

Detector (Differential Trans-Type) Features >>>

Features

By using contact measurement, destabilizing elements in the object and ambient conditions, such as color, reflection, water, oil or other things, do not effect measurement allowing an accurate measurement of the dimensions.

Wide variety of variations: Waterproof, small size, long displacement etc.

Low measuring force type: Lever type is 20 mN, spindle type is 0.1 N

Retraction type: used for measuring delicate materials such as glass, plastic and others: air is used for positioning the workpiece to relieve the contact.

Normal type: E-DT-80SC measuring range of 2.2 mm, E-DT-80MC measuring range of 1 mm

E-DT-80SC
For general precision measuring



E-DT-80MC
Small size waterproof type, for equipment assembly



Waterproof type: IP67 standard, E-DT-80SC-901 with a strong track record in factory environments

E-DT-80SC-901
Waterproof type



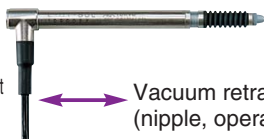
Medium displacement type: E-DT-80LA for easy workpiece positioning (10 mm stroke)

Optional vacuum nipple attachment allows air control between retraction and measuring operations.

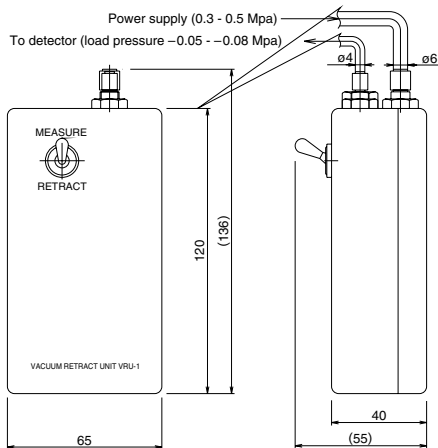
LA type has low measuring force (0.1 N) to prevent scratches to workpieces.

Low measuring force type cannot retract

E-DT-80LA
Right angle type for measuring medium displacement



Vacuum retraction unit (nipple, operation unit)



Vacuum retraction unit diagram

Long displacement measuring type: 11 mm stroke, measuring range 10 mm specification E-DT-8010

E-DT-8010
For long displacement measuring



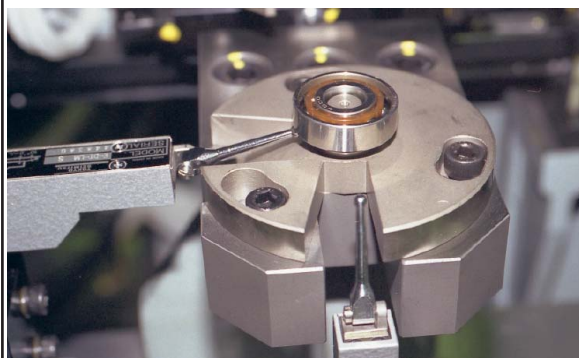
Lever type: E-DT-LM supports low measuring force and high precision used in roundness measuring devices. -S type (E-DT-LM-S) with higher precision linearity 0.2% is also available.

E-DT-LM
For ordinary precision measuring



Applications

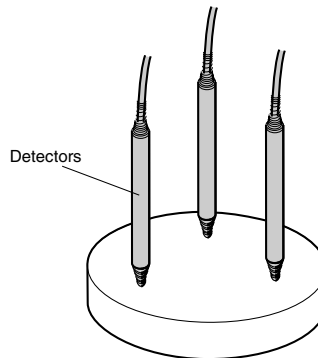
Measurement of Bearing Vibration



E-DT-LM Lever Type Detector

Measurement of Thickness & Parallelism

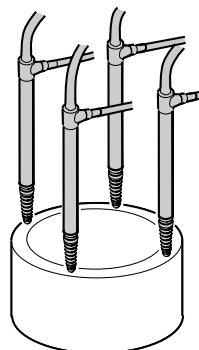
Three or four detectors are used to measure the thickness and parallelism of the workpiece simultaneously.



E-DT-80SC Plunger Type Detector

Measurement of Rotary Compressor Roller Height

Four detectors are used to measure the maximum height and parallelism of the workpiece. The workpiece can be easily mounted and removed since the spindle retract mechanism is used.



