

# LC-10

Contour measuring: Made in Germany

# optacom



***Simply contour:  
The low-cost way  
of getting started  
in measurement technology***

When high-precision contour measurements are required, while the full set of features offered by modern universal measuring machines is not needed, the optacom LC-10, an inexpensive starter model for precision measurements, is the best choice.

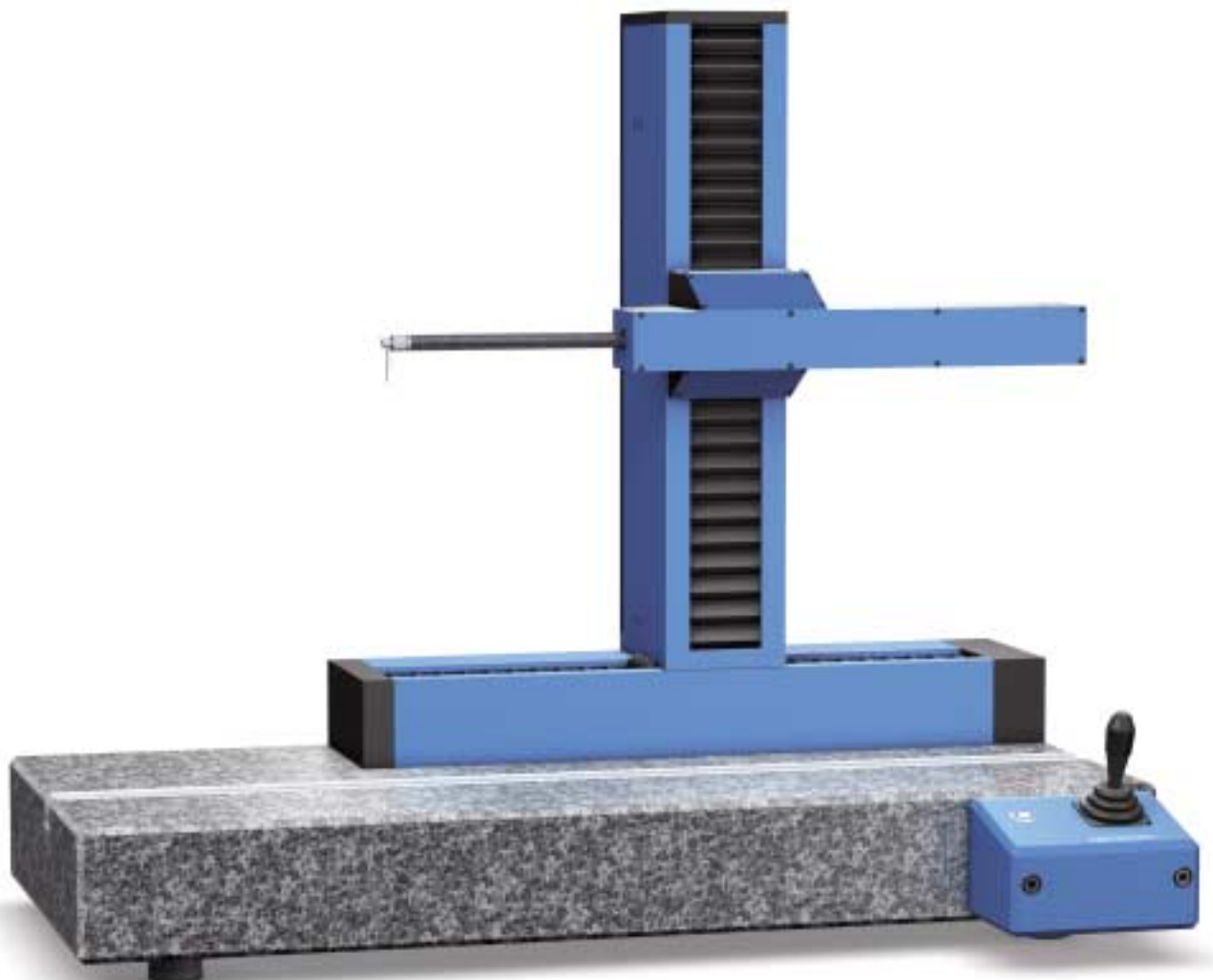
With full support of the measurement ranges and equipped with all the technical finesse of our allrounder VC-10, the LC-10 offers the same precision as the VC-05.

