PCXR8

The Ultimate Personal Sample Pump



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The Ultimate Personal Sample Pump with Programmable Start and Stop Times

Personal or Area Sampling

The result of extensive research and development, the PCXR8 is a constant flow air sampler suited for a broad range of applications. With an operating range of 5 to 5000 ml/min (low flow applications of 5 to 5000 ml/min require an optional adjustable low flow holder [Cat. No. 224-26 Series]), this battery-operated sampler is ideal for industrial hygiene studies as well as environmental testing. Specifically designed for *on-worker* and *fenceline* applications, the PCXR8 is typically used with collecting devices such as filters, impingers, sorbent tubes, and sample bags.

The PCXR8 is easy to operate and permits unattended sampling for periods up to 7 days. In addition, the PCXR8 offers:

- Multiple tube sampling capability
- · Compensation with high back pressure
- Ultra-quiet operation
- · Wide range of flow rates
- Energy-efficiency
- User-programmable timing

Back Pressure Compensation

The PCXR8 is factory-preset to compensate for back pressures to 40 inches of water over the most commonly used flow ranges. As back pressure increases, the motor voltage automatically corrects to maintain a constant flow over the operating range. You will not sacrifice air volume accuracy, even in dusty environments.

Multiple Tube Sampling Capability

The PCXR8's built-in constant pressure regulator allows you to take up to four simultaneous samples with rates of up to 500 ml/min each using an optional adjustable low flow controller (not included). With multiple tube sampling, you'll reduce time in the field and use fewer pumps.

Powerful Pneumatic System

With its broad flow range of 5 to 5000 ml/min, the powerful PCXR8 does the work of both a high flow and low flow pump—in a single unit. Its state-of-the-art pneumatic system delivers a constant flow resulting in accurate air volumes without the need for frequent sampler adjustments. This system includes four components:

- Pulsation dampener for smooth airflow
- Built-in rotameter to monitor pump flow
- Pressure regulator for low flow sampling
- Filter assembly to prevent clogging of the pump

Easy Keypad Programming and Control

The PCXR8 makes programmed sampling simple with easy-tounderstand controls and display. Press the interrupt/hold button to shutdown for breaks, lunch, or to recheck the sampler. Program the PCXR8 for delayed start time, intermittent sampling, extended sampling for up to 7 days, timed shutdown, and repeat samples. When required sampling times are specified in an agency method, the PCXR8 can be programmed to intermittently sample over the workday allowing for a true TWA with fewer samples. Intermittent sampling can also extend battery life for 24-hour fenceline monitoring or IAQ investigations.

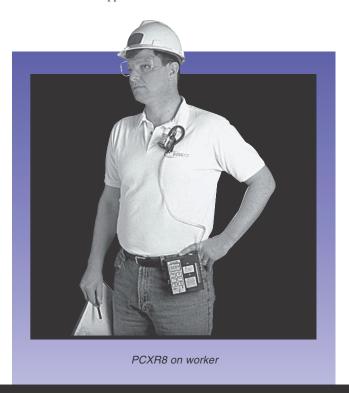
TWA tests ranging from 8 hours to 7 days in duration are possible, depending on the type of sample being collected.

Safety and Performance Standards

SKC's case material and unique circuitry are designed to provide shielding from radio frequencies in the range of 27 to 1000 MHz. This shielding prevents fluctuations in the flow caused by electrical effects on the pump's control circuitry. CE marked.

Intrinsically safe, the PCXR8 is UL Listed for explosive gas and dust atmospheres of Class I, Groups A, B, C, D; Class II Groups E, F, G; and Class III for Temp Code T3C.

MSHA and ATEX approved models are available. Contact SKC.



Automatic Fault Shutdown

To ensure the integrity of your results, the sampler is programmed to shut itself off in the event of:

- Excessively restricted flow (e.g., a pinched hose or extreme back pressure)
- Low battery voltage

The pump will automatically enter the "Hold" mode, and the appropriate indicator ("LoBatt" or "Flow Fault") will light. The LCD will show the elapsed sampling time recorded at the point of shutdown.

A Variety of Ordering Options

The PCXR8 and its accessories can be purchased together in single and five-pack pump kits or separately for a more customized setup. Accessories include chargers (single or five station), adjustable low flow holders, filter cassette holders, impinger holders, and protective nylon carrying pouch with shoulder strap and belt. *Note: Kits do not contain all of the accessories listed here.* Contact your SKC regional sales representative for complete ordering information.

Programmable Timing System

The PCXR8's easy-to-operate, built-in programmability gives you unsurpassed sampling flexibility, and frees you to do other jobs. You can program a delayed start time for your test (e.g., during the night shift), an automatic shutdown time, or both. Accuracy is $\pm 0.05\%$ (± 45 sec/day).

