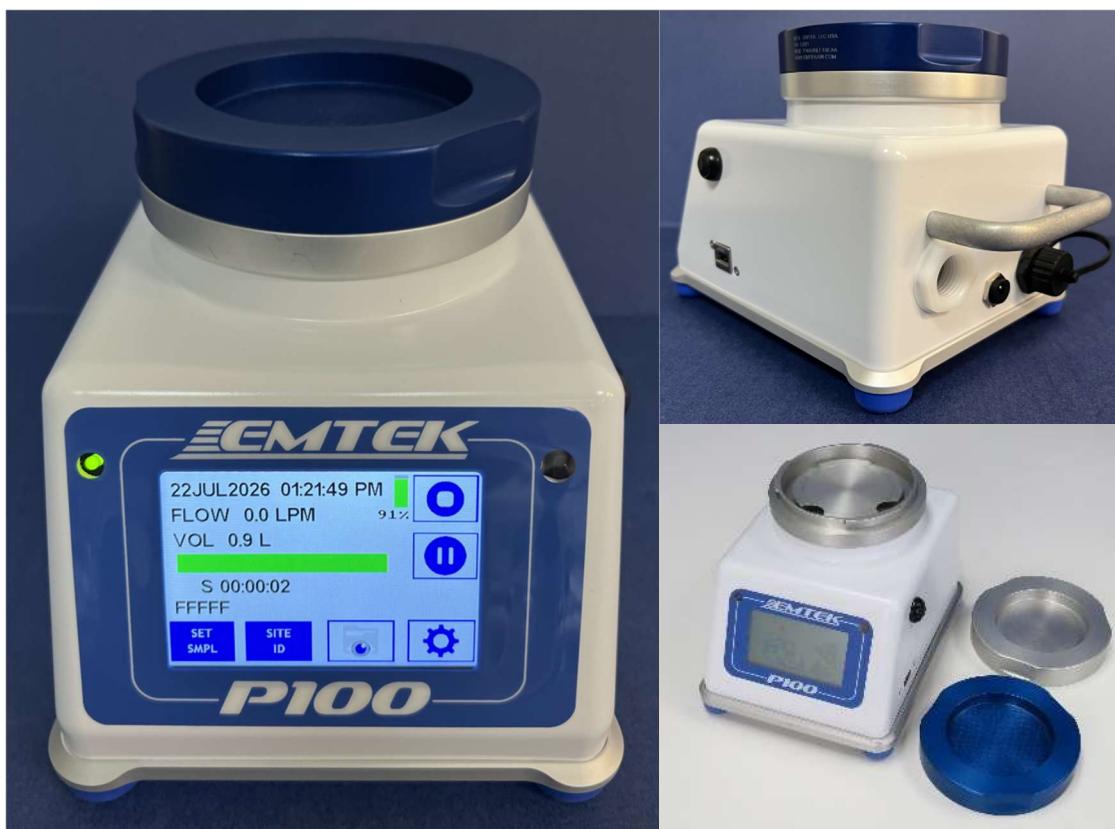


P100 Portable Microbial Air Sampler – VERSION 2

EMTEK's **P100** Portable Microbial Sieve Sampler – **NEW V2** includes fully compliant 21 CFR Part 11 firmware along with an enhanced full color LCD/Touchscreen user interface. The **P100** is designed to operate in a variety of Critical Environments to meet your requirements for monitoring LAF Hoods, BSCs, Isolators, Sterility Chambers, Filling Lines, Bulk Production Areas, Surgical Amphitheaters, and with optional accessories, Compressed Air/Gas Systems, but is practical for use in almost any environment.



P100 Air Sampler – V2 – GENERAL SPECIFICATIONS

- Model/Part#: P100.002
- **NEW!** Firmware Version: ≥ 3.001 / 21 CFR Part 11 Compliant
- Mass Flow Controlled Sample Rates of 28.3, 50 and 100 LPM w/Applicable Inlet Cover
- Dimensions: LxWxH = 7.5" x 5.5" x 6" / Weight: <4.4 lbs (2 kg)
- **NEW!** 3.5" Full Color LCD View Screen w/Capacitive Touch Screen Interface
- Controller Enclosure: Kydex® with Microban® (for Anti-Microbial Protection)
- P100 Inlet Cover Anodized 6061-T6 Aluminum with color-coded **28.3 (Clear)**, **50 (Green)** or **100 (Blue)** LPM Sample Rates, also available in 316SS.
- Media Stage with Adjustable height to accept 15-40ml Fill 90mm Test Plates
- HEPA Filtered Exhaust, 0.22 Micron (w/remote exhaust tubing option, P100.RMTEXH.KIT)
- LCD/Touchscreen Overlay – Polycarbonate
- Blue Silicone Rubber Feet
- Communication: IP67 USB & RJ45 Connectors
- IR Remote – 5 Channel (Up to 40' / Line of Site)
- Test Media Stage w/Adjustable height to accept 15-40ml Fill 90mm Test Plates



