

**NEW MITUTOYO AOS - DRO SYSTEM  
KA COUNTER WITH AT - 715 MAGNETIC SCALES**

SERIES:

**KA Counter**

- Selectable Resolutions (.00005, .0001, .0002, .0005") allows choice according to the tolerance requirements of the work being performed
- Bolt Circle Calculation (eliminates need to use trigonometry to calculate hole positions)
- Diameter Mode (doubles reading on cross axis of lathe)
- Tool Offsets (stores datum points for 10 tools which eliminates need to re-zero after tool changes)
- Connectable with AT-715 Magnetic scales or AT-100 series Glass scales (allows use of magnetic and/or glass scales for different applications)
- RS-232 Output (optional) allows data capture and storage on remote computer
- Touch Probe (optional) allows automatic edge detection for zeroing part

**AT-715 Magnetic Scales**

- Fully submersible in coolant (coolant never effects scale position reading)
- +/- .00012" accuracy over ft./12 in.
- True Absolute (no battery backup - means position information is never lost, even after power interruption)
- Shock Resistant
- Reader Head mounted on saddle guide for easy installation (alignment not as critical)

**ABS AOS DRO Linear Scale System****SPECIFICATIONS****AT715 Linear scale**

|                        |  |   |
|------------------------|--|---|
| Detection system       | Electromagnetic induction system (3 tracks, absolute AOS)  |   |
| Resolution             | 0.005 mm / 0.002 mm / 0.001 mm (Changeable by parameter setting)<br>.0005 inch / .0002 inch / .0001 inch / .00005 inch (Changeable by parameter setting) |   |
| Dimensions             | Height   | 1.43" / 36.5mm                                      |
|                        | Width  | .87" / 22mm   |
|                        | Length   | varies according to travel length specified/ordered |
| Effective range        | 3.94" x 70.87"/100 ~ 1800 mm   |   |
| Signal output          | Mitutoyo original Serial format (can not connect to KL, KLL, KS, KC Counter)   |   |
| Accuracy               | ( 7 + 13L / 1000 )um [ L : Effective range (mm) ]  |   |
| Maximum response speed | 50 m / min.  |   |
| CE marking             | Corresponding to the regulations   |   |

**KA-Counter**

|               |  |
|---------------|--|
| Resolution    | 0.005 mm / 0.002 mm / 0.001 mm (Changeable by parameter setting)<br>.0005 inch / .0002 inch / .0001 inch / .00005 inch (Changeable by parameter setting)   |
| Readout       | 2-axis, 3-axis<br>( Using 2-axis counter for 1-axis requirement.)<br>( For lathes, using 3-axis counter with the parameter setting changed   |
| Display       | Seven segment LED / 7 digit, 1 digit for coordinate number   |
| Main function | Zero setting, Preset, Low digit OFF, 10 coordinate position memory, Bolt-Hole-Circle, mm / inch conversion, Counting direction setting, Resolution setting (Parameter setting), Diameter display, 1/2 calculation, Smoothing display, Tool offsets (Parameter setting) |
| Input         | Automatic discrimination of scale connected<br>ABS AOS DRO scale (AT715 and AT100 series)<br>2Vpp sine wave  |
| Output        | RS-232C interface ( Option )   |
| CE marking    | Corresponding to the regulations   |

**MAGNETIC ABS - AOS - DRO  
PACKAGE FOR MILLING SYSTEM**

USING KA COUNTER AND AT715 SCALES

2 Axis, KA Counter Milling System

Specify "Package"  
number when ordering.

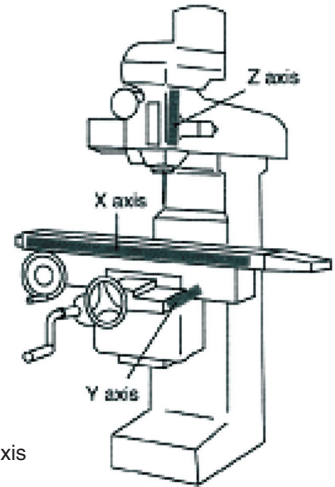
|                                 | Y Axis Travel                |                              |                 |             |
|---------------------------------|------------------------------|------------------------------|-----------------|-------------|
|                                 | AT715-300 (12")              | AT715-350 (14")              | AT715-400 (16") |             |
|                                 | For Bridgeport #1            | For Taiwan                   | For Lagun       | For Taiwan  |
| AT715-750 (30")<br>Axis Travel  | Package Number<br>174-173PM1 | Package Number<br>174-173PM3 | Package No.     | Package No. |
| AT715-900 (36")<br>Axis Travel  | 174-173PM2                   |                              | 174-173PM4      | 174-173PM5  |
| AT715-1000 (40")<br>Axis Travel |                              | 174-173PM6                   | 174-173PM7      | 174-173PM8  |

