

Products for manual measurement

In 1953 TOKYO SEIMITSU succeeded in the first industrialization of the air micrometer in Japan and in 1957 did the same for the electric micrometer, building the technological foundation. That led us to offer a wide variety of sensors based on various measuring principles and to meet all sorts of in-line measurement needs. These sensors with time-tested performance and high recognition are fully equipped with "operability" and "visibility" required of in-line measurement, "high-speed response" necessary for incorporation of equipment, and "high precision" needed for lab usage. We are also committed to active product development by quickly grasping customer needs such as non-contact sensors.



**Control Units
ELCOM 8**

P.150



**Control Units
DELTAIR 22H**

P.154

P.162

**Air micrometer
Inner diameter
measuring head**



P.162

**Air micrometer
Outer diameter
measuring head**



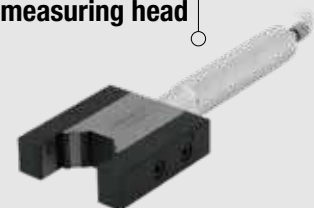
P.162

**Air micrometer
Inner diameter
measuring head**



P.162

**Air micrometer
Hand type
outer diameter
measuring head**





Control Units
MINICOM-X

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Control Units
MINICOM-XD

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Control Units
MINICOM-M

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P.180

Measuring Heads
80SG



P.178

A/E Converter



P.178

Regulator




P.188

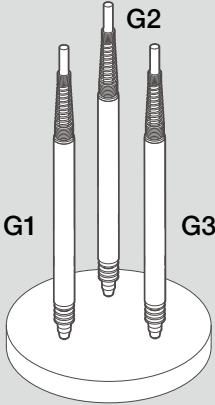
Measuring Heads
PHA



Application examples/Configuration examples



Thickness, flatness




Measurement of thickness and flatness

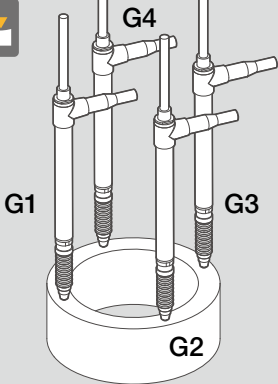
With the application of three or four detectors, thickness and flatness of a workpiece are measured.

[Memory function P-P $(G1 + G2 + G3) / 3 = \text{Flatness}$]

P.180 Plunger type detector **E-DT-80SG**



Height, flatness



Measurement of height and flatness of a rotary compressor roller


With the application of four detectors, maximum height and flatness of a workpiece are measured.

The retract mechanism of the contact enables easy mounting and removing of a workpiece.

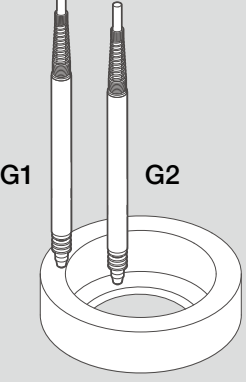
[MAX (G1, G2, G3, G4) = Maximum height]

[Memory function P-P $(G1 + G2 + G3 + G4) / 4 = \text{Flatness}$]

P.180 Plunger type detector **E-DT-80LA**



Depth



Depth measurement

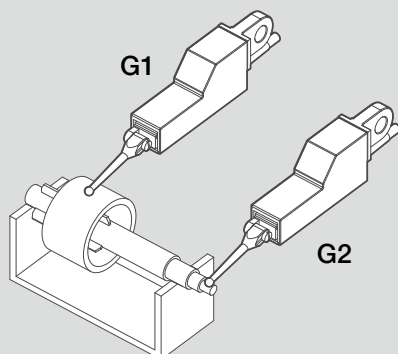
This combination of detectors is optimal for deep hole measurements. With the application of two detectors, hole depth difference is measured.

[$(G1 - G2) = \text{Depth}$]

P.180 Plunger type detector **E-DT-80SG**



Runout



Commutator outer diameter / runout measurement

Since the return error of the measuring head is extremely small, highly accurate runout measurement is possible.

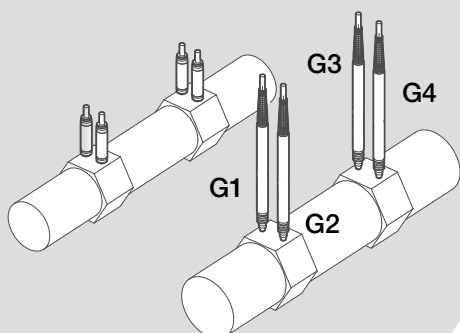
[Memory function P-P (G1) = Runout, P-P (G2) = Runout]

P.180

Lever type detector **E-DT-LM**



Torsion



Torsion measurement

With the application of two pairs of detectors, each pair being set on respective parallel location (A, B) of a workpiece, torsion is measured. A and B are simultaneously measured, calculated and judged. For measurement at a location with water, E-DT-80SG-W, a waterproof type detector, is extremely handy.

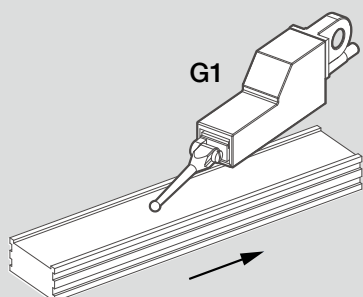
[(G1 - G2) - (G3 - G4) = Torsion]

P.180

Plunger type detector **E-DT-80SG-W**



Parallelism



Parallelism measurement

This application enables measuring of parallelism of a workpiece through sliding of the detector along it.

[Memory function P-P (G1) = Parallelism]

P.180

Lever type detector **E-DT-LM**