

FEATURES

- Dual-mode electron multiplier
- Wide dynamic range

APPLICATIONS

- ICP-MS



SPECIFICATIONS

GENERAL

Parameter		Description / Value	Unit
Input aperture diameter		11	mm
Internal resistance	-HV to GND	12.3	MΩ
	+HV to GND	9.2	MΩ
	Gate to GND	Open circuit	—
Thermal coefficient of resistance between +25 °C and +50 °C		less than 100	ppm/°C
Analog section supply voltage		-1800	V
Counting section supply voltage		+1000	V
Gate voltage for pulse counting operation		+HV ×0.23	V
Detection ion polarity		Positive	—
Dynode	Structure	off-axis/line	—
	Number of stages	26	—
	Material	Al ₂ O ₃	—
Operating ambient temperature		-10 to +50	°C
Storage temperature		-25 to +50	°C
Anode to all other electrode capacitance		3.0	pF
Bake-out availability		Unacceptable	—

MAXIMUM RATINGS (Absolute maximum values)

Parameter		Value	Unit
Supply voltage	Analog section	-3000	V
	Counting section	2500	V
Average anode current		10	μA
Operating gain		1.0 × 10 ⁸	—
Operating vacuum level		1.0 × 10 ⁻²	Pa

CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Gain	Analog section	—	2.0 × 10 ⁴	—	—
	Counting section	—	3.0 × 10 ⁷	—	—
Noise	Analog section -HV at -2500 V and +HV at 1000	—	—	0.1	pA
	Counting section -HV at -1800 V and +HV at 1400	—	—	3	min ⁻¹
Time response	Pulse rise time	—	7.0	—	ns
	FWHM	—	9.0	—	ns
Gain attenuation of pulse counting section (with gate set to 0 V)		4 × 10 ³	—	—	—

NOTE: Analog section -1800 V, Counting section 1000 V.

ELECTRON MULTIPLIER R13733

Figure 1: Gain characteristics

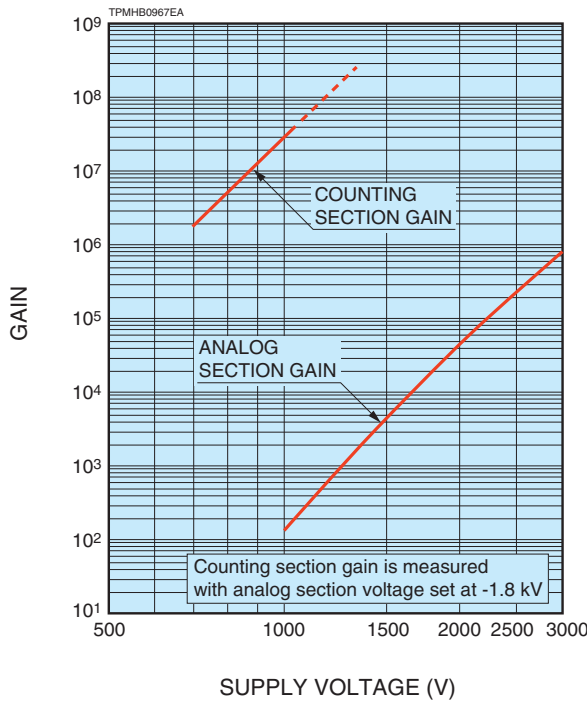
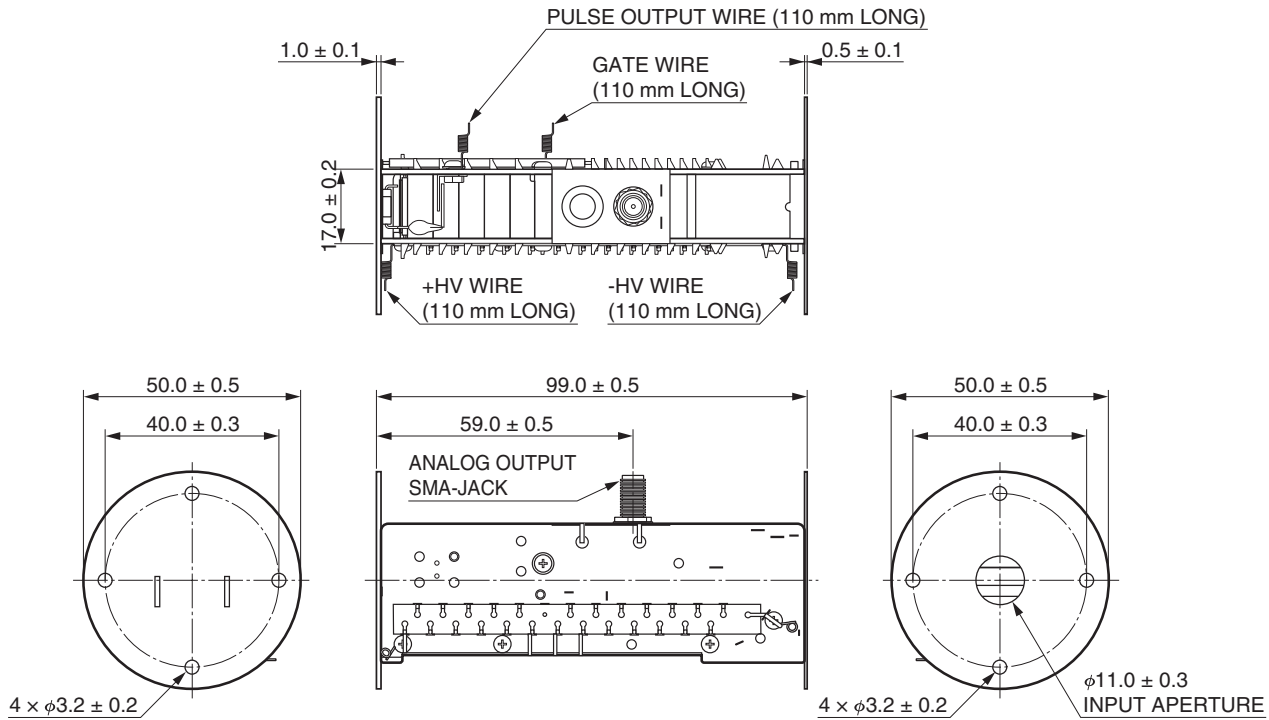


Figure 2: Dimensional outline (Unit: mm)



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