

Why SEB Output ?

Interface, in the absence of alternate specific instructions, uses the SEB output, as opposed to the terminal output, in straight-line scaling of a transducer to a digital indicator or analog signal conditioner. On average, the SEB output line yields the least error over the transducer range relative to the calibrated points.

SEB stands for Static Error Band and it is a band on either side of a straight line through zero that is so positioned as to have equal maximum error above and below the line. By definition the line extends from zero to the SEB output. The line considers both ascending and descending calibration points.

The plot below allows visualization of error relative to the SEB line and the terminal output line for a typical load cell calibration curve with ascending and descending points. In this example the SEB is equal to 0.03%FS and it can be seen that the SEB line is no more than 0.03%FS away from any calibration point. The terminal line, in contrast, has a maximum deviation from calibration points of 0.05%FS.

From the plot it can also be observed that the ascending calibrated curve and the SEB line cross near 80%FS which is often a more common area of measurement in an application than 100%FS.

