

PCXR4

The Premier Personal Sample Pump



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Personal or Area Sampling

The result of extensive research and development, the PCXR4 is a constant flow air sampler suited for a broad range of applications. With an operating range of 1000 to 5000 ml/min (low flow applications of 5 to 500 ml/min require an optional adjustable low flow holder), this battery-operated sampler is ideal for industrial hygiene studies as well as environmental testing. Specifically designed for *on-worker* and *fenceline* applications, the PCXR4 is typically used with collecting devices such as filters, impingers, sorbent tubes, and sample bags.

- Multiple-tube sampling capability
- Compensation with high back pressure
- Ultra-quiet operation
- Wide range of flow rates
- Energy efficient
- Durable construction

The Indispensable Air Sampler

Highly accurate, yet easy to operate, the versatile PCXR4 Air Sampler is suited for industrial hygiene studies as well as environmental testing. Specifically designed for *on-worker* and *fenceline* applications, this sampler is typically used for TWA, STEL, or Ceiling sampling using:

- Sorbent tubes
- Sample bags
- Long-duration detector tubes
- Impingers
- Filters and cyclones

Powerful Pneumatic System

With its broad flow range, the powerful PCXR4 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 flowmeter to monitor pump flow
- Pressure regulator for low flow sampling
- Filter assembly to prevent clogging of the pump

Long-life NiCad Battery Pack

The NiCad battery pack provides a minimum 8-hour continuous run time. The battery charge test ensures the pump runs the entire shift.

High-accuracy Timer

Using a precision timing circuit, the PCXR4 provides an instant readout of the duration of sampling. A convenient Hold feature allows a pause in sampling; one stroke of the keypad allows the user to resume sampling.

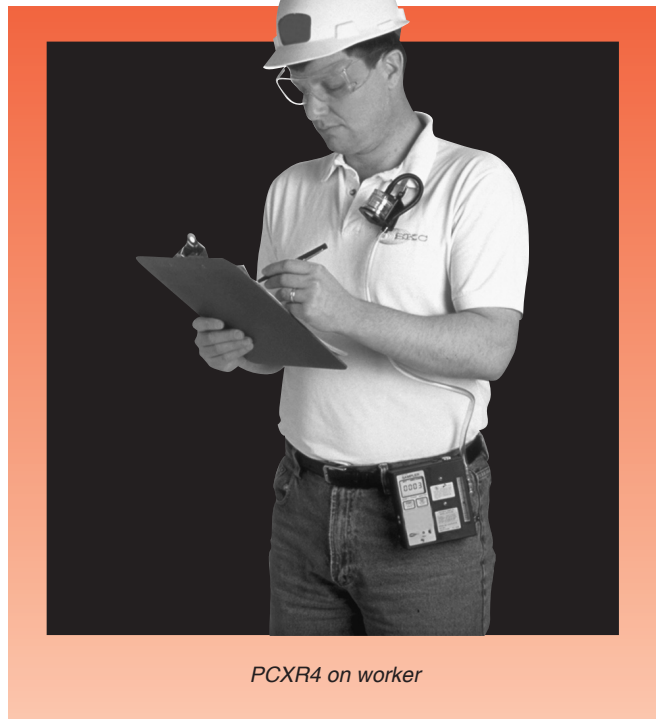
- Testing possible up to 12 hours
- Timing accuracy $\pm 0.05\%$
- Large, easy-to-read LCD

Back Pressure Compensation

The PCXR4 is factory-preset to compensate for back pressures to 40 inches 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. There is no sacrifice air volume accuracy, even in dusty environments.

Multiple-tube Sampling Capability

The PCXR4 built-in constant pressure regulator allows you to take up to four simultaneous samples with rates up to 500 ml/min each using an optional adjustable low flow holder (not included). Reduce time in the field and use fewer pumps with multiple-tube sampling.



