



4KU90

Outside Micrometers

Quickly and easily adjusts to zero
Features microfine graduations on satin chrome finish and carbide-tipped measuring faces.
Ratchet stop thimbles provide exact repetitive readings.

- 0.0001" graduations
- Positive lever locks
- Wrench and fitted case included

Item No.	Range	Thimble Type
4KU90	0-1"	Friction
4KU91*	1-2"	Friction
4KU92*	2-3"	Ratchet Stop

*Supplied with standard



4KU86



6XU75

Outside Micrometer Set

Precision measuring and set up
Quickly and easily adjusts to zero. Set features friction and ratchet stop thimble for exact repetitive readings and positive lever lock.
Micrometers have carbide faces with clear graduations on a satin chrome finish.

- Baked enamel finish frames
- 0-1", 1-2", 3-4" range
- 0.0001" graduations
- Wrench and fitted case included

Item No.	Description
4KU86	0-3" Set with 2 Standards
6XU75	Adjustable Micrometer Stand



4KU87

Digital Outside Micrometers

Fast accurate readings
Carbide tipped measuring faces with ratchet thimble provides exact reading up to 0.0001" graduations. Lock nut mechanism secures the spindle at any reading.

- Fitted case included

Item No.	Description
4KU87	0-1" Micrometer
4KU88	0-2" Micrometer



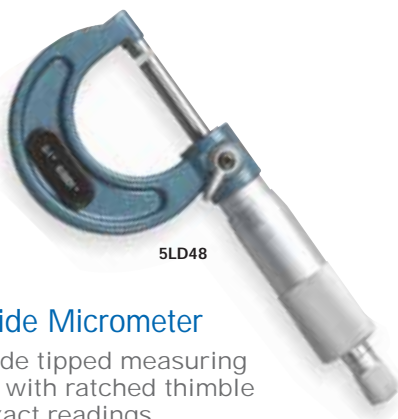
Micrometer Set

0.0001" Graduations
Micrometers have carbide measuring faces, ratchet stop thimble with inch/mm select, and resolution of 0.00001". Set features 3 micrometers, 0-3" range and rotating spindle.

Set includes standards and spanner wrenches

- Forged steel painted blue frame
- One-piece hardened precision ground spindle for long life
- Storage case included

Item No.	Description
5LD54	0-1", 1-2", 2-3" Micrometer Set



5LD48

Outside Micrometer

Carbide tipped measuring faces with ratched thimble for exact readings

Rotating one-piece hardened precision ground spindle.

- Forged steel painted blue frame
- 0.0001" graduations
- Storage case included

Item No.	Description
5LD48	0-1" Outside Micrometer



Electronic Digital Outside Micrometer

Accurate within 0.00016"
Large easy-to-read display has a resolution of 0.00005"/0.001mm. Includes direct RS232 output, auto-off feature and friction thimble type.

- Insulated frame
- Fitted case and wrench included

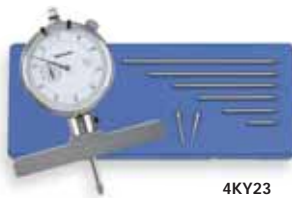
Item No.	Description
4KU89	0-1" 25 mm Digital Micrometer



4KY17



4KY22



4KY23



Depth Micrometers

Comes complete with fitted case

4KY17 and 4KY18 Vernier

A wide depth range allows you to measure small holes and small, fabricated articles with grooved or elevated surfaces. Satin chrome-finished micrometers have ratchet thimbles and locking clamps.

- Rod diameter: 0.176"
- 0.001" graduations
- 4" base length

4KY22 Fluid Resistant Electronic Digital

Hardened steel base is precision ground and microlapped for accuracy. Ideal where water, oil, or dust are prevalent.

- Resolution: 0.00005"/0.001 mm
- Automatic shutoff
- Direct RS232 output

4KY23 Dial

Rods can be connected together for full 0-22" capacity. Hardened steel base is ground and microlapped for accuracy. 0-1" range indicator with 0.001 graduations.

- Carbide contact points

Item No.	Range	No. of Rods
4KY17	0-4"	4
4KY18	0-6"	6
4KY22	0-6"	6
4KY23	0-22"	6

Inside Micrometers

Comes complete with fitted case

Small micrometer comes with convenient detachable handle. Measure a wide range of IDs with fully hardened and lapped extension rods of varying lengths (2" setting master).

