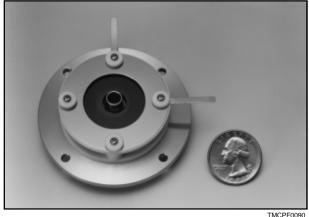


MCP ASSEMBLY WITH CENTER HOLE FOR REFLECTRON MS F4294-09

Ideally suited for reflectron mass spectrometer

The F4294-09 is an MCP assembly developed for reflectron mass spectrometers. In spite of having a center hole for beam line, the F4294-09 eliminates ringing phenomena which have been a problem with conventional MCP assemblies with a center hole. The F4294-09 thus makes high-speed ion detection possible. This allows a significant size reduction in the TOF mass spectrometer and a dramatic improvement in mass resolution.



FEATURES

- Center hole for beam line
- High-speed response
- Good output waveform with negligible ringing

SPECIFICATIONS

GENERAL

Parameter	Value	Unit
Assembly Outer Diameter	69.0	mm
Effective Diameter	27.0	mm
Maximum Height	26.4	mm
MCP Channel Diameter	12	μm
Number of MCP Stages	2	-
Center Hole Diameter	6.0	mm
Center Dead Space Diameter	12.0	mm

MAXIMUM RATINGS (Absolute values)

MCP Supply Voltage (In-Out)	2	kV
MCP-Out to Anode Voltage	0.5	kV
Electric Potential at Each Terminal	MCP-In: -2.5 MCP-Out: -0.5 Anode: GND	kV
Operating Vacuum Condition	6.7×10 ⁻⁴ (5×10 ⁻⁶) Max.	Pa (Torr)
Baking Temperature	- *	°C
Baking Time	- *	h
Baking Vacuum Condition	- *	Pa (Torr)

* Baking cannot be performed.

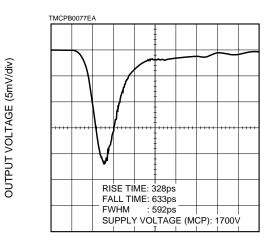
CHARACTERISTICS (at 1.3×10⁴ Pa (1×10⁶ Torr), Ta=+25°C)

Gain at 2.0kV	1×10 ⁶	-
Plate Resistance per MCP	10 to 100	MΩ
Dark Count at 2.0kV	5	cps/cm ²

APPLICATION

Reflectron mass spectrometer

Figure 1: Typical Output Waveform

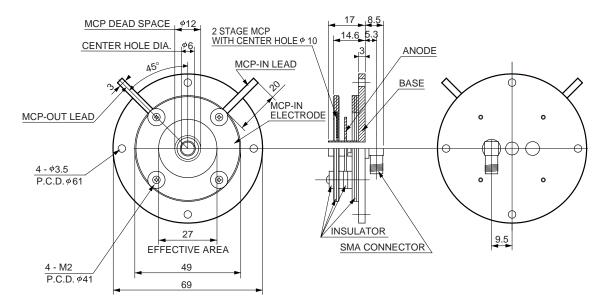


RESPONSE TIME (0.5ns/div)

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Figure 2: Dimensional Outlines (Unit: mm)



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HAMAMATSU PHOTONICS K.K., Electron Tube Center

314-5, Shimokanzo, Toyooka-village, Iwata-gun, Shizuoka-ken, 438-0193 Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone:(1)908-231-0960, Fax:(1)908-231-1218 Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone:(49)8152-375-0, Fax:(49)8152-2658 France: Hamamatsu Photonics France: S.A.R.L.: 8, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone:(3)1 69 53 71 00, Fax:(33)1 69 53 71 10 United Kingdom: Hamamatsu Photonics Ut Limited: Lough Point, 2 Gladbeck Way, Windmill Hill, Enfield, Middlesex EN2 7JA, United Kingdom, Telephone:(44)181-367-3560, Fax:(44)181-367-6384 North Europe: Hamamatsu Photonics Italia S.R.L.: Via della Moia, 1/E 20020 Arese, (Milano), Italy ,Telephone: (39)2 935 81 733 Fax: (39)2 935 81 741

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