P100 -V2- DATA/COMMUNICATION

- Ethernet Port: Unit Calibration, PC Communication, and Data Output to PC, or Optional Printer
- USB Port: Data Retrieval via USB Drive, Firmware Updates
- User Selectable Parameters: Sample Rate, Sample Time or Volume, Delay/Test/Hold, Time Base, Date Format, User ID, etc.
- **NEW!** Sample Run Memory (10,000 Runs) – Critical Sample Run Parameters Captured
- **NEW!** Audit Event Log Memory (25,000 Events) – Captures key activities performed on the P100
- Sample Run Data Output to Printer, USB, or PC w/Data Export Software / Sample Label, Locked PDF Report, or .csv File Outputs.
- Data Control through System Admin/User ID Control (21 CFR Part 11 Compliant)
- **NEW!** 21 CFR Part 11 Compliant Firmware (e.g., Audit Trail, Sample Run Data, Password Control, ADMIN/USER Accounts, etc.)
- Site Description Entry/Maintenance/Capture
- Optional: PC Control Software - Offers Substantial Operative PC Control of a single, or multiple P100's via Ethernet connection to a Local Area Network (LAN). General Control: Start, Stop, Pause, Resume, Set/View: Date, Time, Sample Volume, Sample Time, Delay, Test, Hold, Site ID, Room Data View/Output: On Screen, .csv File, or Locked PDF Report Output
- DATA EXPORT SOFTWARE – Allows for direct connection to a P100 allowing for data output as .CSV Files or an encrypted PDF Report

P100 -V2- PORTABLE MICROBIAL AIR SAMPLING PACKAGE

Complete Package Includes: (P/N: P100.PACK.CMP.V2)

- P100 Microbial Air Sampler
- Inlet Cover (Choose 1): 28.3 LPM, 50 LPM or 100 LPM LPM
- IR Remote Control / 5 Channels (Start/Pause/Stop)
- Inlet Cover Lid and Port & Plug Set (USB, RJ45, Inlet/Outlet Plug)
- Users' Manual & Associated Documents (on 1 8GB USB Drive)
- AC/DC Power Supply/Charger
- NIST Traceable Calibration and Certificate
- Standard 2-Year Warranty
- IQ/OQ/PQ Validation Template
- Hard Sided Transport Case w/Custom Foam Inserts



Basic Package (P/N: P100.PACK.BASIC.V2) **does not include:** IR Remote, Inlet Lid Cover, or Carrying Case

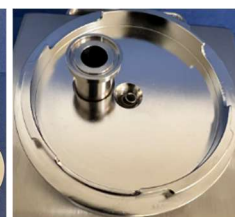
P100 -V2- OPTIONAL ACCESSORIES

- Stainless Steel Inlet Cover, available for 28.3, 50 and 100LPM flow rates
- Compressed gas sampling kit, includes filtered High Pressure Diffuser, compressed gas sampling inlet adapter, clamps, and 2.5' of tubing
- Portable handheld thermal printer kit, including thermal printer, ethernet communication cable, charger, and printer label rolls
- PC Control & Data Export Software (See data/communication section for details)
- Remote dual 28.3LPM sampling via barbed inlet cover utilizing tubing with two EMTEK Remote Air Samplers (RAS)



REMOTE SAMPLING SIMPLIFIED CONNECTIVITY

Remote Sampler Connection Options include press in 0.500" Barb and 25mm Sanitary Connectors. Simply remove the inlet cover and media stage to access the vacuum connection port and press in the desired connector type. Remote sampling with applicable RAS can be performed up to 50'/15m from the P100 @ 28.3 LPM, 12'/3.7m @ 50 lpm, and 6'/~2m @ 100 LPM.



RAS SAMPLER OPTIONS – General Specifications

- RAS Available in 316SS (".SS."), or Anodized 6061-T6 Aluminum (".AA.") with 28.3, 50 or 100 LPM Sample Rates
- RAS Dimensions: 2.125" (5.4 cm) H x 4.325" (~11cm) OD / Weight: 316SS 6.25 Lbs (~2.8 kg) / ALUM 2.1 Lbs (~1kg)
- Sanitary Connector (316SS) 1.112" (2.8 cm) H x 0.994" OD (25mm) Sanitary Flange.
- Barbed Connector (316SS) 1.5" (3.8cm) L x 0.500" (~1.3 cm) OD, or 1.25" (~3.2cm) x 0.375" (~1cm) OD (for 28.3 LPM Only)
- Media Stage w/Adjustable height to accept 15-40ml Fill 90mm Test Plates

The RAS can be employed for use with either the side or bottom vacuum port, and with either a sanitary or barbed connector.