- 0.001" graduations
- Satin chrome finish w/microfine graduations
- Set includes rods, adjustment wrenches, and fitted case.

Item No.	Range	No. of Rods
6XU73	2-12" Tubular	5



4KU74

4KU73

6XU77

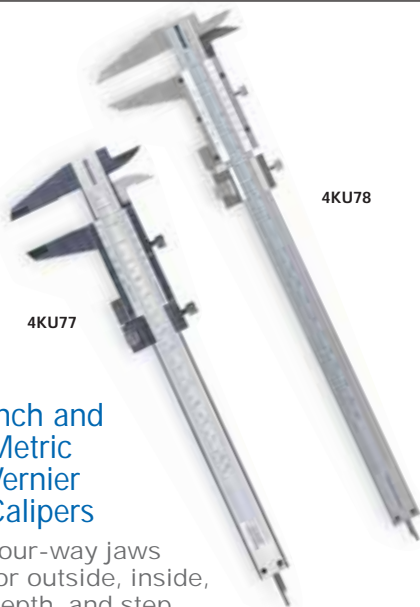
Stainless Steel Calipers

Shockproof

Durable construction features knurled lock, inverted covered racks and dual pinion drive mechanism. Take measurements with thumb roll.

- Fitted case included

Item No.	Range	Jaw Depth
4KU74	0-6"	2"
4KU75	0-8"	1-1/2"
4KU73	0-12"	2-7/16"
6XU77	0-4"	OD 1.0" / ID 0.5"
6XU79	0-24"	3-3/8"



4KU77

4KU78

Inch and Metric Vernier Calipers

Four-way jaws for outside, inside, depth, and step measurements

Hardened stainless steel construction with measuring faces that are ground and lapped for accuracy. Measures in inches or metric with vernier scales of 0.001" and 0.02 mm.

- Fitted case included

Item No.	Range	Jaw Depth
4KU77	0-6"/0-150 mm	1.6"
4KU78	0-8"/0-200 mm	1.9"
4KU76	0-12"/0-300 mm	2.5"



1UG25

1UG24

Plastic Calipers

Economical choice

Nylon reinforced body has easy-to-read inch dial face, knurled thumb button and locking feature for precise measurements.

- 1" revolution
- Fitted case included

Item No.	Jaw Depth
1UG24	1-1/2"
1UG25	1-1/2"

Snap-Cal Electronic Digital Caliper

Compact spring-loaded travel model

Measures materials such as plastics, glass, wire, fiber, and paper on the go. Has a hanging loop for attachment to belt or chain. Hardened stainless steel construction with a wide face and flat jaw for easy positioning.

- Inch/metric conversion
- Accuracy: 0.001" (.02 mm)
- 1" jaw depth
- Leatherette case included



Item No.	Description	Resolution
4KY16	0-1.25"/0-31.5 mm	0.0005"/0.01 mm



Fluid Resistant Digital Caliper

Dust-, water-, and oil-resistant Stainless steel frame and large LCD. Direct inch/metric conversion with 4-way measurement (120" per second) and ceramic capacitive sensor. Rolling thumb wheel; control buttons on face; absolute scales. Remembers measuring position after the gage is switched off.

- Accuracy: ±0.001"
- 0-6/0-150 mm Range
- 0.0005"/0.01 mm Resolution
- 1.56 Jaw depth

Item No.	Description
2ZA60	Fluid Resistant Digital Caliper



Standard Digital Calipers

Fast, easy measurements 4-Way measurements (120" per second) with ceramic capacitive sensor. Stainless steel frame with large, easy-to-read LCD and automatic shut-off. Rolling thumb wheel; control buttons on face. Remembers measuring position after the gage is switched off.

- Accuracy: ±0.001"
- 0.0005"/0.01 mm Resolution
- 1.56 Jaw depth (2ZA59)
- 2.40 Jaw depth (2ZA61)

Item No.	Description
2ZA59	0-6/0-150 mm Range Caliper
2ZA61	0-12/0-300 mm Range Caliper

2-Piece Digital/Electronic Machinist Tool Kit

Reliable standard precision measuring Features EZ-Read digit counter micrometer and electronic caliper. Micrometer has carbide-tipped measuring faces and friction thimble. 4-way measuring/caliper has large LCD display, direct inch/metric conversion, and 0.001"/0.02 mm accuracy.