PCXR4 on worker

Automatic Fault Shutdown

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

- Excessive 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 High Standard of Safety

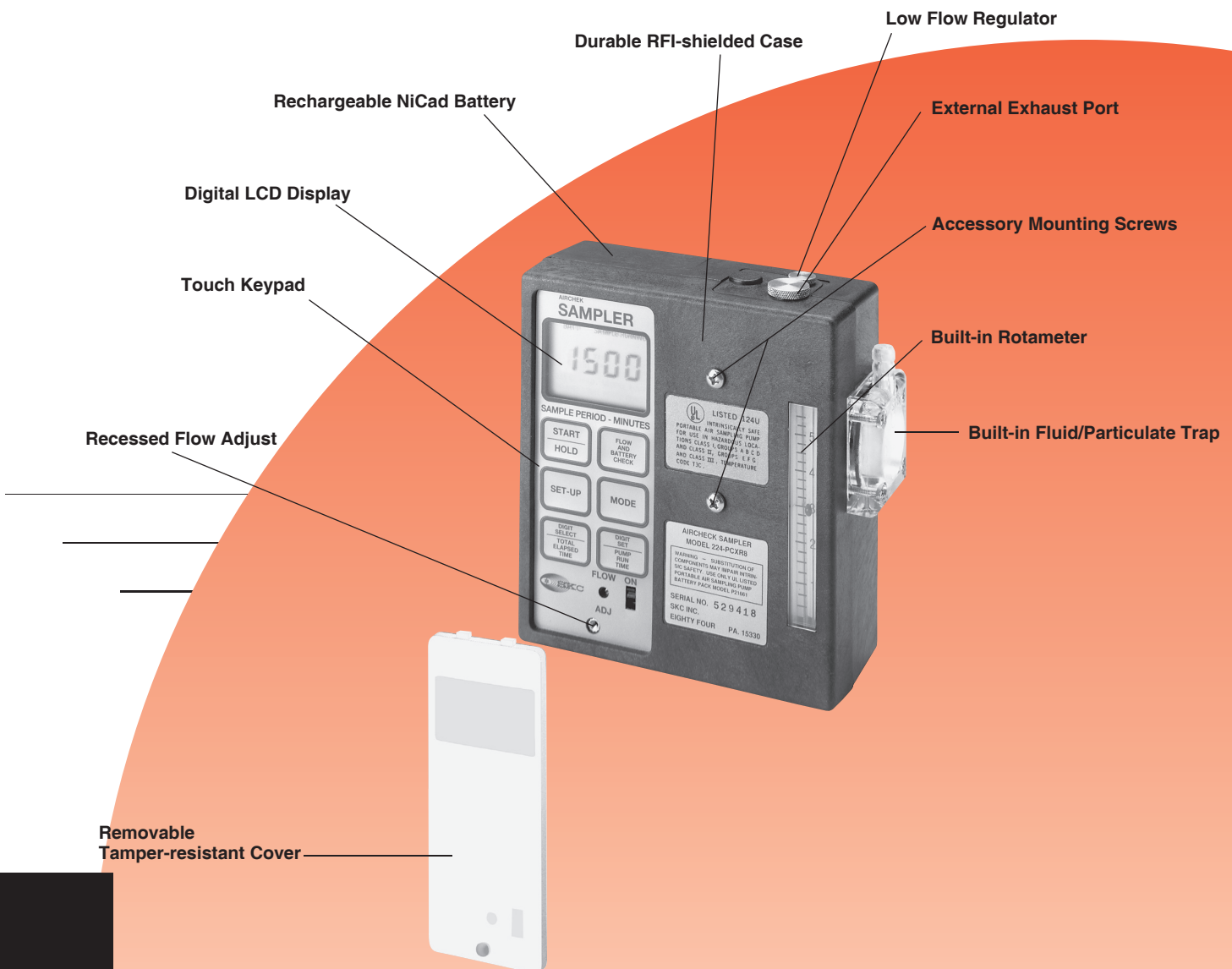
Intrinsically safe, the PCXR4 is UL Listed for explosive gas and dust atmospheres of Class I, Division 1 and 2, Groups A, B, C, D; Class II, Division 1 and 2, Groups E, F, G; and Class III, Temperature Code T3C. MSHA and ATEX-approved models are available. Contact SKC.

RFI and EMI Shielding


PCXR4 case material and unique circuitry are designed to provide shielding from radio frequency 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.

