GLOSSARY
Engineering Terms

SPECTRON
WHEN IT COMES TO MEASURABILITY WE'RE ON THE LEVEL

Total Range

The largest angler which the sensor or inclinometer can measure.

Linear Range

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

Resolution

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

Repeatability

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

Linearity

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

Accuracy

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

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.

Temperature Coefficient of Null

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

Temperature Coefficient of Scale

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

Time Constant

The amount of time it takes, after a stepped angular movement of ½ the linear range, to produce an output equal to 63% of that stepped movement.

Cross Axis Error

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

Orthogonally

At a right angle, or perpendicular to.

Boresight (error)

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

Threshold

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

Settling Time

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