- Fitted, shop-hardened case included
- Water-resistant to IP -54 standards

Micrometer

- Range: 0-1"
- Graduations: 0.0001"

Caliper

- Range: 0-6"
- Graduations: 0.001"
- Range per revolution: 0.100"



6XU83

Item No.	Description
6XU83	2-Piece Water Resistant Tool Kit
2ZA58	2-Piece Measuring Tool Kit
2ZA62	2-Piece Measuring Set



Economy Caliper

Stainless steel frame with LCD, knurled lock, and thumb roll Capacitive sensor provides outside, inside, step, and depth measurements (120" per second). Zero, On/Off, and Inch/mm switches.

- Accuracy: ±0.001"
- 0-6/0-150 mm Range
- 0.0005"/0.01 mm Resolution
- 1.25 Jaw depth

Item No.	Description
1AAU4	Economy Caliper

3-Piece Universal Machinist Tool Kit

Three everyday essential tools Fitted, shop-hardened case includes carbide-tipped micrometer, adjustable dial caliper, and 6" flexible rule with 4R graduations. Line graduations on the beam.

- Knurled lock
- Micrometer**
- Range: 0-1"
 - Graduations: 0.0001"
 - Resolution: 0.0001"
- Caliper**
- Range: 0-6"
 - Graduations: 0.001"
 - Range per revolution: 0.100"
 - Resolution: 0.0001"



Item No.	Description
4KU85	3-Piece Machinist Tool Kit

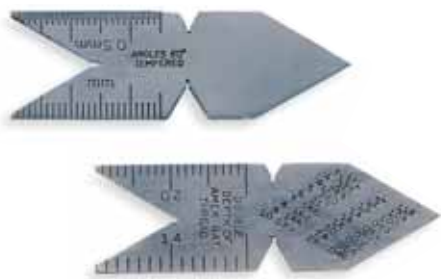


Long Range Electronic Digital Caliper

For greater accessibility and easier measurements Use for large inside and outside measurement modes up to 24". Features five-digit preset for inside diameters, inch/metric conversion, and hold feature.

- RS-232-C direct output
- Wooden case included

Item No.	Range	Resolution
4KY19	0-24"/0-600 mm	0.0005"/0.01 mm



4KU79

Center Gages

Find number of threads per inch
Scale graduated in 14ths, 20ths, 24ths, and 32nds. Made of stainless steel with lapped edges and notches and silver dial color.

- For American National or U.S. 60° Standard

Item No.	Description
4KU79	Center Gages



6-Piece Telescoping Gage Set

Determine the true size of holes, slots and recesses

Plunger or gage expands in hole to be measured, locks in place, then gage is removed from hole. Final hole size is obtained by measuring over contacts with a micrometer. Constant spring tension gives uniform contact pressure. Both plungers are easily locked at any setting by a slight turn of the knurled screw in end of handle. Ends of both contacts are hardened and precision ground on the measuring radius end. Self centering.

- Fitted vinyl case included

Six measurement ranges/depths:
5/16 to 1/2"/4"; 1/2 to 3/4"/4"; 3/4 to 1-1/4"/4"; 1-1/4 to 2-1/8"/5"; 2-1/8 to 3-1/2"/5"; and 3-1/2 to 6"/5".

Item No.	Description
4KU95	6-Piece Telescoping Gage Set



Small Hole Gages

Extra long design for gaging deep or shallow holes, slots, and similar work. Hole size obtained by measuring over contact points with micrometer. Knurled knob at end of handle used for easy adjustment. Gaging surface is full-round with flat bottom for use in small shallow holes, slots, and grooves; fully hardened.

