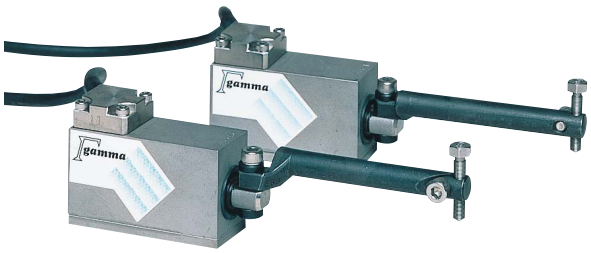
PULCOM Series

PULCOM Γ (E-DT-173)

Universal Measuring Heads



Configurations

E-DT-173F/-173-H

- DELCOM 110A, 120A, 300
- MINICOM M
- ELCOM 8, 12B, D12B
- PULCOM V4, V6, V7, V8, V10

E-DT-173F-D/-173-H-D

- PULCOM V4, V6, V7, V8, V10
  Memory function provided

Features

Wide Measuring Range

The PULCOM G universal lever-type measuring heads are used to measure displacement at one location. They are most often used for axial direction positioning on grinders and other machines, but can also be used independently or in a two-head configuration to measure width, step difference and for other applications.

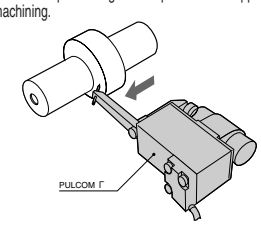
Host of Models

An extensive lineup is available for a wide variety of applications. The unit can be provided with a damper function, air retract function, and these functions can be combined.

High Precision and Reliability

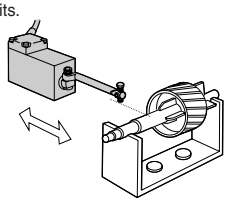
The same unique L-shaped plate fulcrum is used in the mechanism that is free from sliding and wear parts as the PULCOM Σ.

End Face Positioning Measurement
Performs end face positioning on workpieces with stepped surfaces before machining.



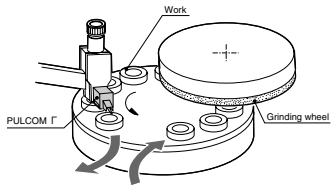
E-DT-173H

Commutator Outer Diameter / Run-Out Measurement
Run-out is measured during or immediately after machining. Outer diameter can also be measured with two units.



E-DT-173H

Automatic Measurement of Thickness on Surface Grinder
When machining is being performed on a surface grinder, sizing measurement can be performed while recording the maximum value of the workpiece that is intermittently placed. The air retract mechanism enables setup changes to be easily performed without coming into contact with the workpiece.



E-DT-173H

Specifications

●Standard Configuration

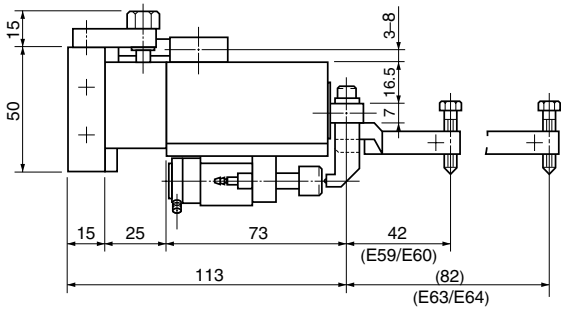
Model		Thickness/run-out measuring unit				End face/position measuring unit	
Finger length		42 mm		82 mm		72 mm	
Model	Unit	E-DT-173H	E-DT-173H-D	E-DT-173H	E-DT-173H-D	E-DT-173F	E-DT-173F-D
	Finger	E59/E60		E63/64		#233537	
	Contact	#000581				#000625	
	Ext. rod assy.	–				#000188	
	Fine adjust	AJ-A97				AJ-A97	
	Sliding plate	#004388				#004388	
Front travel		450-500 μm	180-200 μm	730-810 μm	180-200 μm	660-730 μm	180-200 μm
Over travel		4.5 mm		7.2 mm		6.5 mm	
Repeatability		1 μm				1 μm	
Measuring force	Down	1.75 N		1.5 N		1.25 N	
	Side	1.5 N		0.9 N		1.0 N	
	Up	1.4 N		0.7 N		0.8 N	

