



MELT PRESSURE MEASUREMENT

TERMS & DEFINITIONS



SENSORS
INCORPORATED

507 Kelsey Street • Delano, MN 55328
Phone 763-972-1040 Fax 763-972-1041
Toll Free 888-920-0939
Sensorsincorporated.com

Accuracy

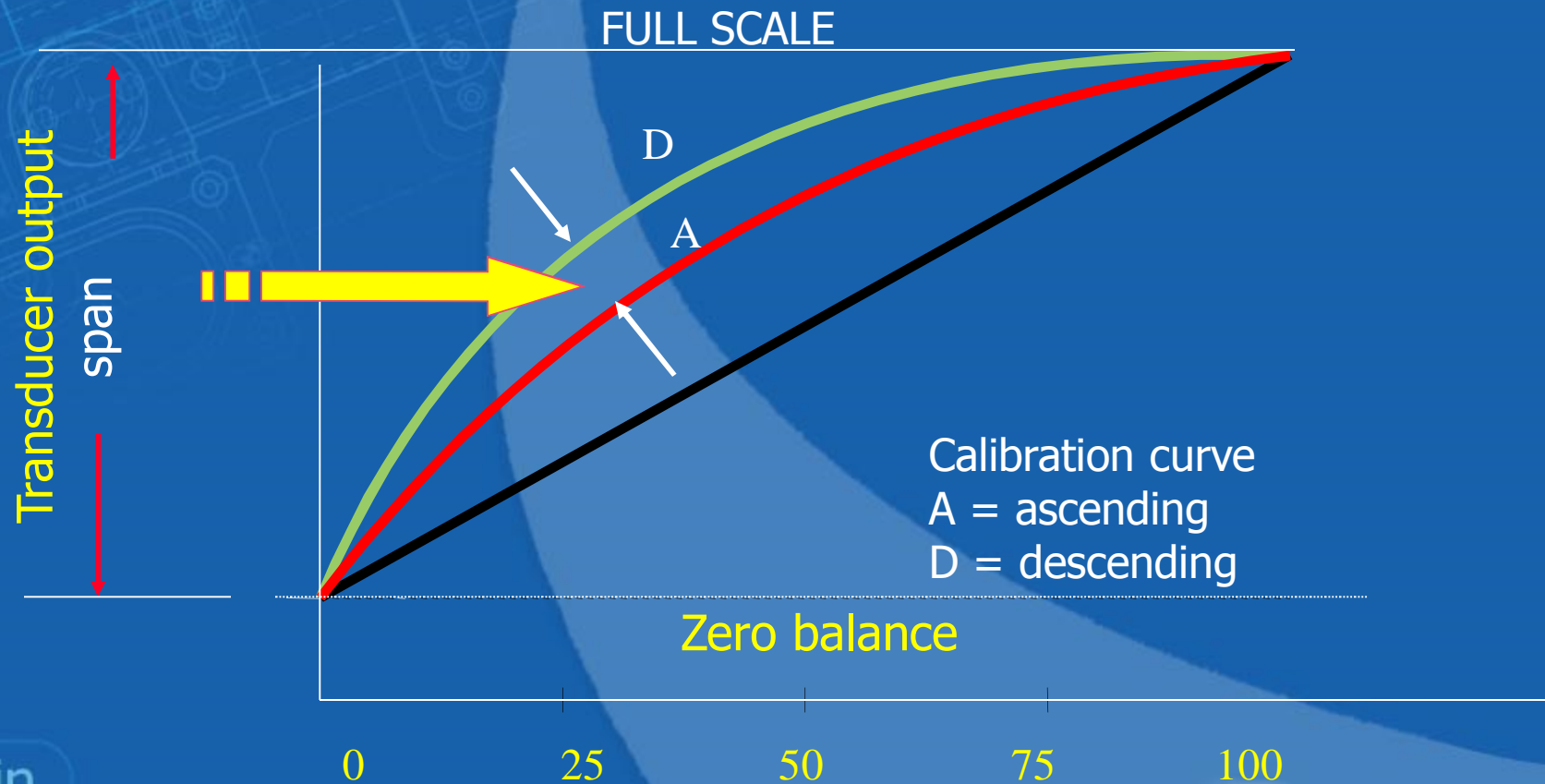
Dynisco's Defines Accuracy as

The combined error due to nonlinearity, repeatability, and hysteresis expressed as a percentage of full scale output.

