

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) |
| | inch/mm | | inch/mm | | inch/mm | |
| X axis | .63" (16.0mm) | | | | .22" (5.6mm) | |
| Measuring range | Range | 14400 μin (-7900 μin to +6300 μin) [360 μm (-200 μm to +160 μm)] | | | | |
| | Z axis (Detector) Range/Resolution | 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: 0.4 in/s (1mm/s) | | | | | |
| Measuring force/Stylus tip | 0.75 mN / 2 μmR 60°, 4 mN / 5 μmR 90° | | | | | |
| Skid force | Less than 400 mN | | | | | |
| Applicable standards | JIS '82/JIS '94/JIS '01/ISO '97/ANSI/VDA | | | | | |
| Assessed profiles | Primary profile, Roughness profile, DF profile, Roughness profile-Motif | | | | | |
| Parameters | Ra, Rc, Ry, Rz, Rq, Rt, Rmax ¹ , Rp, Rv, R3z, Rsk, Rku, Rc, RPC, Rsm, Rz1max ² , S, HSC, Rz1S ³ , Rppi, RΔ a, RΔ q, Rlr, Rmr, Rmr(c), RΔ c, Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, Vo, Rpm, tp ⁴ , Htp ⁴ , R, Rx, AR, Possible Customize | | | | | |
| Graph analysis | Bearing area curve/Amplitude distribution curve | | | | | |
| Filters | Gaussian, 2CR75, PC75 | | | | | |
| Cut off length | $\frac{\lambda c}{\lambda s^5}$ | 0.003, 0.01, 0.03, 0.1" (0.08, 0.25, 0.8, 2.5mm) | | | | |
| Sampling length | 0.003, 0.01, 0.03, .1" (0.08, 0.25, 0.8, 2.5mm) | | | | | |
| Number of sampling lengths (xn) | 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 | 1.45 x 1.93" (36.7x48.9 mm) | | | | | |
| Display languages | Japanese, English, German, French, Italian, Spanish, Portuguese, Korean, Traditional Chinese, Simplified Chinese, Czech, Polish, Hungarian, Turkish, Swedish, Dutch | | | | | |
| Measurement result display | Vertical display: 1-parameter display/3-parameter display/Trace display Horizontal display: 1-parameter display/4-parameter display/Trace display (Horizontal display is invertable) | | | | | |
| Printing function ^{*6} (Dedicated printer is required separately.) | 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 | | | | | |
| 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 ^{*7} | By max value/16 %/Standard deviation | | | | |
| | Storage of measurement condition | Save the conditions at power OFF | | | | |
| Storage | 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) | | | | | |
| | 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 (10-600 sec) ^{*8} | | | | | |
| 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 1000 measurements (differs slightly due to use conditions/environment) | | | | | |
| Size (WxDxH) | Display unit | 2.05 x 2.6" x 6.3" (52.1x65.8x160mm) (sliding cover closed, detector not mounted) | | | | |
| | Drive unit | 4.5 x .9 x 1.02" (115x23x26mm) (detector not mounted) | | | | |
| Mass | About 1.1lbs (500g) (Display unit + Drive unit + Standard detector) | | | | | |
| Standard accessories | 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} 178-606 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)