

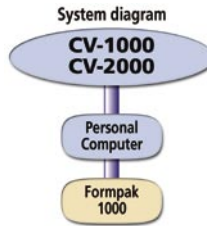
Contracer CV-1000 / CV-2000

SERIES 218 — Contour Measuring Instruments

FEATURES

- The digital arc scale is equipped in the Z-axis detecting unit. This gives you a wider range of measurement with higher resolution. No more reliance on measurement magnifications.
- A data analysis system (personal computer system and software of Formpak-1000) is available.

CV-2000S4 with personal computer system and software



CV-2000M4 with personal computer system and software



Connected to a personal computer, the FORMPAK-1000 contour analysis program provides various modes of measurement and analysis.

The CV-1000 is portable and can be carried to the machine-shop for measurement of large workpieces.



CV-1000N2 can be attached to the optical column stand.

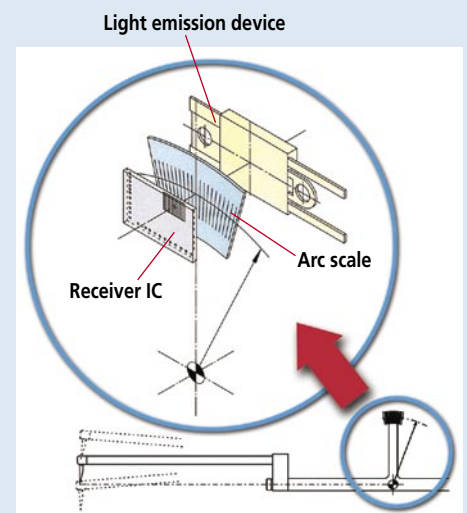
CV-1000N2 with personal computer system and software

Technical Data

X1-axis
 Measuring range: 50mm (CV-1000) or 100mm (CV-2000)
 Resolution: 0.2μm
 Measurement method: Reflective-type linear encoder
 Drive speed: 0.2, 1mm/s and manual
 Measuring speed: 0.2, 0.5mm/s
 Measuring direction: Backward
 Traverse linearity: 3.5μm / 50mm (CV-1000), 3.5μm / 100mm (CV-2000)
*with the X axis in horizontal orientation
 Linear displacement: $\pm(3.5+2L/100)\mu\text{m}$
* L = Drive length (mm)
 Inclining range: $\pm 45^\circ$ (CV-2000)
 Z2-axis (column, CV-2000 only)
 Column type: Power drive (S4 type) or Manual (M4 type)
 Vertical travel: 250mm (S4 type), 320mm (M4 type)
 Resolution: 0.2μm (S4 type)
 Measurement method: ABSOLUTE linear encoder (S4 type)
 Drive speed: 0 - 5mm/s and manual

Z1-axis (detector unit)
 Measuring range: 25mm (CV-1000) or 40mm (CV-2000)
 Resolution: 0.4μm (CV-1000) or 0.5μm (CV-2000)
 Measurement method: Arc encoder
 Linear displacement: $\pm(3.5+14H/25)\mu\text{m}$
 accuracy (at 20°C) *H: Measurement height from the horizontal position (mm)
 Stylus up/down operation: Arc movement
 Face of stylus: Downward
 Measuring force: 10 - 30mN
 Traceable angle: Ascent: 77°, descent: 87°
(using the standard stylus provided and depending on the surface roughness)
 Stylus tip: Radius: 25μm, carbide tip
 Base size (W x H): 750 x 600mm (CV-2000)
 Base material: Granite (CV-2000)
 Mass: 5kg (CV-1000N2), 115.8kg (CV-2000M4), 124kg (CV-2000S4)
 Power supply: 100 - 240VAC $\pm 10\%$, 50/60Hz
 Power consumption: 150W (main unit only)

Arc scale on the Z-axis



Optional Accessory

- 218-024:** Column stand for CV-1000
(vertical travel: 250mm, inclination: $\pm 45^\circ$)
- 218-001:** Cross-travel table (XY range: 100 x 50mm)
- 218-011:** Cross-travel table (XY range: 4" x 2")
- 218-041:** Cross-travel table (XY range: 50 x 25mm)
- 218-051:** Cross-travel table (XY range: 2" x 1")
- 218-002:** Rugged table
- 176-107:** Holder with clamp
- 218-003:** Rotary vise (heavy-duty type)
- 172-144:** Rotary vise
- 172-234:** V-block with clamp
(Max. workpiece dia.: 50mm)
- 172-378:** V-block with clamp
(Max. workpiece dia.: 25mm)
- 172-197:** Swivel center support
- 172-142:** Center support
- 172-143:** Center support riser
- 178-023:** Vibration isolator
- 178-024:** Vibration isolator stand
- 998862:** Pin gage unit for calibration (mm)
- 998861:** Pin gage unit for calibration (inch)
- _____: Arms and styli (See page 424.)

* To denote your AC line voltage add the following suffixes to the order No. (e.g.: **218-341A**):
A for UL/CSA, **D** for CEE, **E** for BS, **F** for SAA, **DC** for China, **K** for EK, **No suffix** is required for JIS/100V

SPECIFICATIONS

Model No.	CV-1000N2	CV-2000M4	CV-2000S4
Order No. (mm)	218-611*	218-631*	525-724-1*
Order No. (inch)	218-621*	218-641*	525-724-2*
X1-axis measuring range	50mm	100mm	100mm
Z1-axis measuring range	25mm	40mm	40mm
Z2-axis vertical travel	—	250mm	320mm

* To denote your AC line voltage add the following suffixes to the order No. (e.g.: **218-611A**):
A for UL/CSA, **D** for CEE, **E** for BS, **DC** for China, **K** for EK, **No suffix** is required for JIS/100V

SYSTEM DIAGRAM