E-DT-80LA Plunger Type Detector

Application Configurations >>>

Stand	Detector	Detector Options
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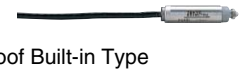
For Plunger Type Detector (80 series)

- E-ST-100CB-80 Grooved Measuring Stand
- E-ST-100DB-80 Flat Measuring Stand



Plunger Type (80 series)

- E-DT-80SC Ordinary Precision Measurement
- E-DT-80SC/T Ordinary Precision Measurement with fine adjustment nut
- E-DT-80SC-901 Waterproof Type
- E-DT-80MC Compact Waterproof Built-in Type
- E-DT-80LA Right Angle Medium Displacement Measurement
- E-DT-80LA/L Right Angle Medium Displacement Measurement
- E-DT-8010 Long Displacement Measurement



Right Angle Adaptor

Vacuum retraction unit (nipple, operation unit)

For Lever Type Detector

- E-ST-LCB Work Measuring Stand
- E-ST-MAC Magnetic Stand



Lever Type

- E-DT-LM Ordinary Precision Measurement
- E-DT-LM/L Low Stylus Force
- E-DT-LM/S High Precision Measurement
- E-DT-LN Long Displacement Measurement



Post mounted (not required when stand is used)

Plunger Type (80 series) + Lever Type

- E-ST-100HB-80 Grooved Stand
- E-ST-100HB-F80 Magnetic Stand



Electric Micrometer Display

Number of detectors that can be connected

Display

Data Output

Judgment

1

→

DELCOM 110A



DELCOM 300



No

Analog

No

Digital

Analog and digital

Yes

MINICOM M5R, M30R



MINICOM M43RD

Meter

Analog

No

Digital

Analog and digital

No

ELCOM 8



Bar graph

RS-232C (standard)

Yes

Digital

Analog (option)

Dedicated measuring head plug gages are available for the ELCOM.
Refer to the ELCOM page for details.

2

→

→

DELCOM 120A



No

Analog

No

ELCOM 8



Bar graph

RS-232C (standard)

Yes

Digital

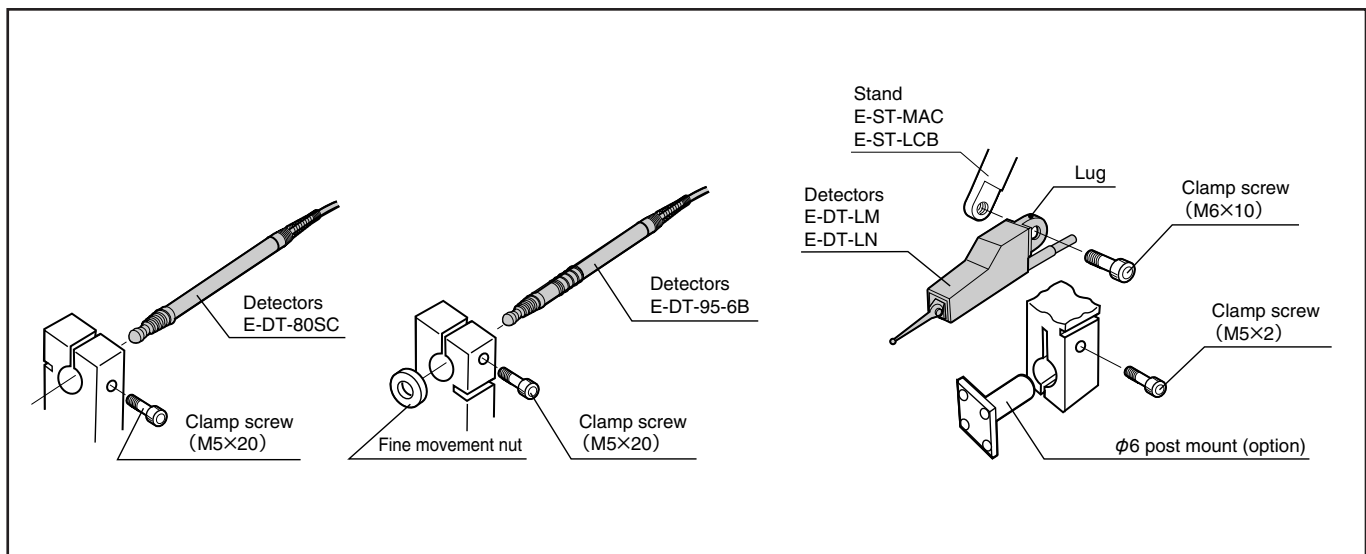
Analog (option)

