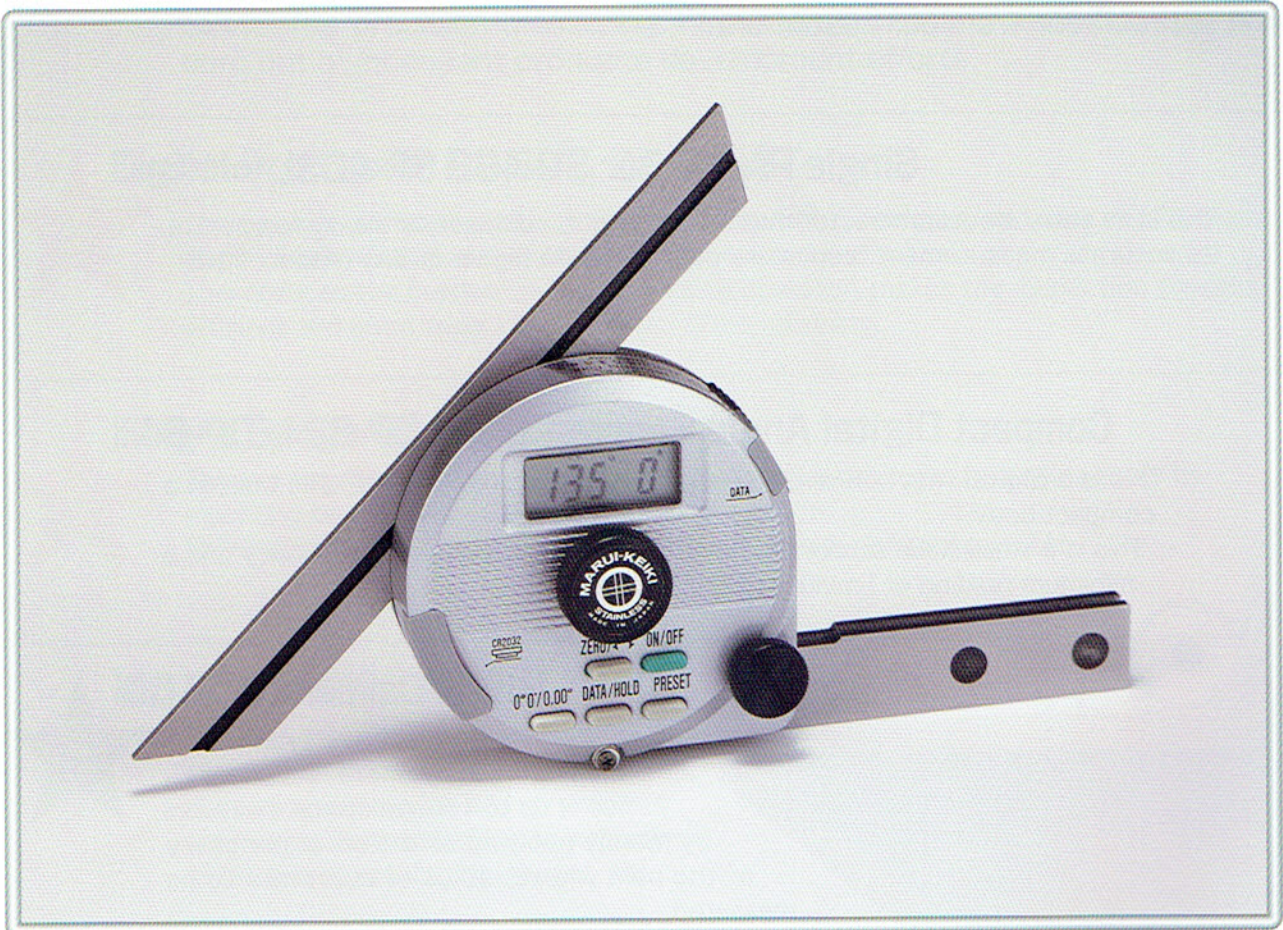


Digital Protractor DP-601

This is a compact, light-weight, and high accurate protractor with easy-to-read LCD digital display. This reduces the burden on the person making the measurement, makes the inspection process efficient, and greatly contributes to increasing the reliability.

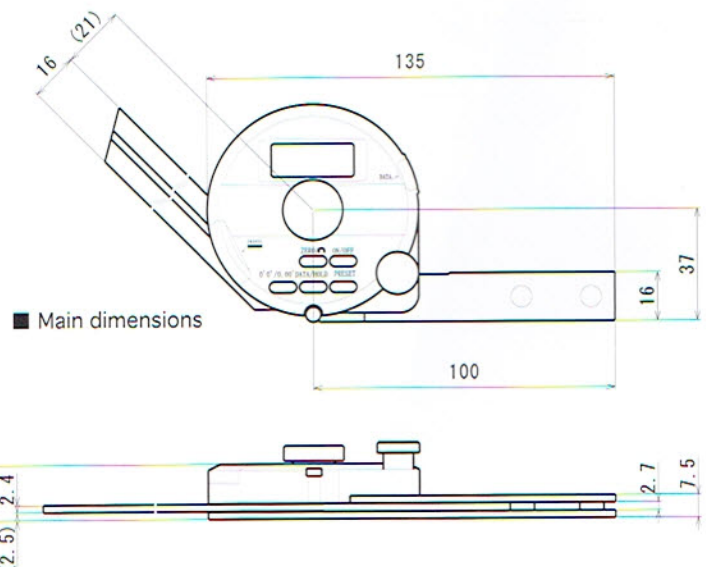


■ Features

- Compact, lightweight, high accurate digital protractor
- The main parts are made of rust-resistant hardened stainless steel (SUS420J2)
- Display mode selection between 0° 0' (base of 60) and 0.00° (decimal)
- Many different measurements are possible with optional accessories.
- With data output function

■ Specifications

Measurement range	-360° ~ +360° (Full circle)
Minimum reading	1' or 0.01°
Instrument error	± 2'
Repeatability	1'
Response speed	3rps
Display unit	0° 0' (base of 60) or 0.00° (decimal)
Battery	Coin type lithium ion battery CR2032x 1pc
Battery life	About 2000 hours
Body material	Hardened stainless steel (SUS420J2)
Main unit weight	270g approx.
Functions	Count up direction selection, preset, displayed value hold
Data output	Mitutoyo digimatic output *1 Connector shape: Compatible with Mitutoyo connection cable (flat type) *2 Not all Mitutoyo products are compatible.
Accessories	150mm blade



Digital Protractor - Heavy Duty Type DP-601ST

This is high accurate heavy-duty type digital protractor with high rigidity and stability. Thanks to high rigid body, this unit can be clamped by vices and etc. In addition the stability is very high due to wide measuring surface.