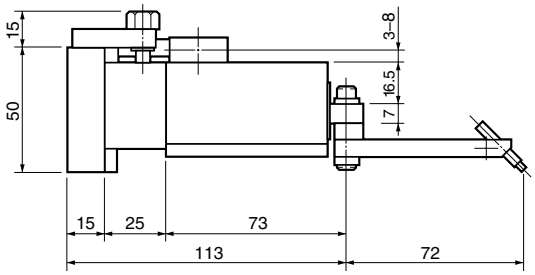
●Measuring Head Only

Model	E-DT-173F	E-DT-173F-D	E-DT-173H	E-DT-173H-D
Air retract	No		Yes, measured at air supply	
Damper	No	Yes	No	Yes
Waterproof standard	IP67 Compliant			

Outer Appearance/Dimension Diagram

Sample Measuring Unit Configurations





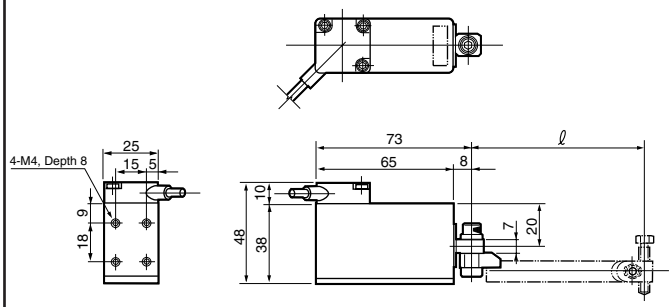
Sample Thickness/Run-Out Configuration

- Measuring head : E-DT-173H
- Finger : E59/E60 (E63/E64)
- Contact : A000581
- Fine adjustment device : AJ-A97
- Sliding plate : A004388

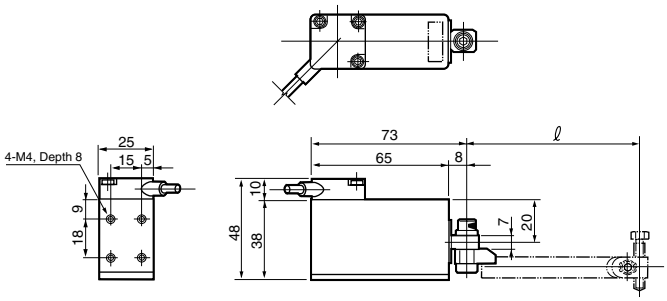
Sample End Face Positioning Configuration

- Measuring head : E-DT-173F
- Finger : 233537
- Contact : A000625
- Fine adjustment device : AJ-A97
- Sliding plate : A004388