Detectors >>>

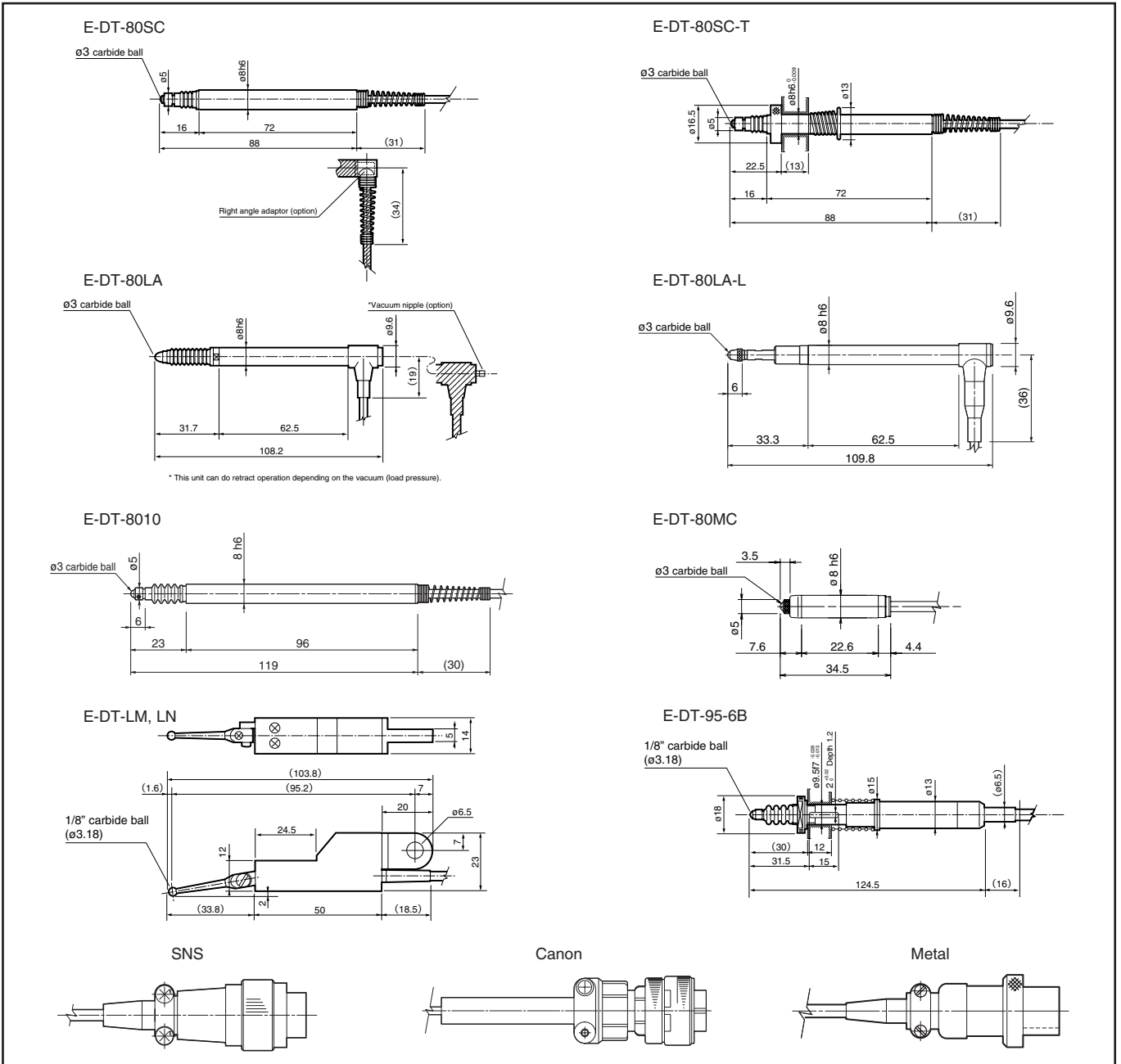
Configurations ▶ Can be combined with all DELCOM, MINICOM, and PULCOM models (K46 adapter is required for E-DT-95-6B)

