

Why Use NOx Filters on CO Sensors?



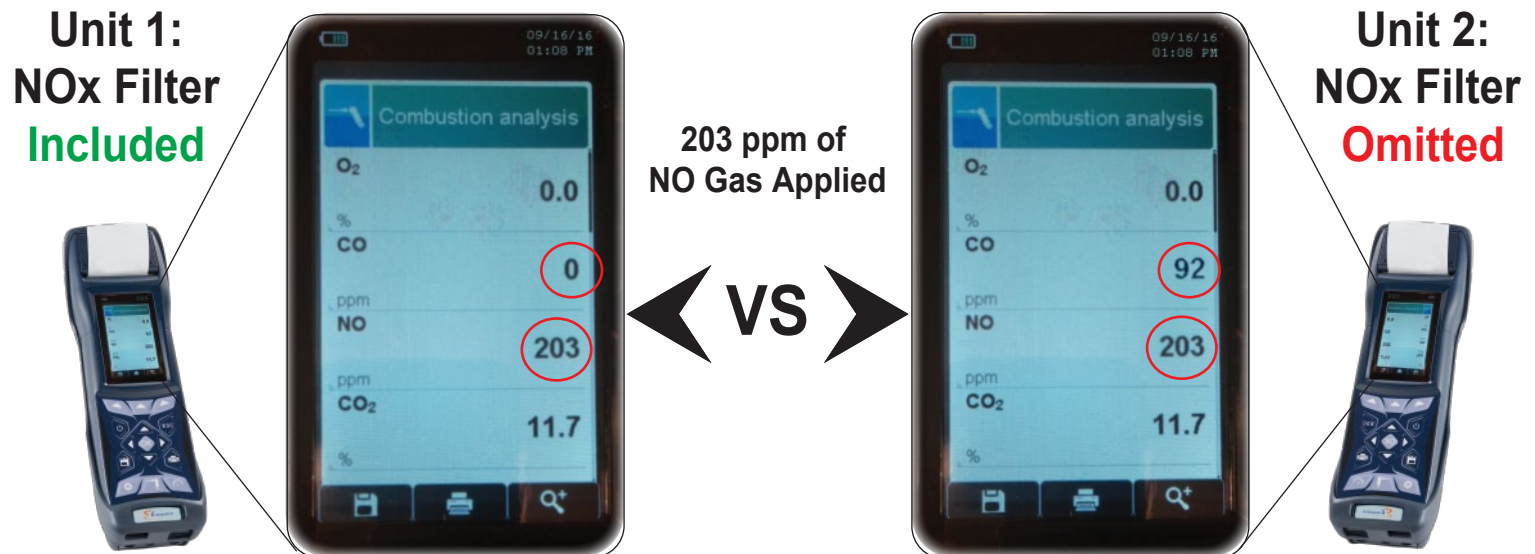
Built with Quality in Mind

Application Note #HV-16-915

How can CO be Affected by the Naturally Occurring NOx in a Flue Gas?

Accurate CO readings in combustion sources are critical to measuring and ensuring overall safety and quantifying the efficiency of the combustion process. However, the accuracy of CO readings is affected by exposure to NOx naturally generated through combustion applications. This cross-sensitivity between CO and NOx exists unless a NOx filter is present with the CO sensor to remove the affecting gas.

The CO-NOx cross-sensitivity phenomenon and the need for NOx filtration is demonstrated when comparing the two E Instruments combustion gas analyzers below.



This comparison demonstrates that if a professional is measuring CO with an analyzer without a NOx filter, the CO reading will come up at falsely high readings. CO readings have been shown to differ from 20- 50% off in units that do not contain a NOx filter due to this cross sensitivity.

How is E Instruments Addressing the Importance of NOx Filtration in CO Sensors?

In order to maintain the best accuracy and dependability for contractors, every E Instruments' HVAC Combustion Analyzer model we manufacture is equipped with **Built-In** NOx filtration for all CO sensors. On top of Carbon Monoxide (CO) accuracy during flue testing, this feature also helps to prolong the life of the CO sensor by filtering out the acidic NOx gases from damaging the sensor over time.



E Instruments International

www.E-Inst.com

P: 215-750-1212 F: 215-750-1399 A: 402 Middletown Blvd, Ste 216 Langhorne, PA 19047