

DS-I/O BOX[®] for PUPSIT

Pre-Use Post Sterilization Integrity Testing

DS-I/O BOX[®]

DIGITAL

SCADA

I/O

BOX

Main Focus Point

Architecture

Modern and Smart UI. Fast and efficient signals transmission and optimized **Hardware and Software** design

Modularity and Flexibility

Capable to manage single and/or redundant filtration set-up
Suitable to host a wide range of filter sizes and types
Compatible with different pumps

Easy to Use

Ergonomic and compact design to ensure *easy* process handling and optimal working conditions from both **HW** and **SW** perspectives

Security & Data integrity

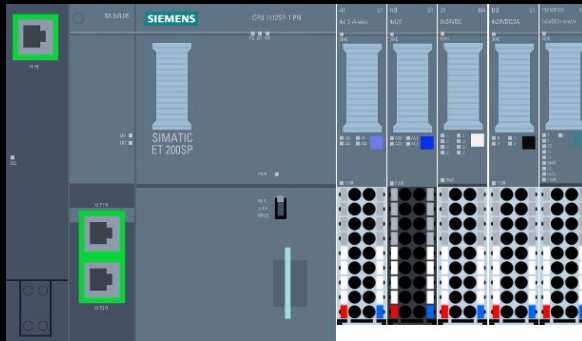
21 CFR part 11 compliant. Full traceability on **Audit Trail** of every single operation done by a specific user (access management, batch record, batch report, batch alarms)

Connectivity

Suitable for integration/connection to any **SCADA System** and/or wide range of auxiliary instruments. The system can be used via **Web Client**. Data can be exported via **OPC UA** or **PDF** file via shared folder.

SIEMENS ARCHITECTURE

Architecture



The Heart of this instrument beats thanks to the last generation PLC'S powered by Siemens



A new generation of HMI panels for a modern UI, more storage capacity and better construction quality

DS-I/O BOX[®] for PUPSIT consists of:

1. Automatized Stainless steel skid

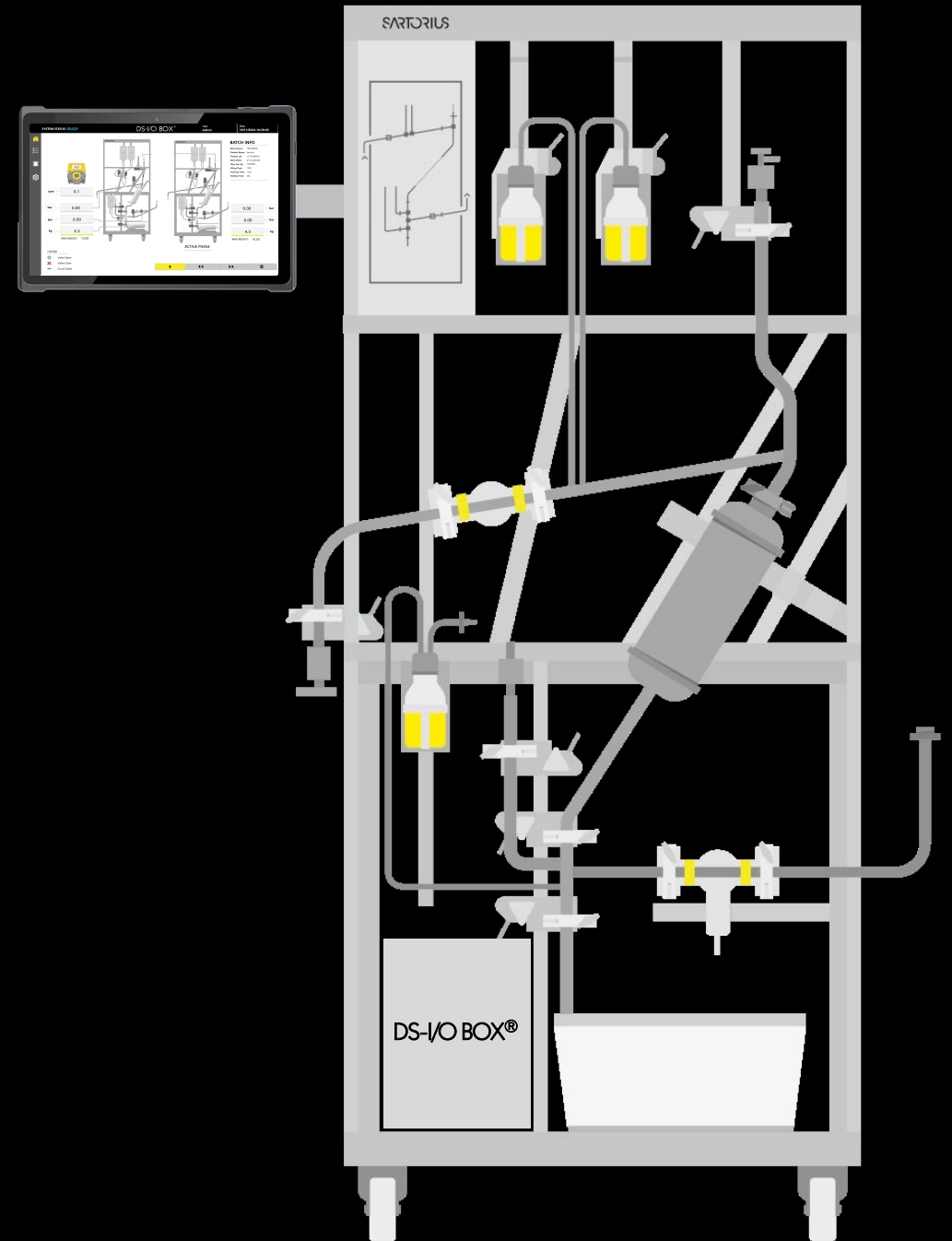
Designed for optimal filtration process handling (correct filling of the filter capsule, air purging, minimized holdup volumes, etc...)