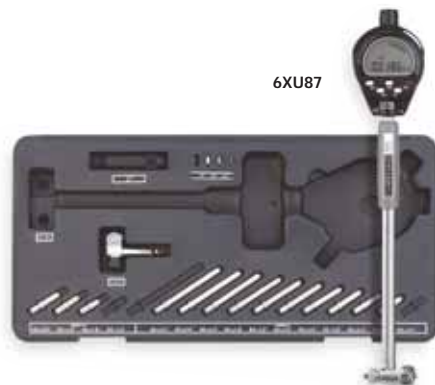
- Fitted vinyl case included

Four measuring ranges/probe depths:
0.125 to 0.200"/0.880"; 0.200 to 0.300"/1.200"; 0.300 to 0.400"/1.600"; and 0.400 to 0.500"/1.600".

Item No.	Description
4KU94	Small Hole Gages



4KY21



6XU87



6XU85

Extended Range Bore Gages

Wide measuring range from 1.4" to 6"
Easily-adjustable, self-centering gage features carbide anvils and chrome-plated handle.

- Extension holder and fitted base included

Item No.	Description	Probe Depth	Graduation
4KY21	17-Piece Set	10"	.0005"
6XU87	15-Piece Electronic Set	10"	0.0005"/0.001 mm
6XU85	10-Piece Set	5.25"	0.0005"



Dial Indicator

Knurled bezel rotates 360°
Stainless steel spindle rack and contact points. Easy-to-read microfine graduations.

- Satin chrome finish
- 3/8" stem and lug-back
- Adjustable tolerance pointers on dial face
- 23 to 95°F, -5 to 35°C operating temperature

Item No.	Description
5LD56	.500" Dial Indicator, 0.001" graduations

Extended Range Dial Test Indicator

210° swivel arc

Designed for layout applications with fully-jeweled movement. Features tungsten carbide points; 0.60" travel, 0.040", 0.080", and 0.120" contact points, two dovetails, 1-1/2" diameter dial face, and knurled bezel.

- Dial reading: 0 to 15 to 0
- Case included

Item No.	Graduation (In.)	Range
4KY12	0.06 Dial Test Indicator, 0.0005" graduations	0.06" mm



Fully-Jeweled Dial Test Indicator

Designed for layout applications
Features auto reverse and adjustable bezel. 0.080" contact point, 1" diameter dial face, and two dovetail clamps, 3/8" and 5/32".

- Dial reading: 0 to 15 to 0
- Shop hardened case included

Item No.	Graduation (In.)	Range
4KU83	.03 Dial Indicator, 0.0005" graduations	0.03"

Electronic Indicator

LCD display offers direct inch/metric conversion

Includes silver oxide cell battery with 1-2 years life. Working capacity 0 to 1" / 0 to 25 mm. Features lug back, 3/8" stem diameter, hold function, and floating zero.

- 0.0005"/0.01mm Resolution

Item No.	Description
2ZA63	Electronic Indicator



Dial Indicators

Easy to read microfne graduations
Offers revolution counter hand, adjustable tolerance limit markers, lug back, and 2-1/4" diameter dial face. Microfne graduations in black for continuous reading. Movement is mounted independent from case. Extra-long springs provide uniform pressure through entire travel of spindle. Knurled bezel and hardened stainless steel rack.

- 0.001" graduations
- 0 to 100 dial reading
- 1" total range

6XU93:

- Combination 2-1/2" dial indicator and magnetic back
- 25 lb. pull

Item No.	Face	Needle
4KU81	White	Black
4KU82	Black	Orange
6XU93	White	Black



4KU81



4KU82



6XU93



Dial Test Indicator

Large dial face with inch and metric readings.

- 1-1/2" dial face
- Inches marked in black on outer dial, millimeters in red on inner dial
- Easily set to zero
- Fully-jeweled movement
- Includes molded case
- Includes two dovetails, 3/8" and 5/32"

Item No.	Graduation (in.)	Range
6XU89	.0005"/ 0.01 mm	0.020"/ 0.05 mm

Dial Test Indicator

Measure hard to reach areas with 0.080" point and 1-7/16" length point.

- Includes three dovetail mounts, two dovetail extentions, 1" diameter, white dial face
- Automatic reversal
- Bidirectional clockwise rotation
- Includes molded case

Item No.	Graduation (in.)	Range
6XU91	.0005"	0.020"

Test Indicator Holders

2 diameters, 0.235" and 0.385" at the end of the shaft.

