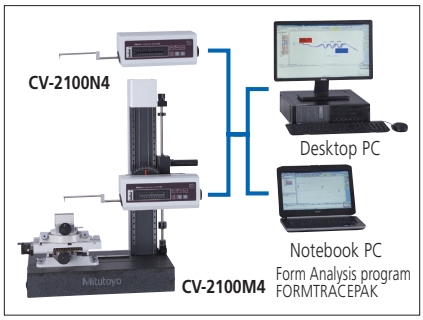
Contracer

High precision + high functionality + high operability = Contracer

Contracer CV-2100 SERIES 218 — Contour Measuring Instruments

MeasurLink® ENABLED
Data Management Software by Mitutoyo



CV-2100M4

SPECIFICATIONS

Model No.		CV-2100M4	CV-2100N4
Measurement range	X-axis	100 mm	
	Z1-axis (detector unit)	50 mm	
Z2-axis (column) travel range		350 mm	—
X-axis inclination angle		±45°	
Accuracy (20 °C)	X-axis	±(2.5+0.02L)µm L = Measurement Length (mm)	
	Z1-axis	±(2.5+|0.1H|)µm H = Measurementt height from horizontal position within ±25 mm	

Note: While the appearance of the natural stone measuring table varies according to the source, the high stability for which this material is known can always be relied upon.
* For the **CV-2100N4**, a manual column stand is required (optionally available.)

Contracer CV-3200 SERIES 218 — Contour Measuring Instruments

MeasurLink® ENABLED
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CV-3200L4 (with options)

CV-3200S4

SPECIFICATIONS

Model No.		CV-3200S4	CV-3200H4	CV-3200W4	CV-3200L4	CV-3200S8	CV-3200H8	CV-3200W8	CV-3200L8
Measuring range	X-axis	100 mm				200 mm			
	Z1-axis (detector)	60 mm (±30 mm from the horizontal)							
Z2-axis (column) travel range		300 mm	500 mm		700 mm	300 mm	500 mm		700 mm
Accuracy (20 °C)	X-axis	±(0.8+0.01L)µm L = traverse length (mm) Wide range: 1.8 µm/100 mm Narrow range: 1.05 µm/25 mm				±(0.8+0.02L)µm L = traverse length (mm) Wide range: 4.8 µm/200 mm Narrow range: 1.3 µm/25 mm			
	Z1-axis (detector)	±(1.4+|2H|/100)µm H = probing height from the horizontal (mm)							

Note: While the appearance of the natural stone measuring table varies according to the source, the high stability for which this material is known can always be relied upon.

MeasurLink® ENABLED
Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

PROPRIETARY INSPECTION CERTIFICATE

An inspection certificate is supplied as standard. Refer to page X for details.

Contour Measuring System enabling measurement that is fast, accurate, and easy.

- The operation flow is significantly shortened by arranging the controls for stylus position change, measurement start/stop and return on the front of the drive unit.

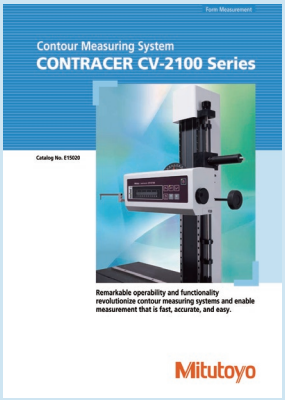
Centralized front control panel

- Fine and coarse X-axis positioning can be performed easily by using the jog shuttle that covers the whole measuring range.

Motor-driven jog shuttle

- The quick-vertical-motion stand allows operators to swiftly and easily move the drive unit to and from the measurement height without having to push or pull (only for CV-2100M4).

Quick-vertical-motion stand



Refer to the Contracer CV-2100 Catalog (No. E15020) for more details.

Dramatically Improved High-Precision Contour Measuring Instruments.

- CV-3200 series are contour measuring instruments equipped with a high-precision arc scale and newly designed arm on the Z1-axis (detector). The high-precision arc scale can directly read the arc track of the stylus tip to achieve high accuracy and resolution. The new arm has extended the Z1-axis measuring range by 10 mm while reducing the chance of interference with workpieces compared to conventional models. The arm mount can be attached/detached with a single touch on the magnet joint for improved ease of operation.

Z1-axis measuring range has been extended by 10 mm.

- The 700 mm Z2-axis (column) range models are new to the lineup.

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MeasurLink ENABLED
Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

PROPRIETARY INSPECTION CERTIFICATE

An inspection certificate is supplied as standard. Refer to page X for details.

