



SERIES 3, 4 — Long Stroke Type, Large Diameter

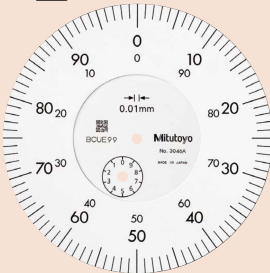
Optional Accessories

- Limit hand (2 pcs.): **21AZB195**
- Bezel clamp: **21AZB148** (for metric type)
21RZA065 (for inch type)

- Dial indicators with a large-diameter dial face for easy reading.
- Models with longer measuring ranges are also available.
- All types are supplied with limit markers and a bezel clamp as standard.
- The stem and spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use.
- A carbide contact point is used.
- The bezel clamp and lifting lever* (optional) can be attached to either the right or left side. These parts can be easily installed and removed without tools.

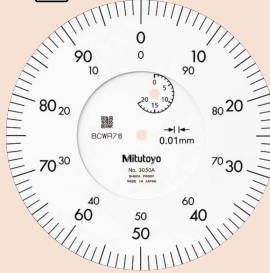
* Can be attached only to **3046A, 3047A, 3050A, 3109A-10** and **4046A**.

Continuous scale



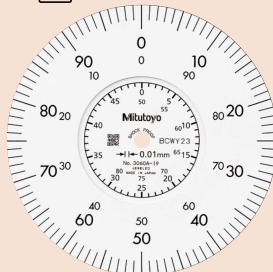
Graduation: 0.01 mm, **3046A**
Measuring range: 10 mm

Continuous scale



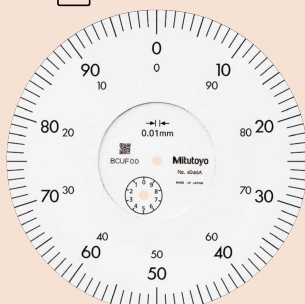
Graduation: 0.01 mm, **3050A**
Measuring range: 20 mm

Continuous scale



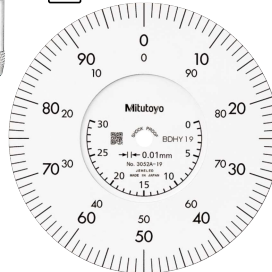
Graduation: 0.01 mm, **3060A-19**
Measuring range: 80 mm

Continuous scale



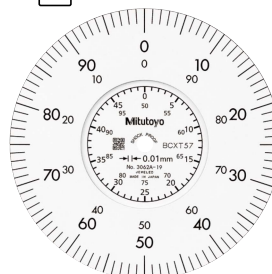
Graduation: 0.01 mm, **4046A**
Measuring range: 10 mm

Continuous scale



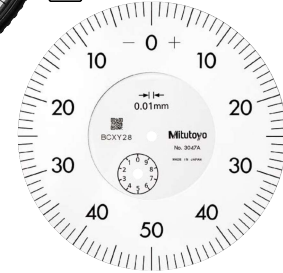
Graduation: 0.01 mm, **3052A-19**
Measuring range: 30 mm

Continuous scale



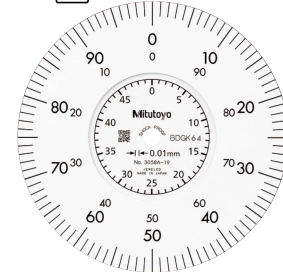
Graduation: 0.01 mm, **3062A-19**
Measuring range: 100 mm

Balanced scale



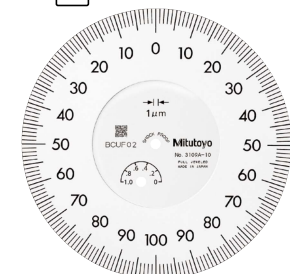
Graduation: 0.01 mm, **3047A**
Measuring range: 10 mm

