

TECHNICAL NOTE

SKC AirChek Essential Sample Pumps

Certification markings, intrinsic-safety warnings, battery cautions and battery replacement for the SKC AirChek Essential and AirChek Essential+ sample pumps, models 220-3000 and 220-3100.

AMTC-TN-0005

About this note

The SKC AirChek Essential and AirChek Essential+ sample pumps, models 220-3000 and 220-3100, are certified for use in hazardous locations. This note lists what that certification depends on: the markings on the pump label, the warnings that keep the pump intrinsically safe, the limits of its battery pack, and how to change the battery pack correctly.

Read Safety cautions (p. 4) before you charge the pump or take it into a hazardous area for the first time, and keep this note with the pump. Setting up, flow calibration and sampling are covered in the operating instructions of the pump.

How this note marks information

WARNING

A hazardous situation which, if not avoided, could result in death or serious injury.

Note

Information that helps understanding; never a hazard.

Document information

Title	SKC AirChek Essential Sample Pumps — Technical note
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Manufacturer	SKC Inc.

Revision history

Rev.	Date	Change
2	October 2026	Quality programme: new document type, number and identity pages.
1	October 2026	First issue.

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CHAPTER 1

Safety cautions

The models 220-3000 and 220-3100 are intrinsically safe air sampling pumps. Their rating applies only to the pump as approved: fitted with an approved SKC battery pack, charged in an approved SKC charging cradle, and with no parts substituted. Read every notice below before you charge the pump or use it in a hazardous area; ignoring them can cause injury.

Markings on the pump label

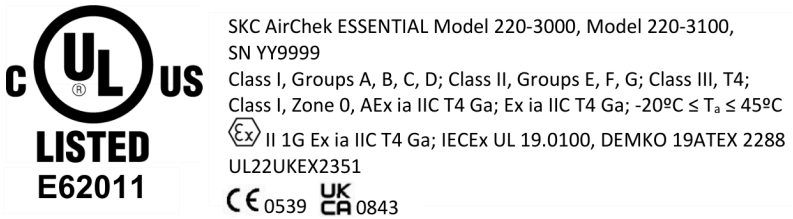


Figure 1-1. Markings block of the rating label, as printed on the pump.

Model	SKC AirChek Essential 220-3000 or 220-3100, with its serial number
North American listing	cULus Listed, file E62011
Classes and divisions	Class I, Groups A, B, C, D; Class II, Groups E, F, G; Class III; temperature class T4
Zones	Class I, Zone 0, AEx ia IIC T4 Ga; Ex ia IIC T4 Ga
Ambient temperature	−20 °C ≤ T_a ≤ 45 °C
ATEX and IECEx	Ex mark, II 1G Ex ia IIC T4 Ga
Certificates	IECEx UL 19.0100; DEMKO 19ATEX 2288; UL22UKEX2351
Conformity marks	CE 0539; UKCA 0843

Warnings

⚠ WARNING

Charging the pump, or removing or fitting its battery pack, where the atmosphere may be explosive can ignite that atmosphere. This can cause an explosion. Charge the pump and change its battery pack only in a non-hazardous area.

⚠ WARNING

The charging cradles are not covered by the intrinsic-safety certification. A cradle in a hazardous area can ignite an explosive atmosphere. Charge the pump only in an SKC charging cradle 220-900, 220-800 or 220-850, and keep the cradles in the non-hazardous area. For intrinsic safety, the charge input voltage must not exceed U_m = 12 V.

⚠ WARNING

A part replaced by one that is not approved can impair the intrinsic safety of the pump. In a hazardous location, the pump can then ignite an explosive atmosphere. Replace parts only with approved parts.

Battery cautions

WARNING

Any battery other than the SKC Unlisted Component Battery Pack, model P75718 or P75718A, can catch fire or explode. These packs were evaluated as components of the pump and carry no listing of their own. Replace the battery only with battery pack P75718 or P75718A.

WARNING

The battery can catch fire or explode if it is heated above 100 °C (212 °F) or burned. Keep the battery away from temperatures above 100 °C (212 °F), and never put it in a fire.

WARNING

Charging limits of the battery pack. The battery packs were evaluated for a maximum charging voltage of 8.4 V DC and a maximum charging current of 1 A. Charging outside these limits can cause a fire or an explosion. Never exceed these limits.

CHAPTER 2

Battery replacement

Replace the battery pack

WARNING

Changing the battery pack where the atmosphere may be explosive can ignite that atmosphere. This can cause an explosion. Change the battery pack only in a non-hazardous area, and fit only an approved pack, P75718 or P75718A. Read the Safety cautions (p. 4) first.

Note

Disconnect tubing and sample media. Nothing may be connected to the pump inlet while you change the battery pack. When the pack goes back on, the pump sets the zero point of its flow sensor.

You need a 2.5 mm hex key or hex driver.

1. Switch the pump off with the on/off button.
2. Remove any tubing and sample media from the pump.
3. Loosen the two screws on the bottom of the battery pack.
4. Pull the battery pack away from the pump case.
5. To fit a pack, line it up with the bottom of the pump case and press the two parts together until they sit snug. Tighten the two battery screws.
6. The screen now counts down 20 seconds while the pump sets the zero point of the flow sensor. Leave the inlet free until the countdown has finished.

CHAPTER 3

Ordering information

Order from Analyt-MTC with the order codes.

Service and spare parts

Contact Analyt-MTC for service, calibration, repair, returns, spare parts and technical support for your SKC AirChek Essential pump; warranty matters follow Analyt-MTC's terms of sale. Have the model and serial number from the pump label ready. Analyt-MTC's contact details are in Contacts (p. 8) and on the back cover.

Other battery packs or charging cradles impair the intrinsic safety of the pump (see Safety cautions (p. 4)).

Table 3-1. Approved power parts

Approved part	Order code
Battery pack, Li-ion	P75718 or P75718A
Charging cradle (one of)	220-800, 220-850 or 220-900

For any other version, contact Analyt-MTC.

CHAPTER 4

Contacts

Contact and support

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Before you call

Have the following at hand so Analyt-MTC can help you quickly:

- the model and serial number from the pump label;
- the part number of the battery pack and the charging cradle you use;
- what you were doing, and any fault icon on the screen.

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