

**Product: Tetra 3 and Gasman**  
**Subject: CO sensor H<sub>2</sub> filtered**

Harsh environments such as oil rigs, chemical plants and steel production plants require rugged and reliable gas detection. Crowcon's advanced technologies deliver a range of products suited to this task.

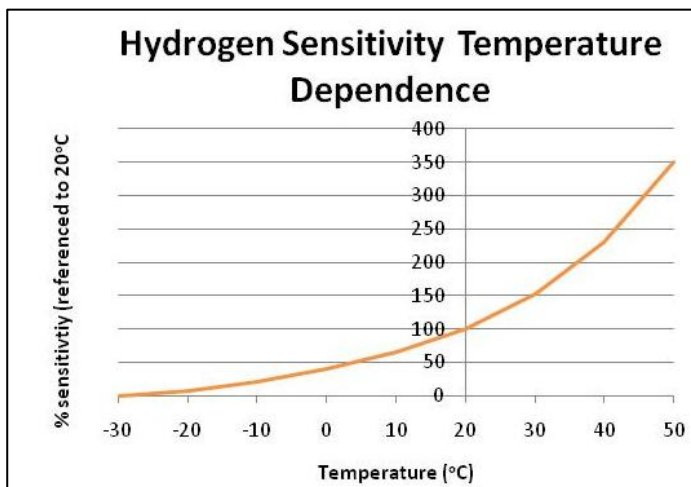
With this in mind, Crowcon are now able to offer a H<sub>2</sub> filtered CO sensor in both its Gasman and T3 instruments which provides a low hydrogen sensitivity solution for gas detection environments where hydrogen interference of the CO sensor are apparent.



Benefits of this sensor in comparison to a standard CO sensor in those environments include:

- Decreased interference response from hydrogen gas (H<sub>2</sub>)
- Improved lifetime of the sensor when exposed to high levels of H<sub>2</sub>
- Customer solution to cross sensitivity issues with H<sub>2</sub> and CO

This new CO mini i-module (S012297/M) is approved for use in ATEX/IECEx, UL and CSA approved instruments. It can be supplied in new units or retrofitted into older units via an approved Crowcon trained service engineer.



This graph shows hydrogen sensitivity of the CO sensor at different temperatures. Though the graph shows strong temperature dependence of the sensor at high temperatures, at low temperatures the hydrogen interference can practically be ignored. Where hydrogen sensitivity is <2% of measured gas at 900ppm H<sub>2</sub> in 900ppm CO at 10°C and less than 4% at 20°C as well as only 6% at 30°C.

One particular application where this sensor can be put to great use is in the Steel industry. When iron is smelted from its ore, it contains more carbon than is desirable. To become steel, it must be melted and reprocessed to reduce the carbon to the correct amount. It is in these furnaces and other processes that carbon monoxide and other gases (including hydrogen) can build up and can become a hazard.

Many other applications including battery rooms, refineries and chemical production plants also see hydrogen as a hazard where CO may also be present.

Both Gasman and T3 also offer a dust filter cap accessory to protect the sensor/s from any damage that may be caused by dust particles (for example steel filings).

To find out more about the H<sub>2</sub> filtered CO sensor or the applications it can be used in contact Crowcon.