

## Transducer Definitions

### (A) TERMINAL LINE:

with reference to a transducer's output vs. load curve, a straight line connecting the sensor's zero load reading with its full scale reading.

### (B) BEST FIT

#### THRU ZERO LINE:

A straight line originating at the sensor's zero load reading with its full scale reading.

### (C) NON-LINEARITY:

The maximum deviation of the sensor's output reading from either the terminal line (terminal non-linearity) or the best fit thru zero line (best fit thru non-linearity). Terminal non-linearity uses data taken on ascending load direction only while best fit generally uses average ascending and descending data. Both methods require maintenance of stable hysteresis loops during evaluation. Generally expressed as percentage of full scale output.

### (D) HYSTERESIS:

The maximum deviation between ascending and descending output readings taken at the same load point. Generally expressed as percentage of full scale output.

### (E) SHUNT

#### CALIBRATION VALUE:

The reading obtained when a specified value of resistance is "shunted" across a specified bridge arm. Generally measured experimentally during calibration and given in absolute mV/V values, but often converted into simulated load readings for convenience.

### (F) TEMPERATURE

#### EFFECTS ON ZERO:

The maximum expected shift in sensor zero reading due to ambient temperature changes. Generally expressed in percentage change of full scale output per degree of temperature change. Rating valid only over stated operating temperature range.

### (G) TEMPERATURE

#### EFFECTS ON SPAN:

The maximum expected change in output vs. load characteristic of a sensor due to ambient temperature change. Generally expressed as a percentage change of reading per degree of temperature change. Rating valid only over stated operating temperature range.

### (H) CROSS-TALK EFFECTS

Generally restricted to the rating of multi-component sensor. Effect on reading on one sensor axis when load equal to rated capacity of a second axis is applied on the second axis. For linear systems, effect generally expressed as a maximum expected zero shift reading expressed in percentage of full scale.

