



Going wireless with **GAS DETECTION**

Ask these questions to select the system that works best

By JOSH FUTRELL

Almost every homeowner who has faced endless projects and “honey do” lists has a toolbox filled with trusted tools to help get the job done. Tools that are flexible and solve many different problems. Tools that are reliable and trusted to perform time and time again. Tools that are easy to use and don’t require instruction manuals or a three-year apprenticeship.

The same reliance on tools is true for safety professionals who have to keep people safe, including an influx of contractors and personnel, during maintenance efforts, turnarounds, construction, and other large-scale efforts.

For those whose worksites have gas hazards, real time gas detection equipment can be one of those critical tools to have in your toolkit. The following will explore many of the benefits these modern tools bring to worksite safety and productivity during big projects, and things to consider when selecting them.

Flexibility

Effective wireless gas detection systems amplify situational awareness and can be moved and redeployed as work changes. Whether monitoring work in

a confined space, creating a fenceline between a safe zone and a hot zone, stopping work and vehicle traffic if explosive gasses are present, reducing or eliminating manual effort in tracking leaks or other known issues, or keeping spaces declassified for extended periods of time, a single, real-time wireless system can solve a lot of different problems during a project.

Consider the types of equipment that can be accommodated under the system. Some systems support only one type of equipment, i.e., only personal monitors or only area monitors. Others support multiple types of equipment; these tend to be more valuable since you can address many different problem scenarios. Area monitors are a key addition to any wireless system because they are highly rugged, able to run independently without operator intervention for long periods, and they use loud/bright alarms to communicate from afar.

Consider the infrastructure required and what limitations it might place on you.

Will you need a laptop to connect the system together or for your teams to monitor what is happening?

Will you need extra equipment to connect the devices to the cloud so you can monitor what is happening back in the project trailer or offsite (and do you even need this feature)?

If so, that’s extra equipment you’ll need to plan for, procure, move, charge, and manage during the project. Some systems can provide wireless gas readings and alarms locally without any additional equipment, which may be appropriate for your application. Systems using laptops or the cloud tend to provide detailed features and reporting.

Will the wireless system need access to your company’s network?

If so, that can be a huge undertaking depending on your company’s IT policies and infrastructure.

Will the system support the number of devices you need? Some are limited to ten, twenty, or a hundred pieces of equipment on a given network and this can have a big impact on what uses are feasible during your project.

Reliability

A tool is only valuable when it gets the job done consistently. No wireless technologies are 100 percent fool-proof and guaranteed, though manufacturers have made significant strides in the last several years to improve the robustness and stability of these products to the point where these technologies are approaching consumer-level performance.

Consider the communication methods involved and how they handle disruptions. Does the system use cellular, wi-fi, or Ethernet for making connections? How reliable are those in your facilities? If it’s using another communication method (i.e. a 900 MHz or 2.4GHz radio), what protocol is it using? A point to point protocol can represent a single point of failure, while mesh typically provides a more robust connection. When something does go wrong, how does the system handle the disruption? Who is notified and how? What impact does that have on the work at hand? Depending on the product, notifications of network problems might not be adequate or, worse yet, might create work stoppages and perceived “false alarms.”

Consider the gas detector itself. At the end of the day, if the tool isn’t accomplishing the primary purpose it is there for (detecting and responding to gas conditions accurately, quickly, and repeatedly), it doesn’t matter how great the wireless features are or what value they might bring to your project. Don’t forget due diligence on the gas detection component of the system.

Ease of use

Some tools, even when they are effective, can create such a hardship while in use that the costs can outweigh the benefits (a battery powered adjustable wrench I have sitting in a drawer somewhere comes to mind). Wireless gas detection systems, depending on the technology being used and the support system you can put into place, can sometimes face similar challenges.

Consider the knowledge and effort required to deploy and maintain the fleet during the project. Will the team be able to set things up and use the system without training? Some systems are straightforward while others can require specialized expertise, outsourcing, or checking the manual in order to understand and troubleshoot. What kind of maintenance will the system need during the project? Daily charging? Weekly swaps? None? This can have a large financial impact for your project, both on number of pieces of equipment needed and human effort to keep things going.

Consider what options you have when things go wrong or you need additional support. What kind of support, training, consultation, etc. does the manufacturer and their partners offer? What do these services cost and how responsive are they? When equipment fails, how will you get it serviced? On-site, embedded options come at a price. What options do you have for getting or renting additional equipment and what kind of turnaround can you expect? Plan to fail and consider the costs and impacts to your project.

There are many other things to consider when picking the right wireless gas detection tools for your toolkit. All in all, there are many different tools out there that excel in the key considerations above. Today, wireless gas detection feels more like an electric drill vs. a manual drill than like a battery powered wrench; it adds value that outweighs its additional cost and complexity. The technology has developed to the point where a business case can easily be made from the manpower and automation savings your company can get from wireless gas detection for projects. **ISHN**

Josh Futrell serves as director of product management, software, at Industrial Scientific.

Stay safe and be free

TUFF BUILT

PRODUCTS INC.

FALL PROTECTION

- ◆ Lightweight
- ◆ Easy, fast setup time
- ◆ Energy absorbing design

BEST HOIST

Sky-X-Stand

EXOSPHERE ANCHOR






ISHN SEPTEMBER 2018 www.ishn.com

YouTube

f

Twitter

Call for more information!

Toll Free: 1-877-422-6053 www.tuffbuiltproducts.com