**Package Includes:**

- KA Counter
- Brackets for Scales
- AT715 Linear Scales
- Display Arm Kit

Order No. 5720001

Price



3 Axis, KA Counter Milling System (Z axis length 6")

|                                 | Y Axis Travel                |                              |                 |             |
|---------------------------------|------------------------------|------------------------------|-----------------|-------------|
|                                 | AT715-300 (12")              | AT715-350 (14")              | AT715-400 (16") |             |
|                                 | For Bridgeport #1            | For Taiwan                   | For Lagun       | For Taiwan  |
| AT715-750 (30")<br>Axis Travel  | Package Number<br>174-175PM1 | Package Number<br>174-175PM3 | Package No.     | Package No. |
| AT715-900 (36")<br>Axis Travel  | 174-175PM2                   |                              | 174-175PM4      | 174-175PM5  |
| AT715-1000 (40")<br>Axis Travel |                              | 174-175PM6                   | 174-175PM7      | 174-175PM8  |

**Package Includes:**

- KA Counter
- Brackets for Scales
- AT715 Linear Scales/  
AT715-150mm (6") for Z axis
- Display Arm Kit

Order No. 5720002

Price

**AT100 SERIES - GLASS SCALE UNITS**

**FEATURES**

**1. Low-priced model AT115**

The low-priced version of Mitutoyo Linear Scale AT115 series are available. The mounting dimensions of all the AT115 models are the same as those of the AT111 series. Most suitable for mounting on a milling machine or an XY table.

**2. Joint structure of detector**

The ball joint structure is employed at the joint of the detector head and the slider (sensor unit) inside the scale. This structure prevents the slider movement from deviating from the normal moving directions when the detector head shifts to right and left, thus providing a normal scale reading and increasing flexibility in the scale installation. In addition, this structure is highly rigid and therefore has an excellent durability.

**3. Water-proof connector**

A waterproof/splash-proof connector is used to enable separation of the signal cable. Thus, an installation and maintenance of the Linear Scale can be easily performed. (The signal cable in AT115 cannot be separated.)

**4. Conduit armored type signal cable**

A waterproof/splash-proof connector is used to enable separation of the signal cable. Thus, an installation and maintenance of the Linear Scale can be easily performed. (The signal cable in AT115 cannot be separated.)

**5. Unique rubber-lip openings**

The rubber-lip openings are shaped like the bottom of a ship that plows the water.

**6. Excellent splash and dust-proof rubber lip structure**

The rubber lips are made of a strong, special urethane and wires are inserted in these lips to improve the splash-proofing and dust-proofing of the scale. (AT102 only)

**GLASS LINEAR SCALE PACKAGE  
FOR GRINDER SYSTEM**

USING KA COUNTER AND AT115

2 Axis, KA Counter Grinder System

Specify "Package"  
number when ordering.

| Vertical        | Cross Side                    |                               |                 |                 |
|-----------------|-------------------------------|-------------------------------|-----------------|-----------------|
|                 | AT115-150 (6")                | AT115-200 (8")                | AT115-250 (10") | AT115-300 (12") |
| AT115-300 (12") | Package Number<br>174-173PG1L | Package Number<br>174-173PG8L | Package Number  | Package Number  |
| AT115-350 (14") | 174-173PG7L                   | 174-173PG3L                   | 174-173PG5L     |                 |
| AT115-400 (16") |                               | 174-173PG4L                   | 174-173PG13L    |                 |
| AT115-450 (18") | 174-173PG2L                   | 174-173PG9L                   | 174-173PG6L     | 174-173PG14L    |
| AT115-500 (20") | 174-173PG10L                  | 174-173PG11L                  | 174-173PG15L    |                 |
| AT115-600 (24") | 174-173PG12L                  | 174-173PG16L                  |                 |                 |

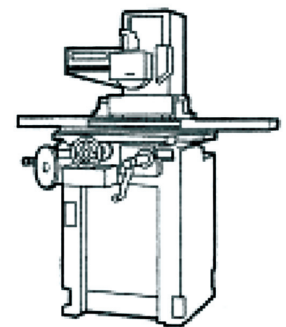
Many other packages available; please inquire.

**Package Includes:**

- KA Counter
- AT115 Glass Linear Scale /  
Magnetic Scale available  
at same price; please inquire
- Bracket Kits
- Display Arm Kit

Order No. 5720003

Price



**LINEAR SCALE PACKAGES  
FOR LATHES**

2 Axis, KA Counter Lathe System

**Package Includes:**

- KA Counter
- AT115, AT102 Glass Linear  
Scale and Extension Cable.
- Bracket Kits
- Counter Stand
- Counter Tray

| Z Axis Travel    | X Axis Travel                |                              |                 |
|------------------|------------------------------|------------------------------|-----------------|
|                  | AT115-200 (8")               | AT115-250 (10")              | AT115-300 (12") |
| AT715-1000 (40") | Package Number<br>174-173PL3 | Package Number<br>174-173PL4 | -               |
| AT715-1200 (48") |                              | 174-173PL6                   | -               |
| AT715-1500 (60") |                              | 174-173PL 7                  | 174-173PL29     |

| Z-Axis Travel | Order No. | Price |
|---------------|-----------|-------|
| 1000          | 5720004   |       |
| 1200, 1500    | 5720005   |       |

Specify "Package"  
number when ordering.