main

Hysteresis

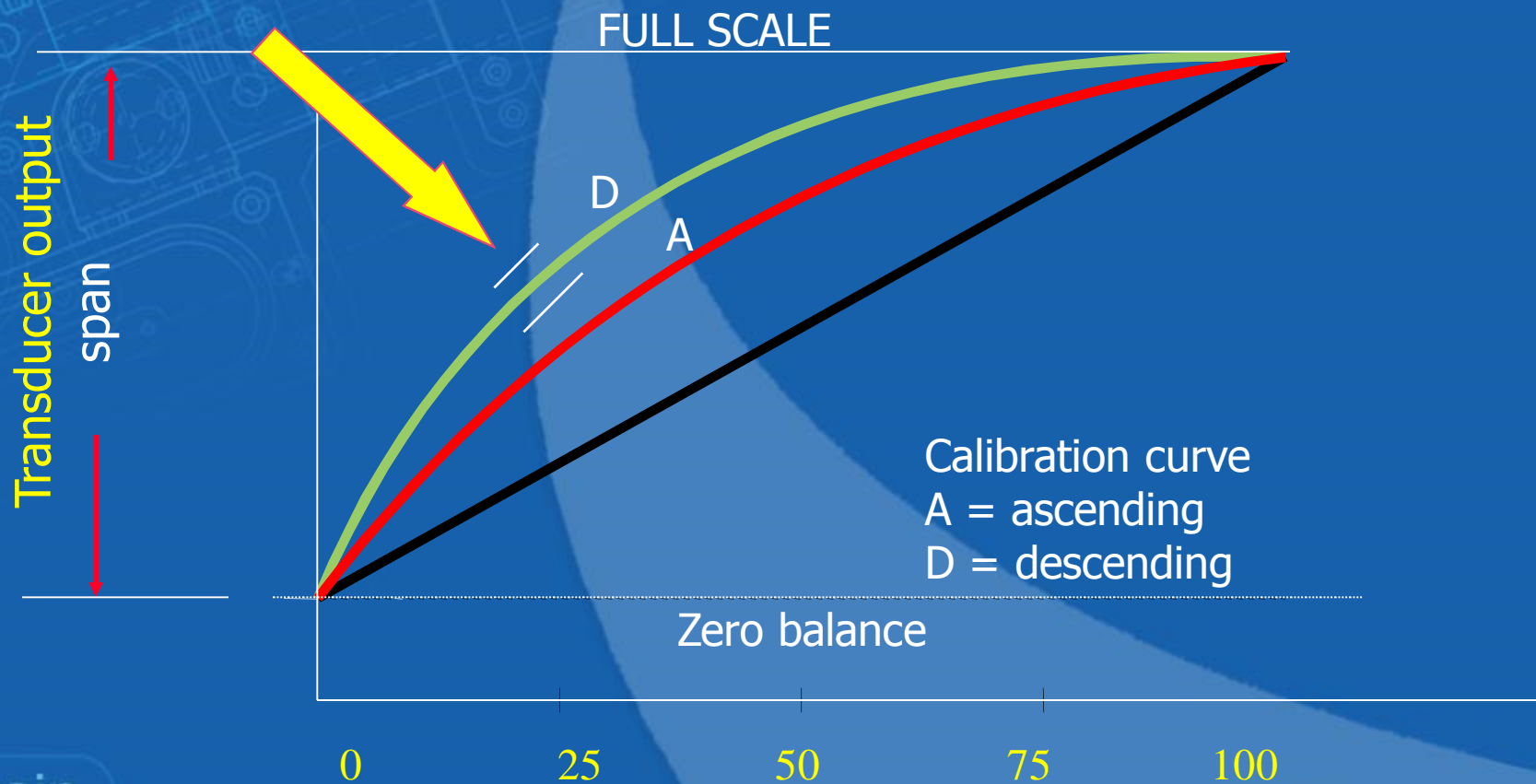
Deviation in output within the transducer range when first approaching a given point with increasing and then decreasing pressure.



