Air Monitors (Tewkesbury) has announced the launch of three new ambient air quality monitoring instruments. “Highly innovative technology is employed within all three monitors,” says Managing Director Jim Mills. “For example, the Spectra-1 from PKL Technologies is a robust, portable open-path TDLAS monitor, capable of monitoring a wide range of target gases remotely. In addition, the Model 211 and the Model 405, both from 2B Technologies, employ USEPA Federal Equivalent Methods for the interference-free measurement of Ozone and NO2 respectively.”

Portable and lightweight, the Spectra-1 can be easily transported from site to site, or left in place as a continuous monitor. The tuneable laser can be set to measure a specific gas from a range of options including HF, CH4, NH3, CO2, CO, HCN, C2H2, C2H4, C2H6, H2S and others. Consequently, this instrument is ideal for applications such as landfill, fracking, fenceline monitoring, fugitive emissions, greenhouse gas monitoring and other projects where environmental monitoring is required.

As an open-path monitor, the Spectra-1 measures the total amount of the chosen gas in the path between the laser source and the reflector (ppm-m). This can be converted to ppm by dividing by the path length to derive a path-average concentration. Shorter optical paths may be chosen to determine the distribution of the monitored gas species.

The 2BTech 405 is a direct reading Nitrogen Dioxide analyser. In contrast with chemiluminescence instruments where NO2 must be converted to NO with variable efficiency, the Model 405 measures nitrogen dioxide directly by absorbance at 405 nm. Importantly, this new absolute method requires much less power than traditional techniques and is smaller and lighter too.

Measurement modes include NO2 only; NO only; NO2, NO and NOx with ranges of 0-10,000 ppb for NO2 and 0-2,000 ppb for NO. Resolution is 0.1 ppb and accuracy is 2 ppb or 2% of reading, whichever is greater.

The 2BTech 211 measures ozone with a proven UV absorption method and a patented gas-phase titration technology. In combination, these technologies provide measurements that are virtually free of interferences – a major advantage in situations with high levels of particulates, mercury, or VOCs. The enhanced optical path length of 30 cm provides a precision of better than 0.5 ppb for 10-second measurements, and accuracy is 1.0 ppb or 2% of reading, whichever is greater.

Both of the 2BTech analysers have options for Bluetooth wireless data transmission and battery powered operation, which makes them ideal for both fixed and portable applications.

Summarising Jim Mills says: “Our customers in the UK rely on us to supply, install and service the best equipment available, so we only select proven instruments from leading manufacturers. However, the rapid growth that Air Monitors has achieved in recent years is due in no small part to our ability to match innovation with customer needs, and these three products are good examples of that process.”

For further information visit www.airmonitors.co.uk