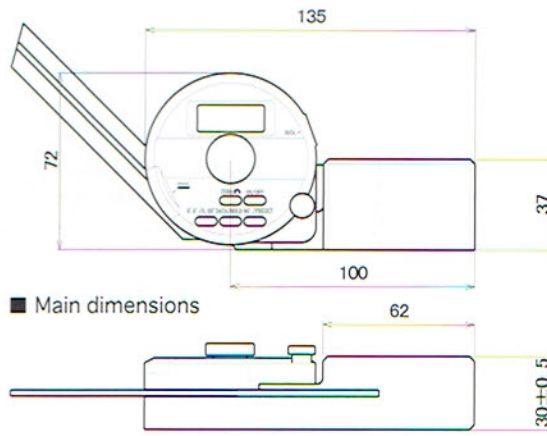


Specifications

Main unit weight 1150g approx.

All other specifications are the same as for the DP-601.

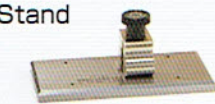
※ It is not possible to affix the height gauge holder or the acute angle attachment.



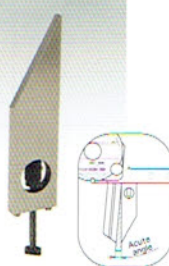
Main dimensions

Optional Accessories

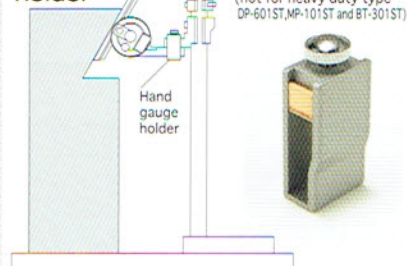
Stand



Acute angle attachment

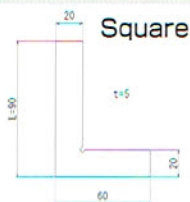


Height gauge holder

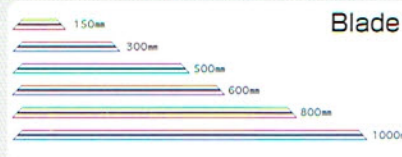


● Used with height gauge for DP-601, MP-101, BP-301, BP303 (not for heavy duty type DP-601ST, MP-101ST and BT-301ST)

Square



Blade



L-blade for horizontal angles (level)

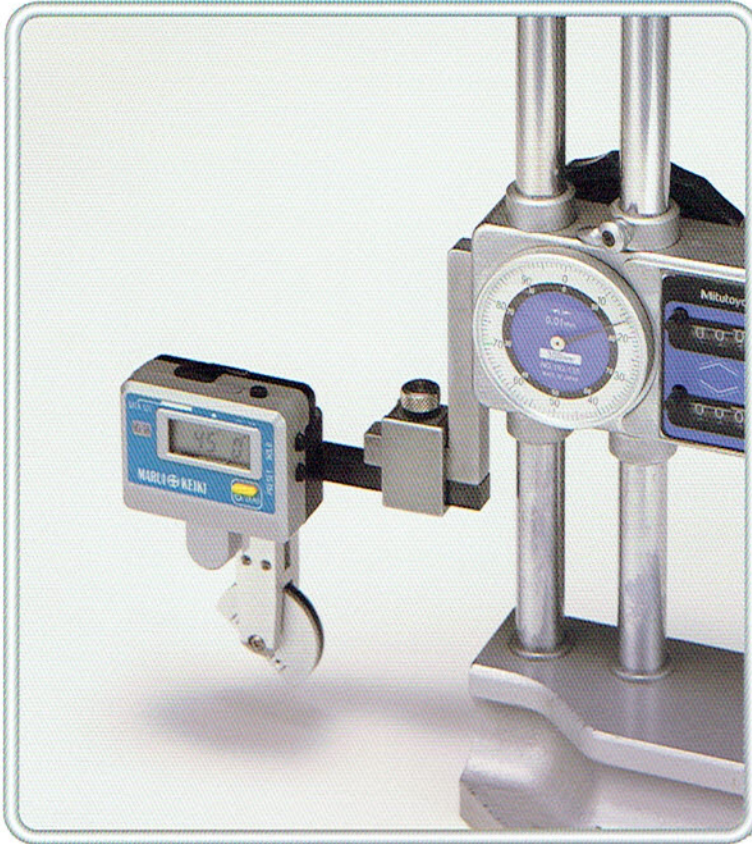


LCD Display

Measurement range 180°

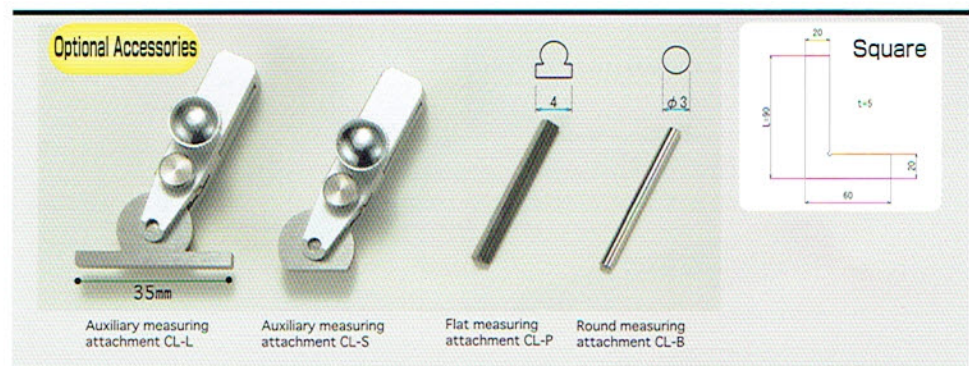
Minimum reading 1' (0.01°)

