic Output, Printer Output, RS-232C I/F, Foot SW I/F					
Power supply		Desired parameters can be selected for calculation and display					
Size (WxDxH)		By max value/16 %/Standard deviation					
Mass		Save the conditions at power OFF					
Standard accessories		Internal memory: Measurement condition (10 sets) 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)					
		Auto-calibration with the entry of numerical value/ Average calibration with multiple measurement (Max.5 times) is available					
		Auto-sleep off function (10-600 sec) ^{*8}					
		Two-way power supply: battery (rechargeable Ni-MH battery) and AC adapter Note 1: Charging time: about 4 hours (may vary due to ambient temperature) Note 2: Endurance: about 1000 measurements (differs slightly due to use conditions/environment)					
		52.1x65.8x160 mm (sliding cover closed, detector not mounted)					
		115x23x26 mm (detector not mounted)					
		About 500g (Display unit + Drive unit + Standard detector)					
		12BAA303 Connecting cable ^{*9} 178-601 Roughness specimen Ra (3 μm) 12BAR344 Carrying case 12BAK700 Calibration stage Protective sheets for display, AC Adapter, Operation manual, Quick reference manual, Warranty				12BAA303 Connecting cable ^{*9} 178-605 Roughness specimen Ra (1 μm) 12AAE643 Point-contact adapter 12AAE644 V-type adapter 12BAR344 Carrying case 12BAK700 Calibration stage Protective sheets for display AC Adapter, Operation manual Quick reference manual, Warranty	

*1 Calculation is available only when selecting the VDA, ANSI, or JIS '82 standard.

*2 Calculation is available only when selecting the ISO '97 standard.

*3 Calculation is available only when selecting the JIS '01 standard.

*4 Calculation is available only when selecting the ANSI standard.

*5 Not available when selecting the JIS '82 standard.

*6 Order the SJ-210 printer (178-421, optional accessory) separately. See page 19 for details about the SJ-210 printer.

*7 Standard deviation only can be selected in ANSI. 16 % rule cannot be selected in VDA.

*8 Auto-sleep function is invalid when AC adaptor is used.

*9 For connecting the calculation display unit and drive unit.

Note: To denote your AC line voltage add the following suffixes (e.g. 178-560-11A).

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