Continuous scale

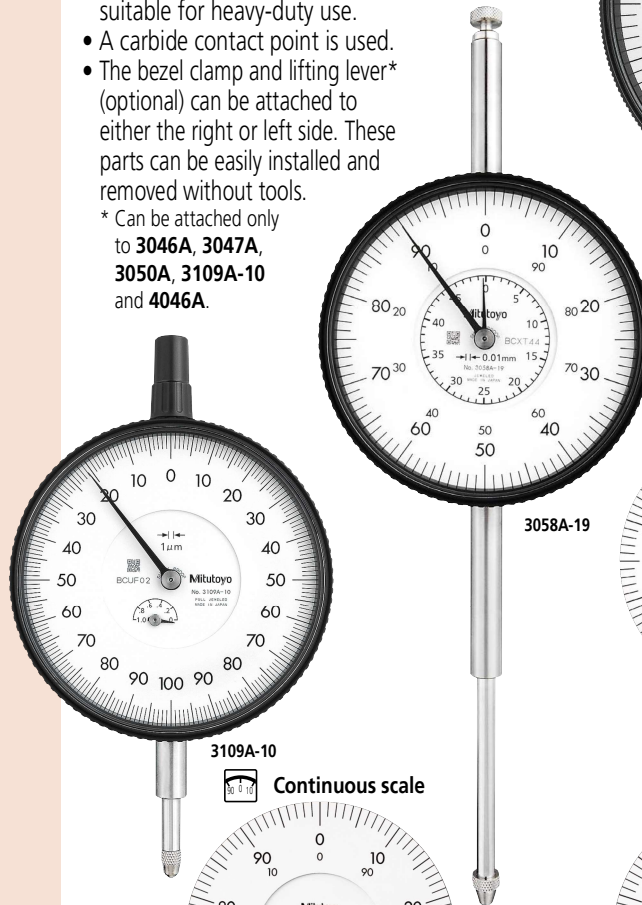
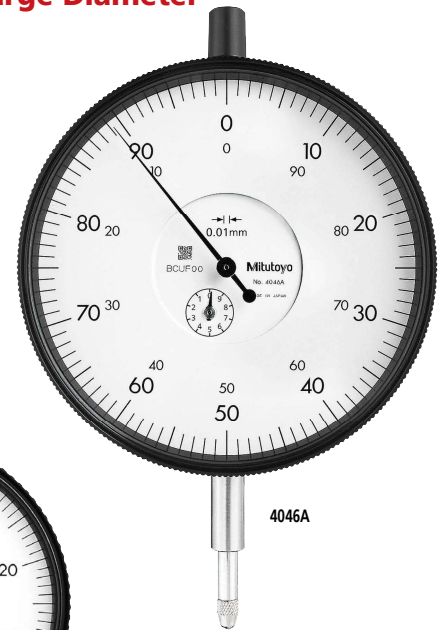


Graduation: 0.01 mm, **3058A-19**
Measuring range: 50 mm

Balanced scale



Graduation: 0.001 mm, **3109A-10**
Measuring range: 1 mm



Dial Indicators

DIMENSIONS

ISO/JIS Type

ANSI/AGD Type

Unit: mm

Order No.	A	B	C	D	E	F	G	H	I
3046A	59.6	75.5	78	17.6	21	15.9	20.6	71	9
3047A	59.6	75.5	78	17.6	21	15.9	20.6	71	9
3050A	52.6	94	78	17.6	21	25.9	29.1	71	9
3052A-19*	72.9	104.3	78	17.6	21	25.9	39.4	71	9
3058A-19*	81.9	142.3	78	17.6	21	43.9	59.4	71	9
3060A-19*	120.9	202.3	78	17.6	21	73.9	89.4	71	9
3062A-19*	141.9	243.3	78	17.6	21	94.9	109.4	71	9
3109A-10	59.6	79	78	17.6	21	15.9	14.1	71	9
4046A	59.6	84	92	21.5	21	18.9	19.1	71	9

* The shoulder on a contact point (standard accessory) acts as a stop to prevent spindle overrun that may otherwise damage the indicator. For this reason, if you need to install an optional contact point with an outside diameter smaller than 7 mm, use a washer (with outside diameter of at least 7 mm, inside diameter of 3 mm, and thickness of approx. 0.5 mm) placed between the contact point and the spindle. Note: Refer to pages F-57 to F-60 for details of contact points.

Unit: mm

ANSI/AGD Type

Unit: in

Order No.	A	B	C	D	E	F	G	H	I
3414A	2.07	2.89	3.07	0.70	3/4	0.50	0.86	2.80	0.35
3415A	2.07	2.89	3.07	0.70	3/4	0.50	0.86	2.80	0.35
3416A	2.07	3.39	3.07	0.70	3/4	0.50	1.36	2.80	0.35
3417A	2.07	3.39	3.07	0.70	3/4	0.50	1.36	2.80	0.35
3424A-19*	3.31	5.88	3.07	0.70	3/4	1.99	2.35	2.80	0.35
3426A-19*	4.84	7.80	3.07	0.70	3/4	2.91	3.35	2.80	0.35
3428A-19*	5.67	9.63	3.07	0.70	3/4	3.74	4.35	2.80	0.35
3802A-10	2.41	2.35	3.07	0.70	3/4	0.50	0.32	2.80	0.35
3803A-10	2.41	2.35	3.07	0.70	3/4	0.50	0.32	2.80	0.35
4887A-19*	4.84	7.80	3.62	0.85	3/4	2.63	3.35	2.80	0.35