A Variety of Ordering Options

The PCXR4 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 a protective nylon carrying pouch with shoulder strap and belt. *Note: Kits do not contain all the accessories listed here.* Contact your SKC regional sales representative for complete ordering information.



Specifications — PCXR4

<p>Operating Range: 1000 to 5000 ml/min (5 to 500 ml/min requires adjustable low flow holder) 5 to 3000 ml/min (MSHA-approved model)</p> <p>Weight: 34 oz (964 gm)</p> <p>Dimensions: 5.1 x 4.7 x 1.9 in (13 x 11.9 x 4.9 cm)</p> <p>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 5000 ml/min at 10 inches water back pressure</p> <p>Flow Control: Constant flow to $\pm 5\%$ of set point</p> <p>Run Time: Battery: 8 hrs minimum at 4000 ml/min and 20 in water back pressure; <i>dependent on media used</i> Mains Adapter: 9999 minutes (6.8 days). Pump will shut off as run time cannot exceed timer display range (see <i>Timer Display Range</i> below).</p> <p>Flow Indicator: Built-in rotameter with 250-ml division; scale marked at 1, 2, 3, 4, and 5 L/min</p> <p>Timer Display Range: 1 to 9999 min (6.8 days). Pump will shut off at 9999 minutes. To reset, restart the pump.</p> <p>Battery Assembly: Plug-in battery pack, rechargeable NiCad 2.0 Ah, 6.0 V, UL Listed</p> <p>Intrinsic Safety:  LISTED for Class I, Division 1 and 2, Groups A, B, C, D; Class II, Division 1 and 2, Groups E, F, G; and Class III, Temperature Code T3C. MSHA and ATEX models available. Contact SKC.</p> <p>Operating Temp: -4 to 113 F (-20 to 45 C)</p> <p>Storage Temp: -40 to 113 F (-40 to 45 C)</p> <p>Charging Temp: 41 to 113 F (5 to 45 C)</p> <p>Operating Humidity: 0 to 95% Relative</p>	<p>Flow and Low Battery Fault: Fault shutdown on excessive back pressure or low battery with LCD indicator and time display retention</p> <p>Battery Test: LCD indicator verifies battery condition prior to sampling</p> <p>Time Display: LCD indicator displays sampler run time in minutes</p> <p>Timing Accuracy: $\pm 0.05\%$ (± 45 sec/day)</p> <p>Sampling Pause: Allows user to temporarily halt sampling without loss of timing data. Restart does not require resetting time.</p> <p>Multiple-tube Sampling: Built-in constant pressure regulator allows user to take up to four simultaneous samples with flow rates of up to 500 ml/min each (total combined flow 1350 ml/min maximum) using optional adjustable low flow holder.</p> <p>RFI Shielding:</p> <ul style="list-style-type: none"> • 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 • $\text{C} \leq$ marked <p>Additional Specifications:</p> <ul style="list-style-type: none"> • Built-in fluid/particulate trap • External see-through filter housing • Tamper-resistant control cover • Tamper-resistant 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 <p>Additional Features:</p> <ul style="list-style-type: none"> • One-year warranty • Ultra-quiet operation • Pulsation-free flow • Impact-resistant case
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Ordering Information

PCXR4 Pump only (without charger).....Cat. No. 224-PCXR4

Single PCXR4 Pump Kit, High/Low Flow

Includes sample pump with battery pack, single PowerFlex charger with cable, adjustable low flow holder, Type A tube cover, filter cassette holder, and screwdriver set in a convenient soft-side nylon case*

120 VCat. No. 224-PCXR4KD

100-240 VCat. No. 224-PCXR4KDB

* Single kits also available in hard-sided Pelican case; contact SKC

5-pack PCXR4 Pump Kit, High/Low Flow

Includes 5 sample pumps with battery packs, 5 adjustable low flow holders, 5 Type A tube covers, 5 filter cassette holders, 5 screwdriver sets, and one 5-station PowerFlex charger with cables in a Pelican carry case

100-240 VCat. No. 224-PCXR4K5D

MSHA and ATEX models available; contact SKC

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International Sales

Contact SKC International Customer Service at 724-941-9701 in Eighty Four, PA, USA, for the name of local distributors or assistance with direct shipments.

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