ORTEC®

AMETEK®

Alpha/Beta Counting

Ultra High Performance Alpha/Beta Counting Systems for Maximum Laboratory Productivity



Alpha/Beta Counting

ORTEC offers an extensive suite of **AUTOMATIC** alpha/beta counters incorporating either gas-flow proportional detector or dual-phosphor scintillation detector technologies. These automatic systems are ideally suited for applications requiring **relatively short counting times for a large number of samples**. For unattended operation, recommended counting times range from one to two minutes for smears and air filters, and from 30 to 60 minutes for environmental and radiochemistry samples.

The following Application Guide can be used to select the optimal Automatic system for your specific market application as well as provide information regarding key features for each model.

	Recommended Applications				Model Features			
Automatic Systems	**HP**	**SC**	**CL**	**NP+**	**GL**	**LB**	**ULB**	**GC**
ORT-ASC-950-DP-G	✓			✓	✓			✓
ORT-WPC-1050-GFW-2	✓	✓	✓	✓			✓	
ORT-WPC-1150-GFW-3, -5	✓	✓	✓	✓		✓		
Application Key **HP** = Health Physics; **SC** = Smear Counting; **CL** = General Counting Labs; **NP+** = Nuclear Power, Fuel Cycle, Decommissioning and Disposal								

Features Key

GL – Gasless Systems
These systems do not require any connection to P-10 counting gas. They operate totally independent of any external supply other than power, making them more portable than other counting systems.

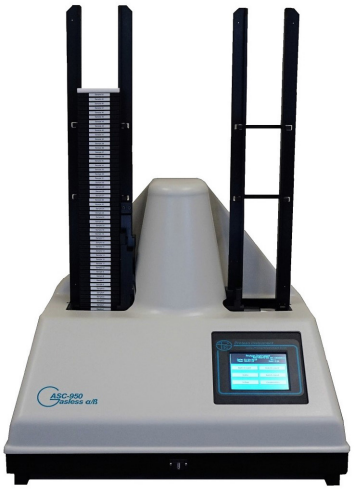
LB – Low Background Systems
These systems offer great performance delivering beta backgrounds less than 2 CPM and alpha less than ½ CPM. The larger size detectors are the major contributors for the higher backgrounds.

ULB – Ultra-Low Background Systems
Ultra-low level alpha/beta counting systems usually refer to those with beta background counts in the 1–2 CPM or lower range for systems with a two inch detector. All two inch ultra-low level systems have total background performance of 1.0 CPM or better.

GC – Gross Counting Systems
The term gross counter has several accepted meanings. In this application, gross alpha/beta counting systems are those that do not have ultra-low level background performance. Specifically, these systems do not have low beta background performance. However, the alpha background of these systems is usually equal to the alpha background of high performance systems. Gross counters are often used for remote locations, and where high beta counting sensitivity is not required.

ORT-ASC-950-DP-G Automatic Sample Changer

- Dual Phosphor Scintillator Detector
- Touch Screen Interface
- Lightweight Portability
- 2 in. (5.1 cm) Standard Planchet Diameter
- Radon Compensation for Air Filters
- Optional Cosmic Guard Detector
- 50 Sample Capacity (Optional 100)
- Gross Alpha/Beta Counter
- Gasless



The ORT-ASC-950-DP-G is a high-speed 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.

Includes 1 ea. PIC Link Cable, 1 each Standard Carrier Set, and 55 ea. 1/8 in Inserts.

Specifications

Optimized for Higher Energy Betas				
Typical Efficiency				
Source	Top	1/8" Bottom	1/4" Bottom	5/16" Bottom
Pu-239	34%	30%	24%	21%
SrY-90	45%	40%	35%	34%
Tc-99	24%	21%	19%	18%
Background				
	Warranted (CPM)		Typical (CPM)	
Condition	Alpha	Beta	Alpha	Beta
With Lead and Guard	<0.2	<25	0.05	12
With Guard, No Lead	<0.2	<30	0.03	15
With Lead, No Guard	<0.2	<55	0.08	35
No Guard or Lead	<0.2	<65	0.06	40

Optimized for Lower Energy Betas				
Typical Efficiency				
Source	Top	1/8" Bottom	1/4" Bottom	5/16" Bottom
Pu-239	35%	30%	24%	22%
SrY-90	47%	41%	36%	35%
Tc-99	26%	24%	20%	19%
Background				
	Warranted (CPM)		Typical (CPM)	
Condition	Alpha	Beta	Alpha	Beta
With Lead and Guard	<0.2	<25	0.05	13
With Guard, No Lead	<0.2	<30	0.05	23
With Lead, No Guard	<0.2	<55	0.05	41
No Guard or Lead	<0.2	<65	0.06	55

