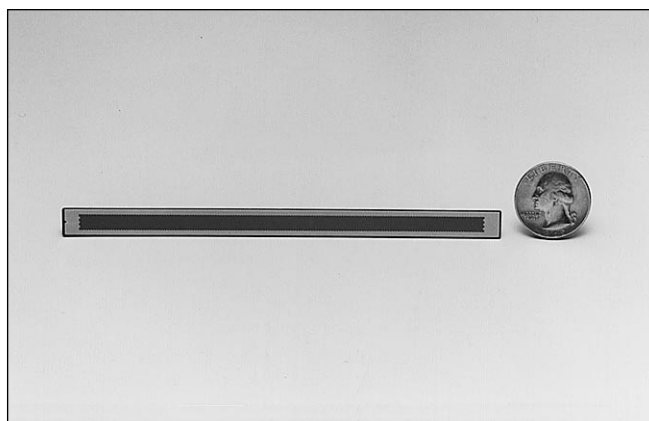


Very Long (Effective Area: 127 × 4mm)

This new long-scale MCP allows for continuous detection of wide range position information without dead space correction. This new configuration promises reliable measurement, and is well suited for double-focusing mass spectrometers. Assembled configurations are also available upon request.

FEATURES

- Long Scale (Effective Area: 127mm × 4mm)
- Simultaneous Multielement Measurement Possible
- Sensitive to Ions, Electrons, UV Radiation, Soft X-rays, γ -rays and High Energy Particles
- High Gain (1×10^4)



TMCPF0064

APPLICATIONS

- SIMS (Secondary Ions Mass Spectrometers)
- UV Spectrometers
- X-ray Spectrometers
- Electron Spectrometers

GENERAL

Parameter	Description/Value	Unit
Outer Dimension	140 × 9	mm
Electrode Dimension	138 × 8	mm
Effective Area Dimension	127 × 4	mm
Thickness	0.48	mm
Channel Diameter	12	μm
Channel Pitch	15	μm
Bias Angle	8	$^\circ$
Open Area Ratio	60	%
Electrode Material	Inconel	—

CHARACTERISTICS (at 1000V, 1.3×10^{-4} Pa (1×10^{-6} Torr), 25°C)

Parameter	Description/Value	Unit
Current Gain Min.	1×10^4	—
Plate Resistance	10 to 100	$\text{M}\Omega$
Maximum Dark Current	5×10^{-13}	A/cm^2
Maximum Linear Output Current	up to 7% of the strip current [Ⓐ]	—

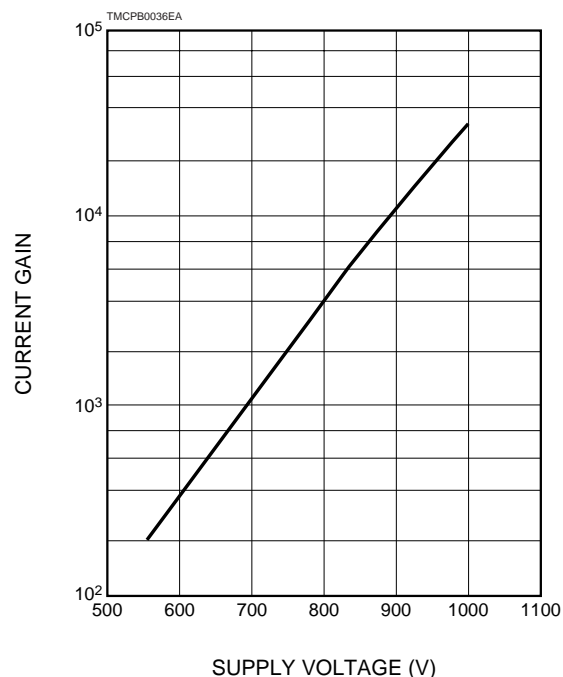
MAXIMUM RATINGS (Absolute Values)

Parameter	Description/Value	Unit
Supply Voltage [Ⓑ]	1000	V
Ambient Temperature	-50 to +50	$^\circ\text{C}$

NOTE: Ⓐ: Strip current is current flowing through the channel walls, which supplies the current released from the channel walls. It is given by: Supply voltage / Plate resistance.

