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# SSA-P4HT1A

IEPE high temperature type acceleration sensor



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### **PRODUCTS FEATURES**

- · Optional micro-miniature built-in high temperature circuit
- Small size, light weight, high frequency response characteristics
- All series use memory alloy fasteners, shear structure, stable and reliable
- Standard models, series, a variety of ranges to choose from, high-quality piezoelectric materials, low temperature drift
- 1/4-28 four-prong integrated connector output, convenient and quick



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### 1. Performance parameters for SSA-P4HT1A1:

	Table 1. Characteristics for SSA-P4HT1A1		
Parameters	Value	Units	
Sensitivity	5	mV/g	
Measurement Range	±1000	g	
Frequency response ±5%	1~8000	Hz	
Frequency response ±10%	0.5~10000	Hz	
Magnitude linearity	≤1	%	
Lateral Sensitivity	≤5	%	
Installation of resonant frequency	≥70	kHz	
Time constants	≤1	S	
Resolution	0.002	grms	
Hitting the Limits <sup>1</sup>	8000	gpK	
Maximum vibration <sup>2</sup>	2500	grms	
Sensitivity temperature coefficient	-0.07	%/°C	
Operating temperature	-50~160	°C	
Constant voltage supply	20~30	VDC	
Constant current supply	2~20	mA	
Full-scale voltage	±5	V	
Maximum over-range output	±6	V	
DC bias	8~12	V	
Output Impedance	≤100	Ω	
Sensitive components	PZ27 Piezoelectric Ceramic		
Housing Material	Titanium alloy		
Seal form	Laser welding IP68		
Output connector	1/4-28 Four core		
Mounting form	M2.5/bonding		
Quality	7	g	
Recommended mounting torque	0.4	N*m	

Note: 1,2: refers to the sensor in the non-energized state, the mechanical structure is not damaged, and not the working state.



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### 2. Performance parameters for SSA-P4HT1A2:

Table 2. Characteristic		racteristics for SSA-P4HT1A2
Parameters	Value	Units
Sensitivity	10	mV/g
Measurement Range	±500	g
Frequency response ±5%	1~8000	Hz
Frequency response ±10%	0.5~10000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥70	kHz
Time constants	≤1	S
Resolution	0.001	grms
Hitting the Limits <sup>1</sup>	5000	gpK
Maximum vibration <sup>2</sup>	2000	grms
Sensitivity temperature coefficient	-0.07	%/°C
Operating temperature	-50~160	°C
Constant voltage supply	20~30	VDC
Constant current supply	2~20	mA
Full-scale voltage	±5	V
Maximum over-range output	±6	V
DC bias	8~12	V
Output Impedance	≤100	Ω
Sensitive components	PZ27 Piezoelectric Ceramic	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28 Four core	
Mounting form	M2.5/bonding	
Quality	9	g
Recommended mounting torque	0.4	N*m

Note: 1,2: refers to the sensor in the non-energized state, the mechanical structure is not damaged, and not the working state.



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### 3. Performance parameters for SSA-P4HT1A6:

	Table 3. Characteristics for SSA-P4HT1A6		
Parameters	Value	Units	
Sensitivity	100	mV/g	
Measurement Range	±50	g	
Frequency response ±5%	1~8000	Hz	
Frequency response ±10%	0.5~10000	Hz	
Magnitude linearity	≤1	%	
Lateral Sensitivity	≤5	%	
Installation of resonant frequency	≥38	kHz	
Time constants	≤1	S	
Resolution	0.0001	grms	
Hitting the Limits <sup>1</sup>	1000	gpK	
Maximum vibration <sup>2</sup>	400	grms	
Sensitivity temperature coefficient	-0.08	%/°C	
Operating temperature	-50~160	C°	
Constant voltage supply	20~30	VDC	
Constant current supply	2~20	mA	
Full-scale voltage	±5	V	
Maximum over-range output	±6	V	
DC bias	8~12	V	
Output Impedance	≤100	Ω	
Sensitive components	PZ27 Piezoelectric Ceramic		
Housing Material	Titanium alloy		
Seal form	Laser welding IP68		
Output connector	1/4-28 Four core		
Mounting form	M2.5/bonding		
Quality	9.5	g	
Recommended mounting torque	0.4	N*m	

Note: 1,2: refers to the sensor in the non-energized state, the mechanical structure is not damaged, and not the working state.



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### 4. Mechanical dimensions



Figure 4.1. Mechanical dimensions for SSA-P4HT1A



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Development, production and supply of high-tech sensors