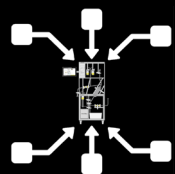
2. DS I/O BOX[®] and HMI interface

User friendly and ergonomically easy to access for both Process operations and Service maintenance

3. SU/RTU Filter Transfer sets

The System allows easy installation of consumables, and it also allows adjustments of pinch-valves and sensors positions, in order to host different filter sizes and filter types.





MAIN EQUIPMENT

Architecture



BIOPAT® Pressure Sensors
Pressure Monitoring and Recording



Sartocheck 5 Integrity Tester
The DS-I/O BOX® can fully control the instrument and knows when to start a test and give results



Watson Marlow Pump
Pump speed (**RPM**) is automatically adjusted by the system according to the specific recipe and phase



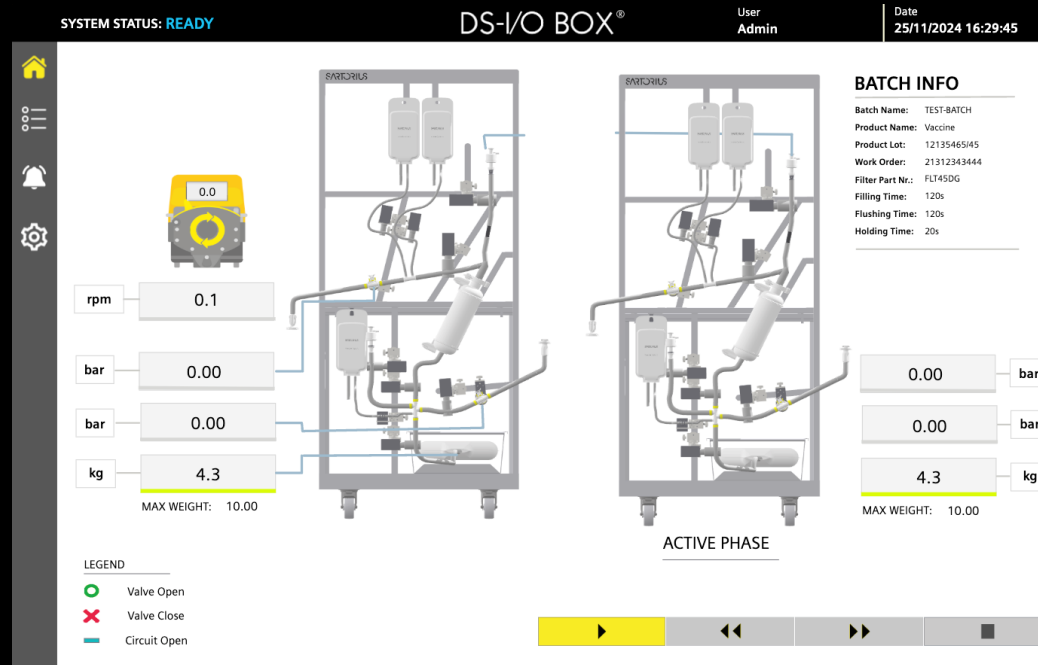
Automatic Pinch valves
Thanks to these the operator is not touching the system during the filtration, because the valves automatically adjust according to the specific recipe and phase

