



SJ-310 Series Specifications

Specifications

Type of detector	Standard drive unit type		Retractable drive unit type		Transverse tracing drive unit type	
Model No.	SJ-310 (0.75 mN type)	SJ-310 (4 mN type)	SJ-310 (0.75 mN type)	SJ-310 (4 mN type)	SJ-310 (0.75 mN type)	SJ-310 (4 mN type)
	inch/mm	178-571-11A	178-571-12A	178-573-11A	178-573-12A	178-575-11A 178-575-12A
X axis	.63" (16.0mm)					.22" (5.6 mm)
Measuring range	Range	14400 μin (-7900 μin to +6300 μin) [360 μm (-200 μm to +160 μm)]				
	Detector	14400 μin / .8 μin (360 μm / 0.02 μm) 4000 μin / .2 μin (100 μm / 0.006 μm) 1000 μin / .08 μin (25 μm / 0.002 μm)				
Measuring speed	When measuring: 0.01, 0.02, 0.03 in/s (0.25mm/s, 0.5mm/s, 0.75mm/s), When returning: .04 in/s (1mm/s)					
Measuring force/Stylus tip	0.75 mN/2 μmR 60°, 4 mN/5 μmR 90°					
Skid force	400 mN or less					
Applicable standards	JIS '82/JIS '94/JIS '01/ISO '97/ANSI/VDA					
Assessed profiles	Primary, Roughness, DF, R-Motif, W-Motif					
Parameters	Ra, Rc, Ry, Rz, Rq, Rt, Rmax ^{*1} , Rp, Rv, R3z, Rsk, Rku, Rc, Rpc, Rsm, Rz1max ^{*2} , S, HSC, RzJIS ^{*3} , Rppi, Rda, RAq, Rlr, Rmr, Rmr(c), Rδc, Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, Vo, λa, λq, Lo, Rpm, tp ^{*4} , Htp ^{*4} , R, Rx, AR, W, AW, Wx, Wte, Possible Customize					
Graph analysis	Bearing area curve/Amplitude distribution curve					
Filters	Gaussian, 2CR75, PC75					
Cut-off length	λc	.003, .01, .03, .1, .3" (0.08, 0.25, 0.8, 2.5, 8 mm)				
	λs ^{*5}	100, 320 μin (2.5, 8 μm)				
Sampling length	.003, .01, .03, .1, .3" (0.08, 0.25, 0.8, 2.5, 8 mm)					
Number of sampling lengths	x1, x2, x3, x4, x5, x6, x7, x8, x9, x10, Arbitrary 0.01~.63" (.0001" interval) [(0.3~16.0mm: 0.01mm interval)]				x1, x2, x3, x4, x5, x6, x7, x8, x9, x10, Arbitrary .0118 ~ .22" (.0001" Interval) [(0.3 ~ 5.6mm: 0.01mm Interval)]	
LCD dimensions	4.64" x 3.47" (117.8 x 88.2 mm)					
Display languages	Japanese, English, German, French, Italian, Spanish, Portuguese, Korean, Traditional Chinese, Simplified Chinese, Czech, Polish, Hungarian, Turkish, Swedish, Dutch					
Measurement result display	1-parameter display: one parameter measurement result 4-parameter display: four parameter measurement results Profile display: one parameter measurement result and the measured profile Trace display: The ten latest measurement results using the same parameter					
Printing function	Measurement conditions/Calculation results/GO/NG judgement result/Calculation results for each sampling length/ Tolerance value/Assessed profile/Graphic curve/Bearing area curve/Amplitude distribution curve/Environmental setting information					
External I/O	USB I/F, Digimatic output, RS-232C I/F, External SW I/F					
Functions	Customization	Desired parameters can be selected for calculation and display				
	GONG judgement ^{*6}	Max rule/16 % rule/Average rule/Standard deviation (1σ, 2σ, 3σ)				
	Storage of measurement condition	Save the condition at power OFF				
Storage	Internal memory: Measurement condition (10 sets) Memory card (option): 500 measurement conditions, 10000 measuring data, 10000 text data, 500 statistic data, 1 backup of machine setting, the last ten traces (Trace 10)					
	Calibration	Auto-calibration with the entry of numerical value/Average calibration with multiple measurement (MAX.12 times) is available				
Power-saving function	Auto-sleep function (30-600 sec) ^{*7}					
Power supply	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 1500 measurements (differs slightly due to use conditions/environment)					
Size (WxDxH)	Display unit	10.8" x 4.3" x 7.8" (275 x 109 x 198 mm)				
	Drive unit	4.5" x 0.9" x 8.9" (115 x 23 x 26.7 mm)				
Mass	About 3.9 lbs. (1.8 kg) (Display unit + Drive unit + Standard detector)					
Standard accessories	12AAW066 Connecting cable ^{*8} 178-601 Roughness reference specimen (Ra3 μm) 357651 AC adapter 12AAA217 Nosepiece for plane surface 12AAA218 Nosepiece for cylinder 12AAA216 Supporting leg 12BAK700 Calibration stage 12BAG834 Stylus pen 12BAL402 Protection sheet 270732 Printer paper (5 pieces) 12BAL400 Carrying case Philips screwdriver, Strap for stylus pen, Operation manual, Quick reference manual, Warranty			12AAW066 Connecting cable ^{*8} 178-605 Roughness reference specimen (Ra1 μm) 357651 AC adapter 12AAE643 Point-contact adapter 12AAE644 V-type adapter 12BAK700 Calibration stage 12BAG834 Stylus pen 12BAL402 Protection sheet 270732 Printer paper (5 pieces) 12BAL400 Carrying case Philips screwdriver, Strap for stylus pen, Operation manual, Quick reference manual, Warranty		

*1 Only for VDA/ANSI/JIS '82 standards. *2 Only for ISO '97 standard. *3 Only for JIS '01 standard. *4 Only for ANSI standard. *5 Not available for JIS '82 standard.
 *6 Standard deviation only can be selected in ANSI. 16% rule cannot be selected in VDA. *7 Auto-sleep function is invalid when AC adapter is used.
 *8 For connecting the calculation display unit and drive unit.
 Note: To denote your AC line voltage add the following suffixes (e.g. **178-570-11A**). 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)