Merlin Control System
Lyophilizer Touchscreen Controller

SP VirTis

Overview

The SP VirTis Merlin controller is designed to meet the lyophilization requirements of a broad range of end users. The control system utilizes a Siemens TP700 Touchscreen interface to provide full process automation, including complete recipe management and alarming.

Available Software / PC Workstation

Purchased separately, the easy to use iFIX-based PC controls interfaces with the touchscreen controller and provides exceptionally user-friendly recipe manager, secure cycle data logging capability with data export capability and a graphical display of recorded data (historical data trending).

Available Touchscreen Controls Validation

Control System Testing to verify system operations and functions, as well as confirm hardware and software component operations under normal operating conditions.

System Features

Feature	
Large 7" touchscreen display	Standard
Eight (8) product temperature-monitoring probes	Standard
Pirani vacuum gauge	Standard
Automatic recipe mode with 10 freezing steps and 12 drying steps. Each step has both a ramp and a hold phase	Standard
Stoppering via touchscreen interface	Standard
Manual operation	Standard
Full system alarming	Standard
Power outage protection including product recovery routines	Standard
Programming of 40+ custom recipes	Standard
Automatic Leak & System Performance Tests	Standard
Process data output to USB drive	Standard
Capacitance Manometer in addition to Pirani Gauge with Automatic Pirani/CM pressure comparison testing	Optional
Automatic Pressure Rise testing capability on units configured with an optional isolation valve	Optional

At a Glance: SP VirTis Control Systems for Pilot Freeze Dryers

Capabilities	Merlin Touchscreen	Merlin with PC Software Workstation	LyoS 2.0 Package L	LyoS 2.0 Package R	LyoS 2.0 Package P
Primary and Secondary Drying Steps	12	12	17	17	17
Thermal Treatment (Annealing) Phase	10	10	12	12	12
Product Probes, Standard Configuration	8	8	8	8	8
Additional Product Probes Available	No	No	Up to 16 Total	Up to 16 Total	Up to 16 Total
Capacitance Monometer in Addition to Pirani Gauge. Includes Automated Pirani/CM Differential Feedback	Option	Option	Yes	Yes	Yes
Integrated Performance and Vacuum Leak Testing	Yes	Yes	Yes	Yes	Yes
Historical Data Trending	No	Yes	Yes	Yes	Yes
Configurable Data Export (CSV File)	No - USB only	Yes	Yes	Yes	Yes
Batch Reporting	No	No	No	Yes	Yes
UPS	No	No	No	Yes	Yes
Manual Pressure Rise Testing (Units Configured with Isolation Valve)	Yes	Yes	Yes	Yes	Yes
Automated Pressure Rise Testing (Units Configured with Isolation Valve)	Yes	Yes	Yes	Yes	Yes
Multi-Level Security Capability	Limited	Yes	Yes	Yes	Yes
Security Integration with Microsoft Windows	No	Yes	Yes	Yes	Yes
21 CFR Part 11 Compliance Capability with SQL Database	No	No	No	No	Yes
Ethernet Communications	No	Yes	Yes	Yes	Yes
Security Customization	No	No	No	No	Yes