Specifications	Plunger type					Lever type	
	E-DT-80MC	E-DT-80SC	E-DT-80LA	E-DT-8010	E-DT-95-6B	E-DT-LM	E-DT-LN
Series	E-DT-80MC	E-DT-80SC	E-DT-80LA	E-DT-8010	E-DT-95-6B	E-DT-LM	E-DT-LN
Application	Compact	Standard	Medium displacement	Long displacement	Long displacement	Standard	Wide measuring range
Stroke	1.5mm	3mm	10mm	11mm	10mm	2mm	2.5mm
Measuring range	±500 μm	±1100 μm	±1500 μm	±5000 μm	±2500 μm	±400 μm	±800 μm
Linearity	0.5%F.S.		0.6%F.S.	1%F.S.	0.5%F.S.	0.5%F.S.	
Front travel	550 μm	1150 μm	1550 μm	5100 μm	3000 μm	500 μm	900 μm
Measuring force	1.1N	0.7N		0.7N	0.6N	0.07N	
Connector	SNS connector or metal connector or Canon connector			SNS connector	Metal or Canon connector	SNS connector or metal connector or Canon connector	
Cable length	3m			2m	3m or 1.5m		
Weight	50g	130g	130g	180g	170g	120g	
Usage environment temperature	-10 - 65°C (no freezing)						
Remarks		Select connector and polarity	Vacuum retract is available as option (low measuring force specification is not available), connector and polarity selection	Only SNS connector can be used, only positive polarity	Select connector (SNS is not available) and cable length/polarity	Select connector and cable length/polarity	Select connector and cable length/polarity

Required correct usage



Dimensions



Option

Applications	Product code	Thumbnail	Diagram number	Material	Remarks
Deep holes	012151		A999905	Carbide, ϕ 1/8"	Weight 2 grf
Deep holes	012154		A101109	Carbide, ϕ 1/8"	Weight 3 grf
Large diameter measurement etc	012154		A101131	Carbide, ϕ 5 mm	Weight 4 grf
Scratch prevention	012154		1058E	Teflon, ϕ 3 mm	Weight 2 grf
To measure narrow spaces	012153		A101014	Carbide, ϕ 3 flat	Weight 1 grf, configuration with A101260
For parallelness adjustment of 0101014	420619		A101260		Weight 8 grf

Detectors

Product number list

Product code	Product name	Remarks
80SC series		
0117503	E-DT-80SC-S30 detector	SNS connector provided
0117504	E-DT-80SC-S30-N detector	Negative polarity
0117505	E-DT-80SC-C30 detector	Canon connector provided
0117506	E-DT-80SC-C30-N detector	Negative polarity
0117501	E-DT-80SC-M30 detector	Metal connector provided
0117502	E-DT-80SC-M30-N detector	Negative polarity
0117531	E-DT-80SC-T-S30 detector	Fine adjustment screw, SNS connector provided
0117532	E-DT-80SC-T-C30 detector	Fine adjustment screw, Canon connector provided
0117511	E-DT-80SC-601 detector	1.5 m waterproof tube specifications, Canon connector
0117512	E-DT-80SC-603 detector	1.5 m waterproof tube specifications, Canon connector, negative polarity
0117515	E-DT-80SC-901 detector	1.5 m waterproof tube specifications, SNS connector
0117516	E-DT-80SC-903 detector	1.5 m waterproof tube specifications, SNS connector, negative polarity
0117517	E-DT-80SC-905 detector	3 m waterproof tube specifications, SNS connector
0117518	E-DT-80SC-906 detector	3 m waterproof tube specifications, SNS connector, negative polarity
0121554	Right angle adapter	Option for 80SC
80MC series		
0117570	E-DT-80MC-S30 detector	SNS connector provided
0117571	E-DT-80MC-S30-N detector	Negative polarity
0117572	E-DT-80MC-C30 detector	Canon connector provided
0117573	E-DT-80MC-C30-N detector	Negative polarity
0117576	E-DT-80MC-M30 detector	Metal connector provided
0117577	E-DT-80MC-M30-N detector	Negative polarity
0117574	E-DT-80MC-905 detector	3 m waterproof tube specifications, SNS connector
0117575	E-DT-80MC-906 detector	3 m waterproof tube specifications, SNS connector, negative polarity
80LA series		
6170155	E-DT-80LA-S30 detector	SNS connector provided
0117520	E-DT-80LA-S30-N detector	Negative polarity
4205816	E-DT-80LA-C30 detector	Canon connector provided
0117525	E-DT-80LA-C30-N detector	Negative polarity
0117524	E-DT-80LA-M30 detector	Metal connector provided
0117526	E-DT-80LA-M30-N detector	Negative polarity
0116709	Retraction nipple (for 80LA)	Option for 80LA
0116710	Vacuum retraction unit (for 80LA)	Option for 80LA
80LA-L (low measuring force type)		
0117527	E-DT-80LA-L-S30 detector	SNS connector provided
0117528	E-DT-80LA-L-C30 detector	Canon connector provided
Long displacement type		
0116711	E-DT-8010-S20 detector	2 m cord, SNS connector
0116707	E-DT-8010-3874 detector	2 m cord, SNS connector, 2 m waterproof tube specification
95-6B type		
0116554	E-DT-95-6B-M15 detector	Metal connector, 1.5 m
0116555	E-DT-95-6B-M30 detector	Metal connector, 3 m
0115641	E-DT-95-6B-M30-N detector	Reverse polarity
0116557	E-DT-95-6B-C15 detector	Canon connector provided, 1.5 m
0116558	E-DT-95-6B-C30 detector	Canon connector provided, 3 m
0115640	E-DT-95-6B-601 detector	Canon connector provided, 3 m, negative polarity
Lever type detector		
0116906	E-DT-LM-S30 detector	3 m cord, SNS connector
0116926	E-DT-LM-L-S30 detector	Low measuring pressure type (0.02 N)
0116916	E-DT-LM-L-S-S30 detector	3 m cord, SNS connector, high precision
Lever type detector (long displacement)		
0117006	E-DT-LN-S30 detector	3 m cord, SNS connector

