

SECTION

# 2



## Lever Type Dial Indicators Pic Test • New Pic Test

- PCN Series
- W Series
- Z Series
- E Series
- U Series
- D Series
- PC Series
- R Series **"NEW"**
- With 8mm Dovetail Stem Series **"NEW"**
- Accessories

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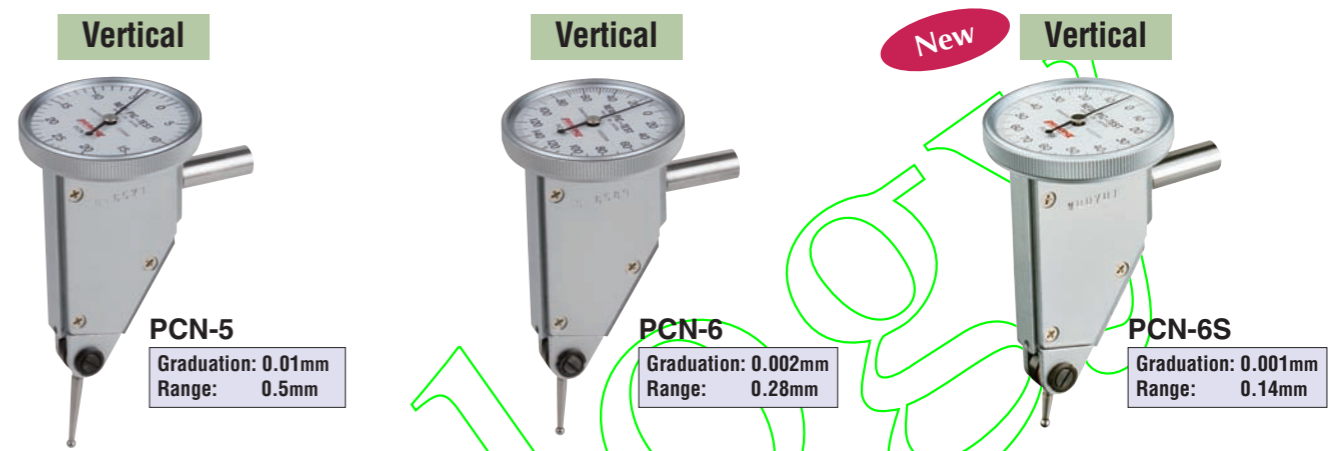
METROLOGIST

# Lever Type Dial Indicators NEW PIC TEST

## Without change lever PCN series

The New Pic Test is a lever type dial indicators used in all over the world. It is a measuring instrument used for measurements of restricted areas, and the outside/inside, groove width and centering with the dial gauge installed to the lathe or the milling cutting machine for measurements with the gauges held on the height gauges.

- **Without change lever (Automatic inverse type)**  
The lever type dial gauge of this type has no change lever, the contact point inverses automatically in normal or reverse direction as desired and pointer turns always CW to improve the measuring efficiency.
- **Miniature Bearing Used**  
The miniature bearing used as a bearing at the pivot of the contact point to show good indication stability without any effect by rod play.
- **O-ring used**  
Oil resistance is enhanced by seating the O-ring in the turning section of the outer frame.



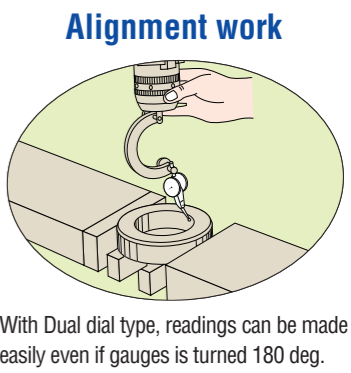
### Specifications

Model	Graduation (mm)	Range (mm)	Reading	Accuracy (μm)			Measuring force less than(N)
				Wide-range forward accuracy	Adjacent error	Backward error	
PCN-0	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-1A	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-1B	0.01	0.8	0 - 40 - 0	8	5	3	0.3
PCN-1L	0.01	1.0	0 - 50 - 0	10	5	4	0.3
PCN-2	0.002	0.28	0 - 140 - 0	3	2	2	0.3
PCN-2B	0.002	0.2	0 - 100 - 0	3	2	2	0.3
PCN-S	0.001	0.14	0 - 70 - 0	3	2	2	0.3
PCN-7A	0.01	1.5	0 - 25 - 0	8	5	3	0.3
PCN-7C	0.002	0.6	0 - 100 - 0	6	2	3	0.3
PCN-5	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-6	0.002	0.28	0 - 140 - 0	3	2	2	0.3
PCN-6S	0.001	0.14	0 - 70 - 0	3	2	2	0.3

## Special Type Test Indicators

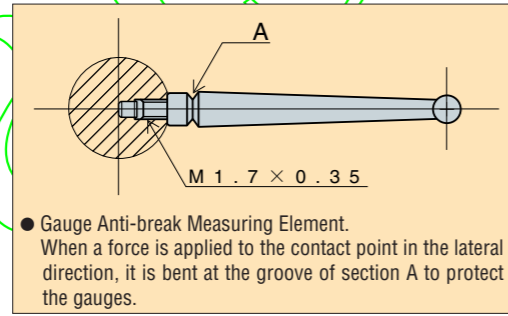
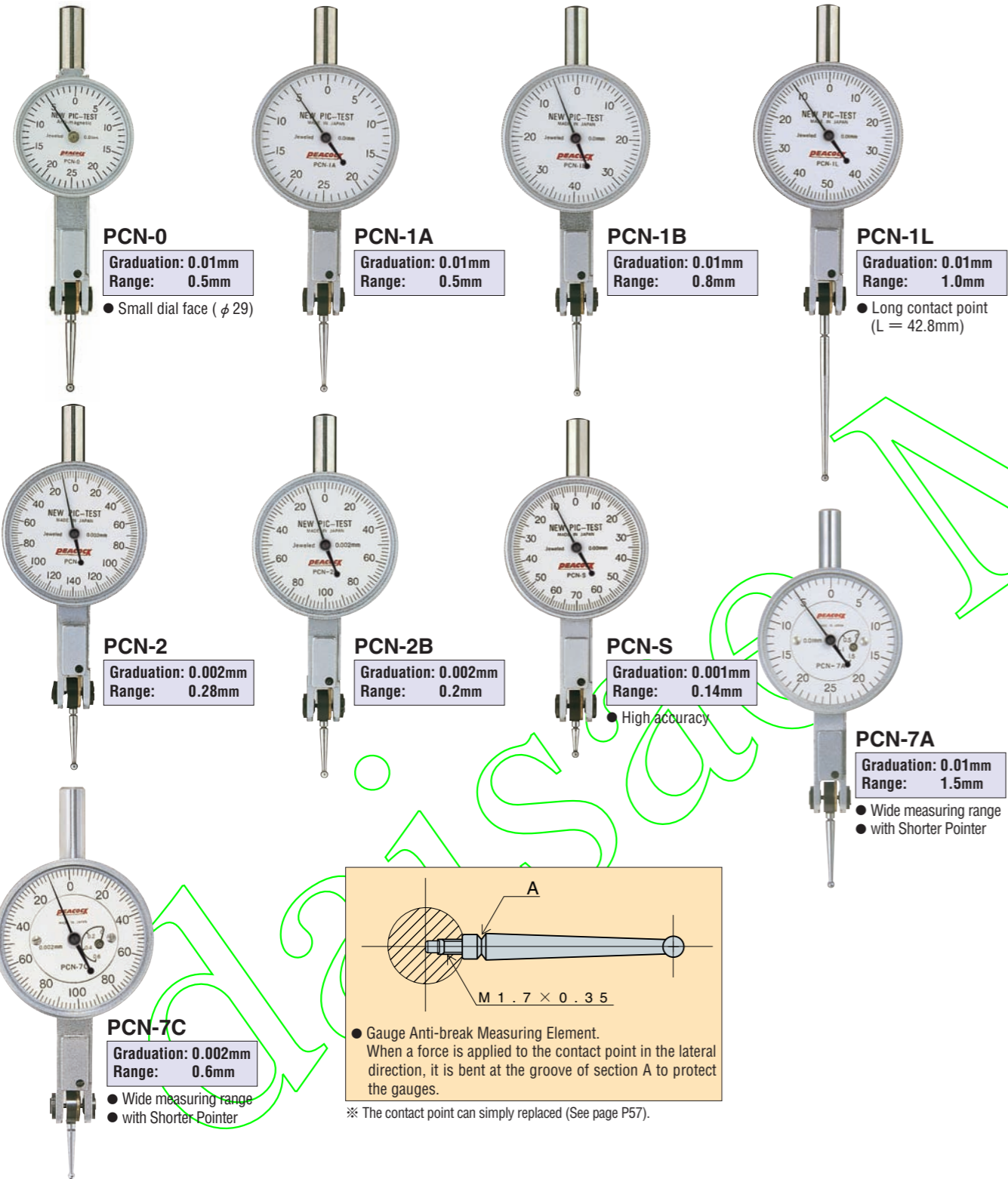
### Double Dial Type W series

- The conventional lever type dial gauge used to have some unreadable points when aligning with it, which has made it impossible to do the accurate aligning till now. The double dial type Pic Test has two dials at both sides, making it possible to cover said unreadable points by conventional Pic Tests.