Physical	
Sample Detector	2 in. (5.1 cm) diameter, ZnS + plastic dual phosphor
Sample Size	2 in. (5.1 cm) diameter, 1/8, 1/4, 5/16 in. (3.2, 6.3, 7.9 mm) deep
Sample Transport	50 sample automatic changer with barcode reader and sample range 1–999
Data Export	USB Flash Drive, USB PIC Link
Interface	Touch Screen
Count Modes	Alpha Only, Alpha/Beta Simultaneously, Alpha then Beta
Power	110–240 V AC, 50–60 Hz Input
Window	Aluminized, 80 µg/cm^2
Dimensions	50 Sample: 36 in H x 23.5 in W x 23.5 in D (91.4 x 59.7 x 59.7 cm) 100 Sample: 54 in H x 23.5 in W x 23.5 in D (137.2 x 59.7 x 59.7 cm)
Weight	50 Sample: 110 lb (49.9 kg) 100 Sample: 120 lb (54.4 kg)

Options	Model
Cosmic Guard Detector, 5 lb (2.3 kg)	PIC-110-1073
Lead Ring, 50 lb (22.7 kg)	ORT-ASC-950-SHLD
Cart	PIC-ACC-002
100 Sample Option (adds ~18 in. to height and 10 lbs)	ORT-ASC-950-OPT-04
50 Sample Stack, Stand, and Carrier Set	ORT-ASC-950-OPT-05
100 Sample Stack, Stand, and Carrier Set	ORT-ASC-950-OPT-06
Carrier Inserts, 50 ea., 1/8 in.	PIC-140-0305-01
Carrier Inserts, 50 ea., 1/4 in.	PIC-140-0305-02
Planchet, 2 inch x 1/8 inch, set of 100	PIC-700-0007
Planchet, 2 inch x 1/4 inch, set of 100	PIC-700-0008
Planchet, 2 inch x 5/16 inch, set of 100	PIC-700-0009
Health Physics Applications Software	ORT-VISTA FC

Alpha/Beta Counting

ORT-WPC-1050-GFW-2 Automatic Sample Changer

- 2 in. (5.1 cm) Standard Planchet Diameter
- Low Background Counter
- Standard 50 Sample Capacity (Optional 100 Sample)
- Cosmic Guard Detector
- 2.25 in. (5.7 cm) Pancake Gas Flow Detector
- Easy Window Replacement
- Counting Gas Loss Detection
- Radon Compensation for Air Filters
- Touch Screen Interface
- Gas Conservation



The ORT-WPC-1050-GFW-2 is a general purpose, low background counting system, which is widely used for both health physics and radiochemistry applications. The WPC-1050-GFW-2 is an improved design of the previous WPC-9550 that incorporates the same dependable mechanical platform with improvements. 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.

Includes 1 ea. PIC Link Cable, 1 each Standard Carrier Set, and 55 ea. 1/8 in Inserts.

Specifications

Physical	
Sample Detector	2.3 in. (5.7 cm) diameter, pancake style gas flow proportional
Window	Aluminized, 80 µg/cm^2
Guard Detector	1 gas flow proportional
Counting Gas	P-10, 60 cc/min at 10 psi
Gas-PRO	Fail-safe P-10 monitoring system senses breaches in gas flow
Shielding	4 in. (10.2 cm) thick lead
Sample Size	2 in. (5.1 cm) diameter planchets, 1/8, 1/4, 5/16 in. (3.2, 6.3, 7.9 mm) deep
Sample Transport	50 sample automatic changer with barcode reader with sample range 1–999
Count Modes	Alpha only, Alpha/Beta simultaneously, Alpha then Beta
Interface	Touch screen
Data Export	USB PIC link, USB flash drive
Power	110–120 V AC, 50–60 Hz input
Environment	10–40°C (50–104°F)
Dimensions	50 Sample: 33 in H x 32 in W x 25 in D (83.8 x 81.3 x 63.5 cm) 100 Sample: 51 in H x 32 in W x 25 in D (129.5 x 81.3 x 63.5 cm)
Weight	50 Sample: 430 lb (195 kg) 100 Sample: 440 lb (200 kg)