Ⓑ: At a vacuum of 1.3×10^{-4} Pa (1×10^{-6} Torr) or better.

Figure 1: Typical Current Gain



LONG SCALE MICROCHANNEL PLATE F6492

Figure 2: Dimensional Outline (Unit: mm)

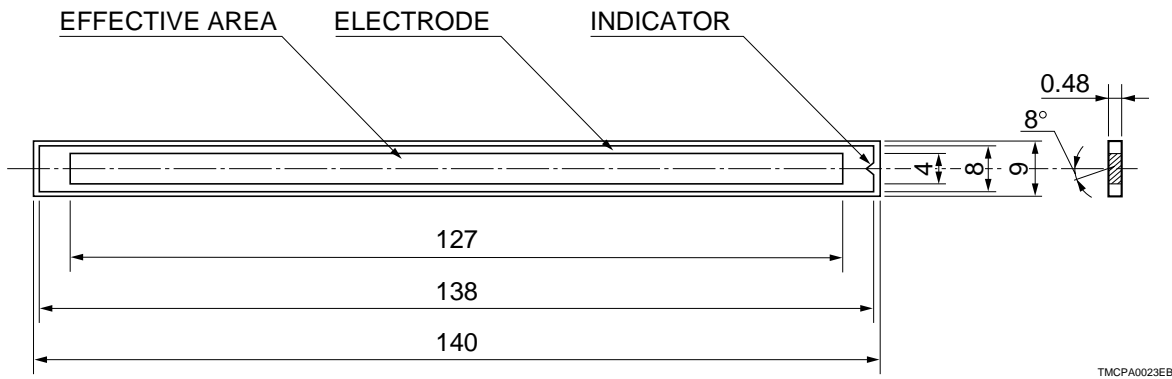
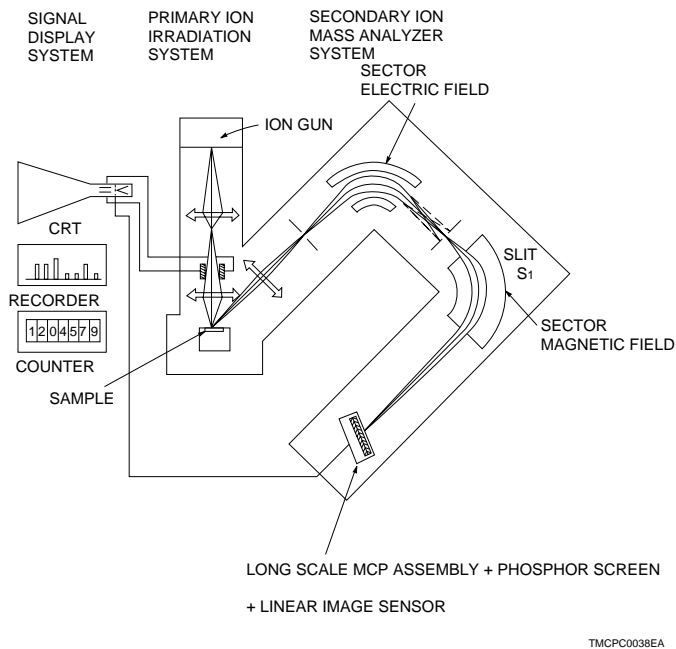


Figure 3: Application Example to SIMS¹⁾



PRECAUTIONS FOR USE

- Avoid touching the MCP or MCP assembly with bare hands.
- Handle the MCP only in a clean room since dust and humidity may adversely affect MCP characteristics.
- The MCP should be operated in vacuum below 1.33×10^{-4} Pa (1×10^{-6} torr).
- The MCP should be kept in vacuum or dry nitrogen gas atmosphere during long periods of storage.
- When outgassing from the MCP occurs, baking the MCP at 350°C maximum in a vacuum system is recommended. In addition electron bombarding may be effective.

REFERENCE

- 1) Japan Academic Promotion Society, 141th Committee on Micro Beam Analysis: "Micro beam analysis" Asakura Shoten, 293 (1985)

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