
The first fully functional particle counter approved for use on aviation fuel. After 5 years of development work carried out by Parker UK and partner, the ACM20 has passed all technical barriers and is now approved for aviation fuel quality per DEFSTAN 91-91 Issue 6.

Parker has consistently provided technically superior products to all fluid conditioning applications.

Product Features

- Energy Institute Test Method IP 564.
- 2-minute test procedure.
- Laser optical scanning analysis.
- Multi-standard ISO cleanliness reporting.
- Case-mounted pump enables monitoring possibilities. For example: Fuel storage/vehicle tanks and fuel storage drums.
- Latest averaging software as standard.
- ParSmart Downloader software.
The Parker icountACM20 Portable Particle Counter has been developed from existing technology for monitoring contamination in Aviation Turbine and other hydrocarbon fuels, in accordance with the Energy Institute (EI) Method IP 564.

In addition, the ACM can also be used to monitor various fuels from existing sampling points in locations from refineries, pipelines, distribution terminals, airport fuel supply systems all the way through to the point of uplift into aircraft*.

* Hot works permit required for online sampling (ATEX Zone II unit available).

- **Fuel Testing Laboratories – DEFSTAN 91-91 Issue 6**
  
  In order to better understand dispersed contamination in jet fuel, particle counting is now included alongside existing laboratory techniques.

- **Bottle Sampling - Energy Institute (EI) - IP 564**
  
  Laboratory determination of the level of dispersed contamination in aviation fuel using an Automatic Particle Counter (APC).

- **Replace Clear & Bright and Gravimetric**
  
  With the introduction of the icount ACM20, all subjectivity surrounding Clear & Bright and Gravimetric methods can be removed.

- **Also for use on petroleum based hydraulic applications (Skydrol compatible available)**
  
  Suitable for use with mineral oil and petroleum based fluid as per standard hydraulic particle counter, reporting fluid cleanliness to ISO 4406:1999.
icountACM20 Lab Unit

Specifications

Construction:
ABS structural foam and injection moulded case
Hand-held display - ABS
Keypad fluorosilicone rubber

Mechanical Components:
Brass, plated steel, stainless steel and aluminium

Seals:
Fluorocarbon

Hoses:
Nylon (Kevlar braided microbore). St. steel armoured ends

Flow Rate:
25 - 28ml/min (dictated by CMP) 100ml/min with additional flush button

Fluid Compatatability:
Hydrocarbon Fuel, Mineral Oil. For other fluids consult Parker

Fuse:
1.25 amp fast blow fuse included for overload protection (spare supplied)

icountACM20 Technology:
Patented flow cell, light obscuration

Repeatability/Accuracy:
As per or better than ISO 11171

Coincidence:
40,000 particles per ml

Viscosity Range:
1 -100 centistokes

icountACM20 Weight:
17.6 lbs.

Monitor Carrying Case:
Astra Board case

Carrying Case Weight:
11 lbs.

Input Power Socket (note that you will have to remove the plastic dust cap to access the 12Vdc power socket).
A fast blow 1.25A fuse and the RS232 connection are located behind the removable cover plate. The RS232 interface is provided to download all test data stored in the instrument. See the ParSmart Downloader software for more information.

Ordering Information

Standard products table - icount ACM20

<table>
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icountACM20Z
ATEX Approved Portable Particle Counter

For use in explosive and hazardous areas

icountACM20Z is designed to be used to monitor various fuels from existing sampling points in hazardous locations such as refineries, pipelines, distribution terminals, airport fuel supply systems all the way through to the point of uplift into aircraft.

Product Features:

- Assembled in an approved and certified stainless steel enclosure to comply with ATEX Directive 94/9/EC.
- Can be used in explosive and hazardous areas, including offshore and mining applications.
- ATEX Zone II
- Certified to CE Ex II 3 G Ex nR/nL IIC T6
- “A” Class product defined for the Aviation market.
- ATEX approved Handset and keypad.
- Suitable for use with mineral oil and petroleum based fluid as per ACM20/LCM20 particle counters.
icountACM20Z
Specifications

Construction:
Unit: Stainless Steel
Carrying case: ABS
Hand-held display: ABS
Keypad: polyester membrane
Mechanical components: Brass, plated steel, stainless steel and aluminium
Seals: Fluorocarbon
Hoses: Nylon (Kevlar braided microbore)
Fluid compatibility: All fuels. For other fluids consult Parker
Internal rechargeable battery: Note: ONLY to be charged outside of the hazardous area, with the unit switched off
Fuse: 1.25A fast blow fuse included for overload protection
Return to Parker Hannifin if fuse is blown
icountACM202032 technology: Unique optical scanning system

Applications in Fuels

- **Oil Refinery**
  - To count and verify the levels of dispersed contamination in accordance with specification limits. (Consult Parker).

- **Distribution Terminals/Hubs**
  - For use on receipt and outbound supply. Also to provide filtration performance, tank cleanliness and product quality checks.

- **Storage**
  - Settling times can be reduced by monitoring with the ACM by ensuring that levels of dispersed contamination are below acceptable levels.

- **Airport Fuel Farm**
  - Monitoring of fuels into storage, through the fuel farm, hydrant system and during uplift into wing.

- **Pipeline Commissioning**
  - Fast real time monitoring of pipelines following pigging and cleaning processes.

- **Oil and Gas Platforms**
  - Used to monitor the filtration performance, system cleanliness and quality of delivered product.
icountACM20Z
ATEX Approved Portable Particle Counter

Installation Details

Dimensions in inch (mm):
- Width: 11.8 (300mm)
- Height: 11.0 (280mm)
- Depth: 13.0 (330mm)

Online Commission Kit

a – icountACM20 Zone II Particle Counter
b – Battery Charger
c – Process Cable
d – User Manual
e – Downloader Software
f – Throttle Kit
g – Millipore Adaptor Assembly
h – Aluminium Case
i – Bottle Assembly