The current "Elapsed Sampling Time" reading appears continuously on the large LCD during a test run. By pressing the appropriate key, you can instead display:

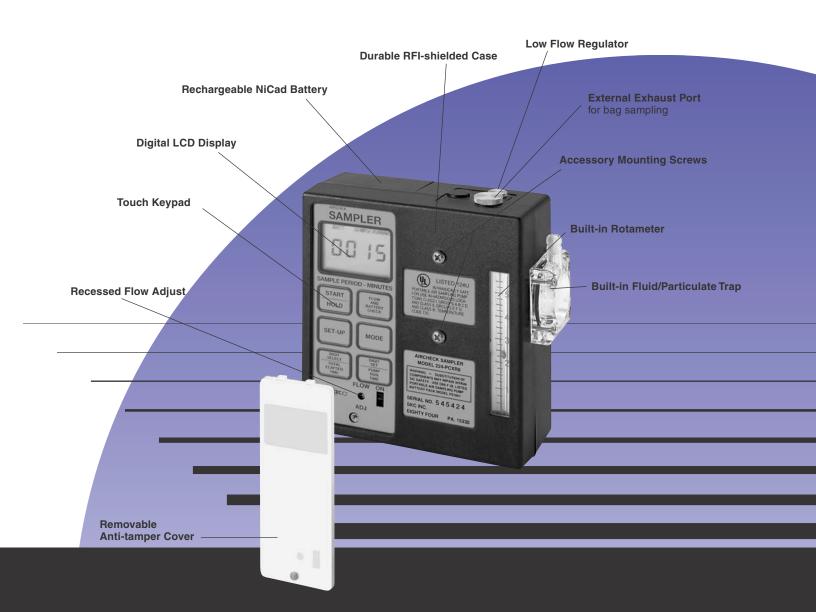
- Total elapsed time (including time delay)
- Pump run time
- Programming parameters











Performance Profile — PCXR8

Operating Range: 5 to 5000 ml/min

(5 to 500 ml/min requires adjustable low flow holder)

5 to 3000 ml/min (MSHA approved model)

Weight: 34 ounces (964 grams)

Dimensions: 5.1 x 4.7 x 1.9 inches, (13 x 11.9 x 4.8 cm)

Compensation Range: 1000 to 2500 ml/min at 40 inches water back pressure

3000 ml/min at 35 inches water back pressure 4000 ml/min at 20 inches water back pressure

Flow Control: Constant flow to $\pm 5\%$ of set point

Run Time: 8 hours minimum at 4000 ml/min and 20 inches water

back pressure. Dependent on media used.

Flow Indicator: Built-in rotameter with 250 ml division;

scale marked at 1, 2, 3, 4, and 5 L/min

Battery Assembly: Plug-in battery pack, rechargeable NiCad

2.0 Ah, 6.0 V, UL Listed

Groups E, F, G; and Class III. Temp Code T3C MSHA and ATEX approved models available.

Contact SKC.

Operating Temp: -4 to 113 F (-20 to 45 C)

Storage Temp: -40 to 113 F (-40 to 45 C)

Charging Temp: 41 to 113 F (5 to 45 C)

Humidity: 0 to 95% Relative

Flow Fault: Fault shutdown with LCD indicator and time display

retention if flow is restricted.

Battery Test: LCD Indicator verifies battery condition prior to

sampling.

Time Display: LCD Indicator displays time in minutes for sampling

period elapsed time, pump run time, or total elapsed

time including delayed start time.

Delay On: Allows user to select minutes to delay start of test up to

9999 minutes (7 days).

Timed Shutdown: Allows user to select minutes of operation before

automatic shutdown.

Timing Accuracy: $\pm 0.05\%$ (± 45 sec/day)

Intermittent Sampling: User-programmable to extend short-term samples over

an extended period of time to meet time-weighted average (TWA) requirements with a reduced number of samples. Elapsed time maximum is 9999 minutes (7

days).

Sampling Pause: Allows user to temporarily halt sampling without loss of

timing or programming data. Restart does not require

resetting time.

Multiple Sampling: Built-in constant pressure regulator allows user to take

up to four simultaneous tube samples at different flow rates up to 500 ml/min each (total combined flow 1350 ml/min maximum) using optional adjustable low flow

holder.

RFI Shielding Performance:

Complies with requirements of EN 55022, FCC Part 15

Class B, EN 50082-1

Frequency range of the radiated susceptibility test was

27 MHz to 1000 MHz.

• < ∈ marked

Additional Specs: • Built-in fluid/particulate trap

• External see-through filter housing

• Anti-tamper compensation adjustments

Built-in accessory mount
Stainless steel belt clip

External exhaust port
All non-plastic parts made of corrosion-resistant materials

• RFI- and EMI-shielded case

Additional Features: • One-year warranty

Ultra-quiet operation

Pulsation-free flowImpact-resistant case

Ordering Information

PCXR8 Pump only (without charger) Cat. No. 224-PCXR8

Single PCXR8 Pump Kit, deluxe

Includes sample pump with battery pack, single deluxe battery charger, low flow holder attached to type A protective tube cover, filter cassette holder, screwdriver set, and instruction manual in a convenient carry case.

5-pack PCXR8 Pump Kit, deluxe

Includes 5 sample pumps with battery packs, 5 low flow holders attached to type A protective tube covers, 5 filter cassette holders, 5 screwdriver sets, 5 instruction manuals, and one 5-station battery charger (100-240 V) in a large convenient carry case. The case is suitable for baggage check or shipping via airlines and has room for additional accessories or supplies.

100-240 V Cat. No. 224-PCXR8K5D

MSHA and ATEX models available. Contact SKC.

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