

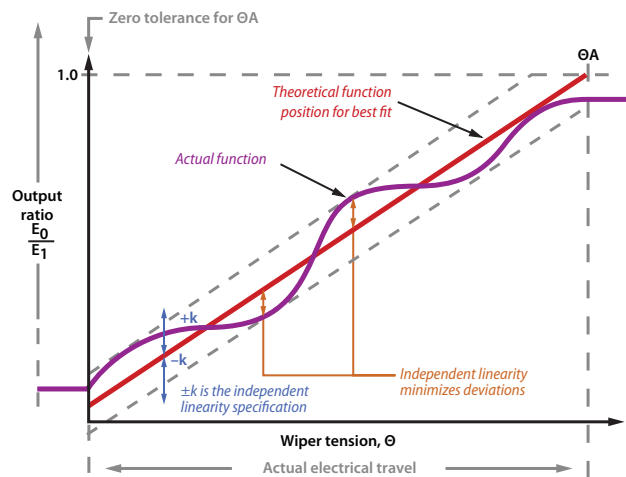
Potentiometers

LINEARITY

TECHNICAL NOTE

Linearity is the relationship between output voltage and the mechanical rotation of the shaft. Linearity is specified in one of four ways: absolute, independent, zero based or terminal based. Independent linearity is the most commonly specified linearity because it gives the tightest tolerance specification for a given cost.

Independent linearity is the maximum permissible deviation of the actual output curve from a reference line. The slope and position of this reference line are chosen to minimize deviations over all or a portion of the actual electrical travel. The reference line is placed for best straight-line fit through the actual output curve. Please reference the illustration below.



All standard industrial panel controls are characterized by independent linearity. Linearity is typically not specified on consumer grade panel controls since this type of accuracy is not required in “low-cost” consumer applications.

For further technical support and for complete potentiometer solutions, please visit www.bourns.com

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