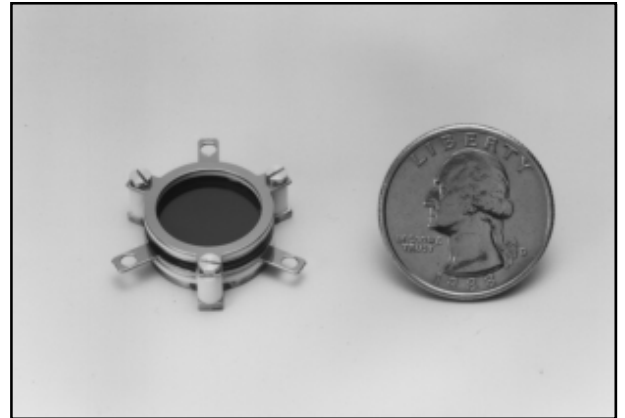


### Compact MCP assembly optimized for helium leak detector and mass spectrometer using a wide dynamic range MCP

The F4655-01 is a very compact MCP assembly developed for helium leak detector as well as mass spectrometer. It uses a wide dynamic range MCP for extracting a high output current of 10 $\mu$ A\* with high stability.

\* : At an MCP resistance of 20M $\Omega$



TMCPF0089

### FEATURES

- Wide dynamic range
- Compact and lightweight
- Good cost performance

### APPLICATIONS

- Helium leak detector
- Mass spectrometer

### SPECIFICATIONS

#### GENERAL

Parameter	Value	Unit
Assembly Outer Diameter	30.0	mm
Effective Diameter	14.5	mm
Maximum Height	8.5	mm
MCP Channel Diameter	12	$\mu$ m
Number of MCP Stages	1 <sup>Ⓐ</sup>	-

<sup>Ⓐ</sup>Two-stage MCP type is also available on request.

#### MAXIMUM RATINGS (Absolute Values)

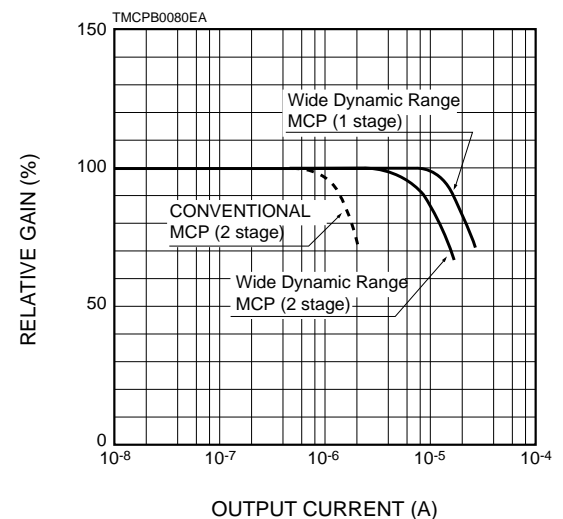
MCP Supply Voltage (In-Out)	1	kV
MCP-Out to Anode Voltage	0.5	kV
Electric Potential at Each Terminal	MCP-In: -1.5 MCP-Out: -0.5 Anode: GND	kV
Operating Vacuum Condition	6.7 $\times 10^{-4}$ (5 $\times 10^{-6}$ )	Pa (Torr)
Baking Temperature	- <sup>Ⓑ</sup>	$^{\circ}$ C
Baking Time	- <sup>Ⓑ</sup>	h
Baking Vacuum Condition	- <sup>Ⓑ</sup>	Pa (Torr)

<sup>Ⓑ</sup>Baking cannot be performed.

#### CHARACTERISTICS (at 1.3 $\times 10^{-4}$ Pa (1 $\times 10^{-6}$ Torr), Ta=+25 $^{\circ}$ C)

Gain	1 $\times 10^4$	-
Plate Resistance	5 to 50	M $\Omega$
Dark Current	0.5	pA/cm <sup>2</sup>

Figure 1: MCP Output Linearity Characteristics

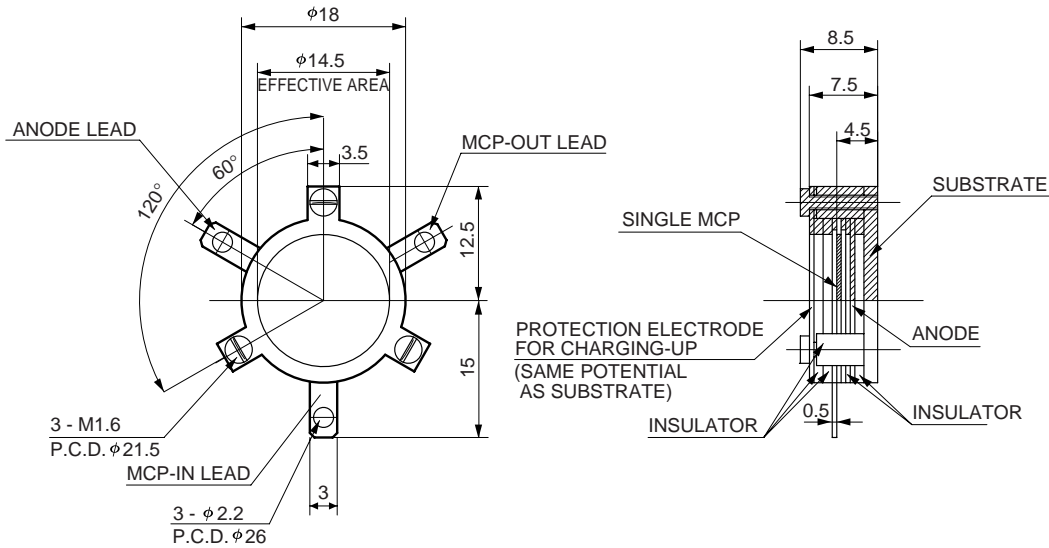


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# WIDE DYNAMIC RANGE MCP ASSEMBLY FOR HELIUM LEAK DETECTOR F4655-01

Figure 2: Dimensional Outlines (Unit: mm)



TMCPA0043EA

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