Perfect measurement quality and an attractive price united in a single device.

And by the way, the LC-10 is a genuine optacom down to every detail.

It comprises high-precision linear axes with integrated drive and wear-free, linear incremental measurement systems. Its chassis is made of highly-durable aerospace aluminium; only the casing is manufactured from robust synthetic material. The LC-10 is operated and utilizes the same software modules as all the other optacom measuring instruments.

However, it is not designed to be upgraded to a universal measurement device with optional powered rotary chuck and swivel axis.



Resolution X- and Z-axis	0.02 µm
Measuring range (Z-axis)	175 mm (optional 275 mm)
Measuring range (X-axis)	170 mm (optional 270 mm)
Measuring system	optical, incremental in all axes (X, Z, T)
Accuracy	+/- (1.5 + L/100) µm
Accuracy acc. DIN ISO Standard	10 % class 2
Resolution of the testing stylus	< 30 nm
Maximal measuring force	150 mN
Measuring speed	0.1 – 2 mm/sec (automatically optimised)
Cut-off lengths [mm]	0.08/0.25/0.80/2.50/8.00 and user adjustable
Number of cut-offs	1 – 10 (arbitrary)
Filter	Gaussian; 2RC; λs-filter
Resolution Scale	Scale 1:1 bis 5000:1
Stylus tip radius	0.002 – 1 mm
Angle measurement	Up gradient 78°; Down gradient 87°
Roughness parameters DIN EN ISO 4287	Rz; Rzmax; Rp; Rv; Ra; Rt; Rq
Waviness parameters DIN EN ISO 4287	Wp; Wv; Wz; Wa; Wt; Wq
Profile parameters DIN EN ISO 4287	Pp; Pv; Pz; Pa; Pt; Pq; Psk
Material parameters DIN EN ISO 13565	Rk; Rpk; Rvk; Mr1; Mr2
Roughness values JIS B-0601	Rz; Ra
Calibration setting block	is provided with instrument and certificate
Dimensions (WxDxH)	835 x 380 x 720 mm
Weight	120 kg

**Technical data**

### **At a glance**

- ▶ The ideal starter instrument for high-precision measurements
- ▶ Measuring range of 175 x 170 mm (with an optional extension of approx. 100 mm in both axes) sufficient for all standard tasks.
- ▶ Contour and roughness in one measurement with the optional roughness module
- ▶ High resolution of < 30 nm at the tip of the stylus
- ▶ Fully equipped basic system including calibration setting block, PC, monitor, printer and the software module optacom contour

### **Package includes**

- ▶ Measuring machine optacom LC-10
- ▶ PC with 19" flat screen monitor, mouse and keyboard
- ▶ Operating system Windows XP
- ▶ Inkjet printer
- ▶ Software optacom contour
- ▶ Calibration setting block

### **Options**

- ▶ Software optacom rough (roughness module): This module allows for contour and roughness measurements in one pass. Roughness measurements up to Rz3 are possible with standard stylus according to optacom working standards
- ▶ Software optacon topdown (bidirectional measuring module): You can measure a component in one operation in both directions with this module and record automatically and precisely the measurements in absolute coordinates in a multidimensional map
- ▶ Fully automated system for CNC measurements
- ▶ Y-table manual or motorised with material measurements
- ▶ Maximum traverse length 275 x 270 mm

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**optacom is certified**

**in accordance with DIN EN ISO 9001: 2000**

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**Subject to technical changes without prior notice.**

**No liabilities for errors / errata - Rev. 04/07**