Optional accessories



■ Specifications

Measurement range	180°
Minimum reading	1' or 0.01°
Instrument error	±5'
Repeatability	1'
Display unit	0°0' (base of 60) or 0.00° (decimal)
Battery	UM-4 type dry battery cells x 2 pcs
Battery life	About 80 hours (UM-4 type dry battery cells x 2 pcs)
Main unit weight	150g approx.
Functions	Count up direction selection, preset, displayed value hold
Data output	Mitutoyo digimatic output *1 Connector shape: Compatible with Mitutoyo connection cable (flat type) *2 Not all Mitutoyo products are compatible.
Accessories	Bracket, clamping screw



Note that a part of the external appearance, specifications, price, etc. may be changed without notice for the sake of product improvement.



Standard Protractors

Micro Protractor MP-101

This is a high accurate protractor for measuring the angles on machining, assembling and inspection of machines, moulds, jigs, gauges and etc.



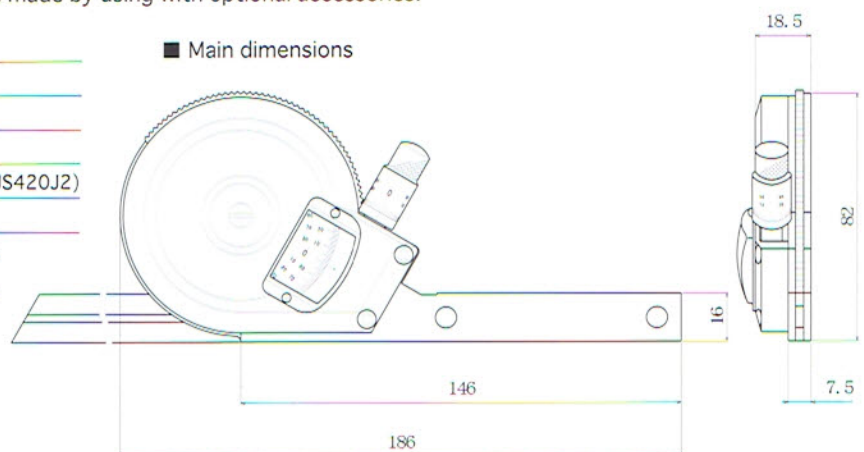
■ Features

- High accurate protractor with minimum reading of 1 minute.
- Full circle type with fine adjustment and also fast feeding is possible. ● No backlash and stable measurements are obtained.
- Special designed high accurate worm fixes the gauge while it is in a state of rest. (By the thimble operation, fine adjustment and fast feeding are possible.)
- The main parts of the case are made of hardened stainless steel superior in rust-resistance and durability.
- High accuracy with an instrument error of $\pm 2'$.
- Various types of measurements can be made by using with optional accessories.

■ Specifications

Measurement range	360° (0-90° x 4)
Minimum reading	1'
Instrument error	$\pm 2'$
Body material	Hardened stainless steel (SUS420J2)
Main unit weight	460g approx.
Accessories	150mm and 300mm blades, speed square (90x60)

■ Main dimensions



Analog

Measurement range 360°

Minimum reading 1'

Optional accessories

Micro Protractor Heavy Duty Type MP-101ST

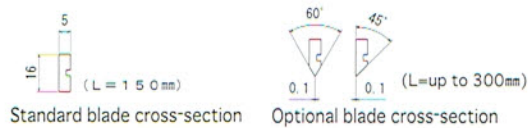
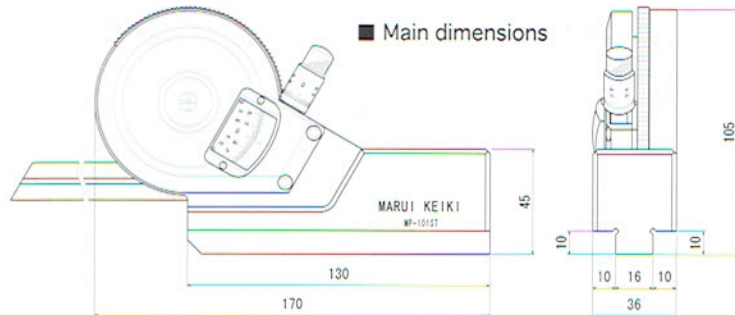
This is a high rigid, stable and accurate micro protractor but heavy-duty type. Thanks to high rigid body, this unit can be clamped by vices and etc. In addition the stability is very high due to wide measuring surface.