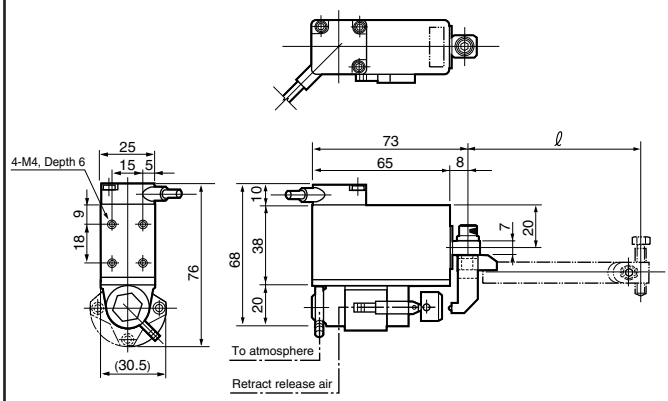
E-DT-173F



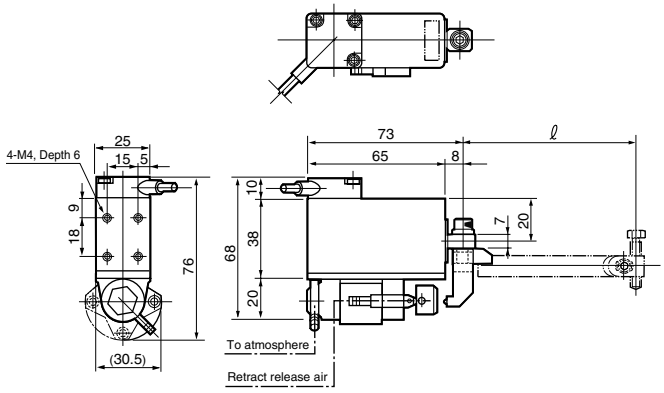
E-DT-173F-D



E-DT-173H

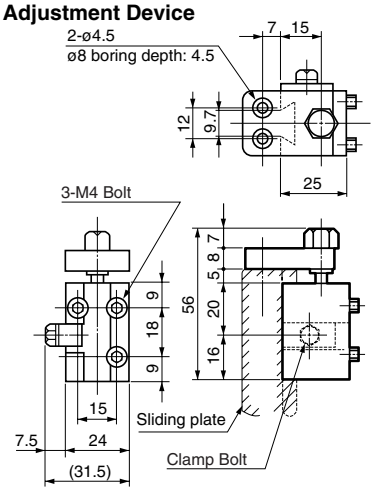


E-DT-173H-D

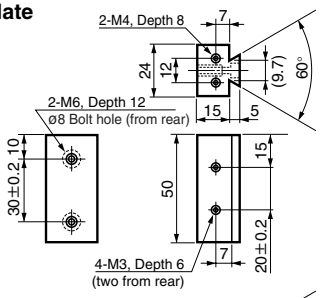


Outer Appearance/Dimension Diagram

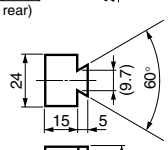
AJ-A97 Fine Adjustment Device



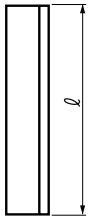
Sliding Plate



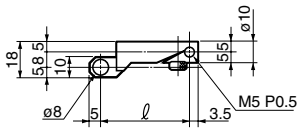
■ A004388

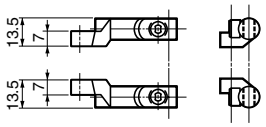


■ A002060 ℓ=102, SUS
■ A002061 ℓ=102, S50C
■ A002062 ℓ=170, SUS
■ A002063 ℓ=170, S50C

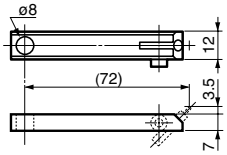


Finger





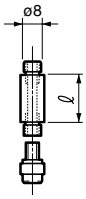
■ E59 ℓ=42
■ E63 ℓ=82
■ E60 ℓ=42
■ E64 ℓ=82



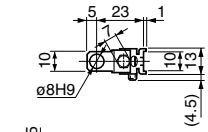
■ A233537

Finger Extension Rod Assembly

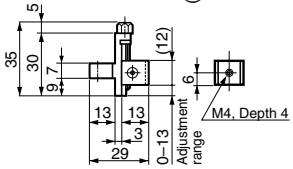
■ A000186 ℓ=8
■ A000187 ℓ=20
■ A000189 ℓ=40



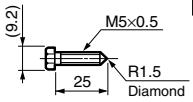
Finger Fine Adjustment Device



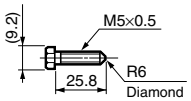
■ A202531



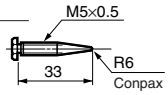
Contact



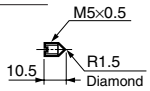
■ A000581, A000586 (Standard)



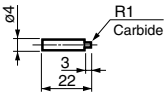
■ C84



■ C34



■ A000582



■ A000625

Usage Guidelines

●Keep your hand away from the measuring head when it is advanced (moved down) or retracted (moved up) as it may get caught between the hydraulic cylinder or other part, resulting in injury.

