



Be Right™



Orbisphere 315xx Nitrogen Sensors

The unique Orbisphere Thermal Conductivity sensor has been developed to give continuous N₂ measurements in gas phase or dissolved in a liquid. The measuring technique is a combination of a gas diffusion membrane and a solid-state gas thermal conductivity detector.

A micro volume enclosed between a semi-permeable membrane and a thermal conductivity detector is periodically flushed with a purge gas. After each purge, the gas to be measured diffuses from the sample through the membrane, changing the thermal conductivity of the gas surrounding the detector. A change in thermal conductivity modifies the detector resistivity. This is measured, together with temperature, to calculate the gas concentration.

- Continuous N₂ measurements
- Selective measurement, result unaffected by the presence of other gases
- Fast response time to improve plant productivity
- Compact design for easy insertion into a process line or a flow chamber

Part Number	Accuracy	Wetted materials	Measuring range	Sample pressure	GBP Price
31590HP	(Sample temp. 20 - 50 °C within ± 5°C of calibration temperature) The greater of ±2% of reading or ±15 mbar or ±0.3 ppm or ±0.25 mL/L		Range at 25 °C: 0 - 20 bar, or 0 - 350 ppm, or 0 - 300 mL/L	0 - 170 bar	Contact Us
31590TC	(Sample temp. 20 - 50 °C within ± 5 °C of calibration temperature) The greater of ±2% of reading or ±15 mbar or ±0.3 ppm or ±0.25 mL/L		Range at 25 °C 0 - 20 bar, or 0 - 350 ppm, or 0 - 300 mL/L	0 - 20 bar	Contact Us
31593HP				0 - 170 bar	Contact Us
31593TC	(Sample temp. 20 - 50 °C within ± 5°C of calibration temperature) The greater of ±2% of reading or ±15 mbar or ±0.3 ppm or ±0.25 mL/L		Range at 25 °C 0 - 20 bar, or 0 - 350 ppm, or 0 - 300 mL/L	0 - 20 bar	Contact Us
31594HP				0 - 170 bar	Contact Us
31594TC				0 - 20 bar	Contact Us