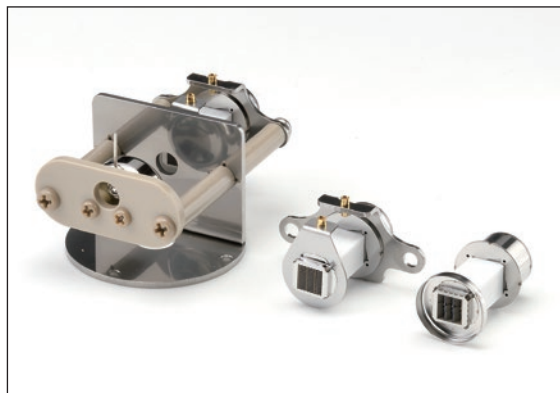


FEATURES

- Composed of Lead-free substances
- Can be operated under high pressure condition (R14747, R14747-01)
- Custom design is also available to meet requirements for different shapes and numbers of channels
- Can measure high mass ions by using conversion dynode (R14747-80)
- Can measure both polarity ions by fast polarity switching of the voltage applied to the conversion dynode (R14747-80)
- Easy to fix by mounting flange (R14747-01)



From left: R14747-80, R14747-01, R14747

APPLICATIONS

- Mass spectrometers (Ion trap MS, QMS, etc.)

SPECIFICATIONS

GENERAL

Parameter	Description / Value	Unit
Effective area	R14747, R14747-01	6.6 × 7.0
	R14747-80	φ11
Open area ratio	R14747, R14747-01	85
Resistance		10 to 120
Operating ambient temperature	R14747, R14747-01	-30 to +120
	R14747-80	-30 to +50
Storage temperature		-80 to +50
Operating mode		Analog / Counting
Polarity of detected ions		Positive / Negative

MAXIMUM RATINGS

Parameter	Description / Value	Unit
In-Out voltage		-3600
Bake-Out temperature (at <5 mPa)	R14747	350
	R14747-01, R14747-80	Not available
Output current		3 % of bias current
Operating pressure	14747, R14747-01	0.1 (Maximum gain 1.0 × 10 ⁶)
	R14747-80	0.01

CHARACTERISTICS

Parameter	Min.	Typ.	Max.	Unit
Bias current	16.7	33	200	μA
Gain	R14747, R14747-01	3.5 × 10 ⁶	—	—
	R14747-80	1.0 × 10 ⁷	—	—
Dark current	R14747, R14747-01	0.5	1	pA
	R14747-80	—	1	10
Dark count	—	—	2	s ⁻¹
Rise time	—	2.1	—	ns

NOTE: Characteristics are measured with following conditions.

CEM In-supply voltage: -2100 V / CEM Out-supply voltage: -100 V / Operating pressure: 1.0 × 10⁻⁴ Pa

Conversion dynode supply voltage: -10 kV (R14747-80)

