



DATA PROCESSING

SISGEO has recently updated the metrological criteria and algorithm for the issuing of the Calibration Reports in order to obtain better results in terms of accuracy.

With the new Calibration Reports, data processing could be different than what is indicated in the instruction manual. Here below the procedure to convert the electrical readings (i.e. 4-20mA, mV/V, digits, etc...) in engineering units (i.e. mm, degrees, KN, kPa, etc...) with the new calibration reports.

Linear elaboration $L_{eng} = (A \times L_{el}) + B$

Polynomial elaboration $L_{eng} = (L_{el}^3 \times A) + (L_{el}^2 \times B) + (L_{el} \times C) + D$

L_{eng} = Reading in engineering unit

L_{el} = Reading in electric unit (output of the gauge)

A and B for linear elaboration, as well as A, B, C and D for polynomial elaboration are stated on the Calibration Report.

The relative reading refer to the initial reference reading (zero reading):

$$\Delta L = L_i - L_0$$

ΔL = relative reading

L_0 = Reference reading

L_i = Follow up reading

Reference reading shall be taken carefully once the installation is performed and the system is stable (no vibrations etc...)