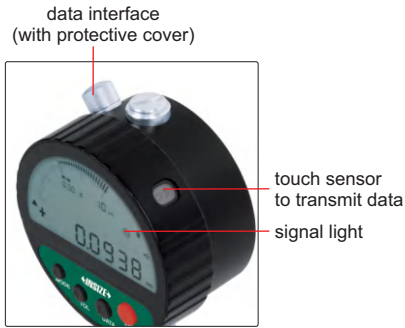


ATTENTION: RECHARGEABLE BATTERY, FOR 12 HOURS CONTINUOUS WORKING

## INDUCTIVE DIGITAL COMPARATOR (HIGH ACCURACY)

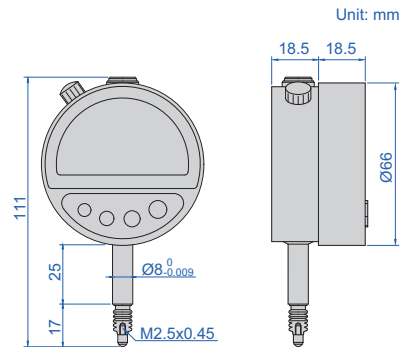


2149-2

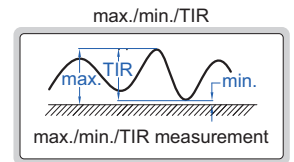


IP54 WATERPROOF

DATA OUTPUT



- Built-in wireless transmission
- IP54 dust/waterproof
- Reading in digital and analog
- Display can be rotated by 320°
- Can store 10 set parameters, and the parameter can be searched and recalled
- 999 groups value can be stored
- Touch sensor: use the sensor to transmit data, avoiding press the button to cause deformation of the dial indicator stand and affect the zero position
- Button function: on/off, zero, data hold, measuring direction change, inch/metric conversion, data preset, absolute/incremental measurement, max./min./TIR measurement, tolerance Go and No-Go display, data output, analog pointer resolution and range change, print data
- Power: rechargeable battery, for 12 hours continuous working
- Ruby probe
- Data output
- Optional accessory: wireless receiver (code **2149-RE**, transmission distance is 2 meters), printer (code **ISF-DF-PRINTER**)



printer (optional)



wireless receiver (optional)



10

Code	Range	Resolution	Accuracy	Hysteresis	Repeatability	Measuring force
2149-2	2mm/0.08"	0.1µm/0.000005"	0.5µm	0.2µm	0.3µm	0.8-1N

## PRECISION DIAL INDICATORS

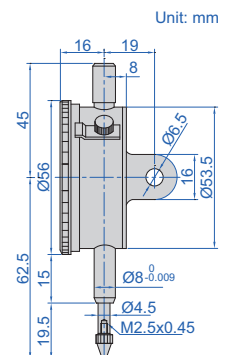
- Graduation: 0.001mm
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2313-1A

JEWELLED BEARING

INSPECTION CERTIFICATE



Code	Range	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Cap	Remark
2313-1FA *	1mm	5µm	2µm	0.2mm	0-100-0	2N	cannot lift	flat back
2313-2FA *	2mm	6µm	2.5µm	0.2mm	0-100-0	2N	cannot lift	flat back
2313-1A *	1mm	5µm	2µm	0.2mm	0-100-0	2N	cannot lift	lug back
2313-2A *	2mm	6µm	2.5µm	0.2mm	0-100-0	2N	cannot lift	lug back

\* Supplied with manufacturer inspection certificate

## COMPACT DIAL INDICATORS

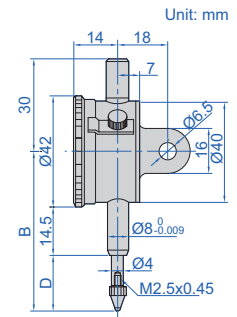
- Meet DIN878
- Graduation: 0.01mm
- Dial reading: 0-50
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2311-5

