

How Green is Your Gas Detector?

Keshwar Anroedh, Marketing Manager, MSA

Email: Keshwar.anroedh@msa-europe.com

Not a single day goes by without reports in the media about increasing CO₂ levels, increasing temperatures and rising sea level resulting from global climate change. As is the case with most topics, there are several groups with varying interests and with differing claims of the causes and impacts of global climate change. This article will, however, limit itself to discussing how your purchasing decisions can impact the environment.

One of the gases believed to contribute to the so called 'greenhouse effect' and subsequent temperature increases is carbon dioxide (CO₂). The level of CO₂ in our atmosphere has steadily increased by more than 20% over the past 50 years due to a combination of deforestation, population increase, general industrialisation and the biggest contributor, fossil fuel combustion.



Product Life Cycle

In our current electronic age, processors and components are developing faster than most of us can keep up with. This results in new products hitting the market at faster pace with even better features and at lower prices. At first this sounds fantastic, with the end-user benefiting from even better prices and added features; but what about the impact this has on our environment?

Not too long ago, gas detectors had an economic life greater than ten years. Nowadays it is reduced to between two and three years before replacing the instrument becomes more economical than repair or even replacing sensors. The less expensive components reduced the costs of a gas detector significantly and at the same time, an increased safety awareness allowed more people to wear a gas detector at a more affordable cost. The increased demand combined with shorter product life cycles has not only resulted in increased production at component and instrument level, but also in increased waste at the other end of the supply chain, directly impacting our environment. The higher manufacturing output also requires more transportation of the components and instruments around the world and consequently contributes to increased CO₂ emissions. Although most of the electronic ('e-waste') and chemical waste is being recycled (VEEE 2002/96/EC), a significant part is still ending up in our environment causing health and pollution problems.

Your choices matter

How can you contribute to limiting the chemical and e-waste and CO₂ emissions, while still keeping your employees protected and make your operations even more profitable?

There are many products available which can meet your gas detection needs, but it is worth considering that not all gas detectors are made the same. The most obvious purchasing factors to customers are prices and features, however, less considered are long-term cost of ownership and the environmental impact.

Three simple steps to reduce your detectors' carbon footprint

The following three easy steps are nothing new, except that we'll add one more factor in your decision matrix: the environmental impact. It should allow you to make the right choices for your company and minimise the impact on our environment.

First, look for products which meet or exceed the specific requirements for your application. Second, look for manufacturers who are striving to reduce environmental impact by designing

innovative, durable and long lasting products.

Finally, make a comparison and select the product which provides the optimum balance between lowering your long-term cost of ownership, increased safety and performance while at the same time, minimises the impact to our environment.

MSA XCell sensor technology

A perfect example of how to dramatically reduce ownership costs is MSA's new XCell high performance sensor series. These groundbreaking sensors are utilised in the durable ALTAIR 4X and ALTAIR 5X multigas detectors.

These products distinguish themselves by providing unparalleled durability, long runtime and innovative features not seen before in this industry. The smart, ASIC-based sensors provide one of industry's longest lifetimes and fastest response times while requiring a significantly lower amount of gas for calibration or daily bump tests. To stand by these claims, MSA provides extended warranties on these products.



The environmental impact

How can these features simply be translated into environmental savings?

- Longer runtime means lower charging frequency resulting in preserving energy and therefore reducing CO₂ emissions
- Lower charging frequency will also increase the lifetime of the batteries which ultimately lowers the battery waste
- In alignment with the RoHS directive, the new O₂ XCell sensor's lead-free design, contributes to reducing toxic metals in the environment. Longer lasting sensors means less chemical waste in our environment.
- More durable products will reduce the need for replacement instruments and spare parts which directly impacts production (CO₂ emissions) and e-waste.
- If your gas detectors' overall lifetime is increased, you will need less packaging material per detector per year
- Lower amount of calibration gas required per calibration, will result in less cylinder waste
- Lowering the instrument replacement frequency will reduce the CO₂ emissions with reduced transportation needs per year per detector



Think 'Green' – save the environment and money

The above will not only reduce the environmental impact, but will also reduce maintenance and labour cost and therefore will directly impact your budget. Especially in economic downturns, when everyone's budget is under scrutiny, MSA's XCell technology will help to reach your financial goals.

At MSA not just the logo is green, but by making conscious decisions we truly believe that together with our customers we can make a difference!