DS-I/O BOX®



OVERVIEW OF THE HMI

DS-I/O BOX[®] for PUPSIT manages: the single and redundant filtration configuration (modular approach), automatic product sampling and via HMI, start a filter testing using the Sartochek 5 integrity tester.



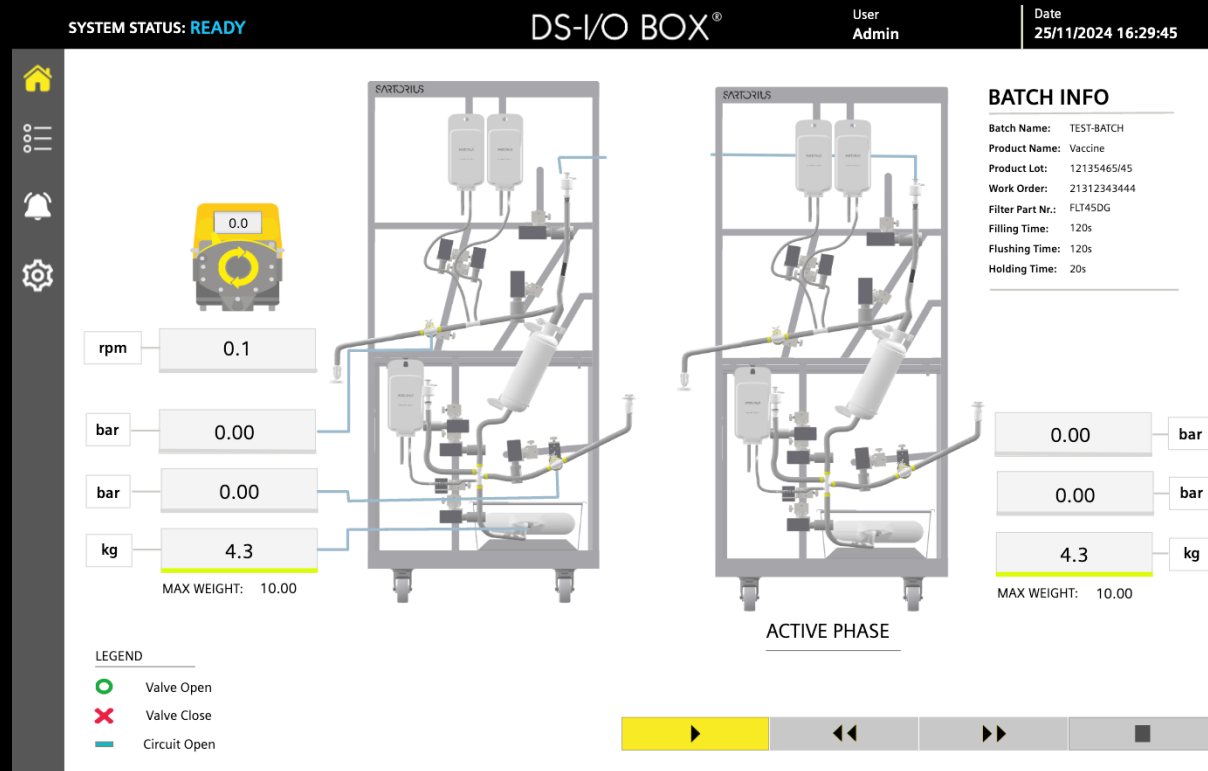
Modularity and Flexibility



BATCH RECORD

DS-I/O BOX[®] for PUPSIT allows operator to start a Batch and record all the data generated during the different stages of the whole process: conditioning of the filter membrane, sampling, filter integrity test, product filtration, product recovery, etc...

