# MINI-SED





## **Secondary Electron Detector for R&D**

MINI-SED is a scintillator type detector that captures secondary electrons and outputs it as electrical signal. It is mainly used as a detector for SEM.



### Features

- Current detection range: pA ~ μA
- Response speed: 5MHz
- It can be used at Ultrahigh vacuum. (Baking up to 150 °C is possible.)
- Compact size

SEM image at 2000 V (Cu 400 mesh)



Specification		
Quantum conversion method		Scintillator
Range of detection	Current amount	1 pA~1 μA
	Response speed	5 MHz / -3 dB
Maximum gain of PMT		2 × 10 <sup>6</sup>
Input	to Preamplifier	DC±8V/30mA
	to PMT	0 <b>~</b> -1.0 kV / 300 μA
	to Scintillator	0 <b>~</b> +8 kV / 10 μA
Output	Voltage	0∼1 V <sub>p·p</sub>
	Impedance	75 Ω
Condition	Degree of vacuum	∼1×10 <sup>-2</sup> Ра
	Baking temperature	~150 °C (Except the preamp)
Interface		ICF 70
Configuration		Scintillator
		Light Guide
		Photomultiplier tube
		Pre-amplifier

#### Dimensional drawing (example)



\* Specifications are subjected to change without notice.

#### APCO Ltd.

Power supply for SED is

also on sale.

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Input

Output

fot Pre-amplifier (voltage)

for Scintillator (voltage)

Single-ended signalling

for PMT (voltage)

tel:+81-42-646-4466(Rep.)

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