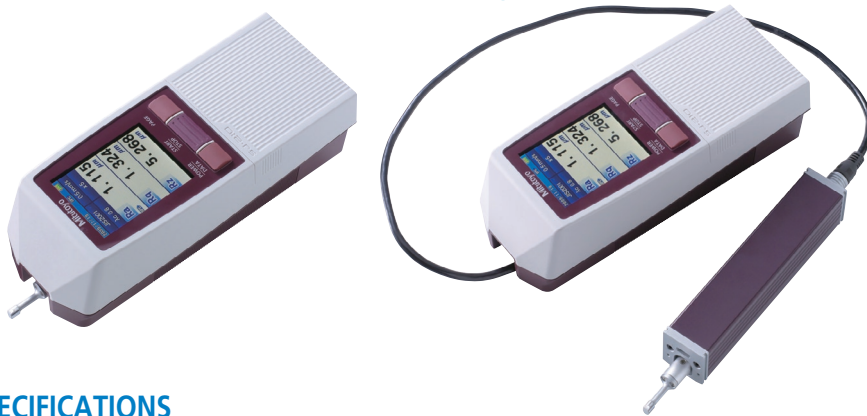


# Surftest

Performs brilliantly in many situations such as in the quality control room, on the factory floor and on the production line.

## Surftest SJ-210 SERIES 178 — On-site Surface Roughness Tester



### SPECIFICATIONS

Model No.	Standard drive unit		Retractable drive unit		Transverse tracing drive unit		
	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)	
Code No.	mm inch/mm	<b>178-560-01</b> <b>178-561-01</b>	<b>178-560-02</b> <b>178-561-02</b>	<b>178-562-01</b> <b>178-563-01</b>	<b>178-562-02</b> <b>178-563-02</b>	<b>178-564-01</b> <b>178-565-01</b>	
Measuring range	X axis	16.0 mm				5.6 mm	
Measuring range	Range	360 μm (-200 μm to +160 μm)					
	Detector Range/Resolution	360 μm / 0.02 μm, 100 μm / 0.006 μm, 25 μm / 0.002 μm					
Measuring speed		When measuring: 0.25mm/s, 0.5mm/s, 0.75mm/s				When returning: 1mm/s	
Measuring force/Stylus tip shape		Depends on the Code No.: 0.75mN/60°, 2μmR (when the Code No. ends with "-01") 4mN/90°, 5μmR (when the Code No. ends with "-02")					
Skid force		400mN or less					
Applicable standards		JIS1982/ JIS1994/ JIS2001/ ISO1997/ ANSI/ VDA					
Assessed profile		Primary profile, Roughness profile, DF profile, Roughness motif profile					
Parameter		Ra, Rc, Ry, Rz, Rq, Rt, Rmax, Rp, Rv, Rz3, Rsk, Rku, Rc, RPC, Rsm, Rz1max, S, HSC, RzJIS, Rppi, RΔa, RΔq, Rlr, Rmr, Rmr(c), R0C, Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, Vo, Rpm, tp, Htp, R, Rx, AR, Possible Customize					
Analysis graph		BAC and ADC curves					
Filter		Gaussian, 2CR75, PC75					
Cutoff value	$\lambda c$ $\lambda S^{*5}$	0.08, 0.25, 0.8, 2.5 mm 2.5, 8 μm					
Sampling length		0.08, 0.25, 0.8, 2.5 mm					
No. of sampling lengths		×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)	
Dimensions of LCD display area		36.7 × 48.9 mm					
Display language		Supports 16 languages (Japanese, English, German, French, Italian, Spanish, Portuguese, Dutch, Polish, Hungarian, Swedish, Czech, Simplified Chinese, Traditional Chinese, Korean, Turkish)					
Calculation result display		Vertical display: 1 row/3 rows/Trace Horizontal display: 1 column/4 columns/Trace (Right/Left switching display is available.)					
Print functions *1		Measurement condition / Calculation result / Calculation result per segment / Assessed profile / Material ratio curve / Profile height amplitude distribution curve / Environmental setting items					
External I/O functions		USB I/F, Digimatic output, printer output, RS-232C I/F, foot switch I/F					
Function	Customization	Desired parameters can be selected for calculation and display.					
	GO/NG judgment function*2	Maximum value rule, 16% rule, mean value rule					
	Storing measurement condition	When the power is turned off					
Storage		Built-in memory: Measurement condition (Up to 10) Memory card (optional): 500 measurement conditions, 10000 measured profiles, 500 display images, Text files (Measurement condition/Measurement data/Assessed profile/Material ratio curve/Profile height 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 (settable in the range of 10 to 600 sec.) *3					
Power supply		Built-in battery (rechargeable Ni-MH battery) / AC adapter Charging time of the built-in battery: about 4 hours (may vary due to ambient temperature) Endurance: about 1000 measurements (differs slightly due to use conditions/environment)					
External dimensions (W×D×H)	Calculation display unit	52.1 × 65.8 × 160 mm (sliding cover closed, detector not mounted)					
	Drive unit	115 × 23 × 26 mm (excluding the detector)					
Mass		Approx. 500 g (Calculation display unit, Drive unit, Standard detector)					
Standard Accessories		<b>12BAA303</b> Connecting cable*4			<b>12BAA303</b> Connecting cable*4		
		<b>178-601</b> Roughness specimen			<b>178-605</b> Roughness specimen		
		<b>12BAK699</b> Carrying case			<b>12AAE643</b> Point-contact adapter		
		<b>12BAK700</b> Calibration stage			<b>12AAE644</b> V-type adapter		
		Protective sheet for display			<b>12BAK699</b> Carrying case		
		AC adapter, Operation manual			<b>12BAK700</b> Calibration stage		
		One-sheet manual, Warranty card			Protective sheet for the display, AC adapter, Operation manual, One-sheet manual, Warranty card		