### Specifications

Model	Graduation (mm)	Range (mm)	Reading	Accuracy (μm)			Measuring force less than(N)
				Wide-range forward accuracy	Adjacent error	Backward error	
PC-1BW	0.01	0.8	0 - 40 - 0	8	5	4	0.4



※ The contact point can simply replaced (See page P57).



# Special Type Test Indicators

## One Revolution Z series (without change lever type)

The dial face is easy to read with light yellow and blue (dead zone)

- Gauge Anti-break Measuring Element**  
When a force is applied to the contact point in the lateral direction, it is bent at the groove of section A to protect the gauge. The contact point can simply be replaced (adopted in all the PCN and PC).
- Super sensitive miniature bearing used**  
The miniature bearing is used as a bearing at the pivot of the contact point to show stable indication without any effect by rod play.

- Dial face with colored limit**  
To check out of tolerance detection and testing easier.
- Dust and Oil resistant O-ring (inside bezel)**  
Oil resistance is enhanced by seating the O-ring in the turning section of the outer frame.
- No clutch (automatic inverse type)**  
The Pic Test Indicator of this type has no bias lever, the contact point inverse automatically in the normal or reverse direction as desired and the pointer turns always CW to improve the measuring efficiency.

### "A" type Downward



**PCN-1BZ(A)**  
Graduation: 0.01mm  
Range: 0.6mm  
● Contact point (XN1B-2) is attached



**PCN-1LZ(A)**  
Graduation: 0.01mm  
Range: 0.8mm  
● Contact point (XN1L-2) is attached



**PCN-2Z(A)**  
Graduation: 0.002mm  
Range: 0.2mm  
● High accuracy  
● Contact point (XN2-2) is attached

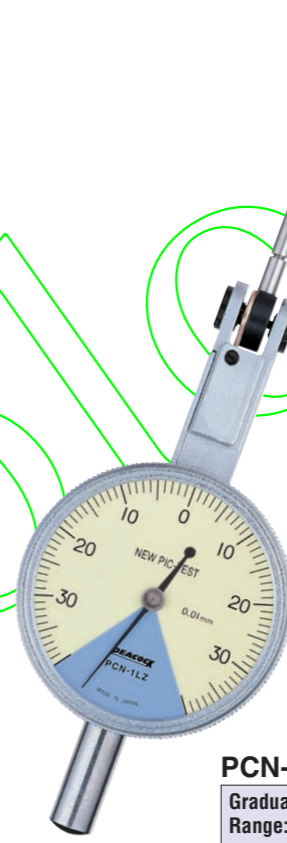
#### Specifications

Model	Graduation (mm)	Range (mm)	Movable Range (mm)	Indication error			Measuring force less than(N)
				Whole measuring range	Adjacent error	Backward error	
PCN-1BZ(A)	0.01	0.6	0.7	8	5	3	0.3
PCN-1LZ(A)	0.01	0.8	0.9	10	5	4	0.3
PCN-2Z(A)	0.002	0.2	0.24	3	2	2	0.3

### "B" type Upward



**PCN-1BZ(B)**  
Graduation: 0.01mm  
Range: 0.6mm  
● Contact point (XN1B-2) is attached



**PCN-1LZ(B)**  
Graduation: 0.01mm  
Range: 0.8mm  
● Contact point (XN1L-2) is attached



**PCN-2Z(B)**  
Graduation: 0.002mm  
Range: 0.2mm  
● High accuracy  
● Contact point (XN2-2) is attached

#### Specifications

Model	Graduation (mm)	Range (mm)	Movable Range (mm)	Indication error			Measuring force less than(N)
				Whole measuring range	Adjacent error	Backward error	
PCN-1BZ(B)	0.01	0.6	0.7	8	5	3	0.3
PCN-1LZ(B)	0.01	0.8	0.9	10	5	4	0.3
PCN-2Z(B)	0.002	0.2	0.24	3	2	2	0.3

#### Dimensions

PCN-1BZ (A)·(B)  
PCN-2Z (A)·(B)

PCN-1LZ (A)·(B)

● Length of Contact Point

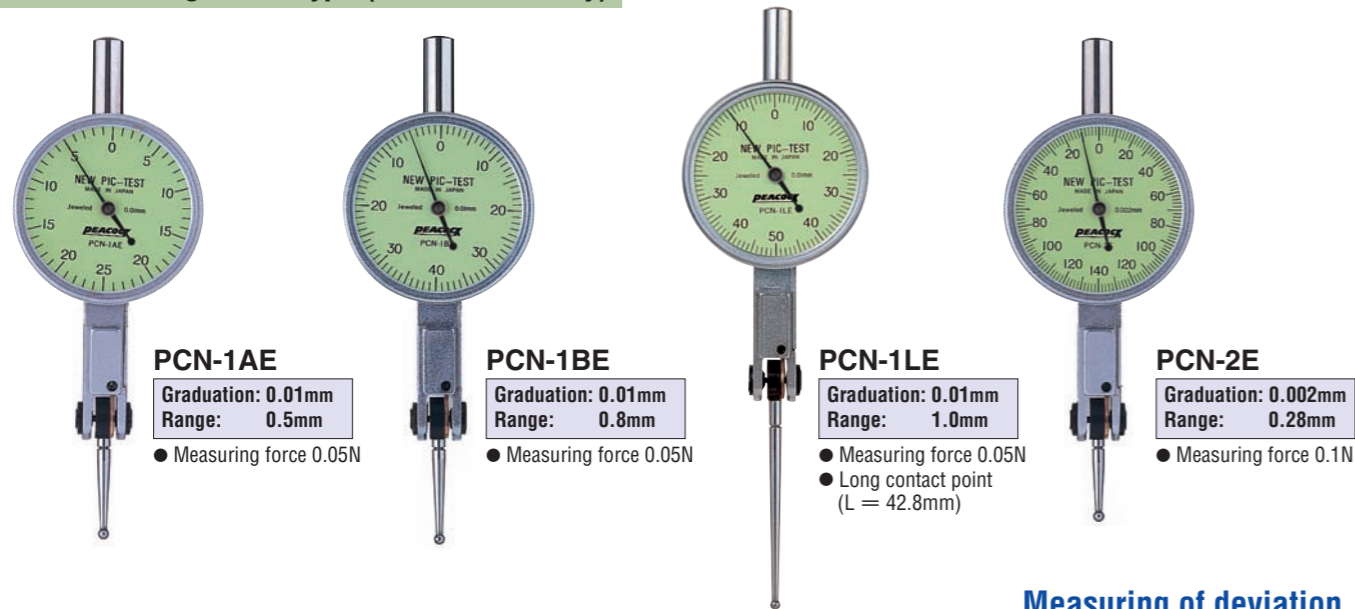
Model	L (mm)
PCN-1BZ(A) PCN-1BZ(B)	22.2
PCN-2Z(A) PCN-2Z(B)	17.94
PCN-1LZ(A) PCN-1LZ(B)	42.8

