How can I make sure Nasagas is still detecting?

Nasagas is neither a measuring instrument, nor an analyzer, it is a detector. It belongs to the sniffers category because it is has been designed to detect a leak on the outside of a circuit. Generally speaking when you use a sniffer, whatever is the type, you cannot measure neither a valid concentration of a leaking gas, nor the flow rate of the leak.

The signal you obtain from a sniffer, in fact, is highly dependent on how far the sensor is from the leaking point, on the direction of the hole that leaks, on the density of the leaking gas (natural gas disperses upwards, LPG downwards), on the ventilation conditions around the point of leak and many other factors.

So, **it is excluded that a sniffer – therefore Nasagas too - could show a valid value of leak in ppm, or %, or l/min etc.**

Nasagas semiconductor gas sensor has a high **sensitivity to methane, propane, butane and other hydrocarbons** with reduced sensitivity to alcohol. Because industrial enviroments could be gas polluted ("pollution" in this case means the presence in the air of gases to which the sensor of Nasagas is sensitive) Nasagas operates a zeroing action - before every leak search - setting the zero of its sensitivity according to the condition of the air in the environment: within certain limits, factory fixed, this compensates the mentioned pollution of the air.

The software of the bench - that manages Nasagas - takes note of the zero level and calculates the residual range of that signal. An example can explain this point:
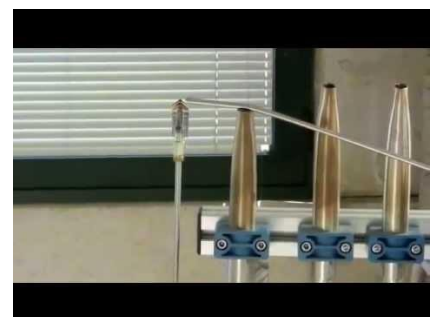- electric range of the output signal from Nasagas: 4-20mA;
- output signal level at zero: 6mA;
- residual range: 6-20mA.

Once the zeroing is done, what the software of the bench shows on the screen is a % of the residual scale. In the example, 30% of the residual range would be at 10.2mA: under that limit the software would show a green area, while over that limit it would show a red area.

The 30% limit is conventional and factory fixed. The customer could change it, provided that he has valid reasons to do it. For example, if a customer notices that the Nasagas output in front of the smallest gas leak he can produce is 20%, he could put 20% instead of 30% in a suitable parameter called NasaMaxLeakVal.

As a conclusion we recommend our customers to **periodically check the detection level of Nasagas sensor against a calibrated leak**. Click on the side image to watch Youtube video which will show how to:

- produce a flame
- reduce little by little the gas supply until the gas is no more ignitable
- check if Nasagas still detects a leak even with no flame; in case a leakage is detected, Nasagas is still operational
- in case Nasagas doesn't detect any leakage – under the above conditions - the first operation to carry out is to replace its inner sensor (watch the video)

NOTE: the Youtube video refers to a stand-alone model of Nasagas, where the signal is shown on a digital display. For integrated Nasagas versions, the signal is shown on the screen of the Microplan bench where Nasagas is connected to.