

Application Note

Glossary (Engineering Terms)

ï Total Range

The largest angle which the sensor or inclinometer can measure.

ï Linear Range

The maximum angle within the total range, where an angular movement produces an equally proportional change in output.

ï Resolution

The smallest angular increment at which a detectable change in output can be measured.

ï Repeatability

The maximum allowable deviation in output when measuring the same input angle several times.

ï Linearity

The amount of deviation from a straight line, defined by the averaging of measured incremental outputs.

ï Accuracy

The maximum deviation of the output from the absolute input angle, with all effects (linearity, temperature, repeatability, etc.) considered.

ï Scale Factor (also Slope or Sensitivity)

The amount of change in the output for a given change in the input angle, normally defined as units/degree.

ï Temperature Coefficient of Null

The amount of change in the electrical zero output, caused by a change in the ambient temperature

ï Temperature Coefficient of Scale

The amount of change in sensitivity (slope), caused by a change in the ambient temperature.

ï Time Constant

The amount of time it takes, after a stepped angular movement of \approx the linear range, to produce an output equal to 63% of that stepped movement.

ï Cross Axis Error

The maximum output deviation allowed, when tilting perpendicular to the sensitive axis.

ï Orthogonally

At a right angle, or perpendicular to.

ï Boresight (error)

The maximum deviation of the electrical zero (0) output, with the device mounted in the mechanical zero (level) position.

ï Threshold

The smallest amount of change in the input angle, that will produce a measurable change in the output.

ï Settling Time

The amount of time for the output to stabilize within 1% of its quiescent value.

駿融企業有限公司 JIN ZON ENTERPRISE CO., LTD.

104 台北市長安東路二段 171 號 4 樓之 3

4F-3, No. 171, Sec. 2, Chang An E. Rd., Taipei, Taiwan, R. O. C.

TEL: 886-2-27111093~5

FAX: 886-2-27310902

E-mail: jinzon@ms2.hinet.net

Http:// www.jinzon.com.tw/