# Special Type Test Indicators

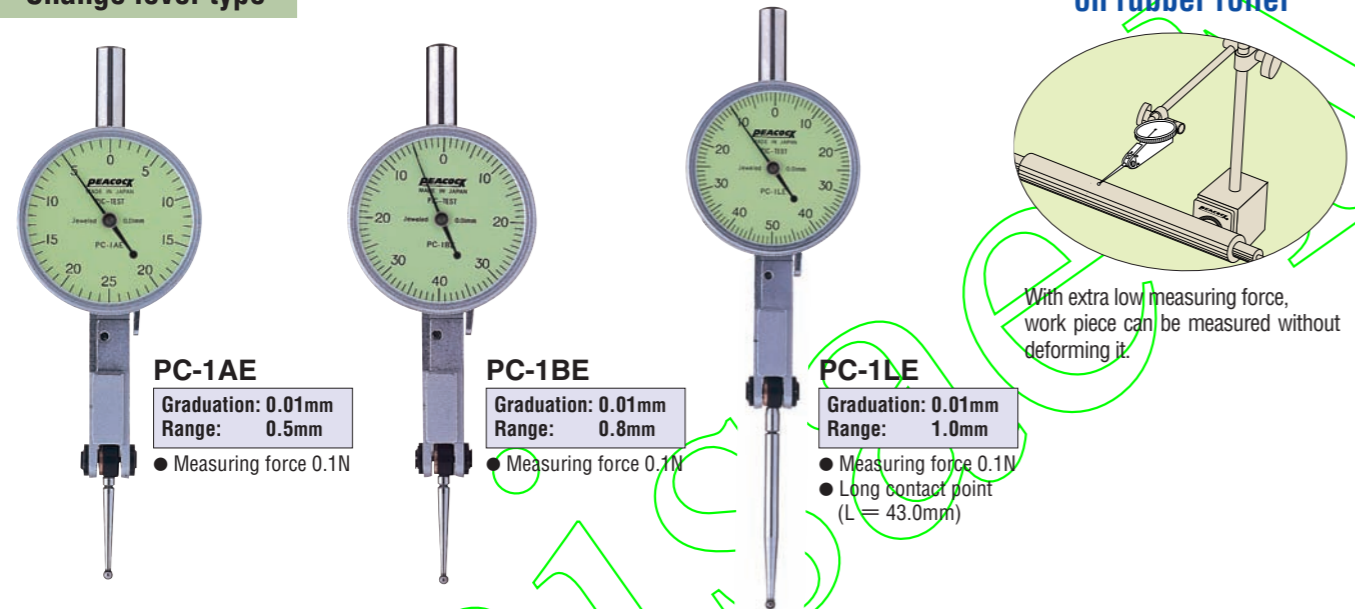
## Super low measuring force E series

Lever dial gauge that is suitable for flaw-free measure of an object under measurement and for measurement of plastic products with a low measuring force.  
A measuring force is 0.05N, 0.1N or less that is lower than a 0.4N measuring force in the conventional dial gauges.  
Specifications and outer dimensions are the same as those of standard PC and PCN types, except a measuring force.

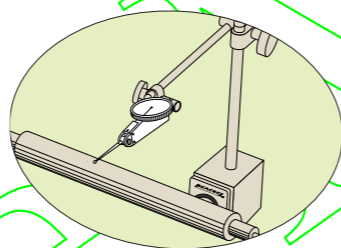
### Without change lever type (CW rotation only)



### Change lever type



Measuring of deviation on rubber roller



With extra low measuring force, work piece can be measured without deforming it.

### Specifications

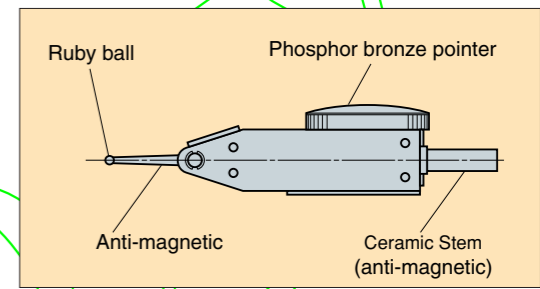
Model	Graduation (mm)	Range (mm)	Reading	Accuracy (μm)			Measuring force less than(N)
				Wide-range forward accuracy	Adjacent error	Backward error	
PCN-1AE	0.01	0.5	0 - 25 - 0	5	5	3	0.05
PCN-1BE	0.01	0.8	0 - 40 - 0	8	5	3	0.05
PCN-1LE	0.01	1.0	0 - 50 - 0	10	5	4	0.05
PCN-2E	0.002	0.28	0 - 140 - 0	3	2	2	0.1
PC-1AE	0.01	0.5	0 - 25 - 0	5	5	3	0.1
PC-1BE	0.01	0.8	0 - 40 - 0	8	5	3	0.1
PC-1LE	0.01	1.0	0 - 50 - 0	10	5	4	0.1

# Special Type Test Indicators

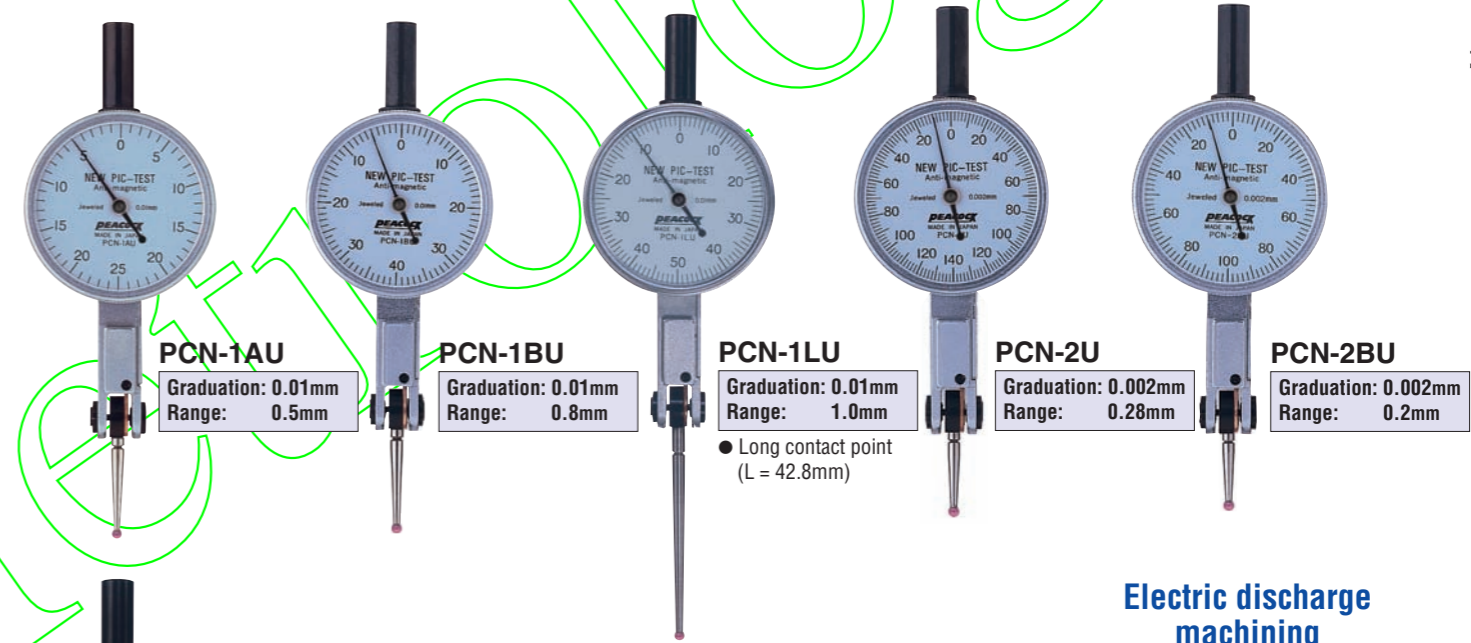
## Non-electrifying & Complete Anti-magnetic U series

When non-electrifying type of Pic Test or New Pic Test is used, electric flow is blocked at the ceramic stem, even of a magnetic stand is electrified. Thus, you can continue your work without any problem.

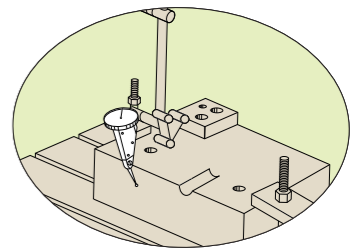
The dial face is light blue color and easy to read.  
Specifications and outer dimensions are the same as those of standard PCN types, except the portion of stems.



### Without change lever type (CW rotation only)



Electric discharge machining



Ceramic stem is supported by a magnetic stand. Electric current is isolated by the ceramic stem. It is thus possible to measure the work piece without electrifying it.

### Specifications

Model	Graduation (mm)	Range (mm)	Reading	Accuracy (μm)			Measuring force less than(N)
				Wide-range forward accuracy	Adjacent error	Backward error	
PCN-1AU	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-1BU	0.01	0.8	0 - 40 - 0	8	5	3	0.3
PCN-1LU	0.01	1.0	0 - 50 - 0	10	5	4	0.3
PCN-2U	0.002	0.28	0 - 140 - 0	3	2	2	0.3
PCN-2BU	0.002	0.2	0 - 100 - 0	3	2	2	0.3
PCN-SU	0.001	0.14	0 - 70 - 0	3	2	2	0.3
PCN-5U	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-6U	0.002	0.28	0 - 140 - 0	3	2	2	0.3



# Special Type Test Indicators

## Large dial face D series

The dial plate size of PCN-1A, PCN-1L, PCN-2B, and PCN-S models has been enlarged, with easy reading due to the larger scale spacing, as a result. Screw type long stems are standard for these large dial face test indicators.