main

Repeatability

The ability of a transducer to reproduce readings under identical conditions of pressure and temperature.

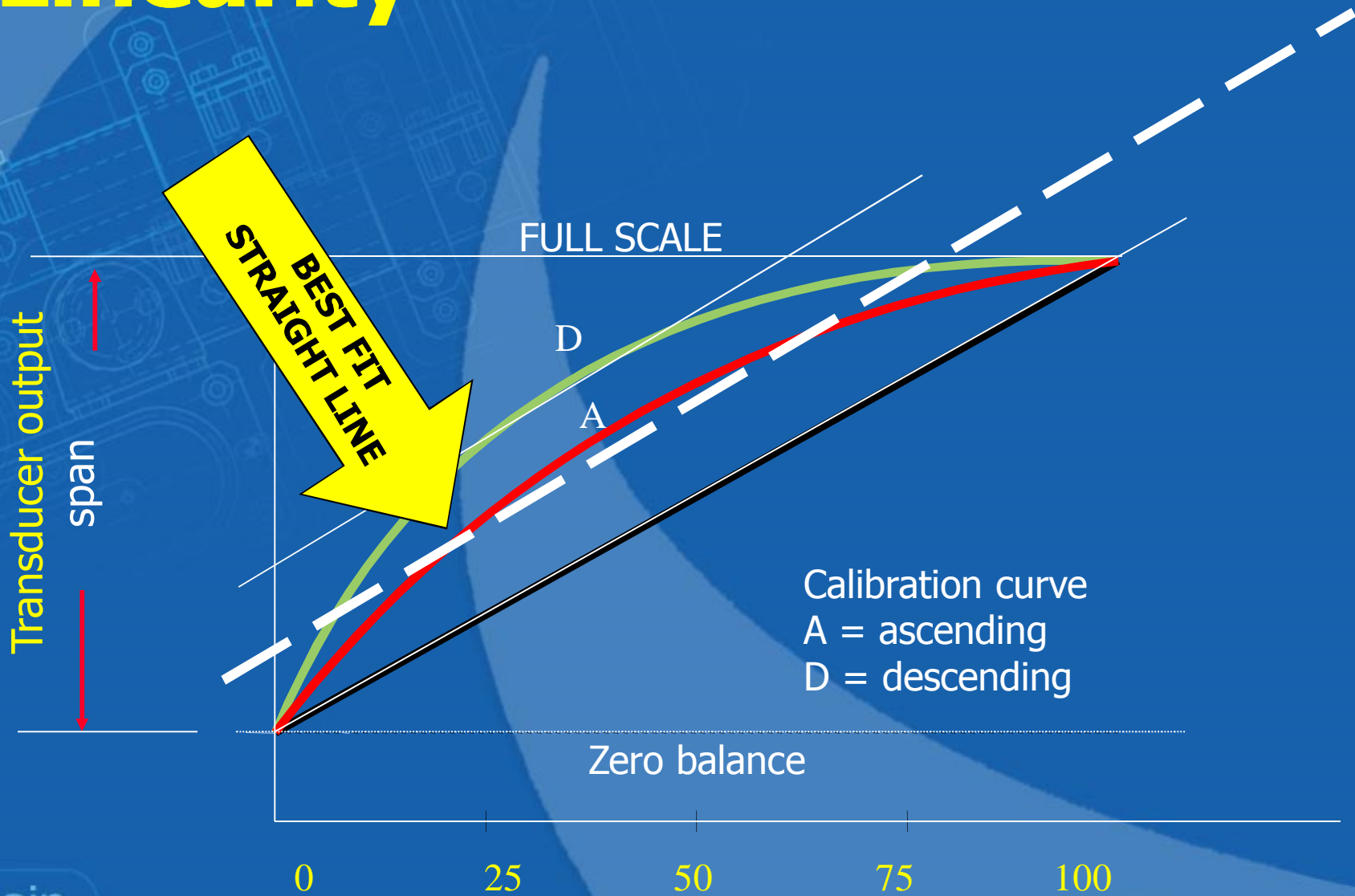


main

Linearity

- The maximum deviation of the transducer output from a defined straight line during a calibration cycle.
- Dynisco uses the Best Fit Straight Line (BSFL).
- The BSFL is the deviation of data points from a straight line drawn through the data points which yields minimum deviations both above and below the straight line.

