

# Pyroelectric Infrared Sensors



## Temperature Compensation Single Type Pyroelectric Infrared Sensor IRA-E420 Series

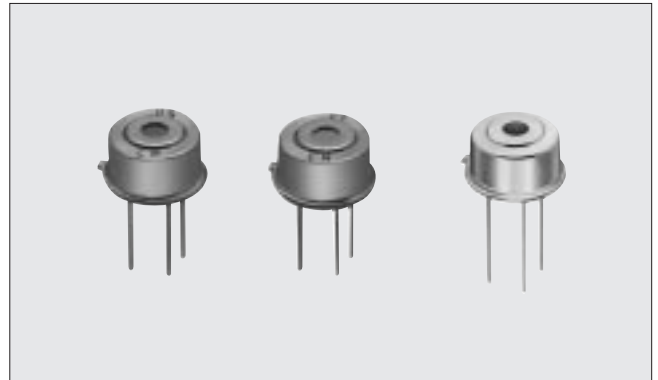
Single type pyroelectric infrared sensors IRA-E420 series have a temperature compensation element. They are suitable for flame detection and gas detection.

### ■ Features

1. High stability against abrupt ambient temperature changes
2. High immunity to external noise (Vibration, RFI etc.)
3. Custom design is available with varying optical filter.

### ■ Applications

Part Number	Optical Filter	Applications
IRA-E420S1	Silicon	1-15 $\mu$ m infrared detection
IRA-E420QW1	4.30 $\mu$ m band-pass	Flame detection
IRA-E420SW1	4.45 $\mu$ m band-pass	Flame detection



### ■ Dimensions & Circuit Diagrams (IRA-E420S1, IRA-E420QW1)

### (IRA-E420SW1)

<p>*Specified on the bottom of stem General Tolerance : ±0.2 (in mm)</p>	<p>*Specified on the bottom of stem General Tolerance : ±0.2 (in mm)</p>
<p>Pyroelectric element</p> <p>(in mm)</p>	<p>Pyroelectric element</p> <p>(in mm)</p>

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■ Rating (25°C)

Part Number	IRA-E420S1	IRA-E420QW1	IRA-E420SW1
Responsivity (500K, 1Hz, 1Hz)	3.4mV <sub>p-p</sub> (Typ.)	1.3mV <sub>p-p</sub> (Typ.)*	0.45mV <sub>p-p</sub> (Typ.)
Field of View	$\theta_1=\theta_2=17^\circ$		$\theta_1=\theta_2=50^\circ$
Optical Filter	Silicon	4.3 $\mu$ m band-pass	4.45 $\mu$ m band-pass
Electrode	$\phi$ 1.6mm		$\phi$ 1.8mm
Supply Voltage	3 to 15V		
Operating Temperature	-25 to 70°C	-25 to 55°C	-25 to 70°C
Storage Temperature	-30 to 100°C		

\* 700K, 5Hz, 1Hz