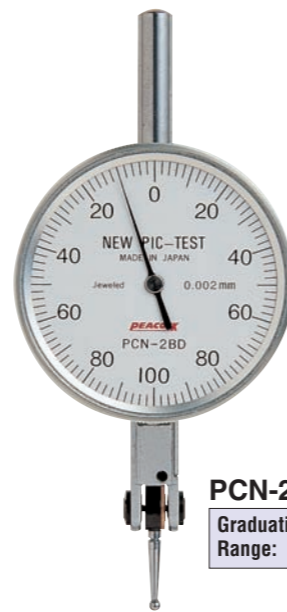
Without change lever type (CW rotation only)



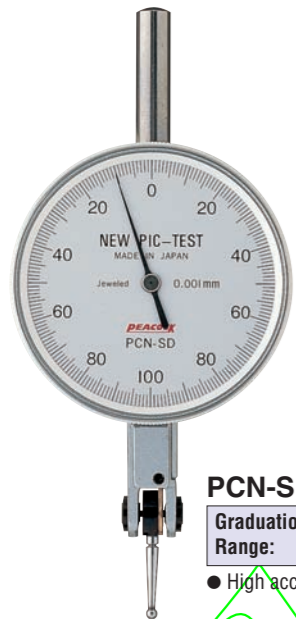
**PCN-1AD**  
Graduation: 0.01mm  
Range: 0.5mm



**PCN-1LD**  
Graduation: 0.01mm  
Range: 1mm  
● Long contact point (L = 42.8mm)

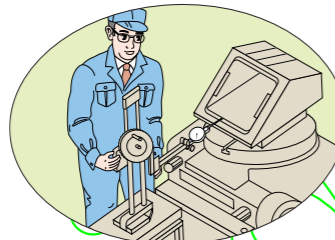


**PCN-2BD**  
Graduation: 0.002mm  
Range: 0.2mm



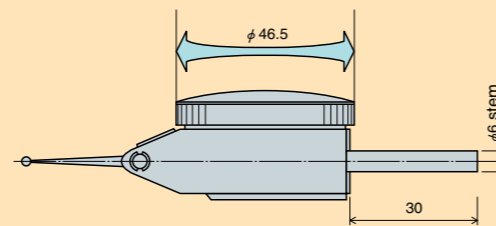
**PCN-SD**  
Graduation: 0.001mm  
Range: 0.2mm  
● High accuracy

Easy to read



An enlarge dial face with bigger scale intervals enables easy reading by user of all ages.

Large Size Dial Face



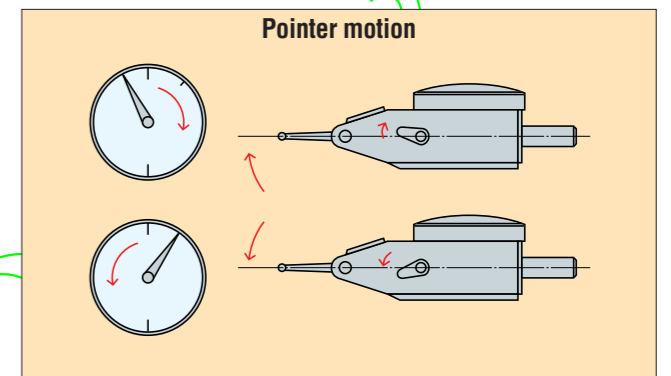
### Specifications

Model	Graduation (mm)	Range (mm)	Reading	Accuracy (μm)			Measuring force less than(N)
				Wide-range forward accuracy	Adjacent error	Backward error	
PCN-1AD	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-1LD	0.01	1.0	0 - 50 - 0	10	5	4	0.3
PCN-2BD	0.002	0.2	0 - 100 - 0	3	2	2	0.3
PCN-SD	0.001	0.2	0 - 100 - 0	3	2	2	0.3

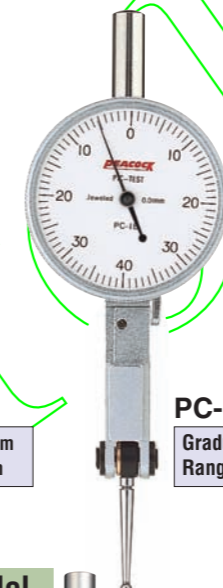
# Lever Type Dial Indicators PIC TEST

## Change lever type PC series

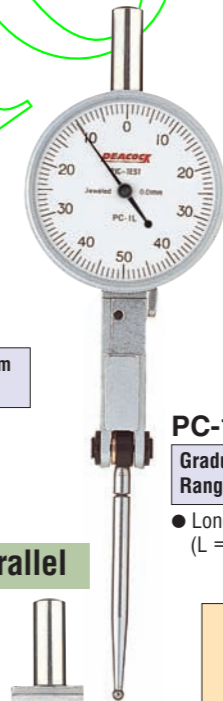
- Miniature Bearing Used  
The miniature bearing used as a bearing at the pivot of the contact point to show good indication stability without any effect by rod play.
- O-ring used  
Oil resistance is enhanced by seating the O-ring in the turning section of the outer frame.



**PC-1A**  
Graduation: 0.01mm  
Range: 0.5mm



**PC-1B**  
Graduation: 0.01mm  
Range: 0.8mm



**PC-1L**  
Graduation: 0.01mm  
Range: 1.0mm  
● Long contact point (L = 43.0mm)



**PC-2**  
Graduation: 0.002mm  
Range: 0.28mm



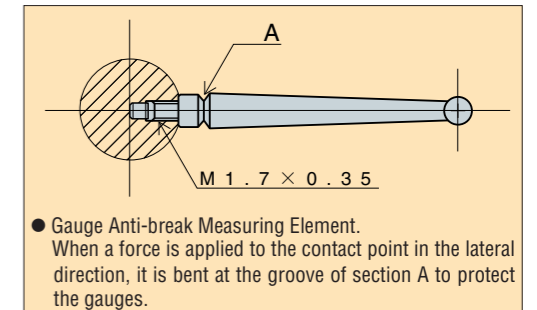
**PC-3**  
Graduation: 0.01mm  
Range: 0.5mm



**PC-3L**  
Graduation: 0.01mm  
Range: 1.0mm  
● Contact point (XPIL-2)



**PC-4**  
Graduation: 0.002mm  
Range: 0.28mm



※ The contact point can simply replaced (See page P57).

### Specifications

Model	Graduation (mm)	Range (mm)	Reading	Accuracy (μm)			Measuring force less than(N)
				Wide-range forward accuracy	Adjacent error	Backward error	
PC-1A	0.01	0.5	0 - 25 - 0	5	5	3	0.4
PC-1B	0.01	0.8	0 - 40 - 0	8	5	3	0.4
PC-1L	0.01	1.0	0 - 50 - 0	10	5	4	0.4
PC-2	0.002	0.28	0 - 140 - 0	3	2	2	0.4
PC-3	0.01	0.5	0 - 25 - 0	5	5	3	0.4
PC-3L	0.01	1.0	0 - 50 - 0	10	5	4	0.4
PC-4	0.002	0.28	0 - 140 - 0	3	2	2	0.4

Lever Type Dial Indicators PIC TEST

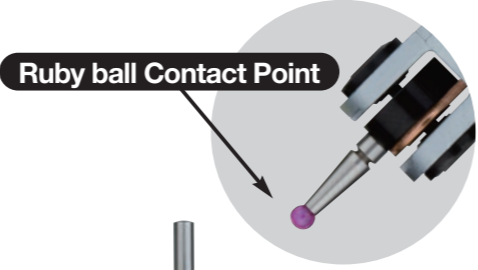
Special Type Test Indicators

# PIC TEST/NEW PIC TEST PC · PCN New Lineup

## PIC TEST/NEW PIC TEST with Ruby ball Contact Point "R" series (Contact Point ball dia. 2mm Only)

- Excellent wear resistance
- Non-electrifying and Anti-magnetic
- Can be used on Electrical Discharge Machine