Stands/Magnification Calibrators >>>

Stands



100 HB-80, 100 HB-F80



100 CB, 100 CB-F



LCB



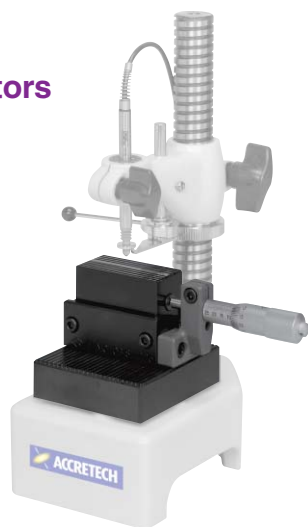
MAC

(Unit: mm)

Specifications

Model	E-ST									
	-100HB80	-100HB95	-100HB-F80	-100HB-F95	-100CB-80	-100CB-95	-100DB-80	-100DB95	-LCB	-MAC
Product code	0901758	0901759	0901762	0901763	0901750	0901751	0901754	0901755	0901778	0901782
Stand type	Grooved	Grooved	Flat	Flat	Grooved	Grooved	Flat	Flat	—	—
Stand size (mm)	90×84	90×84	90×84	90×84	90×84	90×84	90×84	90×84	—	—
Measuring reach (mm)	55	55	55	55	55	55	55	55	230	180
Measuring height (mm)	100	100	100	100	100	100	100	100	250	230
Width × Depth × Height (mm)	100×150×280	100×150×280	100×150×280	100×150×280	100×150×280	100×150×280	100×150×280	100×150×280	80×200×295	50×94.2×259
Weight (kg)	7.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5	4.0	1.2
Applicable detectors	Plunger & lever type (except for 95-6B)	Lever type (except for 95-6B)	Plunger & lever type (except for 95-6B)	E-DT95-6B lever type	Plunger type (except for 95-6B)	E-DT-95-6B	Plunger type (except for 95-6B)	E-DT-95-6B	Lever type	Lever type

Magnification Calibrators



Features

Magnification calibrators are used to calibrate electric micrometers and to check for indication error, linearity and the precision of the signal origin. Precise minute displacement can be applied to detectors over a relatively wide range. These calibrators are also often used with standard stands, and enable precision to be very easily and quickly checked without using a block gage or other such instrument.

Specifications

Model	E-MC-50B	E-MC-10B
Product code	0901710	0901700
Max. measuring range	400 μ m (0.4mm)	1000 μ m (1mm)
Min. reading value	0.2 μ m	1 μ m

Stands/Magnification Calibrators >>>

Outer Appearance/Dimension Diagram