Specifications

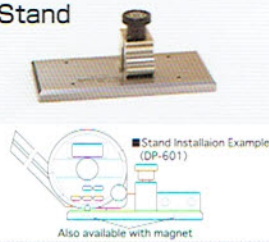
- Main unit weight 2000g approx.
- Accessory 150mm blade (dedicated to the MP-101ST)
- All other specifications are the same as for the MP-101.
- Optional accessory: 300mm blade (dedicated to the MP-101ST)

Main dimensions

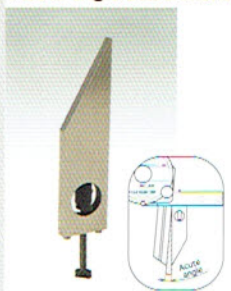


Optional Accessories

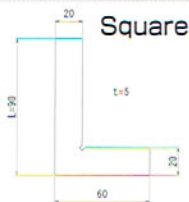
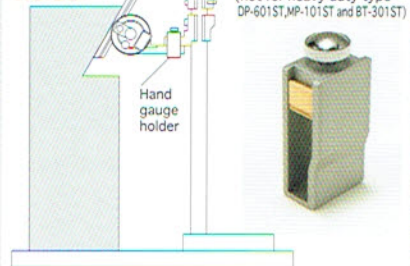
Stand



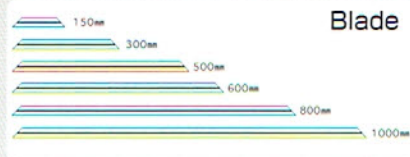
Acute angle attachment



Height gauge holder



Square



Blade

L-blade for horizontal angles (level)

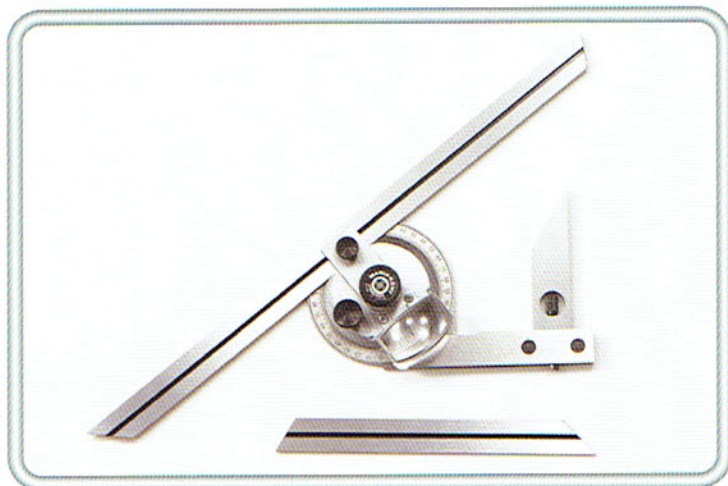


Note that a part of the external appearance, specifications, price, etc. may be changed without notice for the sake of product improvement.

Bevel Protractor BP-301

This is a high reliable general purpose type precision protractor used widely in many countries in the world.

This popular protractor has been favored by many users because of their superior sense.



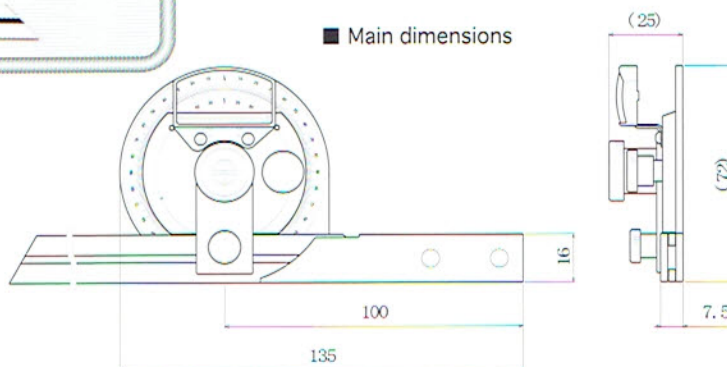
■ Features

- The main scale and vernier scale are flat to avoid the reading error due to step gap.
- Fine adjustment can be made by using the fine adjustment knob.
- Scale part is satin-chrome plated for easy reading with less reflection.
- Main parts are made of hardened stainless steel superior in rust-resistance and durability.
- Instrument error: $\pm 5'$

■ Specifications

Measurement range	-360° (0-90° x 4)
Minimum reading	5'
Instrument error	$\pm 5'$
Body material	Hardened stainless steel (SUS420J2)
Main unit weight	180g approx.
Accessories	150mm and 300mm blades, acute angle attachment

■ Main dimensions

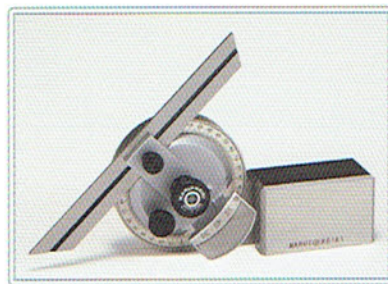


Bevel Protractor Heavy Duty Type BP-301ST

This is a high rigid, stable and accurate bevel protractor but heavy-duty type.

Thanks to high rigid body, this unit can be clamped by vices and etc.

In addition the stability is very high due to wide measuring surface (30mm).



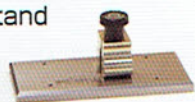
■ Specifications

Main unit weight	1050g approx.
Accessory	150mm blade

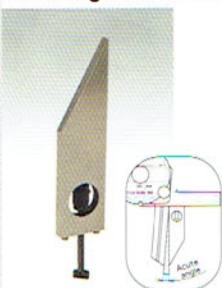
All other specifications are the same as for the BP-301.

Optional Accessories

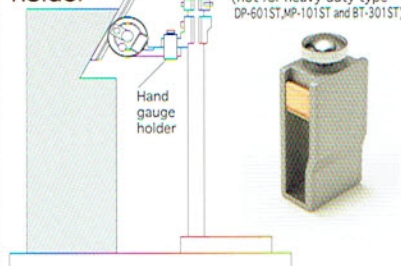
Stand



Acute angle attachment

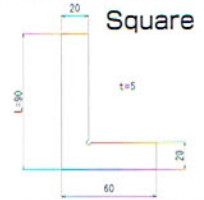


Height gauge holder

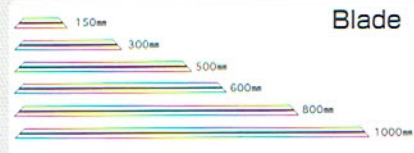


- Used with height gauge for DP-601, MP-101, BP-301, BP303 (not for heavy duty type DP-601ST, MP-101ST and BT-301ST)

