Standard Resistance Microchannel Plate for Detectors

# Maximize Your Instrument's Performance With Our Optimum Five Micron Pore Microchannel Plate

The Model MCP3301 is K and M Electronic's standard resistance Microchannel Plate (MCP) for Time-of-Flight Mass Spectrometry (TOF/MS). These optimum quality plates have precise five-micron pores, creating extremely high channel density that offers higher sensitivity and resolution than plates with conventional 10-micron pores.

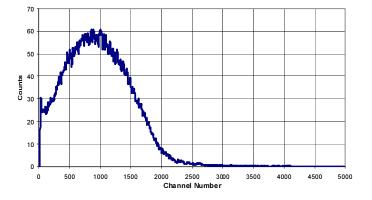


#### **Features**

- 5μm pore size
- Imaging quality
- Rugged
- High tolerance for air/humidity
- Good flatness

# **Benefits**

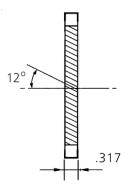
- Long lifetime
- Simple handling
- High open area ratio
- Minimal response dead time
- High detection efficiency
- High active channel percentage

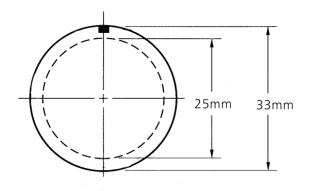


Parameter	Value
Gain	2-8 x 10 <sup>7</sup>
PHR, %	70-100
PVR	2-4
SNR	6-10
Dark Count cts./sec.	5
Pulse Width, nsec.	1
Maximum Count Rate	10 MHz









## **SPECIFICATIONS**

#### PHYSICAL CHARACTERISTICS for single plate:

DIAMETER		 33 mm
ACTIVE DIAM	1ETER	 25 mm
THICKNESS		 0.317 mm
FLATNESS		 < <u>+</u> .015mm
PORE SIZE		 5 <b>µ</b> m
CENTER-TO-C	ENTER SPACING	 5.8 <b>µ</b> m
<b>BIAS ANGLE</b>		 12°
L/D RATIO		 56:1
OPEN AREA F	RATIO	 58%

#### **ELECTRICAL CHARACTERISTICS for matched set:**

GAIN @ 2400 VOLTS	. 8 x 10 <sup>7</sup>
RESISTANCE	.75 M $\Omega$
PULSE WIDTH	
	. detector impedance
MAXIMUM COUNT RATE	. 10 MHz
DARK COUNT RATE	. *5 counts/sec./cm2 @ 2.0kV
PULSE HEIGHT RATIO	.70-100%

<sup>\*</sup> measurement based on a chevron pair

Export of this product is regulated by the U.S. Dept. of State in accordance with guidelines of "International Traffic in Arms Regulations (ITAR)" per Title 22, Code of Federal Regulations, Parts 120-130. Approved for Unlimited Public Release per 02-S-0323

#### Form 519B-0203

© 2003 K and M Electronics, Inc. , a Subsidiary of ITT Industries, Inc. All rights reserved. Specifications subject to change without notice and are believed to be reliable; however, should not be construed as a warranty of performance and no express or implied warranty is made with respect to same.

## K and M Electronics



11 Interstate Drive West Springfield, MA 01089-4531 USA (413) 263-6200 • 800-442-4334 • fax: (413) 737-0608 http://www.kandm.com