

ATEX Zone 1 (Category 2) Certified Enclosure for the Asuryan UV-Vis Analyzer

Compliant with ATEX
Directive 2014/34/EU and IEC 60079-0

- API manufacturing
- Solvent-based DSP steps
- Chemical reaction monitoring
- CIP validation support
- Petrochemicals & oils



Option
C1D1
also available
on request



Measure up 

The ATEX Zone 1 certified enclosure enables safe installation and operation of our Asuryan UV-Vis analyzers in hazardous areas where explosive gas atmospheres may occur during normal operation.

Designed for Category II environments, the system ensures compliance with ATEX Directive 2014/34/EU and relevant IEC 60079 standards while maintaining full analytical performance of the enclosed instrument.

The solution is perfectly suitable for pharmaceutical production areas, chemical processing plants, solvent handling facilities, and pilot installations.

The encasing can be adapted to both the Asuryan and Asuryan Nova system, allowing real-time UV-Vis analyses in harsh industrial environments. A multitude of sampling interfaces, ranging from transflexion and ATR probes over (multi-channel or multi-path length) flow cells, can be connected to the system for seamless in-line integration.



3 markets concerned



Chemicals



Biotech



Pharma





The enclosure applies a certified explosion protection method in accordance with IEC 60079 series standards. The ATEX casing maintains an internal overpressure preventing the explosive atmosphere from reaching the inside of the casing, and therefore protecting the electronic components of the UV-Vis analyzer.

The enclosure is engineered to ensure that explosion protection does not compromise measurement performance or compliance with pharmaceutical data integrity requirements.

Certified for Hazardous Areas

- Designed for **Zone 1 gas atmospheres**
- Equipment **Category II**
- Designed in accordance with **IEC 60079-0**
- CE marking in accordance with **ATEX Directive 2014/34/EU**

Risk Mitigation Without Compromise

- Overpressure cabinet (op px)
- Certified components throughout
- Continuous monitoring and fail-safe shutdown
- Temperature control

Integrated computer

- OPC-UA communication
- Ethernet connection
- Improved reliability
- Simplified system validation and compliance

Installation

- Wall-mounted or floor-standing
- Optional casters
- Accessible service design
- Minimal maintenance requirements
- Clear operational status indication

Enables High-Performance UV-Vis

Analysis in Classified Areas

- Maintains optical integrity
- Preserves wavelength accuracy and photometric stability
- Supports continuous process monitoring
- Intrinsically safe lamp (op is)

Optimised Cost of Measurement

- Compatible with 3-channel configurations
- Monitor up to three processes with a single system
- Maximise return on a certified ATEX investment

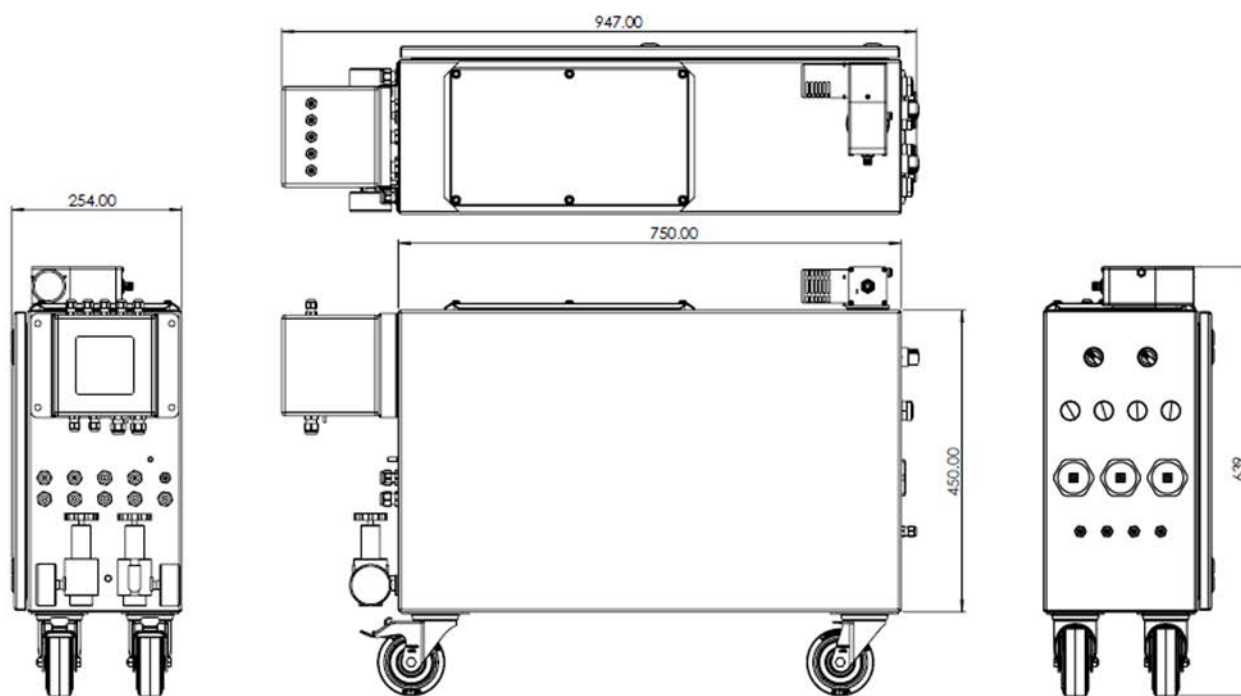
Designed for pharma & chemical industry

- Corrosion-resistant materials
- Smooth, cleanable external surfaces
- Material traceability available upon request
- Suitable for production and pilot environments
- Compatible with DCS / PLC systems

Analytical integrity

- No optical distortion
- Stable internal temperature control
- Minimal vibration transfer
- No signal attenuation
- Supports calibration and validation procedures

Mechanical Specifications	
Operating Temperature	0 – 40 °C
Relative Humidity	5 – 90 %
External Dimensions	947 x 254 x 639 mm
Weight	60 kg
Material	Stainless Steel AISI 304
Gas intake	8 mm tubing (10 mm exterior diameter)
Gas pressure	4 to 6 bar (dry air only)
Gas flow	25 Nm ³ / h
Electrical Specifications	
Voltage	85 – 230 VAC
Power Consumption	185 W
Standards	2014/35/UE – Low Voltage Directive EMC 2004/108/EC – Electromagnetic Compatibility Directive IEC EN 61010-1: 2011 + Amdt 2016 – Safety of Measuring, Control and Laboratory Equipment
Communication Protocol	OPC-UA
Optical Specifications	
Optical Fiber Connection	Optical fiber cable with SMA plug, type 905



*Dimensions are in millimeters

