



Manufacturing Metrology Team – Instrument Data Sheet

AMETEK Taylor Hobson Form Talysurf Intra



Purpose

- 2D/3D contact stylus profile measurement of surface texture and form

Working principle

- The Form Talysurf Intra is a stylus profilometer which measures vertical (Z) displacement by means of an inductive (LVDT) gauge over profile lengths of up to 50 mm. 3D measurements are possible using the motorised precision Y-Stage which allows multiple profiles to be generated.



Advantages

- High precision surface texture and form measurement
- Calibration and traceability well understood for comparison with optical metrology systems

Limitations

- Limited measurement speed, especially for 3D applications
- Unsuitable for the measurement of soft materials

Related research focus

- Comparison of surface texture and form measurements from non-contact (optical) metrology systems

| Instrument specifications | |
|---------------------------|---|
| Range / resolution (Z) | 1 mm / 4 nm 0.2 mm / 0.8 nm |
| Profile length | 50 mm |
| Accuracy | 0.20 μm / 20 mm straightness error |
| Point spacing (X) | 0.5 μm |

For contract measurement enquiries, please contact:

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