\*1: Please procure the printer for SJ-210 (Code No.: **178-421**, Option) separately. Refer to page L-6 for details.

\*2: Only the mean value rule is available for the ANSI standard. Only the maximum value and the mean value rules are available for the VDA standard.

\*3: Not available when using the AC adapter. Auto sleep can be set to OFF.

\*4: For the connection between the calculation display unit and drive unit

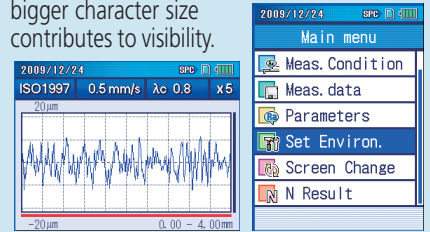
\*5: Not available when selecting the JIS1982 standard

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

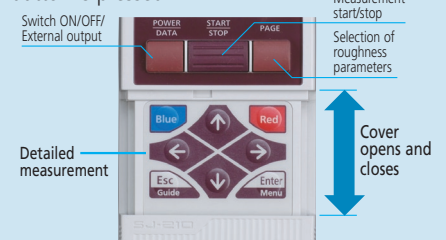
A for 120V, C for 100V, D for 230V, E for 230V (for UK), DC for 220V (for China), K for 220V (for Korea)

### Compact type all-in-one surface roughness tester has evolved by meeting customer demands

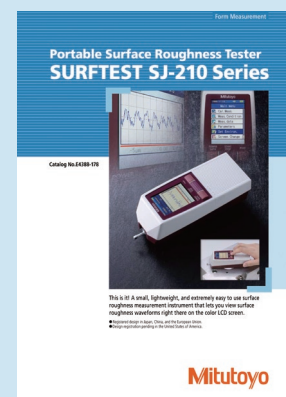
- Color LCD can display not only calculation results and measurement conditions, but also surface roughness waveforms. In addition, bigger character size contributes to visibility.



- Supports a variety of roughness standards. Equipped with a variety of parameters and functions such as arbitrary length measurement. Facilitates the operation and settings using the buttons on the top and inside the openable cover of the main unit. Displays the result after a measurement when the measurement start button is pressed.



- Built-in rechargeable battery allows measurement without the power supply.
- Optional printer for SJ-210 allows the printing of calculation results and measured profiles.
- Outputs the alarm display when the accumulated measurement distance exceeds the threshold level that is set. (Useful for maintaining a stylus-tip replacement policy.)
- Three types of drive unit are available: Standard, Transverse tracing, and Retractable. Selectable depending on the workpiece.



Refer to the Surftest SJ-210 series (Catalog No.E4388) for more details.