

High Precision Optical Profile Projectors

Features:

Provides accurate 2D measurement for all common geometric features such as circle, lines, angles and etc.

All measured results can be printed or transferred to computer for further processing.

The optical profile projector is designed for all circular dimensions measurement in mould and die making, form tools making, screw manufacturing, gear manufacturing and etc.

Constructed with top class components and under high standard of workmanship, the Projector achieves very high measurement accuracy, the axial measurement accuracy is $(3+L/100)\mu\text{m}$, where L is the measured length in mm : the total contour distortion is less than 0.08%.

High quality lighting and optical system provides brilliant images of exceptional quality,

The projector is equipped with 1 μm resolution high accuracy measuring system which provides comprehensive & easy to use geometric measurement functions.

Measuring System Specifications

Axis: X,Y axes linear transducer

A axis rotary encoder

Resolution: 0.001mm(X,Y axes) / 0.01deg.(A axis)

Coordinates: X,Y and Polar Coordinates Systems

Memory: 99 features memory ;10 coordinates memory

Error Comp: Linear and non-linear error compensation

I/O Interface: RS-232C I/O interface

Geometric Measurement Functions

- 3 points circle measurement
- Points measurement
- 2 points distance measurement
- 2 points form a line measurement
- 2 lines intersection measurement
- 4 points line intersection measurement
- Point line perpendicular projection



Specifications	Order No. 640-1510	Order No. 640-2010	Order No. 640-2515
Table	Table	Table	Table
Table dimensions	300x170mm	350x170mm	420x250mm
Glass dimensions	175x127mm	230x120mm	290x190mm
X measurement travel	150mm	200mm	250mm
Y measurement travel	100mm	100mm	150mm
Z focusing travel	90mm	90mm	90mm
XY readout resolution	0.001mm	0.001mm	0.001mm
Axial measuring accuracy	$(3+L/100)\mu\text{m}$	$(3+L/100)\mu\text{m}$	$(3+L/100)\mu\text{m}$
Screen			
Screen diameter	315mm	315mm	415mm
A readout range	0-360 degree	0-360 degree	0-360 degree
A readout resolution	0.01 degree	0.01 degree	0.01 degree
Max. Contour distortion	0.08%	0.08%	0.08%
Lens			
Magnifications	10X 20X 50X	110X 20X 50X	10X 20X 50X
Visual field (dial.)	30mm 15mm 6mm	30mm 15mm 6mm	40mm 20mm 8mm
Object focal distance	73mm 35mm 15mm	73mm 35mm 15mm	81mm 71mm 65mm

Dial Shore Durometers

For testing soft and natural rubber products, neoprene, soft P.V.C., nitril rubbers, wax and more

Shore A

35° Blunt Taper

Hardness: 20-90HA

Test Force: 0.55-8.06N(56-821g)

Shore D (for hard rubber and plastic)

Sharp 30° Point

Hardness: 0-90HD

Test Force: 0-44.5N(0-4450g)

Shore C (for Medium Rubber

elastomers and Plastic)

Sharp 30° Point

Hardness: 0-90HD

Test Force: 0-44.5N(0-4450g)

Order No.639-2071

Order No.639-2072

Order No.639-2073

