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# Production Line Simulator for TSI® Automated Filter Tester 8150

**Model 8150-PLS**



**Designed to enable maintenance, troubleshooting, or determination of optimal settings during process characterization on the Automated Filter Tester 8150.**

The Production Line Simulator 8150-PLS compactly simulates the production line controls for offline use of the Automated Filter Tester 8150 designed and optimized for remote and continuous automatic operation within a production line.

Normally, the PLS contains a filter chuck of the same design that is used on the reference Automated Filter Tester 8130A, used for stand-alone operation in a quality control or research laboratory, to measure flat sheet media, or other products with user-supplied adapters.

The control of the 8150 must be managed by the main Programmable Logic Controller (PLC) that controls the entire production line work flow. Adding the 8150-PLS enables the 8150 to be used outside of the production line for various purposes. Settings for the integrated PLC can be changed and viewed through the built-in touchscreen interface on the PLS. This enables, for example, testing different rise and sample times to optimize work flow with given setup parameters such as tubing length, test flow rate, etc. The touchscreen also allows initiating the diagnostics ("Voltages") mode and monitoring sensor status values for troubleshooting purposes. Other modes available are setup (for correlation factor determination), gravimetric test mode for (generator mass concentration verification), and routine penetration testing.

Notably, when using TSI® certified green line media and the supplied curves, the performance of the production-line filter tester 8150 can be tested the exact same way as on an Automated Filter Tester 8130A.

## Features and Benefits

- Easy and fast setup for an 8150 – designed to work together
- Simulation of production line for troubleshooting, process optimization, etc.
- Single and automated multi (sequential) measurements
- Small footprint, can be stacked on 8150
- Local touchscreen interface or remote software control with third-party software
- Intelligent design for fast maintenance
- Worldwide service and support

## Applications

- Setting up and testing the 8150 without a production line, e.g., testing small batches of products or determining timing settings (process research and optimization)
- In-house validation/verification of 8150 performance as part of a regular quality control procedure
- Service/maintenance/troubleshooting of the 8150 offline



## Specifications

# Production Line Simulator

Model 8150-PLS

### Operating Range

|                     |                           |
|---------------------|---------------------------|
| Ambient pressure    | 75 to 110 kPa (absolute)  |
| Ambient temperature | 10°C to 35°C              |
| Operating humidity  | 0% to 95%, non-condensing |

### Interfaces with 8150 to display many parameters, including:

Aerosol detection (voltages and penetration)  
Aerosol flow rate  
Pressure drop measurement

### Automation Interface

- Modbus-based command set via Ethernet
- 10 channel relay-based digital IO
- RS-232 serial output

### Utility Requirements

|                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| Power                  | 100-240 VAC, 50 Hz to 60 Hz,<br>2,5 A continuous via external<br>24 VDC power adapter |
| Compressed Air         | 80 psig, <0.5 scfm                                                                    |
| Dimensions (L x W x H) | 39,0 cm × 58,5 cm × 77,0 cm<br>(15.3 in. × 23.0 in. × 30.3 in.)                       |
| Weight                 | 40kg (89 lb)                                                                          |

### Standard Accessories

- Gravimetric filter holder and test media
- Pressure plate
- 24 VDC power adapter with region-specific power cord
- Grounding strap
- NPT compressed air inlet adapter fitting
- Safety string cable
- Tubing set with quick connectors
- Reference media



## To Order

Specify  
8150-PLS

### Description

Production Line Simulator (PLS) for  
Automated Filter Tester 8150

Specifications are subject to change without notice.

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