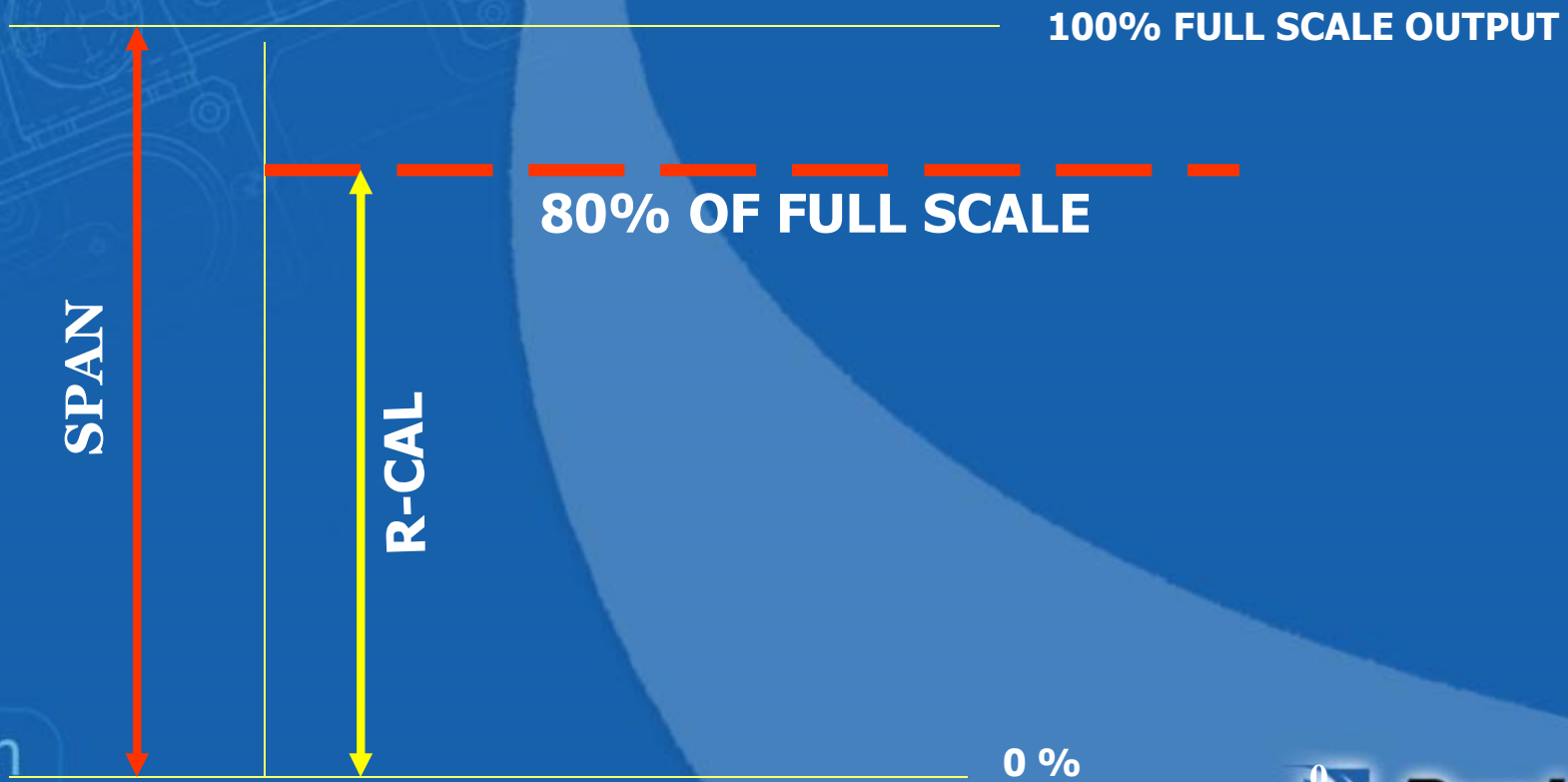
Linearity



main

Shunt Calibration "R-Cal"

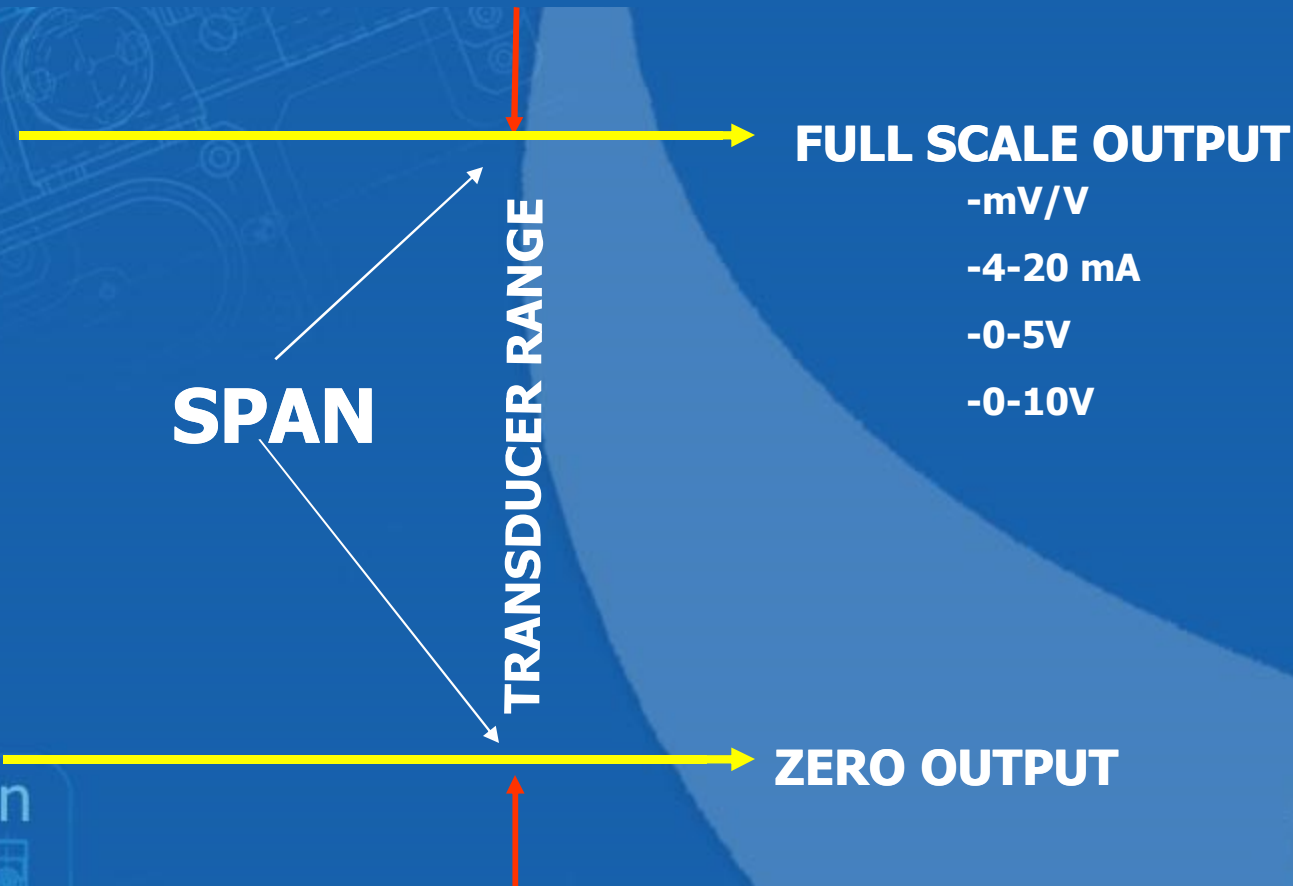
All Dynisco Melt Pressure Transducers include a built-in 80% of full scale "R"-CAL. This is accomplished using an internal resistor to unbalance the bridge electrically, rather than strain induced by applied pressure. "R"-Cal provides a quick and accurate method of transducer-to-instrumentation calibration.