JEWELLED BEARING

INSPECTION CERTIFICATE



Code	Range	Accuracy	Hysteresis	Range/rev	Maximum measuring force	Cap	Remark	B	D
2311-3F *	3mm	12µm	3µm	0.5mm	1.5N	can lift	flat back	46	10.5
2311-5F *	5mm	14µm	3µm	0.5mm	1.5N	can lift	flat back	48	12.5
2311-3 *	3mm	12µm	3µm	0.5mm	1.5N	can lift	lug back	46	10.5
2311-5 *	5mm	14µm	3µm	0.5mm	1.5N	can lift	lug back	48	12.5

\*Supplied with manufacturer inspection certificate

## DIAL INDICATORS (STANDARD TYPE)

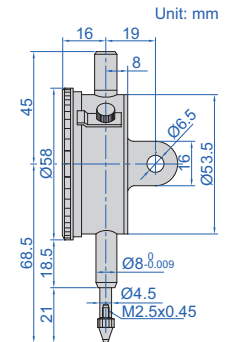
- Meet DIN878
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2308-10A

JEWELLED BEARING

INSPECTION CERTIFICATE



Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Cap	Remark
2308-3FA *	3mm	0.01mm	12µm	3µm	1mm	0-100	1.5N	can lift	flat back
2308-5FA *	5mm	0.01mm	14µm	3µm	1mm	0-100	1.5N	can lift	flat back
2308-10FA *	10mm	0.01mm	17µm	3µm	1mm	0-100	1.5N	can lift	flat back
2308-3A *	3mm	0.01mm	12µm	3µm	1mm	0-100	1.5N	can lift	lug back
2308-5A *	5mm	0.01mm	14µm	3µm	1mm	0-100	1.5N	can lift	lug back
2308-10A *	10mm	0.01mm	17µm	3µm	1mm	0-100	1.5N	can lift	lug back

\*Supplied with manufacturer inspection certificate

## DIAL INDICATORS (BASIC TYPE)

- Meet DIN878
- Graduation: 0.01mm
- Jeweled bearing
- Supplied with limit hands and bezel clamp
- Packed in carton box
- Optional accessory: backs (page 277~278), contact points (page 272~276)

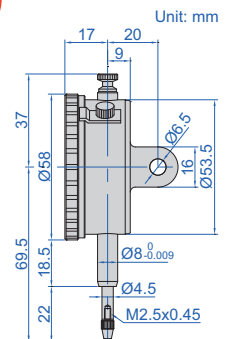


2301-10

JEWELLED BEARING

INSPECTION CERTIFICATE

POPULAR MODEL



Code	Range	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Cap	Remark
2301-10F *	10mm	17µm	3µm	1mm	0-100	1.5N	can lift	flat back
2301-10 *	10mm	17µm	3µm	1mm	0-100	1.5N	can lift	lug back with spare flat back

\*Supplied with manufacturer inspection certificate



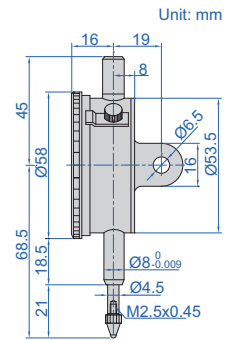
JEWELLED BEARING

## REVERSE READING DIAL INDICATORS

- Meet DIN878
- Suitable for depth and step measurements
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2801-10



Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Cap	Remark
2801-10F*	10mm	0.01mm	17µm	3µm	1mm	100-0	1.5N	can lift	flat back
2801-10*	10mm	0.01mm	17µm	3µm	1mm	100-0	1.5N	can lift	lug back

\*Supplied with manufacturer inspection certificate



SHOCK PROOF

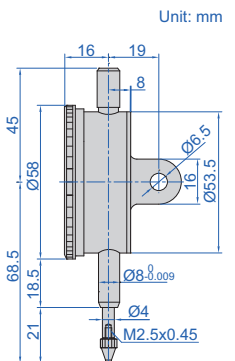
JEWELLED BEARING

## SHOCKPROOF DIAL INDICATORS

- Meet DIN878
- Shockproof
- Jeweled bearing
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2314-10A



Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Cap	Remark
2314-3FA*	3mm	0.01mm	12µm	3µm	1mm	0-100	1.5N	can lift	flat back
2314-5FA*	5mm	0.01mm	14µm	3µm	1mm	0-100	1.5N	can lift	flat back
2314-10FA*	10mm	0.01mm	17µm	3µm	1mm	0-100	1.5N	can lift	flat back
2314-3A*	3mm	0.01mm	12µm	3µm	1mm	0-100	1.5N	can lift	lug back
2314-5A*	5mm	0.01mm	14µm	3µm	1mm	0-100	1.5N	can lift	lug back
2314-10A*	10mm	0.01mm	17µm	3µm	1mm	0-100	1.5N	can lift	lug back

\*Supplied with manufacturer inspection certificate



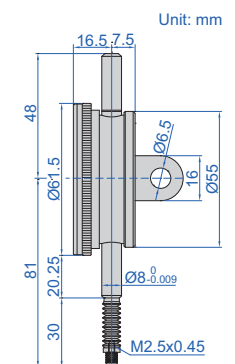
IP54 WATERPROOF

## WATERPROOF DIAL INDICATORS

- Meet DIN878
- IP54 dust/waterproof
- With limit pointers
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2324-10A



Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Cap	Remark
2324-10FA*	10mm	0.01mm	17µm	3µm	1mm	0-100	1.5N	cannot lift	flat back
2324-10A*	10mm	0.01mm	17µm	3µm	1mm	0-100	1.5N	cannot lift	lug back

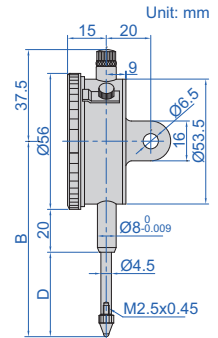
\*Supplied with manufacturer inspection certificate

## DIAL INDICATORS (LONG STROKE)

- Graduation: 0.01mm
- Dial reading: 0-100
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2310-30A



Code	Range	Accuracy	Hysteresis	Range/rev	Maximum measuring force	Cap	Remark	B	D
2310-20FA*	20mm	25µm	5µm	1mm	2.0N	can lift	flat back	83	35
2310-30FA*	30mm	35µm	7µm	1mm	2.2N	can lift	flat back	88	40
2310-20A*	20mm	25µm	5µm	1mm	2.0N	can lift	lug back	83	35
2310-30A*	30mm	35µm	7µm	1mm	2.2N	can lift	lug back	88	40

\*Supplied with manufacturer inspection certificate

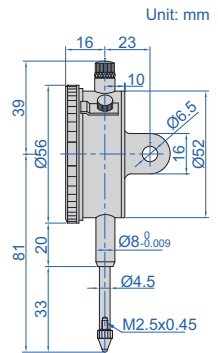
## DIAL INDICATORS (LONG STROKE, BASIC TYPE)



- Supplied with limit pointers and bezel clamp
- Graduation: 0.01mm
- Packed in carton box
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2302-25



Code	Range	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Cap	Remark
2302-25F*	25mm	35µm	7µm	1mm	0-100	2.2N	can lift	flat back
2302-25*	25mm	35µm	7µm	1mm	0-100	2.2N	can lift	lug back with spare flat back

\*Supplied with manufacturer inspection certificate

## DOUBLE FACE DIAL INDICATOR



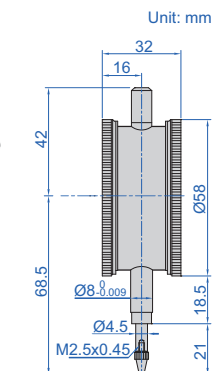
- Meet DIN878
- Read from both sides
- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: contact points (page 272~276)



front

2328-10

back



Code	Range	Graduation	Accuracy	Hysteresis	Range/rev	Dial reading	Maximum measuring force	Cap
2328-10*	10mm	0.01mm	17µm	3µm	1mm	0-100	1.5N	can lift

