



Sartocheck® 4 plus

Fully automatic integrity testing device

Filter Integrity Testing



Description

The Sartocheck® 4 plus is the result of Sartorius' 30 years experience in developing automatic filter integrity testers. Valuable productivity enhancing features and robust build quality have been combined with incredible ease of use to make the Sartocheck® 4 plus the only logical choice for integrity testing. The Sartocheck® 4 plus provides the following unique combination of benefits:

- Barcode Scanner for easy and reliable data entry (optional)
- Intelligent selection of test program after scanning the filter
- Combination of large, color touchscreen display with keypad
- External pressure sensor and external valves (optional)
- Automated cleaning function eliminates expensive service calls
- Sophisticated Cleaning Kit available (optional)
- Automatic detection of improper test setup (e.g. disconnected filters)
- Multitasking menu
- Electronic test reports in PDF format
- no thermo paper but dot matrix printer (longer print preservation)
- SD card reader for easy test program proliferation to other Sartocheck testers
- Profibus communication (interface as accessory)
- Unparalleled accuracy and repeatability of results for all test types

- World class documentation, training, applications, and service support
- Allows concurrent filter testing by controlling up to four additional test units (optional MultiUnits)
- Fully compliant with 21 CFR Part 11
- Developed in accordance with GAMP

Integrity Test Methods

- Bubble Point Test (BPT)
- Diffusion Test (Diff)
- Combined Test (Diff + BPT)
- Pressure Drop Test
- Water Intrusion Test (WIT)
- Water Flow Test (WFT)
- Multipoint Diffusion Test
- Customer Specific Tests
- Automatic Test Time function for intelligent optimization of test times

Barcode Scanning

Using the optional barcode scanner allows easy and error-free entry of filter data into the unit. Sartocheck® 4 plus automatically locates the suitable test program that matches the scanned cartridge.

Cleaning Function

The patented cleaning function of Sartocheck® 4 plus allows the user to perform reliable cleaning of the complete internal pneumatics even with aggressive cleaning agents (up to 1 M NaOH). This unique feature provides highest security of the integrity testing procedure while eliminating the need for costly down time and service calls.

Network Concept

The network solution for the Sartocheck® 4 plus incorporates the TCP-IP and FTP protocol standards, with data being transmitted via the Ethernet standard. Via standard RJ45 connection, all data can be easily up-loaded on a FTP server.

Profibus communication can be used to allow bidirectional communication with process control system as a basis for complete automation.

Multiunit Concept

In order to increase productivity through parallel filter testing, up to four additional MultiUnits can be easily connected to the Sartocheck® 4 plus. This provides the equivalent testing capacity of five Sartochecks operating concurrently at a significant cost savings to the end user.

Qualification

Sartocheck® 4 plus ensures that all integrity tests are carried out with highest precision and accuracy. Our comprehensive Sartocheck® 4 plus validation documentation and world-class Service Team provide exemplary support for the user.

Technical Specification

Power requirements	100 – 240 V AC 50 60 Hz
Max. Power Input	74 watts
Max. operating pressure	9999 mbar 145 psi
Min. inlet pressure	4000 mbar 58 psi
Dimensions (W × D × H1 × H2)	460 × 390 × 140 × 245
Measuring Ranges	
Test Pressure	100-8000 mbar 1.5-116 psi
Pressure drop	1-2000 mbar 0.01-29 psi
System inlet volume	
- with int. reference vessel	14 L
- with ext. reference vessel	150 L

Measuring Accuracy	
Pressure	± 0.1 % full scale
Pressure Drop	± 1 mbar (0.015 psi)
Volume Determination	± 4 %
Diffusion	± 5 %
Water Intrusion	± 5 %
Bubble Point	± 50 mbar ± 0.7 psi
Operating Conditions	
Ambient temperature	+15°C to +35°C
Rel. humidity	10-80%
Touch Screen	
Size	10.4" TFT
Features	256 colors
Communication Ports	
Serial Port TU	RS232
Serial Port MU	RS485
PLC Port	binary signals 12 pins
Network	RJ45
Language Option	
	English German French Spanish Italian

Equipment Supplied	
Sartocheck® 4 plus	26288
Inlet tubing for compressed gas	18104
Outlet tubing	18103
Ribbon cassette	6982141
Rolls of printer paper	6982142
Test certificate	
Calibration certificate	
Installation and operating instructions	
Validation package	26288---VP
Power cord	

Accessories	
Barcode Scanner	26288---BS
Multiunit	16288---TU
External pressure transducer	1ZE---0018
Set for external venting (1 valve)	1ZE---0025
Valve set for external filling (WIT)	1ZE---0026
Serial Port Interface cable TU TU	
0.5 m	1ZE---0008
2 m	1ZE---0009
5 m	1ZE---0010
Network Cable	
2 m	1ZE---0029
5 m	1ZE---0030
10 m	1ZE---0031
20 m	1ZE---0032
Cleaning Kit	26288---CK
Pressure Tank for Cleaning	26288---PV
External reference vessel (10 L)	16288---RV
Profibus Interface	16288---PI
Validation Package	26288---VP
Clean Room Venting Adapter	1ZE---0021
Midisart Test Manifold 10x	1Z-LB-0002



- 1: ext. reference tank
- 2: Venting 1
- 3: Out
- 4: Venting 2
- 5: Compressed Air In
- A: external sensor
- B: external valves



- 1: main switch
- 2: SD card reader
- 3: Serial Port TU
- 4: PLC Port
- 5: RJ45 Network
- 6: connection for optional barcode scanner

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