Options	Model
Planchet, 2 inch x 1/8 inch, set of 100	PIC-700-0007
Planchet, 2 inch x 1/4 inch, set of 100	PIC-700-0008
Planchet, 2 inch x 5/16 inch, set of 100	PIC-700-0009
Carrier Inserts, 50 ea., 1/8 in.	PIC-140-0305-01
Carrier Inserts, 50 ea., 1/4 in.	PIC-140-0305-02
Cart	PIC-ACC-02
Expanded 100 Sample Capacity	ORT-WPC-1050-OPT-04
50 Sample Stack, Stand, and Carrier Set	ORT-WPC-1050-OPT-05
100 Sample Stack, Stand, and Carrier Set	ORT-WPC-1050-OPT-06
Radiochemistry Applications Software	ORT-VISTA 2000
Health Physics Applications Software	ORT-VISTA FC

Performance				
Typical Efficiency				
Source	Top	1/8” Bottom	1/4” Bottom	5/16” Bottom
Pu-239	35%	31%	25%	24%
SrY-90	51%	47%	40%	39%
Tc-99	39%	33%	28%	26%
Background				
	Warranted (CPM)		Typical (CPM)	
Condition	Alpha	Beta	Alpha	Beta
With Lead and Guard	<0.1	<0.9	0.05	0.7

Optional Dual Anode Detector				
Source	Typical Efficiency			
Pu-239	38%			
SrY-90	53%			
Tc-99	35%			
Ni-63	15%			
Background				
	Warranted (CPM)		Typical (CPM)	
Condition	Alpha	Beta	Alpha	Beta
With Lead and Guard	<0.1	<1.0	<0.05	<0.7

ORT-WPC-1150-GFW-3 and ORT-WPC-1150-GFW-5 Automatic Sample Changer

- 3.5 in. (8.9 cm) or 5.0 in. (12.7 cm) Diameter Pancake Gas Flow Detector
- Cosmic Guard Detector
- Low Background
- Custom Planchet Sizes Available
- 50 Sample Capacity
- Touch Screen Interface
- Counting Gas Loss Detection



The ORT-WPC-1150-GFW-3 and ORT-WPC-1150-GFW-5 low background automatics are gas-flow proportional counters equipped with either a 3.5 in. (8.9 cm) or 5.0 in. (12.7 cm) detector configuration. Each counter incorporates a built-in color touch screen interface and is targeted toward Health Physics and environmental applications. They are ideal for large diameter air filters used in high-volume air samplers.

Specifications

Physical	
Sample Detector	WPC-1150-GFW-3: 3.5 in. (8.9 cm) diameter, pancake style gas flow proportional WPC-1150-GFW-5: 5 in. (12.7 cm) diameter, pancake style gas flow proportional
Window	Aluminized, 80 µg/cm^2
Guard Detector	1 large gas flow proportional
Counting Gas	P-10, 60 cc/min at 10 psi
Gas-PRO	Fail-safe P-10 monitoring system senses breaches in gas flow
Shielding	4 in. (10 cm) thick lead
Sample Size	Custom planchet sizes available, accommodates planchets up to 5/16 in. (7.9 cm) deep WPC-1150-GFW-3: active detector area of 3.5 in. (8.9 cm) WPC-1150-GFW-5: active detector area of 5 in. (12.7 cm)
Sample Transport	50 sample automatic changer with barcode reader with sample range 1–999
Count Modes	Alpha only, Beta only, Alpha/Beta simultaneously
Interface	Touch screen
Data Export	USB flash drive, RS-485
Power	117 V AC, <0.2 A, 50–60 Hz 230 V AC <1.0 A, 50–60 Hz
Environment	10–40°C (50–104°F) 20%–90% humidity, non-condensing
Dimensions	25 in W x 36 in. D (62.5 x 91.4 cm)
Weight	1800 lb (816 kg)

Performance		
Typical Background		
	WPC-1150-3	WPC-1150-5
Alpha	0.3 cpm	0.4 cpm (0.5 cpm warranted)
Beta	1.5 cpm	4 cpm (5 cpm warranted)
Typical Efficiency		
^{230}Th	27%	
^{90}Sr/^{90}Y	63%	
^{99}Tc	41%	
^{63}Ni	20%	
Cross Talk		
Alpha-Beta	<0.1%	
Beta-Alpha	<0.1%	

Options	Model
Planchet, 2 inch x 1/8 inch, set of 100	PIC-700-0007
Planchet, 2 inch x 1/4 inch, set of 100	PIC-700-0008
Planchet, 2 inch x 5/16 inch, set of 100	PIC-700-0009
Radiochemistry Applications Software	ORT-VISTA 2000
Health Physics Applications Software	ORT-VISTA FC

Alpha/Beta Counting

ORTEC offers a full suite of **MANUAL** alpha/beta counters incorporating either gas-flow proportional detector or dual-phosphor scintillation detector technologies. These manual, single detector systems are ideally suited for applications requiring **long count times for a small number of samples**.

