PH-A14 PROFILE PROJECTOR

High performance, horizontal-beam projector equipped with highly accurate linear glass scales
PH-A14 Horizontal Profile Projector

FEATUEARS

• Bench-top model that uses horizontal optical system.
• Suitable for thread pitch measurements—blurred or distorted images will not be produced when workpiece is angled.
• Inverted image on the day-bright screen.
• 14” (356mm) diameter vernier protractor screen with solid line cross-hairs for easy alignment.
• Heavy-duty workpiece table incorporates linear scales for fast, accurate measurement.
• The PH-A14’s generous X, Y workstage travel (8” x 4”) provides users with ample range to cover application needs.
• New location of the Y-axis handle improves ease of operation.
• The workstage provides high accuracy and can handle a workload of up to 100 lbs.
• Fiber illuminator is standard accessory.

Projection Capacity

Max. workpiece width  Working distance
L  W

Projection Lenses

<table>
<thead>
<tr>
<th>Magnification</th>
<th>10X</th>
<th>20X</th>
<th>50X</th>
<th>100X</th>
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</thead>
<tbody>
<tr>
<td>View field</td>
<td>70.6</td>
<td>17.3</td>
<td>7.12</td>
<td>3.56</td>
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<tr>
<td>L</td>
<td>235</td>
<td>235</td>
<td>80</td>
<td>109</td>
</tr>
<tr>
<td>W</td>
<td>93</td>
<td>40</td>
<td>14.6</td>
<td>11</td>
</tr>
<tr>
<td>D</td>
<td>105</td>
<td>105</td>
<td>38.4</td>
<td>19</td>
</tr>
</tbody>
</table>
DIMENSIONS

PH-A14

Unit: inch(mm)

SPECIFICATIONS

Model No. PH-A14
Order No. 172-810-10A
Projected Image Inverted image
Protractor screen
Effective diameter 14" / 356mm
Screen material Fine ground glass
Reference line Cross hair line
Screen rotation ±360°, fine feed and clamp
Angle display Vernier reading, Resolution: 2'

Projection lens Standard accessory: 10x (172-011). Optional accessories: 20X, 50X, 100X
Magnification accuracy Contour illumination ±0.1% or less
Surface illumination ±0.15% or less
Contour illumination light source Halogen bulb (24V 150W)
Optical system Telecentric system
Functions Heat-absorbing filter, Cooling fan
Surface illumination light source Halogen bulb (24V 150W)
XY Stage Optical system Twin fiber optic illumination
Table travel (X-axis) 8" / 203.2mm
Table size (X, Z) 16 x 6" / 407 x 153mm
Vertical travel (Y-axis) 4" / 101.6mm
Resolution .00005" / 0.001mm*
Measuring Unit Built in Linear scale
Max. workpiece width See (L) on page I-12
Max. workpiece load 100lbs / 45kg
Power supply 120V AC, 50/60Hz
Mass 308lbs / 140kg
Standard accessories 10x projection lens set, work stage, power cord, halogen bulb, fuse, grounding wire, allen wrench

*Counter not included

Standard Accessories

172-011: Projection Lens 10x
512305: Halogen bulb 24V 150W (500 Hours)
358191: Fuse 6A (for 10-120V)
538815: Hexagonal wrench 2.5
538616: Hexagonal wrench 3
2BAC245: Spanner wrench 2.5 1
99MBA051A: Operational manual

See the backside for optional accessories
Coordinate Measuring Machines
Vision Measuring Systems
Form Measurement
Optical Measuring
Sensor Systems
Test Equipment and Seismometers
Digital Scale and DRO Systems
Small Tool Instruments and Data Management

Optional Accessories
172-011: 10X projection lens (standard accessory)
172-012: 20X projection lens
172-013: 50X projection lens set
172-014: 100X projection lens set
172-116: Standard scale (50mm)
172-117: Standard scale (2")
172-118: Reading scale (200mm)
172-119: Reading scale (300mm)
172-120: Reading scale (8")
172-121: Reading scale (12")
172-286: Green filter
512305: Halogen bulb (24V, 150W) (standard accessory)

Fixture and Stage accessories
172-142: Center support
172-143: Center support riser
172-144: Rotary vise
172-234: V-block with clamp
172-235: V-block with clamp (Max. workpiece dia.: 2.4" / 60mm)
172-132: Vertical holder
64AAA129B: Machine stand 23"W x 45"D x 20"H

Reading Scales
172-116 (200mm)
172-117 (300mm)
172-119 (8")
172-121 (12")

Designed for checking the magnified image of a standard scale.

Center Support
172-142
Clamps a cylindrical workpiece such as a screw
Workpiece dia.: 120mm max

Center Support Riser
172-143
Widens the damping capacity of the center support to a maximum diameter of 240mm.

Rotary Vise
172-144
Workpiece dia.: 60mm max

Vertical Holder
172-132
Set up a thin workpiece easily

Green Filter
172-286
Increases the screen sharpness of the contour image.

Standard Scales
172-116 (50mm)
172-117 (2")

Used for checking magnifying accuracy.

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