Make sure that the unit and the machine on which it is installed are not operating before performing work on the unit.

●Keep your hand away from the measuring head stylus when it is moving to avoid injury.

Make sure that the unit and the machine on which it is installed are not operating before performing work on the unit.

●Do not operate under any circumstances when the measuring unit or control unit is malfunctioning.

"Malfunctioning" includes all situations in which the ready signal is Off.

●Do not subject the unit to shock.

Be careful when handling the unit as application of severe shock or dropping it may cause it to break down.

●Handle the cable with care.

Route the cable so that it will not be smashed or damaged by chips or other moving objects. Secure the cable so that it will not be pulled or rub against parts when the head moves. The cable should be 200mm or more away from other power supplies and routed through a separate duct.

●Do not open the measuring head cover or other parts under any circumstances.

Do not loosen or rotate any clamp screws, adjustment screws or other screws unless following specific instructions.

●Consult with ACCRETECH in advance before taking the unit to a different country to ensure compliance with applicable regulations and laws.

The unit should not be taken out of the country in which it is sold without consulting with ACCRETECH. We cannot be responsible for any problems when it is taken to a different country without advance notice.

PULCOM Γ (E-DT-174A)

Universal Measuring Head

Configurations

E-DT-174A

- DELCOM 110A, 120A, 300
- MINICOM M
- ELCOM 8, 12B, D12B
- PULCOM V4, V6
- PULCOM V7, V8
- PULCOM V10

Features

Long-Stroke Measuring Head with Wide Application Range

This highly versatile lever-type measuring head is designed for measurement of displacement at one location. It provides a long stroke of 14.6mm (Finger length: 82mm).