- Magnetic base with universal attachments
- Ball sockets allow for unlimited positioning
- Includes molded case

Item No.	Description
6XU95	Test Indicator Holder

Magnetic Base with Fine Adjust

Positions for the best angles

Fine adjust positions indicators at best angles for precision measuring and setup. V-base allows placing on round surfaces; holds to arbors, shafts, and chucks. On/Off switch for instant mounting and dismantling.

- Magnetic pull: 85 lbs.
- 2"L x 2-11/32"W x 1-13/16"H base

Item No.	Description
4KU72	Magnetic Base w/Fine Adjust



Magnetic Base/ Indicator Set

Adjustment up and down to any vertical angle

This complete set includes a magnetic base with 85 lb. pull, swivel post, conveniently located On/Off switch, V-base for placing on round surfaces, and lug back for mounting. Indicator is AGD-type Series 2.

- 1-100 continuous dial with .001" graduations
- 1" full travel

Item No.	Description
4KU71	Magnetic Base/Indicator Set



Pin Vises

Holds pins, wires, and small drill bits in place

Can be held in chuck or collet thanks to smooth section on handle. Knurled handle end allows for fast opening and closing, while octagonal shape helps prevent rolling. Full-length holes allow vise to accommodate any wire length.

Item No.	Range	Range (mm)
4KY33	0.050 to 0.125"	1.3 to 3.2 mm
4KY34	0.115 to 0.187"	2.9 to 4.8 mm



4KY33



4KY34

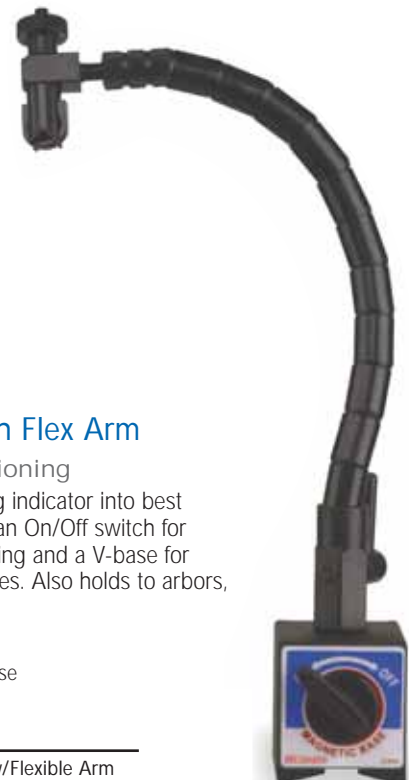
Magnetic Base with Flex Arm

Quick and easy positioning

Flexible arm curves to bring indicator into best viewing position. Features an On/Off switch for instant mounting/dismounting and a V-base for placement on round surfaces. Also holds to arbors, shafts and chucks.

- Magnetic pull: 85 lbs.
- 3-1/4"L x 2"W x 2-1/2"H base

Item No.	Description
4KY11	Magnetic Base w/Flexible Arm





Machinist Scriber

Mark on hard surfaces
9" steel with one straight point and one 90° point.
• 5/16" handle diameter

Item No.	Description
4KY26	Machinist Scriber



Machinist Scribers

Lightweight and easy to operate
5/16" handle diameter. Has 3 points; 2 straight
and one 90° points. 9 and 12" overall length.

Item No.	Description
4KY27	Machinist Scribers



Single Point Machinist Scriber

Mark on hard surfaces such as metal,
glass, plastic, ceramic, jewelry, etc.
Straight point with hex head, 5/16" handle
diameter, 4-3/4" overall length.

Item No.	Description
4KY30	Single Point Machinist Scriber



4KY28

4KY29

Pocket Scribers

Use like a pen for drawing
Straight single steel points.

Item No.	Handle Dia.	Overall Length
4KY28	3/8"	5-7/8"
4KY29	1/4"	4-3/4"



4KY31

Pocket Carbide Point Scribers

Easy to carry and use
Features 5/16" handle, 5" overall length,
straight points.

Item No.	Description
4KY31	Pocket Carbide
4KY32	Pocket Carbide, Magnetic Tip

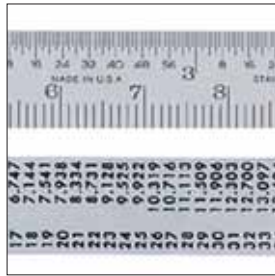


6XY11

Machinist Square Sets

True 90° angles
Made of hardened carbon tool steel. True 90°
angles inside and outside.