\*Supplied with manufacturer inspection certificate

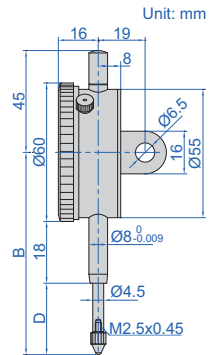
## DIAL INDICATORS (GRADUATION 0.1mm)

- Graduation: 0.1mm
- Dial reading: 0-10
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2318-30

Code	Range	Accuracy	Hysteresis	Range/rev	Maximum measuring force	Cap	Remark	B	D
2318-10F	10mm	40µm	20µm	10mm	2.0N	can lift	flat back	70	20
2318-20F	20mm	50µm	20µm	10mm	2.0N	can lift	flat back	85	35
2318-25F	25mm	60µm	20µm	10mm	2.2N	can lift	flat back	85	35
2318-30F	30mm	60µm	20µm	10mm	2.2N	can lift	flat back	90	40
2318-10	10mm	40µm	20µm	10mm	2.0N	can lift	lug back	70	20
2318-20	20mm	50µm	20µm	10mm	2.0N	can lift	lug back	85	35
2318-25	25mm	60µm	20µm	10mm	2.2N	can lift	lug back	85	35
2318-30	30mm	60µm	20µm	10mm	2.2N	can lift	lug back	90	40



## DIAL INDICATORS (LONG STROKE)

- Graduation: 0.01mm
- Dial reading: 0-100
- Shockproof
- Jeweled bearing
- Supplied with limit pointers
- Optional accessory: backs (page 277~278), contact points (page 272~276)



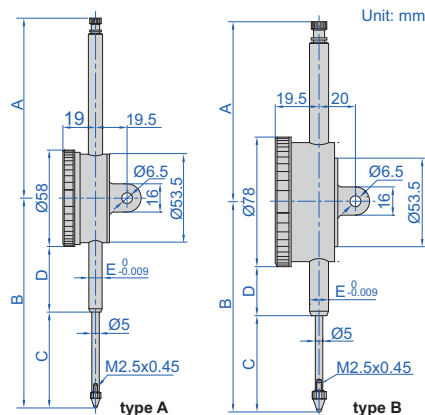
2309-50

**INSPECTION CERTIFICATE**

**JEWELLED BEARING**

**SHOCK PROOF**

10



stem clamp Ø10mm for 2309-100D



back of type B



Code	Type	A	B	C	D	E
2309-30F	A	37.5	89.5	40.9	19.5	Ø8
2309-30	A	37.5	89.5	40.9	19.5	Ø8
2309-50	A	108.3	126.2	57.7	39.5	Ø8
2309-50D	B	108.3	126.2	57.7	29.5	Ø8
2309-80	A	138.4	168.4	88	51.3	Ø8
2309-80D	B	138.4	168.4	88	41.3	Ø8
2309-100D	B	167.6	207.8	108	60.8	Ø10

(mm)

Code	Range	Type	Accuracy	Hysteresis	Range/rev	Maximum measuring force	Cap	Remark
2309-30F*	30mm	A	35µm	7µm	1mm	2.2N	can lift	flat back
2309-30*	30mm	A	35µm	7µm	1mm	2.2N	can lift	lug back
2309-50*	50mm	A	40µm	8µm	1mm	2.5N	can lift	flat back with spare lug back
2309-50D*	50mm	B	40µm	8µm	1mm	2.5N	can lift	flat back with spare lug back
2309-80	80mm	A	50µm	9µm	1mm	3.2N	can lift	flat back with spare lug back
2309-80D	80mm	B	50µm	9µm	1mm	3.2N	can lift	flat back with spare lug back
2309-100D	100mm	B	50µm	9µm	1mm	3.2N	can lift	flat back with spare lug back