main

Span

The algebraic difference between the output limits of the range.

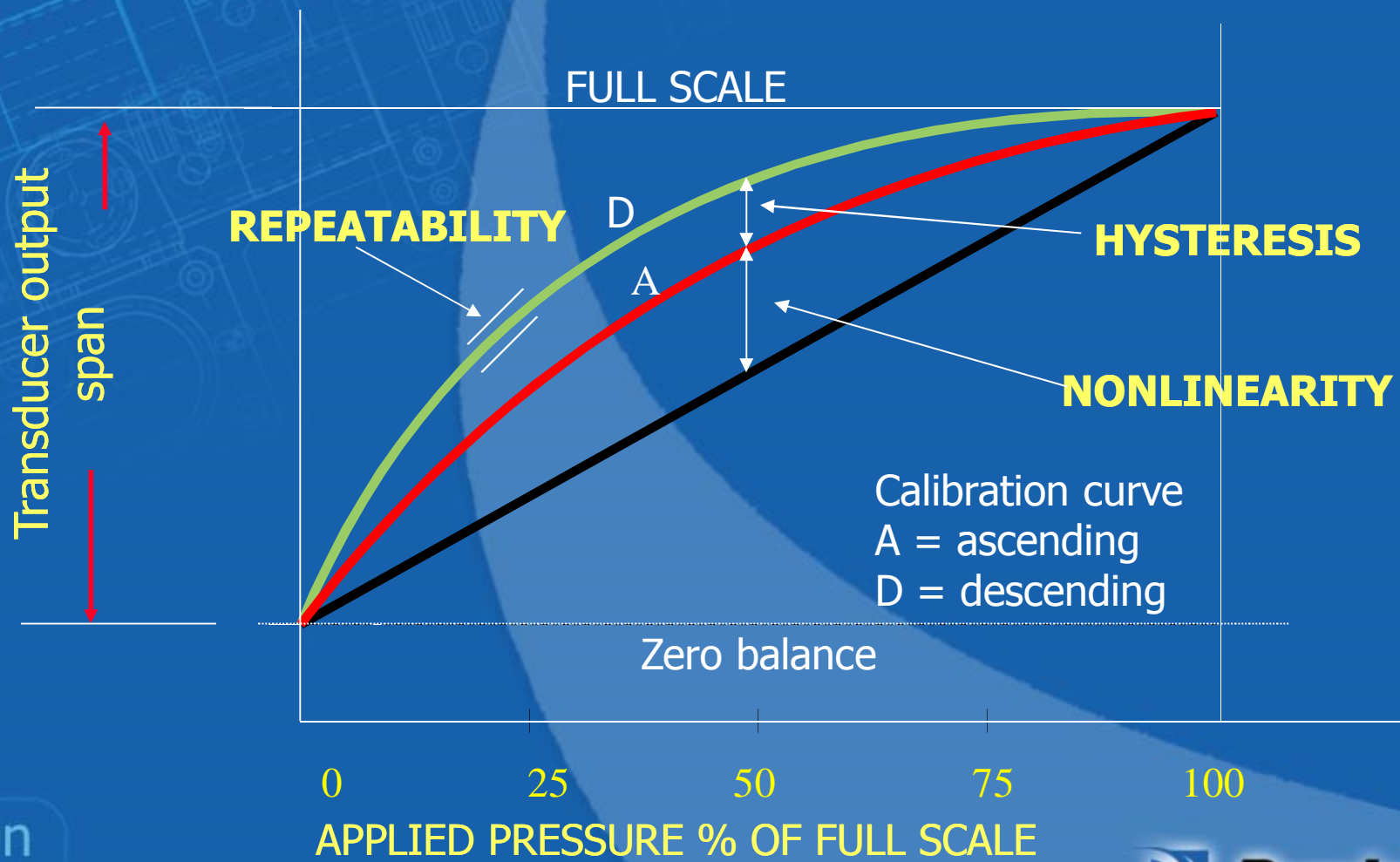


Combined Error

- The total of all deviations of a transducer output from a specified straight line in a constant environment.
- Defined as the sum of the errors due to non-linearity, repeatability, and hysteresis.

Combined Error

The total of all deviations of a transducer output from a specified straight line in a constant environment. .



main

WHAT DO OUR "COMPETITORS" SAY