Item No.	Description
6XY11	4-Pc. Square Set (2, 3, 4, and 6")
6XY13	4-Pc. Square Set (4, 6, 9, and 12")



6" Pocket Steel Rule

Micro-fine graduations allow for easy reading

1/2" width x 3/16" thickness rule is made of durable tempered stainless steel. 6" long with inch/metric graduations to 64ths or 1 mm. Meets federal accuracy specifications.

Item No.	Description
4KU97	6" Pocket Steel Rule



6" Flexible Steel Rule

For day-to-day use

6" long with inch/metric graduations to 32nds and 64ths or 1 mm and 0.5 mm. 13 mm wide by 0.4 mm thick.

Item No.	Description
4KY13	6" Flexible Steel Rule



6" Rigid Steel Rule

Rust and Wear Resistant

3/4" width x 1/64" thickness steel rule. 8ths, 16ths, 32nds, and 64ths graduations are clearly marked.

Item No.	Description
4KU96	6" Rigid Steel Rule

4-Piece Combination Square Set

For layout, setup, checking heights and depths and setting angles. Also used as squares, center gages, bevel protractors, rules and straight edges. Features 1-1/2" combination blade and square, hardened cast iron center and direct reading double 180° protractor scale heads. 8ths, 16ths, 32nds, and 64ths graduations are laser engraved.

- Cast iron heads
- 12" 4R graduation

Item No.	Description
4KU80	4-Piece Combination Square Set



4KU93



6XU97

Protractors

4KU93

Draw accurate radial lines at angles from 0 to 180°. 3-5/16" x 2" rectangular steel head. 6" arm has knurled thumb lock.

6XU97

- Push button LCD display and range of application (1 x 360°, 2 x 180°, 4 x 90°)
- Arc minutes of decimal display
- Includes 6 and 12" blades, steel square, acute angle attachment, 2 batteries, and fitted case

Item No.	Description
4KU93	Protractor w/Rectangular Head
6XU97	Electronic Protractor



Electronic Edge Finder

Lights instantly when the stylus touches the work edge

Easy to view from any angle thanks to six equally spaced light ports. Reads off of any electrically conductive metal. Provides repeatability up to 0.0002".

Item No.	Face Size	Length	Shank Dia.
4KY24	0.2"	4"	0.5"



1-2-3 Block Set

Complete package to set up machine locations

Manufactured to precision tolerances: 0.0001" parallelism, 55-60 HRC hardness, and .0001" squareness. Features hex wrench, 5 mounting bolts (3/8"-16"), 5 tapped and 18 untapped thru holes for easy clamping.

- Shop-hardened case included

Item No.	Description
4KY14	Hardened Ground Steel Block Set



6XY15

6XY19

Pocket Scope Magnifiers

20x and 40x magnifier models never lose focus because there are no moving parts.

- Compound, 4-part lens system gives accurate readings without adjusting
- Aluminum alloy shell

6XY19

Micro-lite attaches to pocket.

Item No.	Description
6XY15	20x Pocket Scope Magnifier w/0.002" Reticle
6XY17	40x Pocket Scope Magnifier w/0.001" Reticle
6XY19	Micro-lite Attachment



4KY25



6XU99

V-Block Sets

Made of hardened steel.

4KY25 Universal V-Block Set

Allows you to hold round parts for manufacturing or inspection. Surfaces are square and parallel within .0005", V-grooves are square and parallel with all surfaces within .0005", and corresponding dimensions for each pair are alike within .0005". Includes 2 each blocks 1-1/2"L x 1-1/4"W x 1-1/4"H and 2 each blocks 3"L x 2-1/4"W x 2-1/4"H.

- Shop-hardened carrying case included

6XU99 V-Block Set

Surfaces are square and parallel within .0005", v-grooves are square and parallel with all surfaces within .0005", and corresponding dimensions for each pair are alike within .0005". Includes 2 each blocks 1-1/2"L x 1-1/4"W x 1-1/4"H and 2 each blocks 3"L x 2-1/4"W x 2-1/4"H.

Item No.	Description
4KY25	8-Piece V-Block Set
6XU99	4-Piece V-Block Set