

SPECIFICATION

MICROCHANNEL PLATE WITH SOLID BORDER MCP 18-10

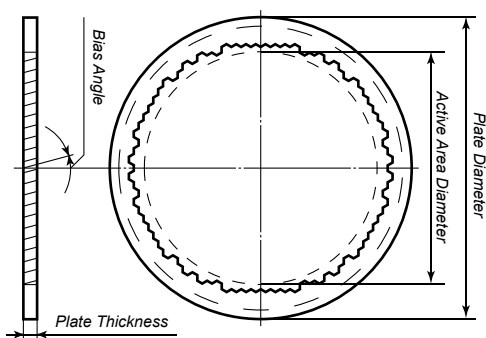
Microchannel Plate is intended for operation in vacuum inside Image Intensifier Tubes as a multi-channel secondary-electron multiplier of electron images.

ALTERNATIVE SPECIFICATION MAY BE MADE ON CUSTOMER'S ORDER.

SIZE-SHAPE FACTORS



PARAMETER	DIMENSION	VALUE
Plate Diameter	mm	24.8
Active Area Diameter	mm	min. 18.6
Plate Thickness	mm	0.43
Channel Diameter	μm	10
Center-to-Center Spacing	μm	12
Bias Angle	degree	5



ELECTRICAL & IMAGE CHARACTERISTICS

PARAMETER	DIMENSION	VALUE
Electron Gain at 800 V	-	1000
Resistance	$\times 10^8$ Ohms	1.5 - 4
Minimum Limiting Resolution	lp/mm	50
Maximum Dark Current Density	$\times 10^{-14}$ A/cm ²	1
Noise factor, typical value	-	2.5
Open Area Ratio	%	min. 59

MTTF (mean time to failure) : not less than 7500 hrs.

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	LIMITING VALUE
Operating Voltage	1000 V
Field Strength	14 KV/mm
Input Current Density	1×10^{-8} A/cm ²
Output Current Density	4×10^{-7} A/cm ²

VACUUM BAKEOUT LIMITING TEMPERATURE:
440°C during not more than 6 hrs. at 5×10^{-6} torr.

WARRANTIES

Shelf-life: the MCP shall be stored in container provided by the manufacturer during 6 months, in vacuum (1.33×10^{-3} Pa) during 1 year or 15 years as a part of an image intensifier tube. The shelf-life is to be calculated from the acceptance date of manufacturer's quality inspection, and in a case of reacceptance from the reacceptance date.