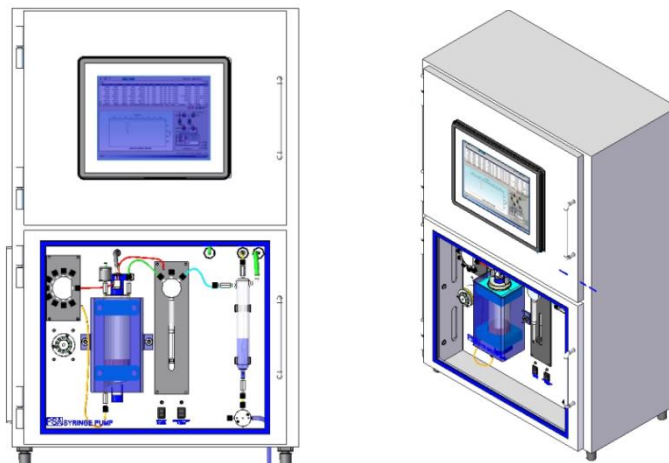


PSA 10.226 Online Mercury System

Product Specification



System Description

Online Atomic Fluorescence Spectrometer with integrated sample digestion and vapour generation for the determination of mercury at trace and ultra-trace levels. Low-pressure Hg lamp excitation source with detection by photomultiplier. Designed to operate in discrete sample injection mode and suitable for online operation 24 hours per day 7 days a week 365 days a year, matching throughput with sensitivity requirements. The system can be configured to take samples on a user-definable frequency such as every 15 minutes, every hour, 6 times day or even daily. The analyser can also be configured to only analyse a sample when prompted from an external source.

General

Gas Liquid Separator	Unique design with low foaming characteristics offering virtually zero carryover.
Gas Supply	Inlet pressure 2.1 – 4.2 bar (gauge). Flow rates pre-set to optimum levels with automatic shutdown under software control.
Moisture Removal	Perma Pure™ continuous moisture removal system.
System Control	Full control under PSA OnLine process control software.
Data Connection	Standard: Four 4-20 mA analogue outputs and four contact closure digital outputs for alarms. Optional: Additional analogue and contact closure outputs, HART, MODBUS RTU, MODBUS TCP/IP, RS232, PROFIBUS, OPC
Computer Specification	Integrated touchscreen computer
Operating System	Windows® 10

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PSA

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Sample Throughput and Analytical Performance Utilising AFS

Limit of Detection	0.5 ppt
Linear Dynamic Range	0.5 ppt to 1 ppm
Sample Throughput	15-30 minutes per sample depending on sample matrix
Digestion Manifold	UV as standard

General Specifications and Standards

Weight	Packed: 100 kg including manuals/spares and consumables kit
Dimensions Actual	840 x 600 x 300 mm (HWD)
Power Requirements	90 – 250 V AC, 50/60 Hz
Voltage Fluctuation	±10%
Power Total System (including PC)	1000 VA
Operating Environment	5°C to +50°C, further details available on request. Technical Standard Compliant with the legal requirements of the Low Voltage directive 73/23/EEC and the EMC directive 89/336/EEC.

The system is compliant with the following standards:

Safety	IEC 1010-1 (EN61010-1)	Safety requirements for electrical equipment for measurement control and laboratory use
EMC	EN50081-1	Generic emission, residential, commercial light industrial environment
	EN50082-1	Generic immunity, residential, commercial light industrial environment

Software

Process control software and data acquisition software running under Windows® 10

User Login	Real time trending of results
User definable access restrictions	Full reporting capabilities
User definable alarms with actions	Data reporting via 4-20 mA
Visual diagnostics of instrument	Results exporting in csv/ASCII format
User definable start up and close down procedures	Scheduled calibrations
Maintenance scheduling and automatic method procedures	

A range of results reporting options, including voltage outputs, MODBUS (RTU or TCP/IP), OPC (client or server) and HART are also available. Refer to NU045 for more information.

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The Online Mercury System Comprises

Separate electronics and chemical sections
 Reagent containers
 Integrated touchscreen computer
 PSA OnLine process control software
 All interface cabling
 Wall-mounted or freestanding
 Installation kit
 User manuals

Up to 4 or 16 sample streams, depending on the options selected.

The actual configuration of the 10.226 series analyser system is defined by the last four characters of the part number, i.e

PSA 10.226A100

A	Computer	Outputs	Analysis Method
A	14 in. Touchscreen PC	4 analogue 4-20 mA 4 contact closure	Amalgamation AFS

1	Sample Streams	
	Sample Streams	Multiport selection valves
1	4	One 12-port valve
2	16	Two 12-port valves

0	Reserved for future use
0	Reserved for future use

Optional Items

Sampling Systems:

L225A200 Sampling System for Online Liquid Analysers
 L225A210 Sampling System with Fast Loop Filter for Online Liquid Analysers

Analyser accessories:

L226R100 Reagent Cabinet
 L226F100 series Mounting/support frames for 10.226 analysers and accessories
 L226E100 series Expansion modules for HART, additional 4-20 mA analogue & contact closure outputs
 Other communications options

Spares and Consumables:

L226K100 Spares and consumables kit

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