



## Technical Bulletin - 202

Version 1.0 4/9/2019

### Award-winning DISC PUMP™ added to the ION Science Sensor Range

We are pleased to announce that we have an exclusive agreement with TTP Ventus ([www.ttpventus.com](http://www.ttpventus.com)) to distribute its award-winning Disc Pump™ to the global gas detection market. The micropump platform offers a wide range of innovative features designed to deliver ultrafast millisecond response and more sensitive detection of gases including volatile organic compounds (VOCs).

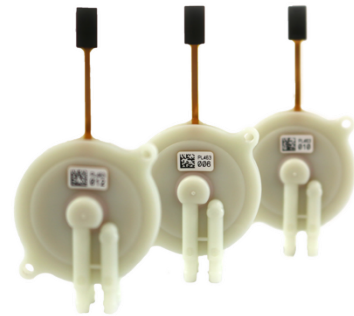
An excellent fit with our market-leading photoionisation detection sensors (PIDs), the lightweight TTP Ventus piezoelectric pump offers key features for the gas detection, monitoring, analysis and sampling industries including silent, vibration-free operation, exceptional pressure and flow, true pulsation-free flow, fast response to set-point changes, high precision controllability and resistant to magnetic fields.

These benefit many applications by allowing, simpler instrument design – especially for chromatographic systems, lower limits of detection, real time capability to respond to trigger

#### For more information contact

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conditions, intermittent sampling against pressurised lines, and improved user experience in wearable applications.

The agreement between the two Cambridgeshire-based hi-tech businesses covers two Disc Pump product lines: the XP Series provides a combination of performance and efficiency benefits with a wide temperature range from -25 up to 55°C for supporting the most demanding applications whilst the BL Series is a lower cost, entry-level version.

Most piezoelectric gas pumps rely on the movement of piezo actuator to compress the gas in a cavity which increases its pressure. Such 'displacement' pumps have limited performance because the movement of piezo actuators is very small. By instead creating a standing wave TTP Ventus is able to deliver much greater pressure and flow than traditional piezo pumps. Further, Disc Pump operates at ultrasonic frequencies making it completely silent.

Turning an ultrasound standing wave into useful pumped flow requires a highly specialised valve, able to respond in a matter of microseconds. The patent-protected Disc Pump achieves this delivering unrivalled pneumatic performance.

More information can be found in the following locations:

- <https://www.ionscience.com/products/disc-pump-evaluation-kit/>
- <https://www.ionscience.com/products/bl-series-disc-pump/>
- <https://www.ionscience.com/products/xp-series-disc-pump/>
- Press Release: PR-109 ION Science confirms exclusive agreement with TTP Ventus to offer award-winning DISC PUMP™ <https://www.ionscience.com/news/ion-science-confirms-exclusive-agreement-with-ttp-ventus-to-offer-award-winning-disc-pump/>

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