

Mitutoyo PH-A14 and PH-3515F



FEATURES of PH-A14

- Bench-top model that uses horizontal optical system.
- Suitable for thread pitch measurements. View angled workpiece without blurred or distorted images.
- Inverted image on the day-bright screen.
- 14" diameter protractor screen with cross-hairs and staggered lines for easy alignment.
- Heavy-duty workpiece table incorporates linear scales for fast, accurate measurement.
- Built-in linear scales for use with optional display counters.



FEATURES of PH-3515F

- Bench-top model that uses horizontal optical system.
- Suitable for thread pitch measurements. View angled workpiece without blurred or distorted images.
- Erect image on the day-bright screen.
- 14" diameter protractor screen with cross-hairs and staggered lines for easy alignment.
- Digital angle measurement to 1' or 0.01°.
- Heavy-duty workpiece table incorporates linear scale for fast, accurate measurement.
- Built-in linear scales for use with optional display counters.

Model Number	PH-A14	PH-3515F
Order Number	172-810-10A	172-848-1A
Projected Image	Inverted image	Erect 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	LED Display
Angle Resolution	Resolution: 2 min.	Resolution: 1 min. or 0.01° (switchable), Range: ±370°
Functions	NA	Functions: Absolute/incremental mode switching, Zero set
Projection lens	Standard: 10X Optional: 20X, 50X, 100X	Standard: 10X Optional: 5X, 20X, 50X, 100X
Magnification accuracy		
Using Contour illumination	±0.1% or less	
Using Surface illumination	±0.15% or less	
Contour illumination		
light source	Halogen bulb (24V 150W)	
Optical system	Telecentric system	
Functions	2-step brightness switch, Heat-absorbing filter, Cooling fan	
Surface illumination		
light source	Halogen bulb(24V 150W)	
Optical system	Twin fiber optic illumination	(Optional) Twin fiber optic illumination: 64AAB004 Fiber optical illumination cable + 64PPP277 Halogen lamp
XY Stage		
Table travel (X-axis)	8" (203.2mm)	10" (254mm)
Table size(X, Z)	16"x6" (407x153mm)	17.7"x5.7" (450x146mm)
Vertical travel (Y-axis)	4" (101.6mm)	6" (152mm)
Resolution	Switchable with optional KA counter or QM-Data 200	
Measuring Unit	Built in Linear scale	
Max. workpiece load	100lbs (45kg)	
Power supply	100 - 240V AC, 50/60Hz	
Mass	333lbs (150kg)	
Standard accessories	10x projection lens set, work stage, power cord, halogen bulb, tube fuse, grounding wire, allen key, cap, vinyl cover.	10x projection lens set, work stage, surface illumination unit, power cord, halogen bulb, tube fuse, grounding wire, allen key, cap, vinyl cover.



KA Counter

KA Counter: **174-173A**
Counter tray: **64AAB003**



QM-Data200

QM-Data200 (2-D data processing unit)
Arm mount type: **264-146A**

How to order

PH-A14

Required:

Main Unit: **172-810A**

Display:

KA Counter: **174-173A**

Counter Tray and Arm: **64AAB003** (for 174-173A)

OR

QM-Data200: **264-146A**

Suggested:

Machine Stand: **64AAA129B**

Additional Accessories: If required please see below

Additional Optional Accessories

172-011: 10X projection lens
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)
172-161: Reading scale (300mm)
172-119: Reading scale (8")
172-162: Reading scale (12")
172-286: Green filter
512305: Halogen bulb (24V, 150W)

Fixture and Stage Accessories

172-142: Center support
172-143: Center support riser
172-144: Rotary vise (Max. workpiece dia.: 2.35")
172-234: V-block with clamp (Max. workpiece dia.: 2")
172-132: Vertical holder
64AAA129B: Machine stand

PH-3515F

Required:

Main Unit: **172-848-1A**

Display:

KA Counter: **174-173A**

Counter Tray and Arm: **64AAB003** (for 174-173A)

OR

QM-Data200: **264-146A**

Suggested:

Machine Stand: **58ZZA097**

Fiber optical surface illumination cable: **64AAB004**

Halogen lamp (for 64AAB004): **64PPP277**

Additional Accessories: If required please see below

Additional Optional Accessories

172-145: 5X projection lens set
172-175: 5X projection lens
172-184: 10X projection lens set (standard accessory)
172-011: 10X projection lens
172-173: 20X projection lens set
172-165: 50X projection lens set
172-174: 50X projection lens
172-166: 100X projection lens set
172-116: Standard scale (50mm)
172-117: Standard scale (2")
172-118: Reading scale (200mm)
172-161: Reading scale (300mm)
172-119: Reading scale (8")
172-162: Reading scale (12")
172-286: Green filter
512305: Halogen bulb (24V, 150W)
172-133: Surface illumination
64AAB004: Fiber optical illumination cable
64PPP277: Halogen lamp (for 64AAB004)

Fixture and Stage Accessories

172-142: Center support
172-143: Center support riser
172-144: Rotary vise (Max. workpiece dia.: 2.35")
172-234: V-block with clamp (Max. workpiece dia.: 2")
172-132: Vertical holder
172-001: Tipped-saw support stand
172-002: Cutter support stand
58ZZA097: Machine stand

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