Square



Blade



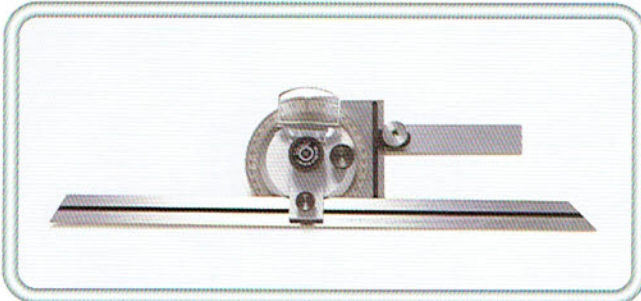
L-blade for horizontal angles (level)



With bubble vial

Slide Protractor BP-303

Because of the use of the slide type stock, this is very useful for measurement of acute angles and steps. Also, it can be used equally conveniently by both left handed and right handed persons.



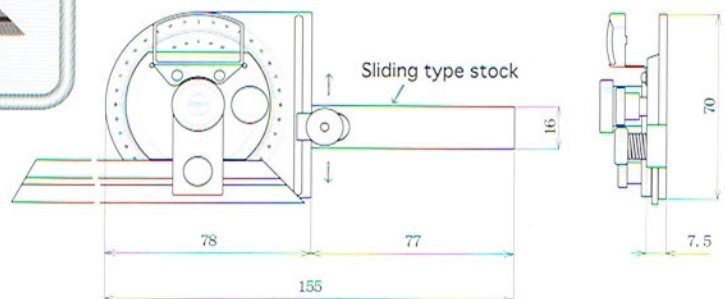
Specifications

Instrument error	± 10'
Main unit weight	260g
Accessories	300mm blade
All other specifications are the same as for the BP-301.	

Features

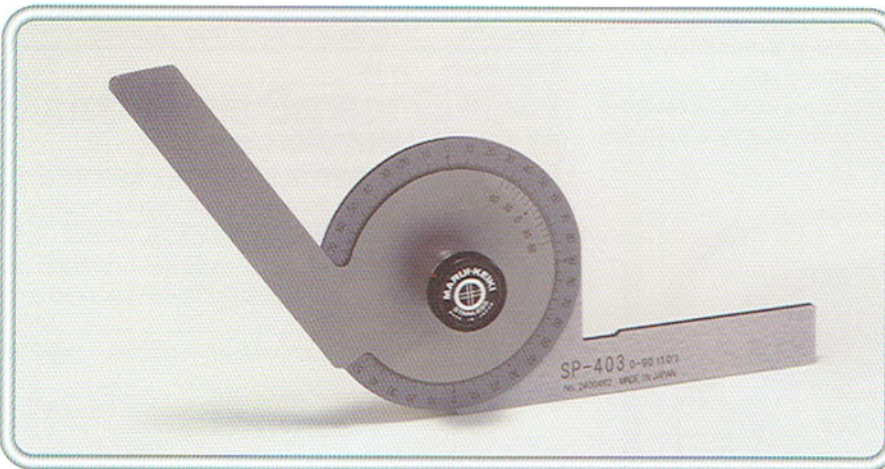
- This can be used for a wide range of measurements without having to use an accessory, such as for acute angle measurement, angle measurements of steps, etc.

Main dimensions



Single Protractor SP-403, SP-403L (with lens)

Economical but yet full functions! This is a lightweight and compact protractor.



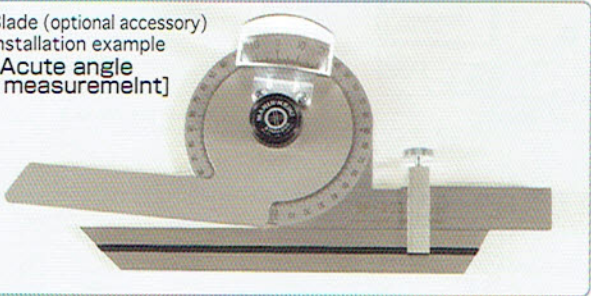
Features

- A minimum reading of 10' has been achieved at a very low price.
- Clamp handle can be locked at any angle.
- Center shaft is durable without chattering.
- Ground finish comparable with high quality model.

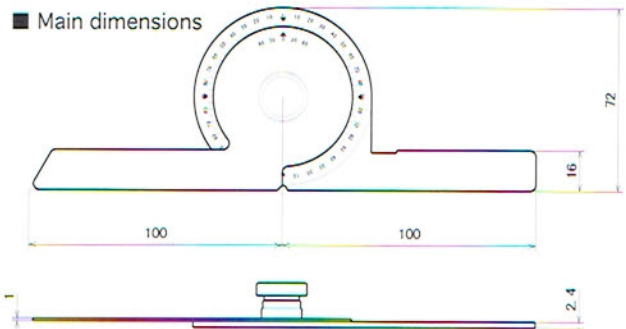
Specifications

Measurement range	360° (0-90° x 4)
Minimum reading	10'
Instrument error	± 10'
Body material	Stainless steel
Main unit weight	130g

Blade (optional accessory)
installation example
[Acute angle
measurement]