The following Application Guide can be used to select the optimal Manual system for your specific market application as well as provide information regarding key features for each model.

	Recommended Applications		Model Features		
Manual Systems	**HP**	**SC**	**GL**	**WL**	**GC**
ORT-MPC-900-DP	✓	✓	✓		✓
ORT-MPC-900-GFL, GFW	✓	✓		✓	✓
Application Key **HP** = Health Physics; **SC** = Smear Counting					

Features Key

GL – Gasless Systems
These systems do not require any connection to P-10 counting gas. They operate totally independent of any external supply other than power, making them more portable than other counting systems.

WL – Windowless Systems
Windowless alpha/beta counting systems offer one very distinct and important benefit, increased counting efficiency. Without the barrier formed by the window, and because the sample is actually placed in the active volume of the detector, counting efficiency can increase tremendously. Also, because the sample is in the active volume of the detector, there is no air gap present, and counting efficiency is far less dependent on planchet depth. A windowless system can reach a lower MDA in the same counting time as a windowed system, or reach the same MDA in a shorter amount of time.

GC – Gross Counting Systems
The term gross counter has several accepted meanings. In this application, gross alpha/beta counting systems are those that do not have ultra-low level background performance. Specifically, these systems do not have low beta background performance. However, the alpha background of these systems is usually equal to the alpha background of high performance systems. Gross counters are often used for remote locations, and where high beta counting sensitivity is not required.

ORT-MPC-900-DP and ORT-MPC-900-DP-G Manual Single Sample Gross Counter

- Dual Phosphor Scintillation 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
- Includes PIC Link Cable and 2 ea. 5/16 in. Sample Carriers



The ORT-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 (ORT-MPC-900-DP-G). 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.

Specifications

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				
	Warranted (CPM)		Typical (CPM)	
Condition	Alpha	Beta	Alpha	Beta
With Lead and 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 or Lead	<0.2	<65	0.08	49

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				
	Warranted (CPM)		Typical (CPM)	
Condition	Alpha	Beta	Alpha	Beta
With Lead and 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 or Lead	<0.2	<65	0.05	39

Physical	
Sample Detector	2 in. (5.1 cm) diameter, ZnS + plastic dual phosphor
Sample Size	2 in. (5.1 cm) diameter, 1/8, 1/4, 5/16 in. (3.2, 6.3, 7.9 mm) deep
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, Alpha then Beta
Power	110–240 V AC, 50–60 Hz Input
Window	Aluminized, 80 µg/cm^2
Operating Temperature	10°C to 40°C (50°F to 104°F)
Dimension (HxWxD)	20.25 x 9 x 16 in. (51.4 x 22.9 x 40.6 cm)
Weight	40 lb., Guard +7 lb., Shield +50 lb.

Options	**Model**
1/8 inch Planchet	PIC-700-0007
1/4 inch Planchet	PIC-700-0008
5/16 inch Planchet	PIC-700-0009
Lead Ring	ORT-MPC-900-SHLD

Alpha/Beta Counting

ORT-MPC-900-GFW-2 and ORT-MPC-900-GFL-2 Manual Single Sample Gross Counter

- Hemispherical Gas Flow Detector
- Counting Gas Loss Detection
- Touch Screen Interface
- Lightweight Portability
- Gas Conservation
- 2 in. (5.1 cm) Standard Planchet Diameter
- Radon Compensation for Air Filters
- Window or Windowless Operation
- Optional Lead Shielding to Reduce Background Levels
- Includes PIC Link Cable and 2 ea. 5/16 in. Sample Carriers



The ORT-MPC-900-GFW-2 and ORT-MPC-900-GFL-2 are convenient and versatile benchtop counters equipped with hemispherical gas-flow proportional type detectors that support easy portability. These sample counters are ideal for standard health physics applications such as smears and air filters. They can also be used for radiochemistry applications when alpha only counting is of interest. The ORT-MPC-900-GFL-2 uses a windowless gas-flow proportional detector that delivers higher efficiencies for projects involving alpha emitters and higher activity low-energy beta emitters. Each counter has the ability to program routines and QC charts on a PC running the included DUO Express software, then transfer the routines to the instrument using a direct-connect PIC Link cable.