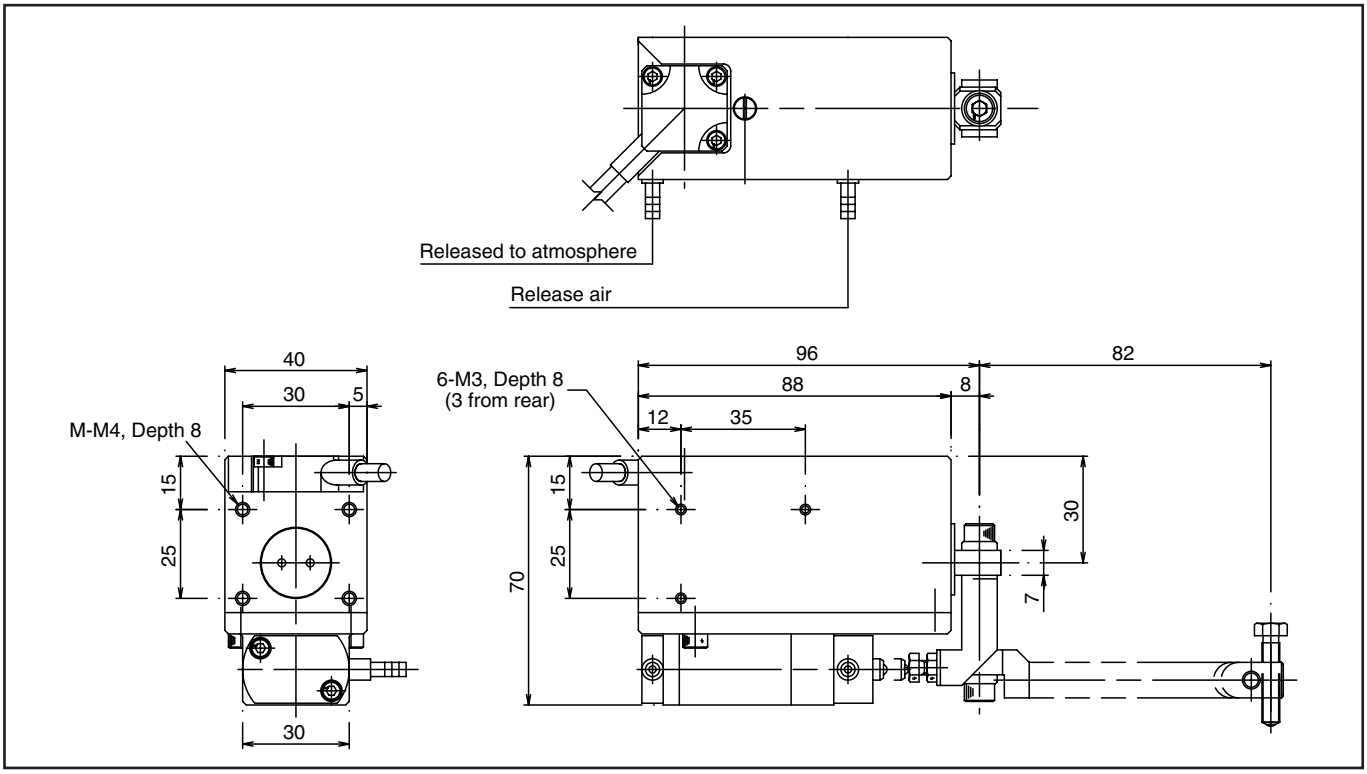
High Precision and Reliability

The PULCOM Γ utilizes the same unique L-shaped plate spring fulcrum as the PULCOM Σ measuring head, eliminating sliding and wear parts from the mechanism.

Specifications

Model	E-DT-174A
Name	Thickness & run-out measuring unit
Finger length	82mm
Front travel	0.49 - 0.58 mm
Over travel	14.6 mm
Measuring force	1.54 - 2.06 N
Repeatability	1 μm
Air retract	Provided, measured with supply
Damper	None
Waterproof standard	IP67 compliant

Outer Appearance/Dimension Diagram



PULCOM Γ (E-DT-175A)

Universal Measuring Head

Features

This measuring head is suited to detect the cutter position or workpiece position on NC lathes, or for positioning in the axial direction on grinders.

Measurements can be performed in two directions (±X) without changing the setup.

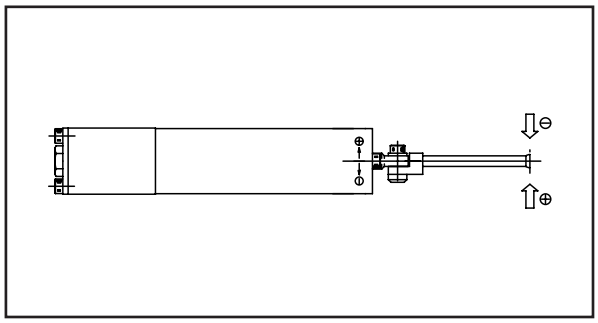
Specifications

Model	E-DT-175A
Name	Bi-directional workpiece detector
Stroke	±2.0mm or more
Measuring force	0.98 - 1.96 N
Repeatability	1 μm or less/25 times

Usage Examples

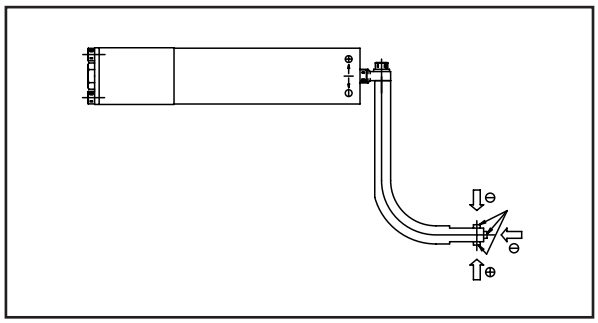
Bi-directional Workpiece Detector

The head is mounted to the cutter stand on a comb-type NC lathe and brought into contact with the workpiece after machining. Dimension control is performed by calculating the detected value on the NC unit.



Three-Direction Cutting Edge Detector

The head detects the cutting edge position in three directions (X, –X and Z). Feedback of accurate position and wear data to the NC unit facilitates consistently high-quality NC machining.



Outer Appearance/Dimension Diagram