



The new SERVOPRO PureGas gas purifier from Servomex (UK) offers the near-total purification of carrier gases for Gas Chromatography (GC) and other analytical applications.

For a gas chromatograph to perform reliably with high levels of sensitivity, the supplied carrier gas must be of the highest quality. With Ultra High Purity (UHP) gases expensive to bottle and difficult to trans-fill without contamination, the SERVOPRO PureGas enables users to purify gases onsite at the point of use, minimising the risk of gas contamination.

Available for argon (Ar) and helium (He) matrices, the PureGas purifier delivers outlet impurity levels for oxygen (O<sub>2</sub>), water (H<sub>2</sub>O), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), hydrogen (H<sub>2</sub>), methane (CH<sub>4</sub>) and nitrogen (N<sub>2</sub>). Able to purify from Grade 5.0 - in which the level of impurity will not exceed 10 ppm - the PureGas offers Grade 7.0 (99.99999% purity) UHP gas purities suitable for a GC carrier gas.

Most purifiers use a single stage heated getter to remove all impurities, but the SERVOPRO PureGas employs a patented getter alloy to attract gas molecules at multiple temperature profiles to efficiently remove H<sub>2</sub> impurities from the rare gas by forming irreversible chemical bonds. In this way it is impossible for the impurities to be released when the PureGas purifier is being operated within specification.

A standard 1/8" Swagelok compression fitting returns contamination levels less than 20 ppb, while optional high purity 1/8" vacuum coupling radiation (VCR) fittings for the feed gas inlet and purified gas outlet return ultra-low levels less than 1 parts per billion (ppb). Both fittings feature a 20 micrometre (0.02mm) filter.

A large volume getter permits a maximum flow of 1L/min, allowing a single purifier to be used to distribute UHP rare gas to multiple GCs. The deep blue anodised exterior of the new PureGas maintains a 45°C surface temperature and the efficient ceramic fibre insulation with an encapsulated heater coil delivers reliable temperature refraction rates.

An additional benefit of the PureGas is that it can also be used to generate UHP zero calibration gas for Plasma applications.

“The launch of the SERVOPRO PureGas reinforces Servomex’s position at the forefront of UHP carrier gas purification,” says Régis Loubatiere, Trace Products Business Manager. “The unique getter alloy technology means we can offer our customers near perfect purification for GC processes from a single purifier, delivering a significant cost benefit by using Servomex over competitor technology.”