DS-I/O BOX[®]



Easy to Use



BATCH REPORT

The operator can manage all the reporting of the executed batches.

Report can also be saved and exported to external USB memory, into a shared network folder.

DS-I/O BOX[®]

BATCH CALIBRATIONS User Admin Date 05/07/2024 11:35:25

Reports Report jobs Job parameters Global settings

Name	Job name	Creation time	Files	Status
<input type="checkbox"/> _2407051108	ReportBatch	7/5/2024, 11:08:04 AM	<input type="checkbox"/> 177 KB <input type="checkbox"/> 48 KB	
<input type="checkbox"/> Test demobatch_2406061105	ReportBatch	6/6/2024, 11:05:27 AM	<input type="checkbox"/> 197 KB <input type="checkbox"/> 78 KB	
<input type="checkbox"/> _2406061046	ReportBatch	6/6/2024, 10:46:35 AM	<input type="checkbox"/> 177 KB <input type="checkbox"/> 49 KB	
<input type="checkbox"/> _2406061042	ReportBatch	6/6/2024, 10:42:30 AM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 53 KB	
<input type="checkbox"/> _2406061027	ReportBatch	6/6/2024, 10:27:20 AM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 53 KB	
<input type="checkbox"/> _2406061010	ReportBatch	6/6/2024, 10:10:13 AM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 53 KB	
<input type="checkbox"/> _2406061001	ReportBatch	6/6/2024, 10:01:03 AM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 53 KB	
<input type="checkbox"/> _2406060954	ReportBatch	6/6/2024, 9:54:22 AM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 53 KB	
<input type="checkbox"/> _2406060850	ReportBatch	6/6/2024, 8:50:39 AM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 53 KB	
<input type="checkbox"/> _2406060829	ReportBatch	6/6/2024, 8:29:32 AM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 54 KB	
<input type="checkbox"/> _2406011345	ReportBatch	6/1/2024, 1:45:13 PM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 53 KB	
<input type="checkbox"/> _2406011335	ReportBatch	6/1/2024, 1:35:46 PM	<input type="checkbox"/> 181 KB <input type="checkbox"/> 54 KB	
<input type="checkbox"/> Test_2406011228	ReportBatch	6/1/2024, 12:28:07 PM	<input type="checkbox"/> 179 KB <input type="checkbox"/> 51 KB	
<input type="checkbox"/> _2406011226	ReportBatch	6/1/2024, 12:26:52 PM	<input type="checkbox"/> 177 KB <input type="checkbox"/> 50 KB	
<input type="checkbox"/> _2406011040	ReportBatch	6/1/2024, 10:40:50 AM	<input type="checkbox"/> 180 KB <input type="checkbox"/> 52 KB	

1 2 3

Show information

Easy to Use



BATCH ALARM

The Alarms section is designed to monitor and manage the system alerts generated by the device.

This section provides a comprehensive overview of all active and historical alarms, allowing for quick identification and resolution of problems.

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Items: Admin Date: 05/07/2024 15:23:52

	BATCH	CALIBRAZIONI						
	Alarm class	Origin	Area	Alarm text	Modification time	Raise time	Status text	
1	Acknowledgeme		HMI_RT_1:Alarm	Sistema bloccato	04/07/24 18:12:05	04/07/24 18:12:05	Incoming/Outgoing	
2	SystemAlarmWit				05/07/24 10:22:49	05/07/24 10:22:49	Incoming	
3	SystemAlarmWit		System/HMI/Run		05/07/24 15:18:03	05/07/24 15:18:03	Incoming	
4	Alarm		HMI_RT_1:Alarm	Temperatura Alta	05/07/24 15:18:06	05/07/24 15:18:06	Incoming	
5								
6								
7								
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11								
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17								
18								
19								
20								

Easy to Use



USER MANAGEMENT

DS-I/O BOX[®] for PUPSIT integrates a **User Management Module** that allows to control the credentials to get access to the system and to record all the accesses.