Specifications

With Window (GFW)				
Typical Efficiency				
Source	Top	1/8" Bottom	1/4" Bottom	5/16" Bottom
Pu-239	40%	32%	26%	24%
SrY-90	55%	48%	40%	37%
Tc-99	47%	37%	30%	27%
Background				
	Warranted (CPM)		Typical (CPM)	
Condition	Alpha	Beta	Alpha	Beta
Without Lead	<0.1	<55	0.05	40
With Lead	<0.1	<45	0.05	30

Windowless (GFL)				
Typical Efficiency				
Source	Top	1/8" Bottom	1/4" Bottom	5/16" Bottom
Pu-239	47%	47%	47%	47%
SrY-90	60%	62%	62%	62%
Tc-99	58%	58%	58%	58%
Background				
	Warranted (CPM)		Typical (CPM)	
Condition	Alpha	Beta	Alpha	Beta
Without Lead	<0.1	<55	0.05	40
With Lead	<0.1	<45	0.05	30

Physical	
Sample Detector	2.25 in. (5.7 cm) diameter, hemispherical style gas flow proprotional
Sample Size	2 in. (5.1 cm) diameter, 1/8, 1/4, 5/16 in. (3.2, 6.3, 7.9 mm) deep
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, Alpha then Beta
Power	110–240 V AC, 50–60 Hz Input
Window	Aluminized, 80 µg/cm^2
Counting Gas	P-10, 60 cc/min at 10 psi
Gas-Pro	Fail-safe P-10 monitoring system senses breaches in gas flow
Operating Temperature	10°C to 40°C (50°F to 104°F)
Dimension (HxWxD)	20.25 x 9 x 16 in. (51.4 x 22.9 x 40.6 cm)
Weight	40 lb., Shield +50 lb.

Options	Model
1/8 inch Planchet	PIC-700-0007
1/4 inch Planchet	PIC-700-0008
5/16 inch Planchet	PIC-700-0009

Alpha/Beta Counting

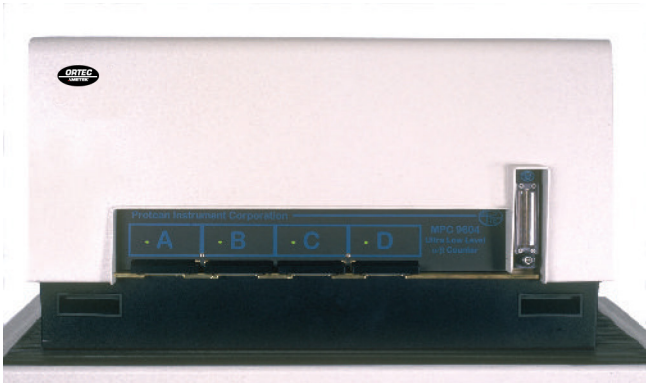
Alpha/Beta Counting

The ORT-MPC-9604 is a premium, multi-detector, alpha/beta counter designed for applications that require high sample throughput and low detection limits.

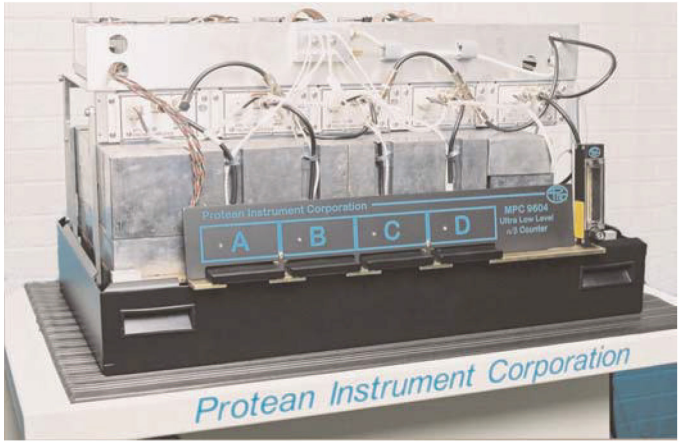
- Manual, Four-Detector Sample Counter
- Cosmic Guard Detector
- Field Replaceable Detector Windows
- 4” (10.16 cm) thick low background lead shielding
- 2 in. (5.1 cm) Standard Planchet Diameter
- Low Background Counter
- No Lead Brick Lifting for Detector and Window Access
- Radon Progeny Compensation for Air Filters
- GasPro Failsafe Gas Conservation and Gas Loss Detection
- Four 2.25 in. (5.7 cm) Pancake Style Gas Flow Proportional Detectors
- Independent sample start and stop

The ORT-MPC-9604 is designed for simplified setup, operation, and maintenance with optimal performance characteristics.