Unit: in

FEATURES

Metric							
Order No.	Order No.						
3046A	3046AB	✓					
3047A	3047AB	✓					
3050A	3050AB	✓					
3052A-19	3052AB-19	✓		✓		✓	✓
3058A-19	3058AB-19	✓		✓		✓	✓
3060A-19	3060AB-19	✓		✓		✓	✓
3062A-19	3062AB-19	✓		✓		✓	✓
3109A-10	3109AB-10	✓	✓			✓	
4046A	4046AB	✓					

Inch							
Order No.	Order No.						
3414A	3414AB	✓					
3415A	3415AB	✓					
3416A	3416AB	✓					
3417A	3417AB	✓					
3424A-19	3424AB-19	✓		✓		✓	✓
3426A-19	3426AB-19	✓		✓		✓	✓
3428A-19	3428AB-19	✓		✓		✓	✓
3802A-10	3802AB-10	✓					
3803A-10	3803AB-10	✓					
4887A-19	4887AB-19	✓		✓		✓	✓

SPECIFICATIONS

Metric		ISO/JIS type									
Order No.	w/lug	Flat-back	Graduation (mm)	Range (range/rev) (mm)	Maximum permissible error (MPE) (μm)					Dial reading	Measuring force (N)
					Indication error		Hysteresis	Repeat-ability	Dial reading		
1/10 Rev	1/2 Rev	1 Rev	Measuring range								
3046A	3046AB	0.01	10 (1)	5	9	10	15	3	3	±0-100	1.4 or less
3047A	3047AB	0.01	10 (1)	5	9	10	15	3	3	0-50-0	1.4 or less
3050A	3050AB	0.01	20 (1)	8	10	15	20	5	4	±0-100	2.0 or less
3052A-19	3052AB-19	0.01	30 (1)	10	12	15	25	7	5	±0-100	2.5 or less
3058A-19	3058AB-19	0.01	50 (1)	10	12	15	30	8	5	±0-100	3.0 or less
3060A-19 ^{*1}	3060AB-19 ^{*1}	0.01	80 (1)	12	17	20	45	9	5	±0-100	3.0 or less
3062A-19 ^{*1}	3062AB-19 ^{*1}	0.01	100 (1)	12	17	20	50	9	5	±0-100	3.5 or less
3109A-10	3109AB-10	0.001	1 (0.2)	2	3.5	4	5	2	0.5	0-100-0	1.5 or less
4046A	4046AB	0.01	10 (1)	5	9	10	15	3	3	±0-100	1.4 or less

*1 Use in a vertical orientation (contact point downward) for the long stroke model.
 *2 Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed.

Inch		ANSI/AGD type									
Order No.	w/lug	Flat-back	Graduation (in)	Range (range/rev) (in)	Accuracy ^{*2} (in)			Repeat-ability (in)	Dial reading	Measuring force (N)	
					First 1 Rev/2.5 Rev/10 Rev	Retrace					
3414A	3414AB	0.001	0.5 (0.1)	±0.001/±0.001/±0.001	0.0002	±0.0002	±0-100	1.8 or less			
3415A	3415AB	0.001	0.5 (0.1)	±0.001/±0.001/±0.001	0.0002	±0.0002	0-50-0	1.8 or less			
3416A	3416AB	0.001	1 (0.1)	±0.001/±0.001/±0.002	0.0002	±0.0002	±0-100	1.8 or less			
3417A	3417AB	0.001	1 (0.1)	±0.001/±0.001/±0.002	0.0002	±0.0002	0-50-0	1.8 or less			
3424A-19	3424AB-19	0.001	2 (0.1)	±0.001/±0.001/±0.002 /±0.003 (20 Rev)	0.00033	±0.0002	±0-100	3.0 or less			
3426A-19 ^{*1}	3426AB-19 ^{*1}	0.001	3 (0.1)	±0.001/±0.001/±0.002 /±0.003 (20 Rev) /±0.005 (Over 20 Rev)	0.00033	±0.0002	±0-100	3.0 or less			
3428A-19 ^{*1}	3428AB-19 ^{*1}	0.001	4 (0.1)	±0.001/±0.001/±0.002 /±0.003 (20 Rev) /±0.005 (Over 20 Rev)	0.00033	±0.0002	±0-100	3.5 or less			
3802A-10	3802AB-10	0.0001	0.025 (0.01)	±0.0001/±0.0001/—	0.0001	±0.00003	0-10	2.0 or less			
3803A-10	3803AB-10	0.0001	0.025 (0.01)	±0.0001/±0.0001/—	0.0001	0±0.00003	0-5-0	2.0 or less			
4887A-19 ^{*1}	4887AB-19 ^{*1}	0.001	3 (0.1)	±0.001/±0.001/±0.002 /±0.003 (20 Rev) /±0.005 (Over 20 Rev)	0.00033	±0.0002	±0-100	3.0 or less			

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 *2 Completed products inspection is performed in the vertical orientation (contact point downward) and the stated accuracy is guaranteed.