Main dimensions



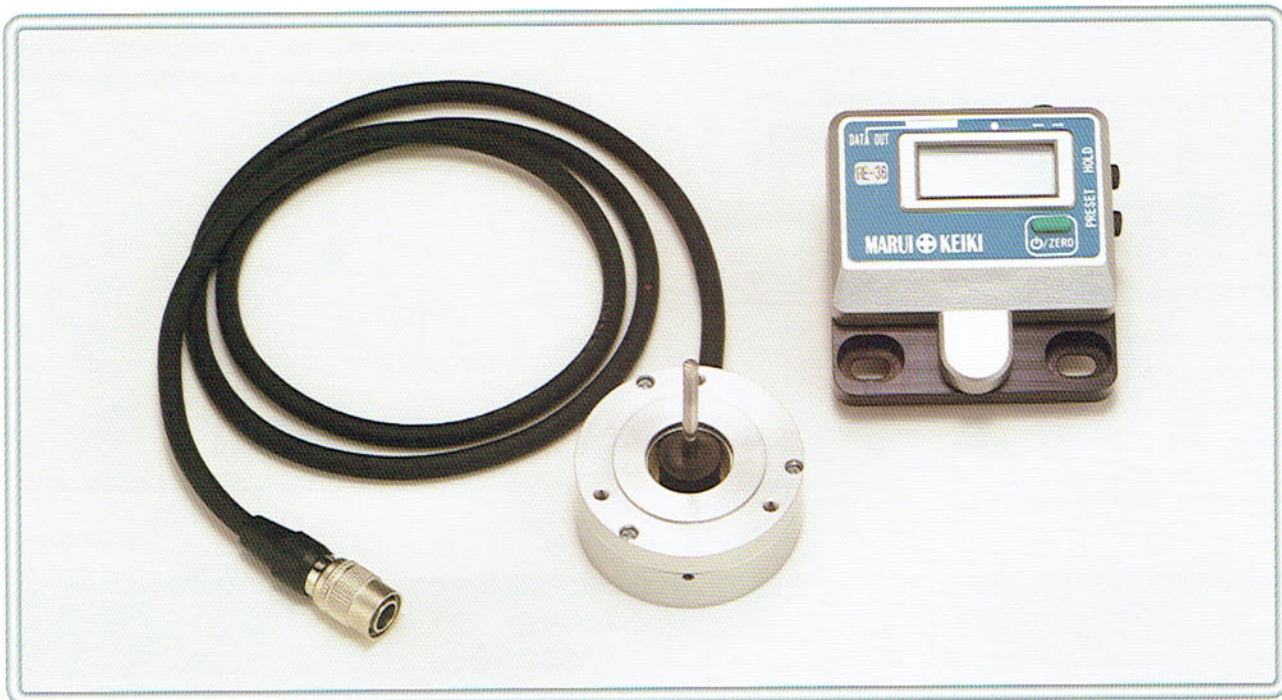
A blade holder is required for mounting.

Note that a part of the external appearance, specifications, price, etc. may be changed without notice for the sake of product improvement.

11 Angle sensor (Rotation angle)

Compact Digital Angle Sensor RE-36

This is a small digital angle sensor with a built-in coupling.
A minimum reading of 1 minute (0.01°) has been realized in a small-sized sensor.



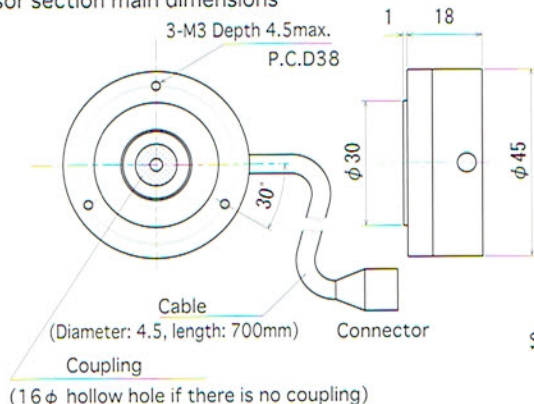
■ Features

- The small body in a diameter of 45mm with a built-in coupling makes the installation easy and the equipment after installation is smart.
- Even the LCD display section is small and can be mounted anywhere.
- The coupling is in the hollow shaft of 16mm dia.
- With various functions such as display mode selection 0°0' (sexagesimal) and 0.00° (decimal), preset and etc.
- Many different measurements are possible by using various accessories.
- Battery powered can be used where no power supply is available. (An optional AC adapter is available.)
- With data output.

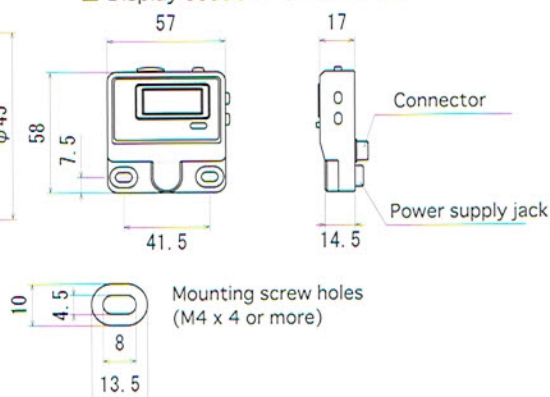
■ Specifications

Measurement range	250° (The rotation is endless.)
Minimum reading	1' or 0.01°
Instrument error	± 5'
Display unit	0°0' (base of 60) or 0.00° (decimal)
Power supply	3V DC
Battery life	About 80 hours (UM-4 type alkaline dry battery cells x 2 pcs)
Main unit weight	150g approx.
Functions	Count up direction selection, preset, displayed value hold
Data output	Mitutoyo digimatic output *1 Connector shape: Compatible with Mitutoyo connection cable (flat type) *2 Not all Mitutoyo products are compatible.
Accessories	Battery case, monitor batteries (UM-4 type alkaline dry battery cells x 2 pcs)
Optional accessory	AC adapter

■ Sensor section main dimensions



■ Display section main dimensions



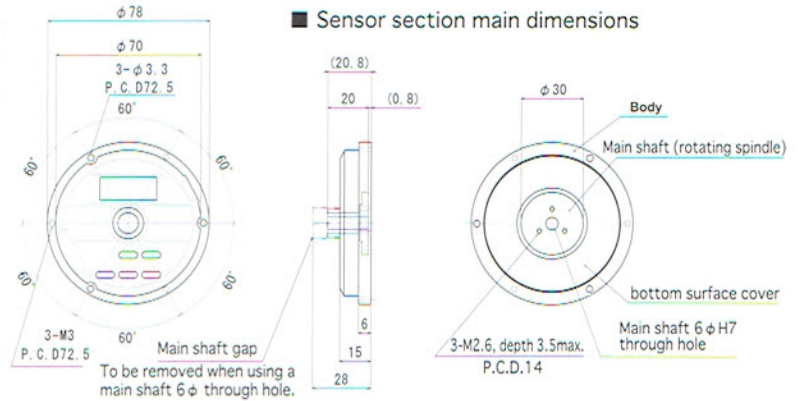
Digital Angle Sensor DP-621 (Integrated type display)

This is a lightweight, compact, high accurate rotation angle detector.