Note: 1) 2309-80, 2309-80D and 2309-100D can only be used vertically  
 2) 2309-100D is supplied with stem clamp Ø10mm for magnetic stands (code 6200-60, 6201-60, 6202-80, 6202-100)  
 3) 2309-30 and 2309-30F can not accept optional backs (page 277~278)

\* Supplied with manufacturer inspection certificate

## ONE REVOLUTION DIAL INDICATORS

SHOCK PROOF

INSPECTION CERTIFICATE

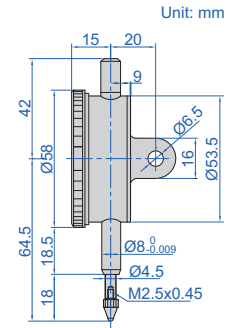
- Meet DIN878
- Graduation: 0.01mm
- Eliminate the possibility of reading errors due to miscounting
- Shockproof
- Supplied with limit pointers
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2316-05

Code	Range	Dial indicator stroke	Accuracy	Hysteresis	Dial reading	Maximum measuring force	Cap	Remark
2316-05F *	0.5mm	5mm	9µm	3µm	25-0-25	1.5N	cannot lift	flat back
2316-1F *	1mm	5mm	9µm	3µm	50-0-50	1.5N	cannot lift	flat back
2316-05 *	0.5mm	5mm	9µm	3µm	25-0-25	1.5N	cannot lift	lug back
2316-1 *	1mm	5mm	9µm	3µm	50-0-50	1.5N	cannot lift	lug back

\*Supplied with manufacturer inspection certificate



## INCH DIAL INDICATORS

INSPECTION CERTIFICATE

- Meet ASME B89.1.10M-2001
- With lug back
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)

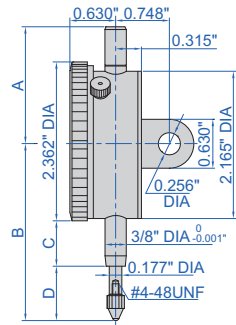


2307-1

Range	A	B	C	D
0.25"	1.811"	2.953"	0.787"	0.984"
0.5"	1.811"	2.953"	0.787"	0.984"
1"	1.811"	3.346"	0.787"	1.378"
2"	4.370"	5.472"	1.969"	2.323"

Code	Range	Graduation	Accuracy		Range/rev	Dial reading	Maximum measuring force	Cap
			First 2.5 rev	Overall				
2307-025 *	0.25"	0.001"	±0.001"	±0.001"	0.1"	0-100	1.8N	can lift
2307-05 *	0.5"	0.001"	±0.001"	±0.002"	0.1"	0-100	1.8N	can lift
2307-1 *	1"	0.001"	±0.001"	±0.002"	0.1"	0-100	1.8N	can lift
2307-2 *	2"	0.001"	±0.001"	±0.004"	0.1"	0-100	2.5N	cannot lift
2307-0255 *	0.25"	0.0005"	±0.0005"	±0.0015"	0.05"	0-50	1.8N	can lift
2307-055 *	0.5"	0.0005"	±0.0005"	±0.0015"	0.05"	0-50	1.8N	can lift
2307-105 *	1"	0.0005"	±0.0005"	±0.002"	0.05"	0-50	1.8N	can lift
2307-205 *	2"	0.0005"	±0.0005"	±0.002"	0.05"	0-50	2.5N	cannot lift

\*Supplied with manufacturer inspection certificate



## INCH LONG STROKE DIAL INDICATOR

INSPECTION CERTIFICATE

- Graduation 0.001"
- With lug back
- Supplied with limit pointers and bezel clamp
- Optional accessory: backs (page 277~278), contact points (page 272~276)



2326-2

Code	Range	Accuracy		Range/rev	Dial reading	Maximum measuring force	Cap
		first 2.5 rev	overall				
2326-2 *	2"	±0.001"	±0.004"	0.1"	0-100	2.5N	cannot lift

\*Supplied with manufacturer inspection certificate

