The SidePAK AM510 Personal Aerosol Monitor for industrial hygiene and safety professionals displays and data logs aerosol concentration in real time. The rugged, belt-mountable laser photometer is compact and quiet, minimizing interference and worker discomfort. The built-in sampling pump lets you attach a wide variety of size-selective aerosol inlet conditioners for breathing zone or area measurements with a respirable cyclone or one of the three integrated impactors.

The SidePAK monitor incorporates TSI’s Smart Battery Management System. This system utilizes a built-in “gas gauge” in the battery packs to monitor battery condition and provide precise run time information.

The SidePAK monitor’s easy-to-read display shows your data as both real-time aerosol mass-concentration and 8-hour time-weighted average (TWA). The monitor’s intrinsic safety rating makes it ideal for hazardous/explosive environments. With its convenient data logging and long battery life, the SidePAK is also ideal for extended sampling. The easy-to-use TRAKPRO™ Data Analysis Software lets you create effective graphs and reports.

User Friendly
- Small, lightweight and quiet to maximize worker acceptance
- Rugged design with secure belt clip
- Easy-to-understand user interface with only four keys
- Lockable keypad prevents tampering while sampling
- User-adjustable sample flow rate
- Define, label and store multiple calibration constants
- Easy-to-read LCD display
- Convenient, threaded tripod socket accommodates area sampling

Advanced Features
- Smart Battery Management System provides precise run time information, maximizes battery capacity and speeds charging
- Integrated pump allows use of size-selective aerosol inlet conditioners
- Built-in impactors let you choose “none,” 1.0, 2.5 or 10-micron cut off
- Display shows real-time concentrations (mg/m³) and “on-the-fly” TWA as you data log
- Display statistics: max, min and average readings, elapsed time and 8-hour TWA

Quick and Easy Reports
- Convenient preprogramming for occupational exposure sampling
- Data log for long periods and store multiple tests
- Analyze data, print graphs and create reports with TRAKPRO software
- USB port lets you conveniently connect to your computer

Power to Spare
- Long-lasting NiMH rechargeable battery packs eliminate “memory” issues
- Choice of rechargeable NiMH smart battery packs or AA-cell pack
Specifications

SidePak AM510 Personal Aerosol Monitor

Sensitivity
Sensor Type: 90° light scattering, 670 nm laser diode
Aerosol Concentration Range: 0.001 to 20 mg/m³ (calibrated to respirable fraction of ISO 12103-1, A1 test dust)
Particle Size Range: 0.1 to 10 micrometer (µm)
Minimum Resolution: 0.001 mg/m³
Zero stability: ±0.001 mg/m³ over 24 hours using 10-second time-constant
Temperature Coefficient: Approximately +0.0005 mg/m³ per °C (for variations from temperature at which instrument was last zeroed)

Flow Rate Range: User-adjustable, 0.7 to 1.8 liters/min (lpm)

Temperature Range
Operating Range: 0 to 50°C (32 to 120°F)
Storage Range: -20 to 60°C (-4 to 140°F)

Time Constant (LCD display) Range: User-adjustable, 1 to 60 seconds

Data Logging
Data Points: Approx. 31,000
Logging Interval: User-adjustable, 1 second to 1 hour

User-Select Calibration Factors
Factory Setting: 1.0 (non-adjustable)
User-defined Settings: 3, with user-defined labels
Range: 0.1 to 10.0, user-adjustable

Physical
External Dimensions: 106 mm × 92 mm × 70 mm (4.2 in. × 3.7 in. × 2.8 in.)
Dimensions: with 801723, 801724 or 801729 batteries
130 mm × 92 mm × 70 mm (5.1 in. × 3.7 in. × 2.8 in.)
with 801708, 801722, 801728 or 801736 batteries
Weight: 0.46 kg (16 oz) with 801723, 801724 or 801729 batteries
0.54 kg (19 oz) with 801708, 801722, 801728 or 801736 batteries
Display: 2 line × 12 character LCD
Tripod Socket: 1/4–20 female thread

Power Supply/Charger (P/N 2613210)
Input Voltage Range: 100 to 240 VAC, 50 to 60 Hz
Output Voltage: 9 VDC @ 1.0 A

Specifications are subject to change without notice.
Windows is a registered trademark of Microsoft Corporation. Energizer is a registered trademark of Eveready Battery Company, Inc.

Battery Performance

<table>
<thead>
<tr>
<th>Battery Options</th>
<th>Charge Time* (hrs)</th>
<th>Safety Rating</th>
<th>Run Time (hrs @ 0.7 lpm)</th>
<th>Run Time (hrs @ 1.7 lpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600 mAH NiMH Pack, 4.8 V (P/N 801723)</td>
<td>TBD</td>
<td>ATEX**</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>1650 mAH NiMH Pack, 4.8 V (P/N 801724 or 801729)</td>
<td>3.5</td>
<td>CSA**</td>
<td>11.5</td>
<td>9.2</td>
</tr>
<tr>
<td>2700 mAH NiMH Pack, 4.8 V (P/N 801722 or 801728)</td>
<td>5.5</td>
<td>CSA**</td>
<td>19.8</td>
<td>15.6</td>
</tr>
<tr>
<td>6-cell AA-size Alkaline Pack***, (P/N 801708, 801736 with six user-supplied AA cells)</td>
<td>NA</td>
<td>NA</td>
<td>29.6</td>
<td>22.5</td>
</tr>
</tbody>
</table>

* Of a fully depleted battery
** All dust plugs and gaskets must be installed.
*** Using Energizer® AA-size, E91 alkaline batteries.

Communications Interface
Type: USB 1.1
Connector, Instrument: USB Mini-B (socket)

Minimum Computer Requirements for TrakPro Software
Communications Port: Universal Serial Bus (USB) v1.1 or higher
Operating System: Microsoft Windows® 98, Me, 2000, XP (USB not supported in Windows 95 or NT)

Approvals
Intrinsic Safety Rating Information:
- CSA:
- TSI Battery Pack P/Ns: 801722, 801724, 801728 or 801729 INTRINSICALLY SAFE CSA Exia
- Class I Groups A, B, C, D T2A with 801724 or 801729
- T2C with 801722 or 801728
- Class II Groups E, F, G
- Class III
- File: 200507
- TSI Battery Pack P/Ns: 801708 and 801736 NOT INTRINSICALLY SAFE

Contact TSI or visit www.tsi.com for information on specific office locations worldwide.

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