CERARION® (CERAMIC CHANNEL ELECTRON MULTIPLIER) R14747 SERIES

Figure 1: Typical gain

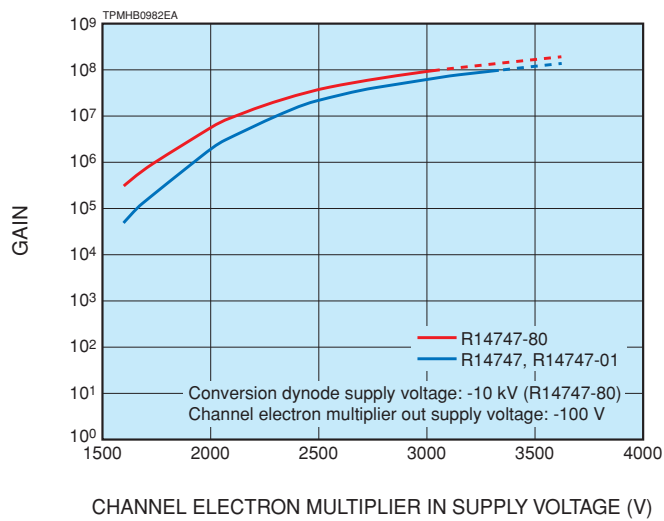


Figure 2: Typical time response

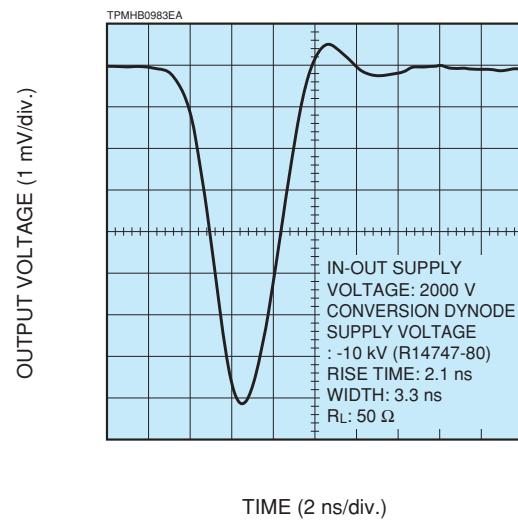
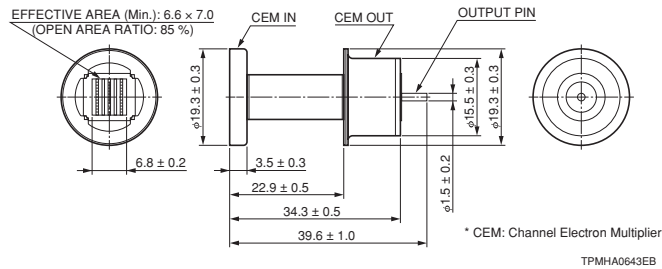
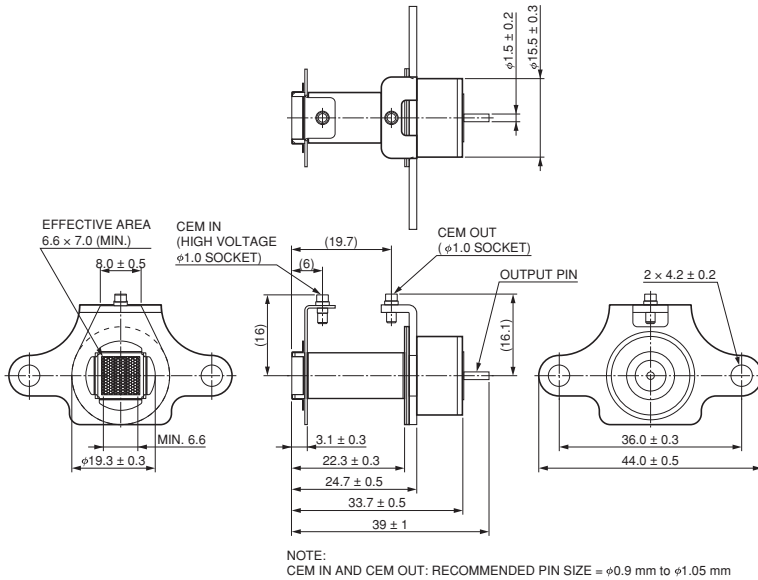


Figure 3: Dimensional outline (Unit:mm)

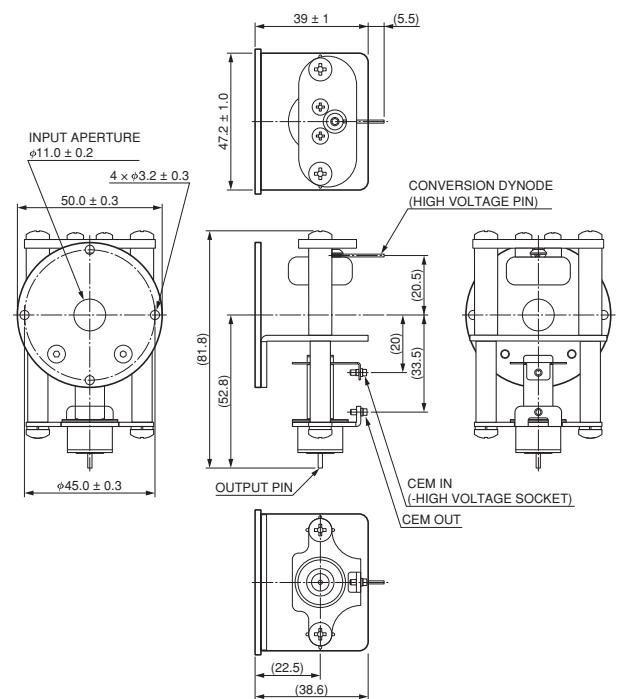
●R14747



●R14747-01



●R14747-80



* Customizations are also available, please consult us.

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