**Ruby ball Contact Point**



### Horizontal

**PC-1AR**  
Graduation: 0.01mm  
Range: 0.5mm

- Change Lever type
- Contact Point XP1A-2R

**PC-1BR**  
Graduation: 0.01mm  
Range: 0.8mm

- Change Lever type
- Contact Point XP1B-2R

**PC-1LR**  
Graduation: 0.01mm  
Range: 1.0mm

- Change Lever type
- Contact Point XP1L-2R

**PC-2R**  
Graduation: 0.002mm  
Range: 0.28mm

- Change Lever type
- High accuracy
- Contact Point XP2-2R

**PCN-1AR**  
Graduation: 0.01mm  
Range: 0.5mm

- Without Change Lever type
- Contact Point XN1A-2R

**PCN-1BR**  
Graduation: 0.01mm  
Range: 0.8mm

- Without Change Lever type
- Contact Point XN1B-2R

**PCN-1LR**  
Graduation: 0.01mm  
Range: 1.0mm

- Without Change Lever type
- Contact Point XN1L-2R

**PCN-2R**  
Graduation: 0.002mm  
Range: 0.28mm

- Without Change Lever type
- High accuracy
- Contact Point XN2-2R

**PCN-2BR**  
Graduation: 0.002mm  
Range: 0.2mm

- Without Change Lever type
- High accuracy
- Contact Point XN2B-2R

**PCN-SR**  
Graduation: 0.001mm  
Range: 0.14mm

- Without Change Lever type
- High accuracy
- Contact Point XNS-2R

**PCN-5R**  
Graduation: 0.01mm  
Range: 0.5mm

- Without Change Lever type
- Contact Point XN1A-2R

**PCN-6R**  
Graduation: 0.002mm  
Range: 0.28mm

- Without Change Lever type
- High accuracy
- Contact Point XN2-2R

### Vertical

### Specifications

Model	Graduation (mm)	Range (mm)	Reading	Accuracy (μm)			Measuring force less than(N)
				Wide-range forward accuracy	Adjacent error	Backward error	
PC-1AR	0.01	0.5	0 - 25 - 0	5	5	3	0.4
PC-1BR	0.01	0.8	0 - 40 - 0	8	5	3	0.4
PC-1LR	0.01	1.0	0 - 50 - 0	10	5	4	0.4
PC-2R	0.002	0.28	0 - 140 - 0	3	2	2	0.4
PCN-1AR	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-1BR	0.01	0.8	0 - 40 - 0	8	5	3	0.3
PCN-1LR	0.01	1.0	0 - 50 - 0	10	5	4	0.3
PCN-2R	0.002	0.28	0 - 140 - 0	3	2	2	0.3
PCN-2BR	0.002	0.2	0 - 100 - 0	3	2	2	0.3
PCN-SR	0.001	0.14	0 - 70 - 0	3	2	2	0.3
PCN-5R	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-6R	0.002	0.28	0 - 140 - 0	3	2	2	0.3

## News

### "DS8V" series

- We can provide all of our PIC TEST/NEW PIC TEST with φ8mm Dovetail Stem to meet with your holding device.  
(except Model PC-1BW, PC-1LW)

**PC-1B-DS8V**  
Graduation: 0.01mm  
Range: 0.8mm

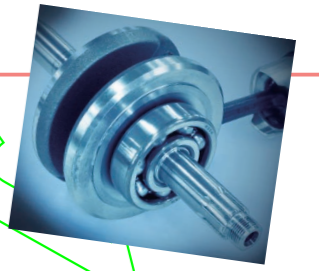
**PC-1L-DS8V**  
Graduation: 0.01mm  
Range: 1.0mm

**PC-4-DS8V**  
Graduation: 0.002mm  
Range: 0.28mm

**PCN-1B-DS8V**  
Graduation: 0.01mm  
Range: 0.8mm

**PCN-2-DS8V**  
Graduation: 0.002mm  
Range: 0.28mm

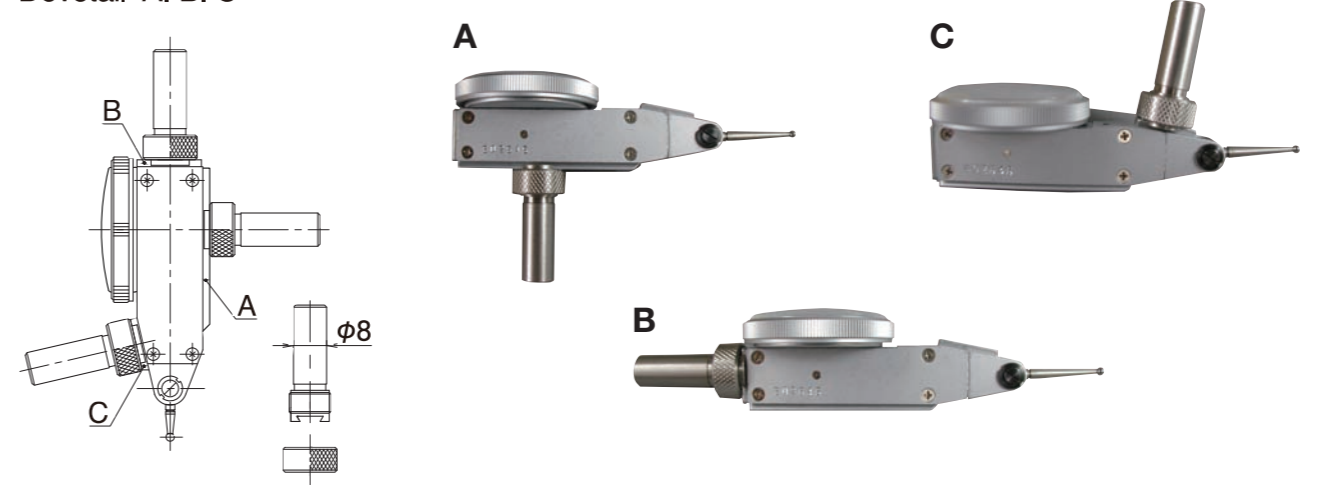
**PCN-S-DS8V**  
Graduation: 0.001mm  
Range: 0.14mm



### Set in Cass



### Example Devetail A. B. C



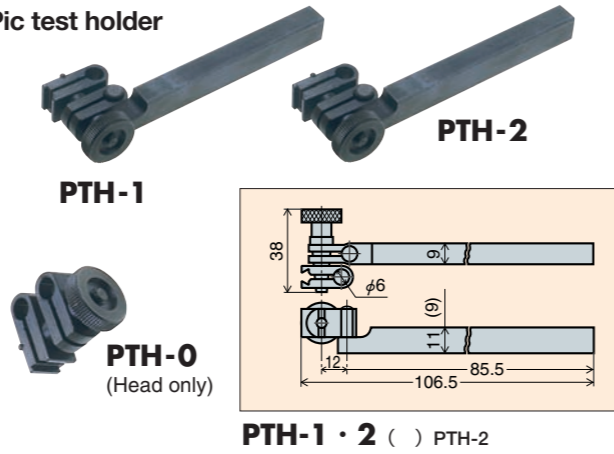


# Accessories (Option)

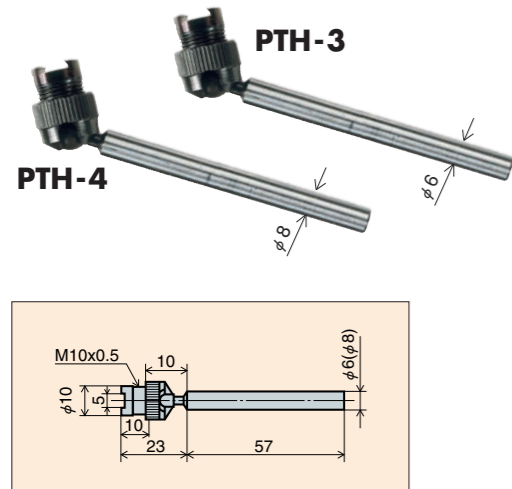
## ● Replaceable contact point (carbide ball)

- S φ 0.5mm
- S φ 0.8mm
- S φ 1mm
- S φ 2mm (Standard)
- S φ 3.0mm
- S φ 2.0mm (Ruby ball)

