

AUTOMATED LIGHTNING PQ SOLUTIONS

AUTONOMA's Lightning PQ is one of the fastest automated systems on the market today for measuring PQ index on a wide variety of sample types. Featuring a high speed XYZ transport, it can analyse up to 4 samples a minute, which equates to over 5700 samples per day.

A wide variety of bottle types can be catered for, as well as their orientation. The system will automatically detect the bottle type and orientation, and then select the appropriate adaptor.

Trays are lightweight and can only be inserted one way, preventing sample mix-ups. An in-built priority tray also allows the immediate input and analysis of urgent samples. Drawers are hot-swappable, meaning that trays can be inserted and removed from the system without having to stop the analysis of the current trays.

This system can be integrated with industry standard PQ analysers such as Parker's ANALEXpql to ensure peace of mind when it comes to the accuracy and precision of results. It performs an automatic calibration with the included 0 and 750 PQ standards prior to running a new batch of samples.

The machine is easy and ergonomic to use via the built-in touch screen and networked PC, or a server based virtual machine running AUTONOMA's AVANTICA software. It provides full integration with all popular LIMS platforms, including for sample registration. Results are exported by default in CSV, XLS, or TXT formats, with the layouts being simply configured.

Safety is exceptional, with all doors being mechanically interlocked while the machine is in operation. The modular design allows simple expansion and interfacing with AUTONOMA's full range of NextGen laboratory automation in the future.

AUTONOMA's Automated PQ can also be easily customised to include other analytical methods and sample preparation steps. This includes but is not limited to:

- Camera system to photograph side and/or bottom of sample bottles
- Bottle decapping
- FTIR
- Viscometry
- Sample aliquoting and dilution for ICP
- Aliquoting to make up duplicates
- Turbidity
- Colour Analysis

KEY FEATURES

- 15-20 second cycle time from analysis to analysis for samples.
- Multiple bottle/container types and orientations can be analysed at the same time in the Lightning PQ.
- The Lightning PQ can self-calibrate using a 750 PQ calibration disc and 0 PQ calibration disc. It can also run these calibration discs before each rack, verifying the results are within the specification.
- Samples that exceed a threshold based on the compartment type as supplied by the LIMS will be highlighted at the end of the run, and the operator will be prompted to clean the bottle and reanalyse the sample. Should the results fall outside of the limits again, an alarm and email can be sent to the operator and/or LIMS.
- This machine can be used manually in the case of maintenance/emergencies.





SPECIFICATIONS	
Sample analysis time	15-20 seconds (including 4 seconds for PQ analysis. Optional camera adds another 2-3 seconds)
Daily throughput	~5700 samples per 24h
Sample capacity	Typically 2 x 32 position trays or 1 x 50 position tray (can be modified upon request)
Dimensions	1600mm (L) x 870mm (W) x 935mm (H)
Mass	~220kg
Electrical requirements	~2.5 kVA at 230 V, 1 Ф, 50/60 Hz (can be modified upon request)
Interface	Ethernet
Accessories	Computer and monitor





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