It does not require any wiring because it is battery driven and the digital display section is built-in. With data output function.

Specifications

Measurement range	-360° ~ +360° (Full circle)
Minimum reading	1' or 0.01°
Instrument error	± 2'
Repeatability	1'
Response speed	3rps
Display unit	0° 0' (base of 60) or 0.00° (decimal)
Battery	Coin type lithium ion batter CR2032x1 pc
Battery life	About 2000 hours
Main unit weight	110g approx.
Functions	Count up direction selection, preset, displayed value hold
Data output	Mitutoyo digimatic output *1 Connector shape: Compatible with Mitutoyo connection cable (flat type) *2 Not all Mitutoyo products are compatible.
Accessories	Monitor battery

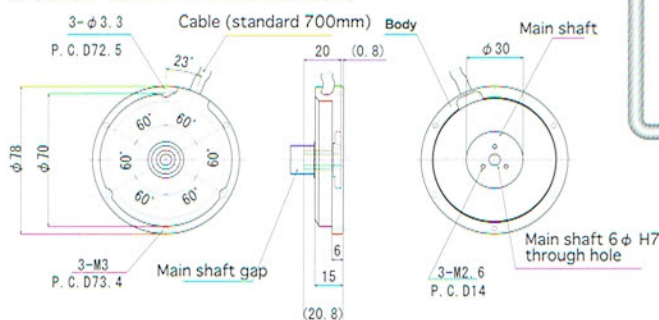


Digital Angle Sensor DP-641 (Separate display type)

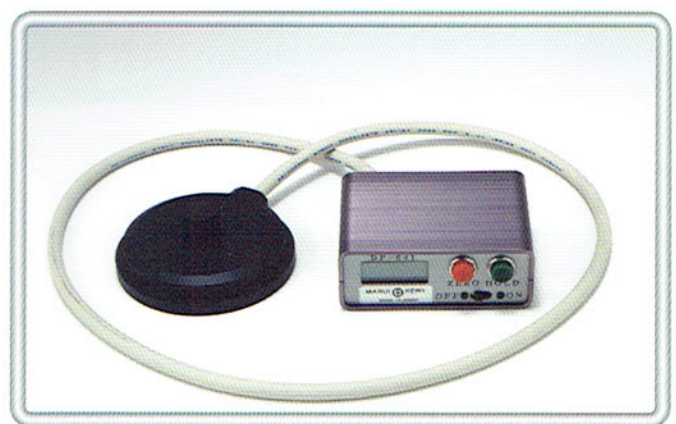
This is a lightweight, compact, high accurate rotation angle detector.

The display and sensor sections are separated so that the display section can be installed at the convenient place for easy reading.

■ Sensor section main dimensions



■ Display section main dimensions



Specifications

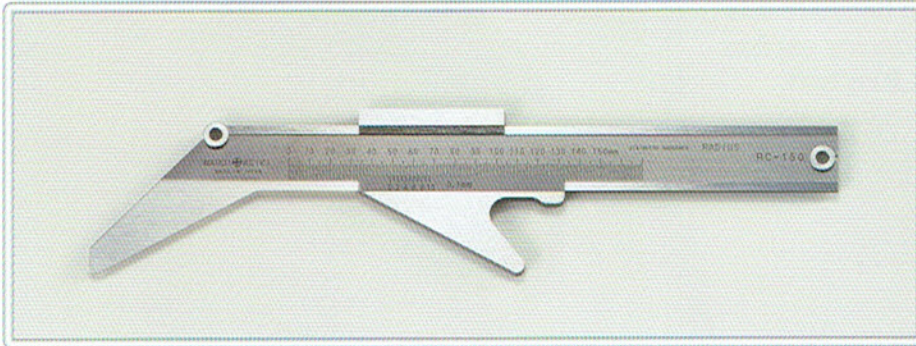
Same as those of the DP-621 except for the following.

Display unit	0° 0' (base of 60) * If you desire 0.00° (decimal) display, specify so at the time of ordering.
Power supply	3V DC
Main unit weight	280g approx.
Accessories	Battery case, monitor battery (two UM-4 type dry cells)
Optional accessory	DC adapter

Note that a part of the external appearance, specifications, price, etc. may be changed without notice for the sake of product improvement.

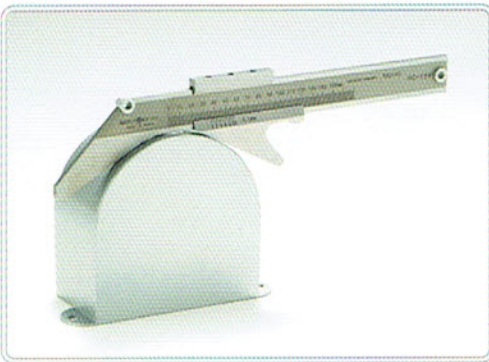
R Calipers RC-150

The first in the World! Calipers type radius measuring instrument "R Calipers". Radius of up to 150mm can be measured by merely applying to the outer periphery of the part to be measured.



