

MPC-900-DP

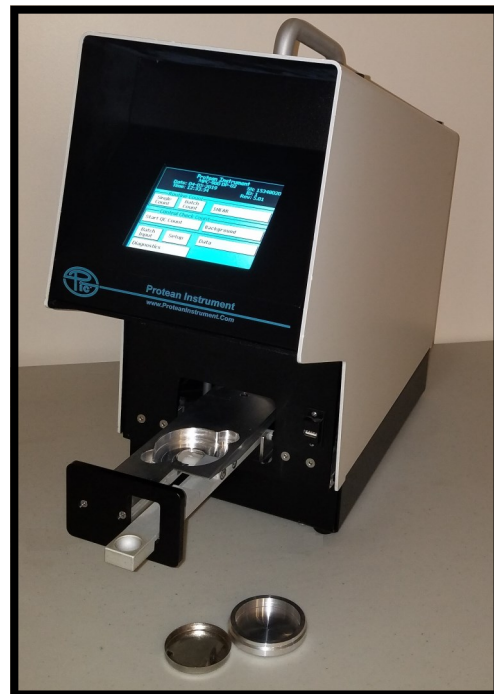


Overview

The MPC-900-DP is a convenient and versatile “benchtop” counter equipped with a dual phosphor scintillator type detector that supports gasless operation and easy portability. Cosmic background radiation reduction is possible with the optional Anti-Coincidence Guard Detector. DUO Express software allows for easy system programming, data management, and control chart maintenance. Multiple instruments can be connected for user convenience. This sample counter is ideal for standard Health Physics applications such as smears and air filters.

Features

- ⇒ Manual Single Sample Gross Counter
- ⇒ Dual Phosphor Scintillator Detector
- ⇒ Touch Screen Interface
- ⇒ Lightweight Portability
- ⇒ 2 in. (5.1 cm) Standard Planchet Diameter
- ⇒ Radon Compensation for Air Filters
- ⇒ Optional Anti-Coincidence Scintillation Guard Detector
- ⇒ Optional Lead Shielding to Reduce Background Levels



Protean Instrument

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MPC-900-DP

Optimized for Lower Energy Betas

Typical Efficiency				
Source	Top	1/8" Bottom	1/4" Bottom	5/16" Bottom
Pu-239	41%	34%	27%	24%
SrY-90	53%	46%	39%	37%
Tc-99	34%	28%	24%	22%

Background				
Condition	Warranted (cpm)		Typical (cpm)	
	Alpha	Beta	Alpha	Beta
With Lead & Guard	<0.2	<25	0.05	20
With Guard No Lead	<0.2	<30	0.06	27
With Lead No Guard	<0.2	<55	0.09	43
No Guard No Lead	<0.2	<65	0.08	49

Instrument Specifications	
Category	Specifications
Sample Size	2 Inch Diameter (5.1 cm)
Capacity	1
Depth	1/8, 1/4, or 5/16 Inch
Data Export	USB Flash Drive, USB PIC Link
Interface	Touch Screen
Count Modes	Alpha Only, Alpha/Beta Simultaneously
Power	110-240 Vac, 50-60 Hz Input
Window	Aluminized, 80 µg/cm ²
Operating Temp	10°C to 40°C (50°F to 104°F)

Instrument Specifications	
Dimension	Size
Height*	20.25 Inches
Width	9 Inches
Depth	16 Inches
Weight	40 lb
Guard Weight	7 lb
Shield Weight	50 lb

- Efficiency determined using 2 inch NIST traceable distributed source.
- Environmental background reads 8 µR/hr.
- Provided sample carrier size can be altered at time of order.
- All specifications are subject to change without notice.
- ROHS compliant (lead by exemption)
- Alpha then Beta count mode available with Simplicity software.
- Optimization performed by adjusting instrument voltage.

Optimized for Higher Energy Betas

Typical Efficiency				
Source	Top	1/8" Bottom	1/4" Bottom	5/16" Bottom
Pu-239	40%	33%	27%	24%
SrY-90	50%	43%	37%	35%
Tc-99	27%	22%	19%	17%

Background				
Condition	Warranted (cpm)		Typical (cpm)	
	Alpha	Beta	Alpha	Beta
With Lead & Guard	<0.2	<25	0.05	15
With Guard No Lead	<0.2	<30	0.05	19
With Lead No Guard	<0.2	<55	0.05	34
No Guard No Lead	<0.2	<65	0.05	39

Instrument Options	
Option	Order Part Number
1/8 Inch Planchet	700-0007
1/4 Inch Planchet	700-0008
5/16 Inch Planchet	700-0009
2 Inch X 1/8 Inch Sample Carrier	140-0278-1/8
2 Inch X 1/4 Inch Sample Carrier	140-0278-1/4
2 Inch X 5/16 Inch Sample Carrier	140-0278-5/16
Centering Ring	140-0045
Lead Ring	120-0010-DP
Guard Detector Assembly	120-0084
Extended Warranty	108-0001
Service Contract	Service Contract
Installation	Install
Computer System	Computer
Simplicity Software Package	Simplicity

Accessories Supplied	
Accessory	Quantity
PIC Link Cable	1
5/16 Inch Sample Carrier	2

*Guard detector option adds approx. 2.5 inches in height.