Dramatically Improved High-Precision Contour Measuring Instruments.

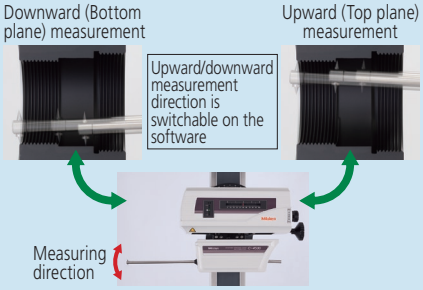
- CV-4500 series are contour measuring instruments equipped with a high-precision arc scale and newly designed arm on the Z1-axis (detector). The high-precision arc scale can directly read the arc track of the stylus tip to achieve high accuracy and resolution. The new arm has extended the Z1-axis measuring range by 10 mm while reducing the chance of interference with workpieces compared to conventional models. The arm mount can be attached/detached with a single touch on the magnet joint for improved ease of operation.

Z1-axis measuring range has been extended by 10 mm.

- The following two features have been added exclusively for the **CV-4500** series:

(1) Continuous measurement in the vertical direction (up/down) is available in combination with a double-sided conical stylus. Up/down continuous measurement data facilitates the analysis of the effective diameter of screw threads, which has been difficult to measure in the past.

(2) The measuring force can be set in the **FORMTRACEPAK** software. Weight replacement and position adjustment are not required to adjust the measuring force.



- The 700 mm Z2-axis (column) range models are new to the lineup.

Refer to the Contracer CV-3200/4500 series Catalog (No. E15010) for more details.

Contracer CV-4500 SERIES 218 — Contour Measuring Instruments

MeasurLink ENABLED
Data Management Software by Mitutoyo

CV-4500S4

SPECIFICATIONS

Model No.			CV-4500S4	CV-4500H4	CV-4500W4	CV-4500L4	CV-4500S8	CV-4500H8	CV-4500W8	CV-4500L8
Measuring range	X-axis		100 mm				200 mm			
	Z1-axis (detector)		60 mm (±30 mm from the horizontal)							
Z2-axis (column) travel range			300 mm	500 mm		700 mm	300 mm	500 mm		700 mm
Z1-axis (Detector)	Scale type		Arc							
	Resolution		0.02 µm							
	Stylus up/down		Arc motion							
	Measuring direction		Forward / backward							
	Face of stylus		Vertical direction (up/down, available for continuous measurement)							
	Measuring force		10, 20, 30, 40, 50 mN (switching on the software)							
	Traceable angle		Ascent: 77°, descent: 83° (using the standard one-sided cut stylus*1 provided and depending on the surface roughness)							
Drive unit	Scale type	X-axis	Separate type linear scale							
		Z2-axis (column)	ABS scale							
	Resolution	X-axis	0.05 µm							
		Z2-axis (column)	1 µm							
	Drive speed	X-axis	0 to 80 mm/s or manual operation							
		Z2-axis (column)	0 to 30 mm/s or manual operation							
	Measuring speed	X-axis	0.02, 0.05, 0.1, 0.2, 0.5, 1.0, 2.0, 5.0, 10, 20 mm/s							
	Straightness*2	X-axis	0.8 µm/100 mm				2 µm/200 mm			
	Inclination range	X-axis	±45°							
Accuracy (20 °C)		X-axis	±(0.8+0.01L)µm L = traverse length (mm) Wide range: 1.8 µm/100 mm Narrow range: 1.05 µm/25 mm				±(0.8+0.02L)µm L = traverse length (mm) Wide range: 4.8 µm/200 mm Narrow range: 1.3 µm/25 mm			
		Z1-axis (detector)	±(0.8+|2H|/100)µm H = probing height from the horizontal (mm)							
External dimensions (WxDxH)		Main unit*3	756×482 ×966 mm	756×482 ×1166 mm	1156×482 ×1176 mm	1156×492 ×1436 mm	766×482 ×966 mm	766×482 ×1166 mm	1166×482 ×1176 mm	1156×492 ×1436 mm
Mass		Main unit	140 kg	150 kg	220 kg	270 kg	140 kg	150 kg	220 kg	270 kg

*1: **SPH-71** (**No. 354884**)
*2: In X-axis horizontal position
*3: Base material of the main unit is Gabbro.
Note: While the appearance of the natural stone measuring table varies according to the source, the high stability for which this material is known can always be relied upon.

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