- The only connections are AC power, USB computer control, and P-10 gas supply which is monitored by Gas-Pro™ to halt counting when a gas fault is detected.
- Intuitive control software with simple data accessibility and reporting minimizes training and setup time. Each detector has its own sample drawer for independent sample loading and control with true “Count to MDA” to optimize throughput.
- Maintenance requires no rear access with the detectors and electronic modules accessible from the front. Detector windows can easily be changed in less than 10 minutes without interrupting the operation of other detectors.







MPC-9604 Specifications

Efficiency Top (~1 mm from Window); Others: Bottom of Planchet[1]				
Source	**Top**	**1/8”**	**1/4”**	**5/16”**
Pu-239	35%	31%	25%	24%
Sr/Y-90	55%	47%	40%	39%
Tc-99	24%	33%	28%	26%
Ni-63	15%	11%	7%	5%

Typical Efficiencies (Distributed/Point Source)[1]			
Source	**Efficiency**	**Source**	**Efficiency**
Po-210	31% / 42%	Am-241	31% / 42%
Sr/Y-90	47% / 55%	Th-230	31% / 42%
Tc-99	35% / 43%	Cs-137	32% / 40%

Background[2]				
	Warranted (cpm)		**Typical (cpm)**	
Configuration	Alpha	Beta	Alpha	Beta
Shielded and Guarded	<0.1	<0.1	<0.05	<0.7

Factory Measurement Conditions

[1] 4π efficiencies for distributed area sources determined using a NIST traceable area source. “Typical” 4π efficiencies are for comparison with other vendors using point sources vs area sources at close window geometries.

[2] Background measurements in a natural background of 8 µR/hr. Warranted values are taken under controlled conditions and vary with altitude/background.

Instrument Specifications	
Category	**Specification**
Sample Size	2 inch diameter (5.1 cm)
Detector Uniformity	95% over active area
Capacity	4 samples
Instrument Induced CrossTalk	Alpha to Beta <0.1% Beta to Alpha <0.1%
Depth	1/8, 1/4, or 5/16 inch
Data Export	VISTA 2000 software
Interface	Computer
Count Modes	Alpha only, Alpha then Beta, Alpha/Beta simultaneously
Plateau	<1.5% / 100 V Alpha Length >1000 V <2.5% / 100 V Beta Length >200 V
Power	110–240 V AC, 50–60 Hz Input <2 A @ 110 V AC, <1.0 A @ 240 V AC
Gas Flow Rate and Pressure	Nominally set to 60 cc/min with a critical flow orifice. Nominal inlet pressure 10 psi (±2 psi)
Window	Aluminized, 80 µg/cm^2
Operating Temperature Range	10ºC to 40ºC (50ºF to 104ºF)
Humidity	20–90% Non-condensing
Shielding	4” (10.16 cm) Low Background Lead
CPM / Dead Time	300,000 / <1.5%
Dimensions	16” H x 32” W x 22” D (47 H x 95.3 W x 55.9 D cm)
Weight	1200 lbs (544 kg), shipping 1400 lbs (635 kg)
ROHS and CE	Certificates of Compliance available

Ordering Information

Customer must supply AC power, P-10 gas supply, calibration sources, and a suitable surface to place each MPC-9604. The support surface must safely bear 1200 pounds per MPC-9604.

Model	Description
ORT-MPC 9604	Includes PIC Link Cable, Two Stage Regulator and Tubing, and 4 each of one size Insert (specify 1/8”, 1/4”, or 5/16” inserts at time of order)
ORT-MDS-CTRL	MDS Control Pack. Includes Vista 2000 software, RS232/485 interface, null modem cable, and gas regulator.
ORT-MDS-RACK	Heavy duty rack assembly to hold 2 MPC-9604 systems
ORT-VISTA 2000	Software Package
PIC-700-0007	1/8 inch Planchet (set of 100)
PIC-700-0008	1/4 inch Planchet (set of 100)
PIC-700-0009	5/16 inch Planchet (set of 100)
PIC-120-0008	Ultra-Thin (80 µg/cm^2) Detector Window

Alpha/Beta Counting

ORTEC®
AMETEK®

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Visit Our Website For International Office Locations

Specifications subject to change
25-1016