

TRU-VOLUTE

®



Outline

Angular deviation from a determined ratio between the input and output revolution of a gear train is detected and processed with the finest resolution of 1 sec. of arc.

A set of two gears are to be measured with this machine.
Examples.....

- Worm / Worm Wheel
- Spur and / or Helical Gear
- Bevel Gears
- Face Gear and Pinion
- Internal Gear and Pinion...etc.

Measuring Equipment for Angular Transfer Accuracy of gear train Model **MEATA-3**

Specifications

Measuring range	:	30", 1', 3', 10', 30' (of arc)
Resolution / finest	:	: 1' (1 sec. of arc)
Gear ratio	:	: 1/1 ~ 1/150 (z1/z2 or z2/z1)
Gear outside diameter max. (mm): ϕ	:	65 / drive ϕ 160 / driven
Rev. speed max.	:	: 60 rpm (both spindles)
Setting Capacity(max.)	:	: X = ± 75 mm (± 2.95 ") Y = 65mm (2.56") Z = 90mm (3.54") $\theta = 0 \sim 30^\circ$ R.H. / $0 \sim 20^\circ$ L.H. (with center support) $\theta = \pm 90^\circ$ (without center support)
Resolution	:	: X = 10μ m (394 μ in.) Y = 10μ m (394 μ in.) Z = 5μ m (197 μ in.)
Linear scale with 1μ m resolution can be installed optionally . *		

Output

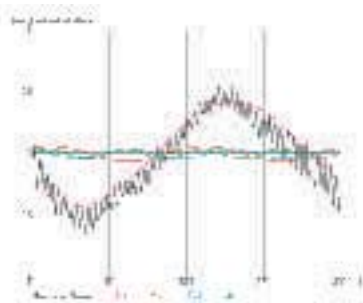
Data is stored, analyzed and displayed as explained below .

- Display / printout.: Phase Angle vs. Error
Rectangular (X-Y diagram)
Polar (R- θ diagram)

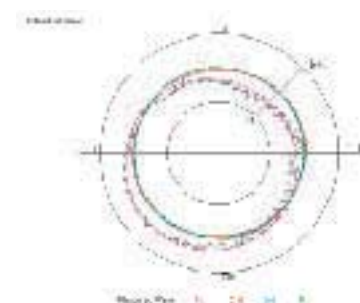
- Fourier Series Analysis*

Stored data can be analyzed further with Fourier Analysis software including backlash characteristics.

*marked are optional



X-Y diagram



R- θ diagram

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