????????????????????

main

NOMINAL ACCURACY

They use

“Nominal Accuracy of $\pm 0.25\%$ or $\pm 0.5\%$ ”
in their Technical Specifications

Webster's dictionary defines Nominal as:

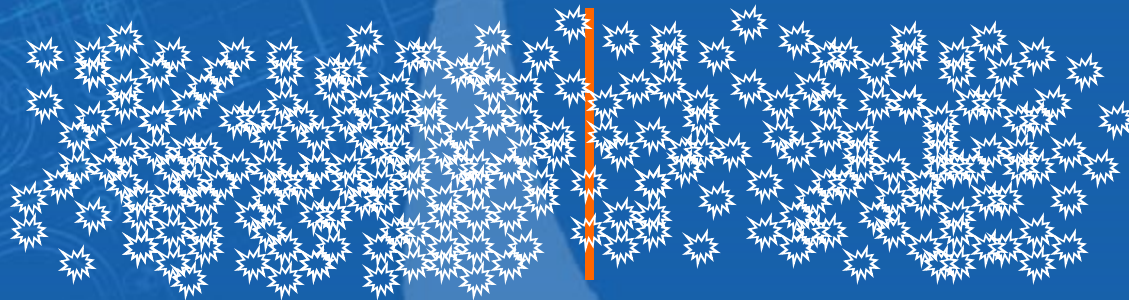
“So-called: acting or being in name only, but
not in reality.

So - what do they really mean???

main

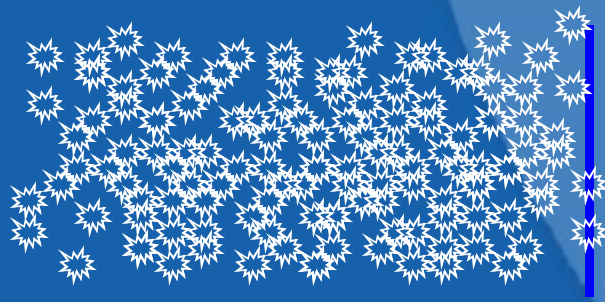
ACCURACY

GEFRAN ISI (NOMINAL +/- 0.5%)



0.5% Combined Error

DYNISCO (+/- 0.5%, Dynisco does not use Nominal)



main