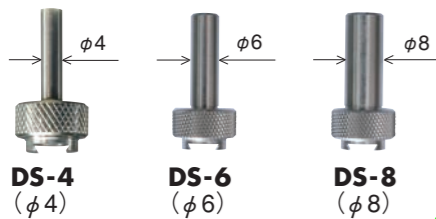
## ● Pic test holder



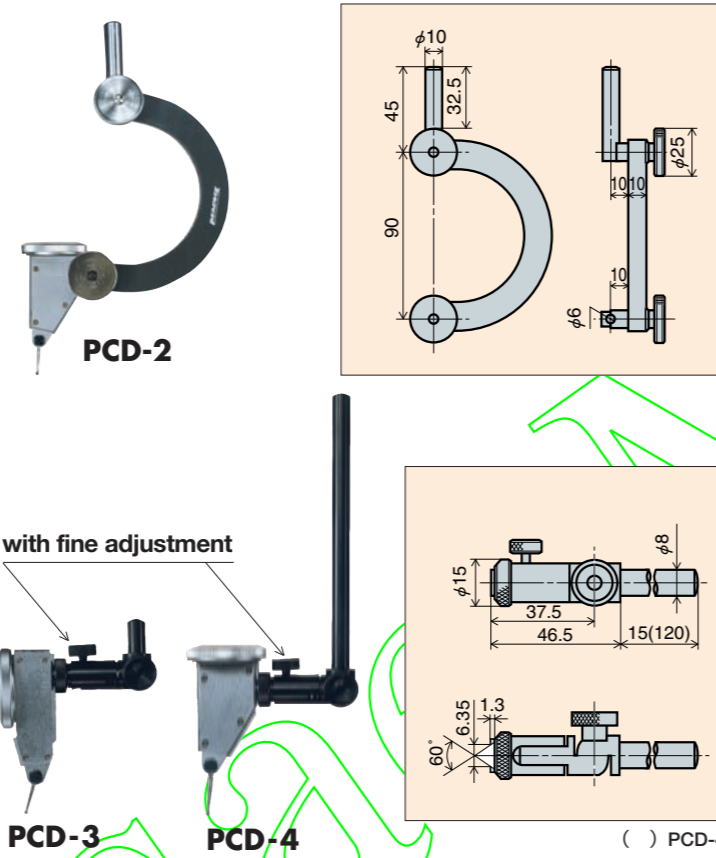
## ● Universal holder



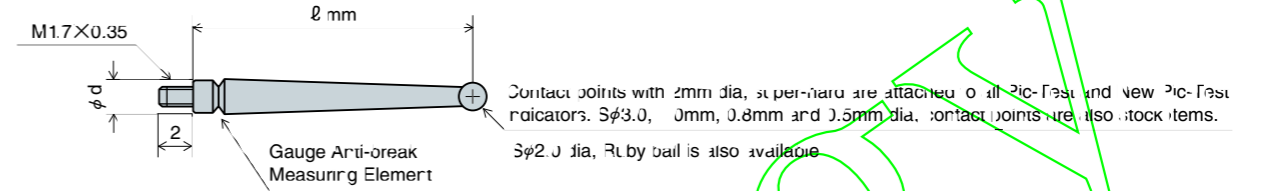
## ● Dovetail stem



## ● Centricator (Pic Test Indicators supplied on request)



# Replaceable Contact Points (M1.7 × 0.35)

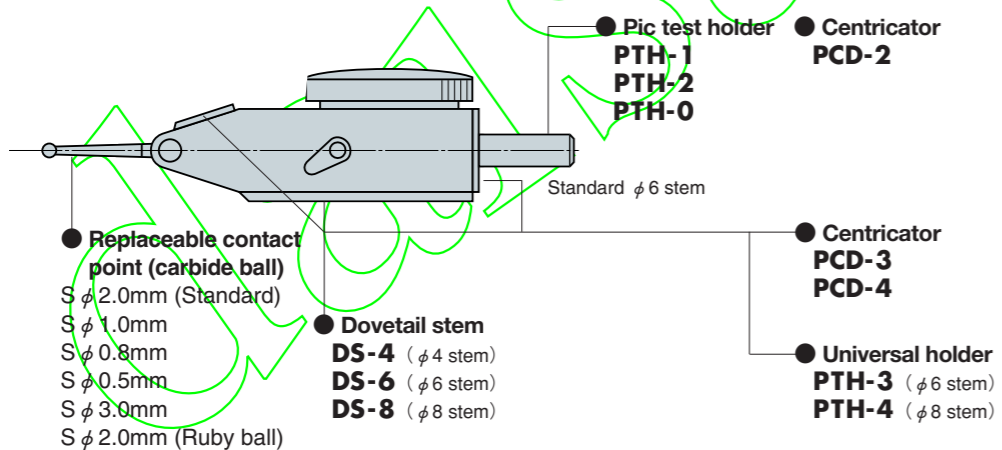


## For Pic Test (Change lever type)

Part No.	ℓ (mm)	φ ball (mm)	φ d (mm)	Applicable Indicator
XP1A-3	18.2	3	2.5	PC-1A PC-1AE PC-3
XP1A-2	18.2	2	2.5	PC-1A PC-1AE PC-3
XP1A-2R (ruby ball)	18.2	2	2.5	PC-1A PC-1AE PC-3
XP1A-1	18.2	1	2.5	PC-1A PC-1AE PC-3
XP1A-08	18.2	0.8	2.5	PC-1A PC-1AE PC-3
XP1A-05	18.2	0.5	2.5	PC-1A PC-1AE PC-3
XP1B-3	19.24	3	2.5	PC-1B PC-1BE PC-1BW
XP1B-2	19.24	2	2.5	PC-1B PC-1BE PC-1BW
XP1B-2R (ruby ball)	19.24	2	2.5	PC-1B PC-1BE PC-1BW
XP1B-1	19.24	1	2.5	PC-1B PC-1BE PC-1BW
XP1B-08	19.24	0.8	2.5	PC-1B PC-1BE PC-1BW
XP1B-05	19.24	0.5	2.5	PC-1B PC-1BE PC-1BW
XP1L-3	39.72	3	3.0	PC-1L PC-1LE PC-3L
XP1L-2	39.72	2	3.0	PC-1L PC-1LE PC-3L
XP1L-2R (ruby ball)	39.72	2	3.0	PC-1L PC-1LE PC-3L
XP1L-1	39.72	1	3.0	PC-1L PC-1LE PC-3L
XP1L-08	39.72	0.8	3.0	PC-1L PC-1LE PC-3L
XP1L-05	39.72	0.5	3.0	PC-1L PC-1LE PC-3L
XP2-3	8.80	3	2.2	PC-2 PC-4
XP2-2	8.80	2	2.2	PC-2 PC-4
XP2-2R (ruby ball)	8.80	2	2.2	PC-2 PC-4
XP2-1	8.80	1	2.2	PC-2 PC-4
XP2-08	8.80	0.8	2.2	PC-2 PC-4
XP2-05	8.80	0.5	2.2	PC-2 PC-4

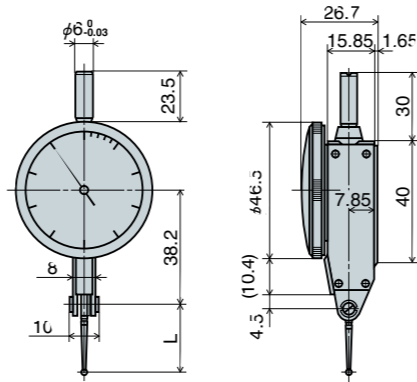
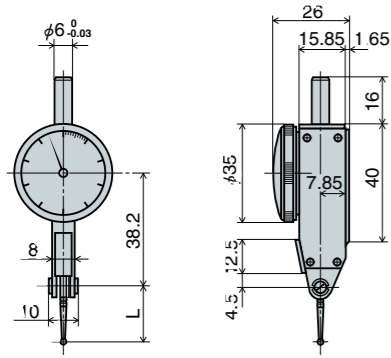
## For New Pic Test (without Change lever type)