By default, the following users are considered :

Admin

Supervisor

Operator

Guest



Security &
Data integrity



ACTIVE DIRECTORY MODULE

When having DS-I/O BOX[®] for PUPSIT connected to customers network, the system can manage the accesses directly using customers company credentials and already existing users and groups.

The Administrator can also manage the groups inside the HMI.



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Every action made inside the HMI is recorded, in compliance with the 21 CFR Part 11. Within the Audit Trail view an authorized user can see every action performed within the HMI by each user. The Audit Trail can also be exported for auditing purposes.

DS-I/O BOX®

User: Admin Date: 05/07/2024 11:54:28

BATCH CALIBRATIONS

Audit Trail Audit File Audit queries Global Settings

<input type="checkbox"/>	Time stamp	Audit provider	Type	Object reference	Object name	User	Operator station	Operation	Old Value	New Value	Language
<input type="checkbox"/>	7/5/2024, 11:35:36.868	User Management	User management			Admin	Controlroom Client	Updated		Admin	1033
<input type="checkbox"/>	7/5/2024, 11:25:43.807	User Management	User management				Controlroom Client	Updated	Admin		1033
<input type="checkbox"/>	7/5/2024, 11:08:21.590	User Management	User management			Admin	Controlroom Client	Updated		Admin	1033
<input type="checkbox"/>	7/5/2024, 10:48:55.305	User Management	User management				Controlroom Client	Updated	Admin		1033
<input type="checkbox"/>	7/5/2024, 10:25:52.578	User Management	User management			Admin	Controlroom Client	Updated		Admin	1040
<input type="checkbox"/>	7/5/2024, 10:25:23.545	User Management	User management				Controlroom Client	Updated	Service		1040
<input type="checkbox"/>	7/5/2024, 10:23:51.520	User Management	User management			Service	Controlroom Client	Updated	Admin	Service	1040
<input type="checkbox"/>	7/5/2024, 10:23:36.303	User Management	User management			Admin	Controlroom Client	Updated		Admin	1040
<input type="checkbox"/>	7/4/2024, 16:18:25.458	User Management	User management				Controlroom Client	Updated	Admin		1040
<input type="checkbox"/>	7/4/2024, 15:49:24.858	User Management	User management			Admin	Controlroom Client	Updated		Admin	1040

1 2 3 4 5 6 7 8 9 10 >> <<

[Show information](#)

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Data integrity

OPC UA CONNECTION

The DS-I/O BOX[®] for PUPSIT can support SCADA Systems, variables and alarms can be seen externally via OPC UA, with all the OPC UA Encryptions supported.

The DS-I/O BOX[®] for PUPSIT System can be compatible with:

- ✓ MFCS 4 or higher
- ✓ OSI PI (via OPC UA connector)
- ✓ DeltaV

REMOTE CONTROL

It is also possible to connect remotely to the HMI, with a PC or tablet. The DS-I/O BOX[®] for PUPSIT utilizes the VNC protocol, that let the customers to control the DS-I/O BOX[®] for PUPSIT even when they are not physically there. Also, the DS-I/O BOX[®] for PUPSIT can be controlled remotely in GMP areas, since no internet connection is required.



DS-I/O BOX[®]

Connectivity



DS-I/O BOX[®] for PUPSIT

A new concept
automatized Pre-Use Post
Sterilisation Integrity Testing

DS-I/O BOX[®] for PUPSIT



The user follows the screen printing for a quick and easy assembly.

DS-I/O BOX[®] for PUPSIT



Also available
with glass protection for
better control of laminar
flows



DS-I/O BOX[®]

The industrial automation taken
to a whole new level