P/N's as follows: RAS.AA.100.500, RAS.AA.28.500, P100.RAS.SS.28.500, RAS.SS.100.500, add .SNT instead of ".500" for a Sanitary Connector and either "B" or "S" for Bottom or Side for mounting location, e.g., RAS.SS.100.SNTB. The P100ss or P100 inlet cover can be used on the RAS Remote Base to minimize cost (RAS.BASE.ASM.SS.500 or RAS.BASE.ASM.500).

P100 - V2 – Portable Microbial Air Sampler - Additional Specifications

Sample Time/Volume	Variable/User Defined, Maximums: 120-minutes/3396 Liters* @ 28.3 LPM, 60-min/3000L @ 50 LPM, 30-min/3000L @ 100 LPM
Delay/Test/Hold Times	Variable (User Defined)
Sample Flow Rates	28.3 LPM (1 CFM), 50 LPM or 100 LPM (Requires separate inlet covers for the 28.3, 50 & 100 LPM Sample Rates)
Test Media	Size: 90mm Test Plates (Plastic Petri Dishes) / Fill Height: 15 to 40ml (standard to double, or high fill plates) (Actual size ≤83mm plate base OD)
Flow Rate Control	Electronic, Closed-Loop, Mass-Flow Control / +1.5% Tolerance Mass Flow Sensor
Printer (Optional)	Thermal Label or Paper
Control System (CPU)	Microprocessor Controlled (32bit PIC Processor)
Sample Run Data Output	Optional Printer/Label or Paper Output, .CSV Files, or Encrypted PDF Report via USB or PC Software
Memory	512kb Flash Program, 128kb RAM Data, 7mb Sample Runs (10K) & Audit Log Events (25K), 512kb EPROM Calibration Set Points
Serial #/Unit Equipment ID #	Fixed/User Defined
Site Descriptions	User Created/Deleted/Selectable
Program Descriptions	User Created/Deleted/Selectable (Includes: Sample Rate, Volume/Time, Flow/Volume Units, Delay/Test/Hold)
Sample ID Assignment	Unique System Generated (Unit Serial # + 5 digit string) / Non-Repeating until >999,999 samples
Input/Output	USB Client 1.1, Ethernet 10BaseT-/100-BaseT
Audible/Visual Alarm Notification	Internal (with User Volume Control) & Alarm Screen Popup for Flow & Low Battery Alarm
Alarms/Notifications	Flow Alarm ±5% (On/Off) / Low Battery Alarm / Calibration Due Notification / Invalid Login / Login Attempts
AC/DC Power Supply/Battery Charger	AC POWER Input: 100-240 VAC, 50/60 Hz, 130VA-168VA 1.4 AMPS / Output: DC 18V 3.6A
Operating Range	5-40° C, 10-80% RH, non-condensing*; Indoor Use; Max Altitude 6560 feet (2000 meters) *Note: As temperature increases from 30 to 40° C, humidity range drops from 80 to 50% linearly.
Operational Tubing Length w/Remote Sampler (RAS)	Maximum Tubing Length at 28.3 LPM up to 50 Feet (15 Meters) / 0.500" ID Maximum Tubing Length at 50 LPM up to 12 Feet (~3.7 Meters) / 0.500" ID Maximum Tubing Length at 100 LPM up to 6 Feet (~2 Meters) / 0.500" ID
Calibration/Verification Required	Flow Rate (28.3/1 CFM, 50 LPM and/or 100 LPM) / Sample Timer (Frequency: 12 Months Suggested)
Installation Category/Pollution Degree	Category 1 / 1 & 2
Regulatory/Safety	Complies with ISO 14698-1, EN17141, EU GMP Annex 1, CE Mark
Administrative Control Options	Data Storage/Deletion, User & Admin Accounts, Forced User Login, Password Controls, Sample Programs, Sample Setup, Date/Time Settings, Calibration Due Notification, IP Addressing, Flow Rates, Flow Alarms
Admin & User Accounts	A combination of 100 Total accounts can be created
Battery Life/Charging	~10H @ 28.3 LPM, ~8H @ 50 lpm & ~7 hrs. @ 100 LPM / Full Charge in ~2.5H
Inlet Cover / Capture Velocity & D50	28.3 LPM = Φ0.28 mm*300 holes / 25m/s & 0.67µm (P/N P100.INLT.28.SS & P100.INLT.28.AA) 50 LPM = Φ0.38 mm*300 holes / 25m/s & 0.78µm (P/N P100.INLT.50.SS & P100.INLT.50.AA) 100 LPM = Φ0.53 mm*300 holes / 25m/s & 0.92µm (P/N P100.INLT.100.SS & P100.INLT.100.AA)

For additional information on all sampling options, accessories, and pricing, please contact EMTEK, or your local area distributor.