Part No.	ℓ (mm)	φ ball (mm)	φ d (mm)	Applicable Indicator
XN1A-3	17.74	3	2.5	PCN-1A PCN-0 PCN-1AE PCN-1AD PCN-5 PCN-7A
XN1A-2	17.74	2	2.5	PCN-1A PCN-0 PCN-1AE PCN-1AD PCN-5 PCN-7A
XN1A-2R (ruby ball)	17.74	2	2.5	PCN-1A PCN-0 PCN-1AE PCN-1AD PCN-5 PCN-7A PCN-1AU PCN-5U
XN1A-1	17.74	1	2.5	PCN-1A PCN-0 PCN-1AE PCN-1AD PCN-5 PCN-7A
XN1A-08	17.74	0.8	2.5	PCN-1A PCN-0 PCN-1AE PCN-1AD PCN-5 PCN-7A
XN1A-05	17.74	0.5	2.5	PCN-1A PCN-0 PCN-1AE PCN-1AD PCN-5 PCN-7A
XN1B-3	18.63	3	2.5	PCN-1B PCN-1BE PCN-1BZ (A)-(B)
XN1B-2	18.63	2	2.5	PCN-1B PCN-1BE PCN-1BZ (A)-(B)
XN1B-2R (ruby ball)	18.63	2	2.5	PCN-1B PCN-1BE PCN-1BU PCN-1BZ (A)-(B)
XN1B-1	18.63	1	2.5	PCN-1B PCN-1BE PCN-1BZ (A)-(B)
XN1B-08	18.63	0.8	2.5	PCN-1B PCN-1BE PCN-1BZ (A)-(B)
XN1B-05	18.63	0.5	2.5	PCN-1B PCN-1BE PCN-1BZ (A)-(B)
XN1L-3	39.00	3	2.5	PCN-1L PCN-1LE PCN-1LD PCN-1LZ (A)-(B)
XN1L-2	39.00	2	2.5	PCN-1L PCN-1LE PCN-1LD PCN-1LZ (A)-(B)
XN1L-2R (ruby ball)	39.00	2	2.5	PCN-1L PCN-1LE PCN-1LD PCN-1LU PCN-1LZ (A)-(B)
XN1L-1	39.00	1	2.5	PCN-1L PCN-1LE PCN-1LD PCN-1LZ (A)-(B)
XN1L-08	39.00	0.8	2.5	PCN-1L PCN-1LE PCN-1LD PCN-1LZ (A)-(B)
XN1L-05	39.00	0.5	2.5	PCN-1L PCN-1LE PCN-1LD PCN-1LZ (A)-(B)
XN2-3	14.33	3	2.2	PCN-2 PCN-2E PCN-6 PCN-2Z (A)-(B)
XN2-2	14.33	2	2.2	PCN-2 PCN-2E PCN-6 PCN-2Z (A)-(B)
XN2-2R (ruby ball)	14.33	2	2.2	PCN-2 PCN-2E PCN-6 PCN-2U PCN-6U PCN-2Z (A)-(B)
XN2-1	14.33	1	2.2	PCN-2 PCN-2E PCN-6 PCN-2Z (A)-(B)
XN2-08	14.33	0.8	2.2	PCN-2 PCN-2E PCN-6 PCN-2Z (A)-(B)
XN2-05	14.33	0.5	2.2	PCN-2 PCN-2E PCN-6 PCN-2Z (A)-(B)
XN2B-3	13.00	3	2.2	PCN-2B PCN-2BD PCN-7C PCN-SD
XN2B-2	13.00	2	2.2	PCN-2B PCN-2BD PCN-7C PCN-SD
XN2B-2R (ruby ball)	13.00	2	2.2	PCN-2B PCN-2BD PCN-7C PCN-SD PCN-2BU
XN2B-1	13.00	1	2.2	PCN-2B PCN-2BD PCN-7C PCN-SD
XN2B-08	13.00	0.8	2.2	PCN-2B PCN-2BD PCN-7C PCN-SD
XN2B-05	13.00	0.5	2.2	PCN-2B PCN-2BD PCN-7C PCN-SD
XNS-3	8.13	3	2.2	PCN-S
XNS-2	8.13	2	2.2	PCN-S
XNS-2R (ruby ball)	8.13	2	2.2	PCN-S PCN-SU
XNS-1	8.13	1	2.2	PCN-S
XNS-08	8.13	0.8	2.2	PCN-S
XNS-05	8.13	0.5	2.2	PCN-S



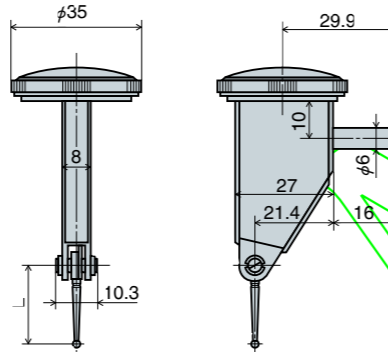
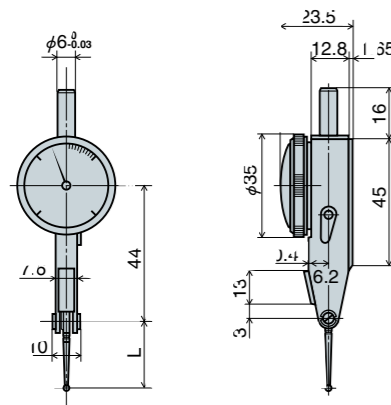
# Dimensions of Lever Type Dial Indicators

## Contact Points Length and Types



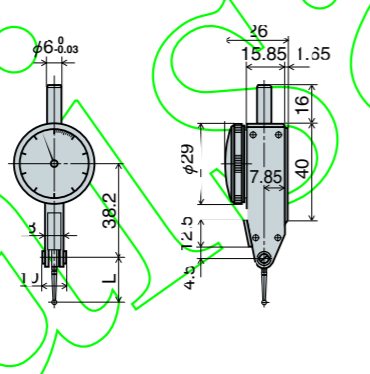
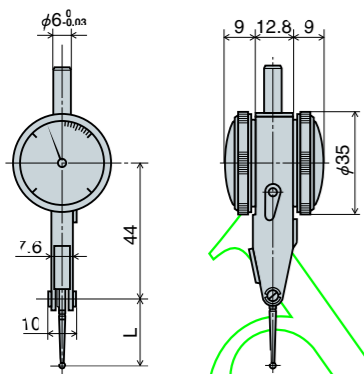
Model	L (mm)
PCN-1A . PCN-1AE . PCN-1AU . PCN-7A	21.3
PCN-1B . PCN-1BE . PCN-1BU . PCN-1BZ(A)(B)	22.2
PCN-1L . PCN-1LE . PCN-1LU . PCN-1LZ(A)(B)	42.8
PCN-2 . PCN-2E . PCN-2U . PCN-2Z(A)(B)	17.94
PCN-2B . PCN-2BU	16.6
PCN-S	11.7
PCN-7C	16.6

Model	L (mm)
PCN-1AD	21.3
PCN-2BD . PCN-SD	16.6
PCN-1LD	42.8



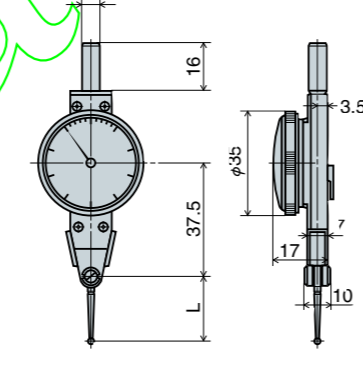
Model	L (mm)
PC-1A . PC-1AE	21.4
PC-1B . PC-1BE	22.4
PC-1L . PC-1LE	43.0
PC-2	12.0

Model	L (mm)
PCN-5 . PCN-5U	21.3
PCN-6 . PCN-6U	17.94



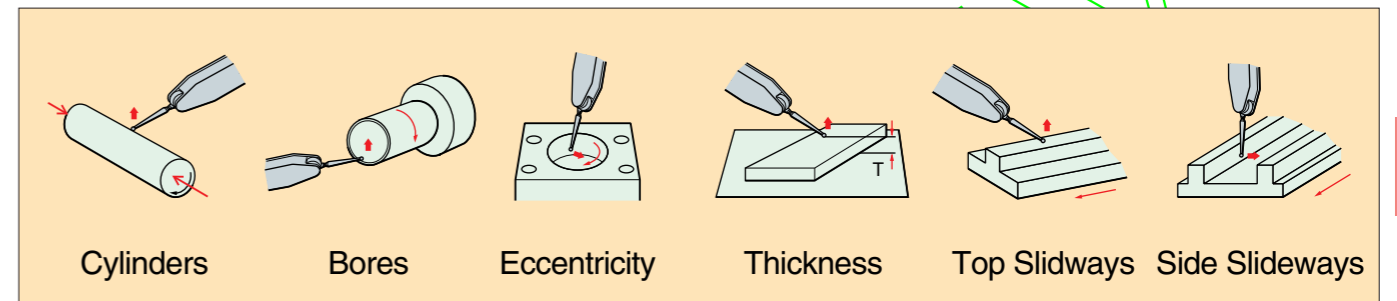
Model	L (mm)
PC-1BW	22.4

Model	L (mm)
PCN-0	21.3



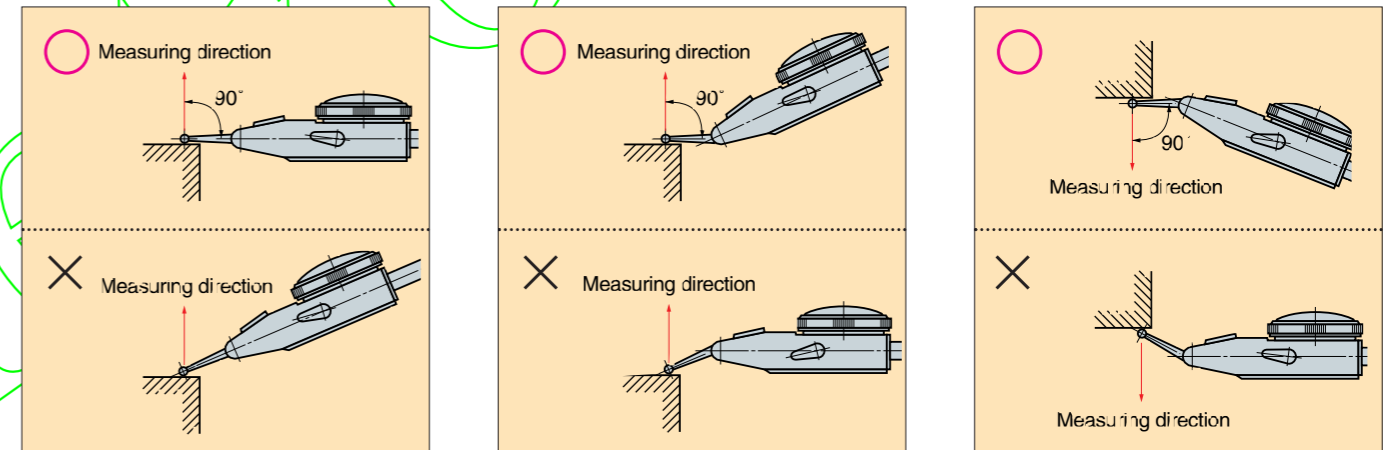
Model	L (mm)
PC-3	21.4
PC-4	12.0
PC-3L	43.0