Specifications

Measurement range	Radius of 0.5mm to 150mm
Minimum reading	0.1 mm
Instrument error	± 0.2 mm
Body material	Hardened SUS420J2
Weight	55g
Accessory	Strap
Optional accessory	Magnifying lens for the scale

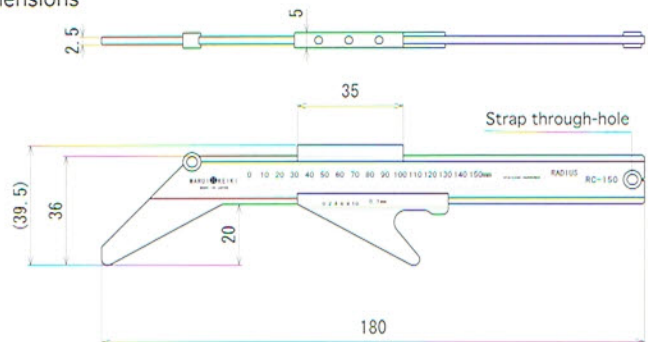


Example of application

Features

- Radius of up to 150mm can be measured without a number of radius gauges.
- Made of hardened stainless steel which is strong against rust and scratches.
- The measurement can be made if about 17% of the total circumference is available.
- With a strap convenient to carrying and preventing falling down.

Main dimensions



Digital Outer diameter Measuring Instrument MD Series

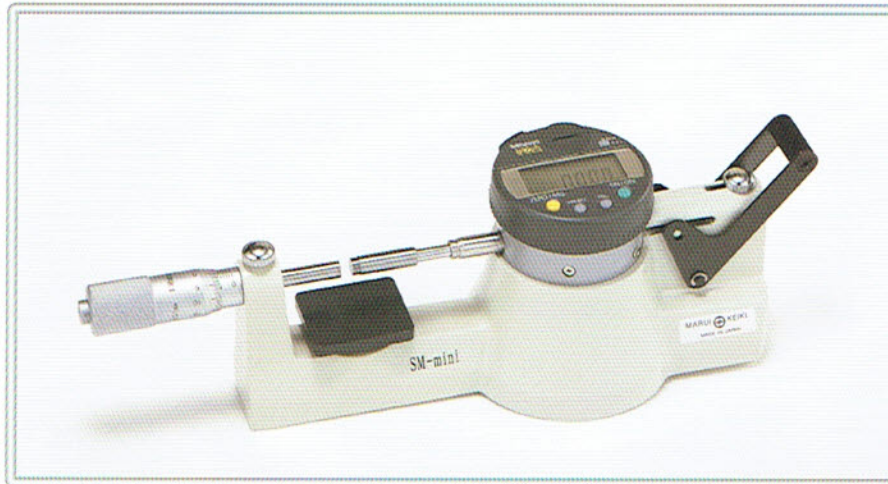
This is an external diameter measuring instrument that can measure the outer diameter by merely applying to the outer periphery of a cylindrical work piece such as a roller, etc.



Speed Micro Mini SM-Mini

This is a revolutionary measuring instrument that combines a high accurate digimatic indicator with a micrometer head.

This can measure small precision parts or products in quantity efficiently.



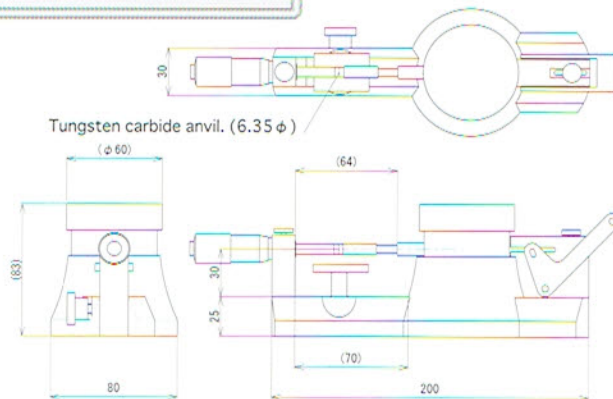
■ Features

- Stable measurements can be done by using the lever operation and is ideal for inspection of the items in mass-production.
- Maximum measurement stroke of 35mm. (Digimatic side: 10mm or more + micrometer side: 25mm)
- With measuring pressure adjustment device up to maximum 800g.
- Up/down movable table is used.
- The measuring attachment can be made specially to order. (Consult us freely.)

■ Main dimensions

■ Specifications

Measurement range	0-35mm
Minimum reading	0.001mm
Measuring attachment parallelism	2 μm
Repeatability	1 μm
Weight	1800g approx.
Spindle side	Mitutoyo Digimatic indicator 543-250B
Anvil side	Mitutoyo micrometer head 150-196



LCD Display

Minimum reading 0.01mm

■ Features

- The external diameter can be measured merely by applying to a part of the outer periphery of a cylindrical work piece.
- A digimatic indicator with computing function superior in visual reading.
- The instrument is light because the body is made of aluminum and hardened stainless steel is used for the contacting part (the measuring surface).
- The joining between the body and the contacting part (the measuring attachment) is of the assembling type without using screws, etc. to minimize distortions, sags, etc.
- Since the measurement can be made if 19% of the total circumference is available, it is possible to measure the work-piece already assembled or stored in the working site.
- Arc master gauge for confirming the origin and for calibration is available as an option.

■ Specifications

Measurement range	± 50mm φ (See Table of Standard Items.)
Minimum reading	0.01mm (Can also be changed to 0.0002mm to 1mm by setting.)
Repeatability	± 0.03mm
Body material	Aluminum (alumite treated)
Material of measuring attachment	Hardened SUS420J2
Options	Arc master gauges of various sizes, various types of digimatic indicator measuring attachments

■ Table of Standard Items

Model No.	Measurement range	Arc master gauge size
MD-100	φ 30~φ 150mm	φ 100
MD-200	φ 150~φ 250mm	φ 200
MD-300	φ 250~φ 350mm	φ 300
MD-400	φ 350~φ 450mm	φ 400
MD-500	φ 450~φ 550mm	φ 500

* Contact us for other sizes.

Note that a part of the external appearance, specifications, price, etc. may be changed without notice for the sake of product improvement.