# Applied Examples



## Precautions for Handling

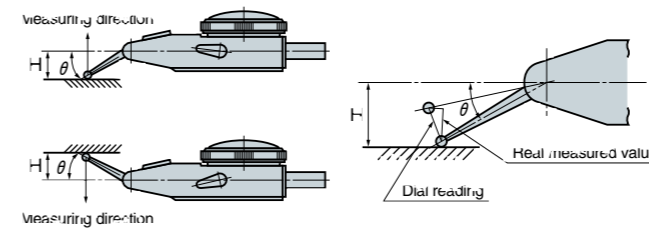
- Dial gauges shall be used by being fixed to a rigid retainer to prevent the influence of flexure or the like. In measurement, the measuring direction shall be made perpendicular to the center line of the measuring probe.



- In case they are not perpendicular, a correction by the following formula is necessary: Due to various measuring direction, the contact point sometimes can not be angled perpendicular to the measuring device.

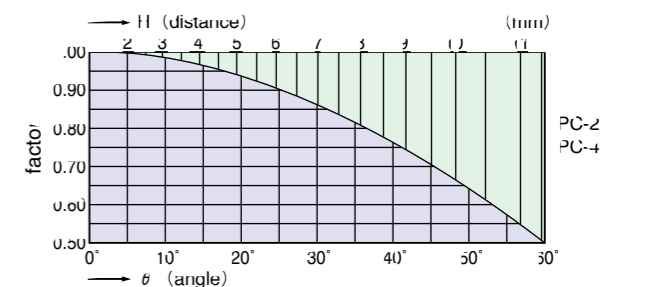
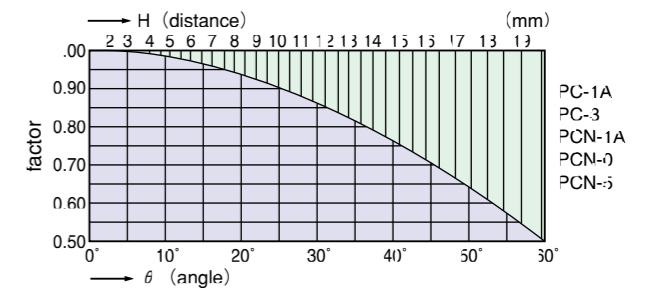
Examples the diagrams below, where the measuring probe is set at a non-perpendicular angles and the distance between the pivot of the contact point and the measuring device is signified by the letter H:

Displacement = quantity of pointer movement x COS  $\theta$



Example:  
Using a PC-1A indicator, suppose the degree of angle is 30° and the Pic Test reading is 0.05mm. The factor for the PC-1A indicator from the graph is 0.87.  
 $0.05\text{mm} \times 0.87 = 0.0435 = 0.043\text{mm}$

- When modification is not necessary: If the measuring tolerance is 10% and the graph factor is above 0.9, modification by calculation is unnecessary.

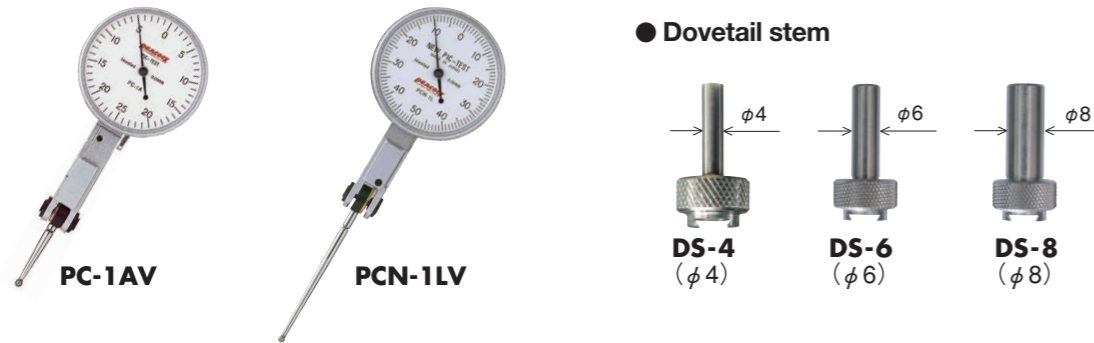




# Special Type Pic Test Indicators

## Without stem type V series

Our standard Pic Test Indicators have  $\phi 6$ mm fixed stem.  
If you do not need it, we can supply Pic Test Indicators without stem or with Dovetail Stem. ( $\phi 4$ mm,  $\phi 6$ mm or  $\phi 8$ mm)



### Specifications

Model	Graduation (mm)	Range (mm)	Reading	Accuracy ( $\mu$ m)			Measuring force less than(N)
				Wide-range forward accuracy	Adjacent error	Backward error	
PC-1AV	0.01	0.5	0 - 25 - 0	5	5	3	0.4
PC-1BV	0.01	0.8	0 - 40 - 0	8	5	3	0.4
PC-1LV	0.01	1.0	0 - 50 - 0	10	5	4	0.4
PC-2V	0.002	0.28	0 - 140 - 0	3	2	2	0.4
PCN-1AV	0.01	0.5	0 - 25 - 0	5	5	3	0.3
PCN-1BV	0.01	0.8	0 - 40 - 0	8	5	3	0.3
PCN-1LV	0.01	1.0	0 - 50 - 0	10	5	4	0.3
PCN-2V	0.002	0.28	0 - 140 - 0	3	2	2	0.3
PCN-2BV	0.002	0.2	0 - 100 - 0	3	2	2	0.3
PCN-SV	0.001	0.14	0 - 70 - 0	3	2	2	0.3

\*We also can supply other Pic Test Indicators without  $\phi 6$ mm fixed stem.

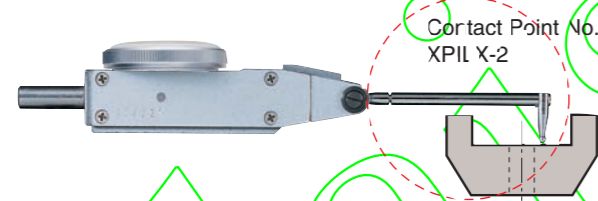
## Right Angle Contact Point for PIC TEST (PAT.No.3065810)

Unique Contact Point not existing before!

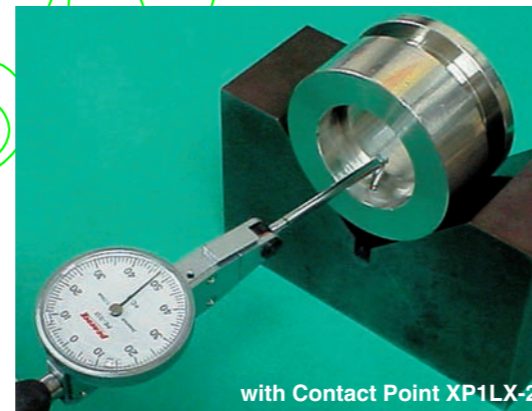
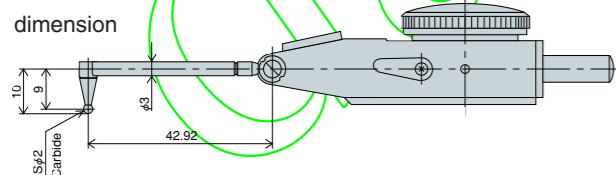
### Contact Point Part No. XPILX-2

A Contact Point end bent at a right has made it possible to make a measurement of an object that used to be impossible to measure!

Set the Contact Point so that it is horizontal and perpendicular to work.



The Contact Point enable a measurement of a recessed portion located at the back of a project portion that would not be possible by the use of an existing Contact Point.



Also makes it possible to measure the parallelism and run-out of grooves on different levels.

Metrology

Right Angle Contact Point for PIC TEST (PAT.No.3065810)